The social construction of the value of wildlife: A green cultural criminological perspective

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Abstract
The trade in wildlife is not a new phenomenon. The earliest civilizations were linked to the trade in live animals and parts thereof, from the Egyptian pharaohs to aristocrats in the modern era. This article focuses on the history of the wildlife trade in order to understand the social construction of the value of wildlife. In dynamic social and cultural contexts, the meaning of wildlife changes. Historically, exotic animals and the products thereof were associated with social elites, but today, wildlife attracts people from all walks of life and a wide variety of live animals and products thereof are traded for functional, symbolic and social purposes. Increasing ecocentric and biocentric values in contemporary western society, however, may influence constructed demand patterns for wildlife in the near future. By integrating cultural criminological concepts with the social construction of green crimes, this article aims to understand constructed wildlife consumerism through the ages.

Keywords
Animal abuse, animal rights, cultural criminology, green criminology, wildlife trade

Introduction
A growing public and governmental awareness of the local, regional and global implications of the illegal trade in wildlife illustrates the need to analyse the drivers behind this phenomenon (see, for example, United Nations Office on Drugs and Crime, 2016; Wyler...
and Sheikh, 2013). Not only does the illegal wildlife trade threaten individual animals, species biodiversity and Earth’s ecosystems, but local impoverished communities may also lose their natural ‘resources’, for which there are no alternatives (Duffy, 2000; Van Uhm, 2018). The involvement of organized crime and militias present additional concerns in terms of human safety and security (Van Uhm, 2016a; Zimmerman, 2003). Therefore, various initiatives have been launched in recent years to tackle the illegal wildlife trade (European Commission, 2016; USA, 2014) and several international studies have been conducted to improve the knowledge of the trade networks.

Researchers have examined a variety of legal and illegal acts involving, inter alia, the poaching, trafficking and consuming of wildlife by applying different criminological frameworks (e.g. Hübschle, 2016; Moreto, 2016; Nurse, 2011; Pires and Clarke, 2011; Schneider, 2012; Sollund, 2016, 2017a; Van Uhm, 2016a; Warchol, 2004; Wong, 2016; Wyatt, 2013). Traditional criminological frameworks have been used to examine harm to wildlife as proscribed by law, including market reduction approaches (Schneider, 2008), differential association theories (Eliason and Dodder, 1999) and situational crime prevention (Petrossian, 2012; Pires and Moreto, 2011). Critical harm-based models (Sollund, 2011; Van Uhm, 2017; Wyatt, 2014) have also been used by criminologists to examine ‘lawful but awful’ (Passas, 2005) harm to wildlife. These criminologists look beyond traditional definitions of crime, adopting a ‘perspective [that] is shaped by shared understandings and scientific knowledge about what constitutes ecological harm rather than being a socially constructed concept defined by politicians as in orthodox criminology’ (Stretesky et al., 2013: 71).¹

Notwithstanding those research efforts, the social and cultural drivers behind the demand market for wildlife have received limited attention. In both the domestic and global markets, numerous species are traded for a variety of reasons (Petrossian et al., 2016; Van Uhm, 2016a, 2016b). For example, animal parts, such as tiger bones and rhino horns, are used in traditional Chinese medicine (Goyes and Sollund, this issue; Van Uhm and Wong, forthcoming); animal skins and furs, as well as body parts, such as ivory, are used as clothing, ornaments and for other fashion items (Hutton and Webb, 2003; Martin and Stiles, 2003; Sollund, 2011, 2016; Wyatt, 2009); live monkeys, parrots and tortoises are destined for the pet or circus industry (D’Cruze et al., 2015; Herbig, 2010; Pires, 2012; Sollund, 2013, 2017b; Van Uhm, 2016c); and bushmeat and caviar (salted sturgeon eggs) are considered delicacies (Van Uhm and Siegel, 2016; Wolfe et al., 2005).

The trade in wildlife is by no means a new phenomenon. There has always been a demand for animals as sources for food and clothing, as companions or pets, or as strange and curious ‘objects’ (Alexander, 1979). While the earliest civilizations engaged in wildlife trade, the demand for wildlife has changed and continues to do so across social and cultural contexts. Therefore, the current study embraces the green criminological extended harm-based approach that rejects the conventional definition of crime by orthodox criminology (Sollund, 2013; White, 2011); it focuses on the social construction of the demand for various wildlife species from a broad socio-cultural and historical perspective. In so doing, it seeks to address the following questions: what kinds of wildlife have been traded in the past? For whom was the trade intended? What can we learn from history in order to understand the current set of social and cultural drivers behind the trade in wildlife? By analysing the socio-cultural and historical context of the value of
wildlife, this article aims to respond to the call to combine cultural and green criminologies (Brisman and South, 2013, 2014) to interpret the embedded demand for wildlife that is at the heart of both the legal and illegal trade in wildlife.

The social construction of the value of things

Sociologist Georg Simmel and anthropologist Arjun Appadurai have enriched the theoretical understanding of the value of ‘things’ through their descriptions of social life as the product of interactions and attributions. In his book, The Philosophy of Money, Simmel (1978) explains that value is a judgement made by subjects through interaction. Appadurai (1986) emphasizes in The Social Life of Things how the value of products is embodied in exchanged commodities instead of the forms or functions of trade. For example, the distance between a person and the (economic) object is important as ‘one’s desire for an object is fulfilled by the sacrifice of some other object, which is the focus of the desire of another’ (Appadurai, 1986: 3–4). Appadurai (1986: 5) states that things have no meaning without ‘human’ transactions, attributions and motivations: ‘[t]his formal truth does not illuminate the concrete, historical circulation of things. For that we have to follow the things themselves, for their meanings are inscribed in their forms, their uses, their trajectories’. He approaches commodities as ‘objects in motion’ with their own social context and ‘social lives’.

Simmel (1978) stresses that the exchange of items or objects of value is central to human interaction. This perspective is in line with that of Blumer (1986), who coined the term, symbolic interactionism, and argued that social meaning is generated not only through personal interpretations, but by interactions between these interpretations in social settings. Simmel (1978) explained that objects that are too close or too far away would not be considered to be valuable, and thus, the social value of things would be created through separating ourselves from those objects while trying to overcome the distance: over time and due to scarcity and other challenges to obtain certain objects, the value of those objects increases.

Thus, in the course of history, the social construction of the value of commodities is determined in their socio-economic context. For example, the significance of sugar in the history of the British economy in the context of its colonial trade has been illustrated by ‘the growing strength and solidity of the empire and of the classes that dictated its policies’ (Mintz, 1985: 157). The same is true for coffee, tea (Shand, 1927), oriental carpets (Spooner, 1986) and wildlife (Van Uhm, 2016a). The possession of luxury or scarce objects manifests one’s prestige, and ‘offers access to social networks and to other resources that are closed to those lacking prestige’ (Renfrew, 1986: 161). Moreover, producers and consumers are all interested in maintaining the high value of their commodities for different reasons (Brisman and South, 2014). For example, wildlife traders want to guarantee that prices will not go down, while consumers want to ensure that they made good investments (Van Uhm and Siegel, 2016).

Interestingly, in contradiction to the attributed value by humans, from a non-anthropocentric perspective, wildlife is being ‘devalued’ when it is treated as a commodity or as property, lacking intrinsic value (Sollund, 2017b). Indeed, green criminologists have emphasized how ecocentric and biocentric views would give additional meaning to the
concept of the social life of things by acknowledging the ecological interaction between humans and the natural environment as well as the intrinsic value of ‘other’ non-human entities (see also Beirne, 1999; Halsey and White, 1998; South, 1998). From this constructionist epistemology, where we access and give meaning to reality through actions, beliefs, language, norms and symbols, the socially constructed value of wildlife will be examined critically.

To understand the overarching social construction of the value of wildlife, the following sections focus on the demand for wildlife through the ages. Subsequently, the value of wildlife will be considered through an examination of its functional, social and symbolic dimensions in different and dynamic socio-historical contexts. Finally, the article will end with a discussion from both anthropocentric and non-anthropocentric perspectives on the changing attributed value of wildlife.

**Wildlife trade through the ages**

**Ancient Egypt: Status, medication and spirituality**

From the earliest dynasties, the ancient Egyptians (±3500–500 BCE) traded ivory of elephants from Nubia, Somalia and Ethiopia for jewellery and carvings (Naylor, 2004). In the 23rd century BCE, Harkhuf, one of the first African explorers, used the route via Nubia, from Abu Simbel to Kerma to Lower Nubia, to trade ivory, with the Nile River serving as the passage connecting the natural wealth of Central Africa with the markets of Egypt and the Mediterranean Sea. Animal products, such as giraffe tails, leopard skins and ostrich feathers, were traded as religious artefacts and medicines for luxury-loving Egyptians (Kirwan, 1963). For example, leopard skins formed a part of the dress of priests (Budge, 1934) and ostrich eggs smeared with oil were used for treatment of a fractured skull (Strouhal et al., 2014).

Ancient Egypt is often known for the anthropomorphic representation of (exotic) animals as gods. These gods shared the characteristics and strengths of these animals: the sun god Ra was commonly portrayed as a lion; Hapi, the son of Horus, was depicted as a baboon; vultures represented a range of female gods, including Isis, Hathor and Moet (Hoage and Deiss, 1996; Ikram, 2009). These sacred animals were believed to be avatars of a particular god and the spirit of the god could enter their bodies during their lifetime. The ancient Egyptians were fascinated by the nature, strength and diversity of animals, and certain sacred animals were mummiﬁed so as to provide a safe passage in the afterlife (Ikram, 2009). This spiritual attribution illustrates the special interest in exotic animals and parts thereof by the rulers of Egypt.

In the beginning of 2500 BCE, various exotic animals were displayed in menageries by the pharaohs, rulers and the wealthy of ancient Egypt (Houlihan, 1996; Kisling, 2001). Queen Hatshepsut’s menagerie is considered to be the world’s oldest established zoo, and around 1500 BCE, expeditions to the ‘Land of Punt’ (situated to the south-east of Egypt) were organized to catch monkeys, exotic birds, giraffes and leopards for her extensive palace menagerie (Alexander, 1979; Lennard, 1996; Mason, 1999). The acquisition and exhibition of these exotic animals were seen as an effective way to represent imperial power over far-flung lands and to enhance prestige (Foster, 1998).
Delumeau (1995) has argued that menageries portrayed the original *Gardens of Eden* and served as a model for ‘paradise parks’ for ancient royal pharaohs and elites. Moreover, tamed animals increased elites’ status; small monkeys were seen as ladies’ pets, while Ramses II had a tamed lion who accompanied him to battle and guarded the tent of his royal master (Erman and Tirard, 1971; Kisling, 2001). As noted earlier, sometimes these exotic animals were even mummified and buried with the coffin of their owner or interred in a tomb in a separate coffin or sarcophagus (Ikram, 2004). This reflects how exclusive species were a symbol of status, spirituality and power for the rulers in Ancient Egypt (Jennison, 1937).

**Roman and Greek antiquity: Worship, control and prestige**

During Roman and Greek antiquity (±500 BCE–500 CE), the exhibition of exotic animals by the elites of the empires became relatively common. Most temples enclosed sacred groves with ponds, springs and exotic animals, such as reptiles, birds and fish. In these ‘paradises’, which were surrounded by walls for defence, the Roman and Greek rulers and elites came to worship the gods, to pray and to make sacrifices, as well as to be entertained (Hughes, 2003). For example, during a dinner with the Roman orator and politician Hortensius, a trumpet was sounded and an actor dressed like Orpheus, with a robe and lute, played a lyre between boars and other wild animals that were attracted by the sound, which they had come to learn would mean that they would soon be fed (Kalof, 2007; Von Stackelberg, 2009). Unlike menageries in ancient Egypt, those in Greece and Rome were also used as private hunting grounds in order to control nature (Kisling, 2001).

Keeping exotic animals was particularly popular among the wealthier Greeks and Romans (Jennison, 1937). The emperors even possessed elephants and lions, and a parrot that could speak Latin was considered to be a very important pet and was more expensive than a slave (Hughes, 2003; Kisling, 2001). Alexander the Great, who was educated by Aristotle (Thompson, 1907), became fascinated by bears, monkeys and other exotic animals; it is even said that he issued an edict to protect peacocks. Julius Caesar was regularly seen with a lynx from Gaul, elephants and a giraffe, which was allegedly a diplomatic gift from Cleopatra’s royal zoo in Alexandria (Hughes, 2003). In honour of these emperors, enormous parades were held with elephants, big cats and sometimes the exhibition of ‘white bears’ (Frede, 2007). Furthermore, elephants were used during warfare: for example, Hannibal took an army of 37 elephants across the Alps to battle the Roman cavalry (Gabriel, 2011).

The trade in exotic species increased significantly with the emergence of the Roman games in arenas and amphitheatres (Belozerskaya, 2006; Whatmore, 2002). Gladiators were deployed to fight dangerous animals, big cats devoured prisoners and exotic animals were sacrificed. At one of the events organized by Pompey, 20 elephants, 600 lions, 410 leopards, a Northern European Lynx and a rhinoceros were slaughtered. Pompey’s rival, Caesar, had similar numbers of wildlife slaughtered in the arena after celebrations or events (Wiedemann, 2002). Kalof (2007) explains that the anthropocentric use of wild animals during the Roman era was important for the rulers to demonstrate their status, power and control over animals, and their popularity among the Roman social hierarchy.
The Roman games were also a political arena: applause meant the show was a celebration of the emperor, while an displeased audience berated him (Kalof, 2007).

**The Medieval period: Desire, oppression and fashion**

With the fall of Rome in 476 CE, the large Roman games with animal sacrifices disappeared, but European royalty and nobility took over the practice of keeping exotic animals in menageries, carrying it into the medieval period (±500–1500 CE) (Kisling, 2001). Kalof (2007: 66) explains that:

> [t]he mixture of secular and religious symbolism was critical in the establishment of royal menageries filled with animals brought back to northern Europe from the Crusades, and as a collection of live trophy animals kept on the grounds of the royal palace, the medieval menagerie continued its tradition as an illustration of the importance of the ruler and the empire.

Even though Charles the Great was famous for keeping exotic animals, such as lions, monkeys and bears, in places all over his kingdom (Kalof, 2007), the most famous menagerie was that of King John in the Tower of London (Hahn, 2003). A real house for the elephant of Henry III and a special Lion Tower was created in his menagerie, which included a large variety of wild animals (Carpenter, 1994).7

Besides live animals, items containing parts of exotic animals became attractive objects of trade, especially for royals and elites (Pluskowski, 2004). During the Middle Ages, large-scale habitat degradation for agriculture threatened the population numbers of wild animals, making wildlife more valuable (Kalof, 2007). Elephant ivory was imported from East Africa and India, and walrus ivory from Arctic Norway, Greenland and northern Russia (Barnet, 1997; Roesdahl, 2001). The Vikings and Arabs, in particular, were major animal traders in polar bear skins, walrus ivory, falcons and narwhal tusks from Iceland and northern Greenland (Bruemmer, 1998). These animal products were converted into a wide range of expensive and exclusive articles or components of artefacts (Pluskowski, 2004).

Besides serving as protection against the cold of winter, wearing animal skins became associated with class, as well as imperialist and patriarchal oppression, and was recognized as a symbol of social difference (e.g. Perrot, 1994). For instance, it was prohibited by law for prostitutes to wear fur in order to distinguish them from ‘respectable women’, while wearing a coat of fine, rare and small animal pelts was reserved for the aristocracy in England (Baltodano et al., 2009). With the rise of the bourgeoisie and aristocracy, the decline of feudalism and the emergence of fashion, the endless race between desires and expressions of wealth intensified (Perrot, 1994: 16). When the wealth of urban craftsmen and other non-aristocrats had increased, they started to wear cheap squirrel fur and, subsequently, aristocrats moved to more exclusive furs to maintain their social distance (Veale, 2003). By the end of the medieval period, leopard and cheetah skins were largely available on the European market for aristocrats (Pluskowski, 2004). Thus, certain animals and products thereof symbolized the power and status of upper classes, and both fashion trends and a basic need for furs influenced the demand for exotic items in medieval society.8
**Early modernity: Exploitation, curiosity and attribution**

In the early modern period (±1500–1800 CE), the trade in wildlife escalated with the rise of European imperialism and colonialism in the ‘Age of Exploration’ (Collard, 2013; Kalof, 2007). Although the British East India Company (BEIC), the Dutch East India Company (VOC) and the Dutch West India Company (WIC) were famous for their trade in spices and slaves, they also transported exotic animals, such as cockatoos, leopards, monkeys, ostriches, parrots and penguins to Europe (Grove, 1995; Van Gelder, 1997). Imported exotic animals and products thereof served as a sign of modern colonial power and became a ‘symbolic representation of the conquest of all distant and exotic countries’ (Berger, 1980: 21).9

The growing interest in biological diversity was reflected in the emergence of collections with a variety of curiosities from far-away exotic regions—the so-called ‘curiosity cabinets’10 (Arnold, 2006). The quality and number of assembled elements, including stuffed exotic animals, animal products and living creatures, in these ‘wonder rooms’ owned by royalty (e.g. Francis I, William IV, the Duke of Bavaria) were of importance and distanced the nobility from the rest of society (Baratay and Hardouin-Fugier, 2003). Due to the increasing desire of aristocrats and royalty to ‘appear powerful and cultured’ some of the curiosity cabinets and menageries were opened to the public in the seventeenth century (Kalof, 2007: 119). The accumulation of wealth also enabled the bourgeoisie of the 17th century to purchase exotic rare animals, such as monkeys and parrots, and to adopt the European trend of exoticism in which oriental commodities became increasingly popular (McCabe, 2008; Robbins, 2002).

As a continuation of previous trends in the late Middle Ages, fashionable animal products began to play a larger role in the context of the growing prosperity among the middle classes. For example, wearing feathers became stylish, as reflected by the robes and hats of Queen Marie Antoinette, as did wearing wings, heads and, sometimes, complete birds as ornaments or jewellery (Boekhout Van Solinge, 2008). Another example includes the popular corset made of baleen (whalebone); high import numbers illustrate the significant trade in the 18th century (Rijkelijkhuizen, 2009).11 Consequently, the desire of members of the middle class to compare themselves to their ‘reference groups’ (Merton, 1968) from the upper class resulted in new fashion trends in early modernity. Thus, even though exotic animals or products thereof were still displayed as status symbols, the bourgeoisie started to copy the fashion trends that were prevalent among the elite.

**The modern era: Globalization, education and entertainment**

The rise of the science of natural history influenced by Darwin’s theory of evolution and growing knowledge regarding physical and psychological qualities of animals, in combination with the discovery of new species, resulted in rising fascination about exotic animals in the Victorian era (Simons, 2012). Animals were increasingly displayed as ‘specimens’ or ‘objects’ in a growing number of natural museums and zoos (Thorsen et al., 2013). The first official zoos and circuses were developed by aristocrats and traders, and were opened to the public, resulting in a decline in menageries (Hoage and
Deiss, 1996). While the original function of menageries was to symbolize (royal) power, the focus of the (modern) zoo became entertainment and education, even though actual learning resulting from zoo visitation was considered to be minimal (Kellert, 1996).12

Around the turn of the 20th century, commercial and specialist traders foresaw the increasing demand for exotic species all over Europe. For example, Carl Hagenbeck, one of the most prominent traders of exotic animals (and indigenous people), traded large numbers of wild animals for circuses, fairs, world exhibitions and private ownership (Van Uhm, 2015). By the mid-20th century, the trade in exotic animals had evolved as a trend-sensitive trading market that responded to consumer demand in the context of post-war economic growth and prosperity (Vinke, 1995). The 1970s documentary film, Christian: The Lion at the End of the World (released in the USA as Christian the Lion), demonstrates how easily two young students bought a lion cub at the famous department store Harrods and kept it in their small attic apartment in central London. Monkeys, lions and even elephants were also available for purchase in various department stores all over Europe.

Simultaneously, trade in animal products, such as feathers and skins of exotic birds for the millinery industry was thriving, illustrated by large import numbers (Doughty, 1975).13 During the 1960s, the wearing of extraordinary coats made of skins from big cats or bears emerged as symbols of wealth and status in fashion trends in Europe and the United States. For example, during a meeting of the US First Lady Jackie Kennedy and the US Ambassador in Rome in 1962, Kennedy dressed in a leopard-skin coat, while Queen Elizabeth II and the film star Elizabeth Taylor wore similar leopard-skin coats at this time (Lee, 2003). Subsequently, ‘ordinary’ women tended to imitate these role models.

In contrast to earlier periods in time and influenced by significant socio-economic trends, such as population growth, consumption patterns and improvements in social mobility, never before have so many exotic animals been traded globally (Collard, 2013). The 20th and 21st centuries present how ‘commodified’ animals were traded commercially and consumed on a massive scale for both social and symbolic purposes (Regan, 1983; Singer, 1975). Consequently, the modern era became notorious for the global wave of the extinction of species (Barnosky et al., 2011; Dirzo et al., 2014; Leakey and Lewin, 1995).14 For instance, the international demand for ivory led to the elimination of elephant populations in many parts of Africa and the Balinese, Caspian and Javan tiger all became extinct in the last decades. At the same time—and perhaps as a result—our role in endangering species made some feel more protective towards those species illustrated by the criminalization of the trade in wildlife (Van Uhm, 2015). As Benton (1998: 149) writes, ‘[i]t is now widely recognized that members of other animal species and the rest of non-human nature urgently need to be protected from destructive human activities’.

The deconstruction of the value of wildlife

The previous sections have illustrated that the social and cultural demand for wildlife has changed through different perceptions of wildlife’s functions and values in various historical contexts. The drivers of the consumption of wildlife seem to coalesce into comprehensive interrelated categories that change over time. First, the functional value of
wildlife has been reflected by clothing to protect against the cold, the consumption of food to survive or the use of non-human animals in work and warfare, in particular in ancient societies and civilizations (Kalof, 2007). Second, the symbolic value of wildlife has been illustrated by fashion trends that appeared in almost all walks of life, such as the keeping of exotic animals as a symbol of status, power or control. The third dimension consists of the social value of wildlife for entertainment. Westgarth and colleagues (2010) point out that nowadays in more than half of all households in ‘developed’ countries, a non-human animal resides, demonstrating a social and emotional perspective on non-human animals, rather than as (merely) functional or symbolic commodities.

In addition to these interacting functional, symbolic and social values, a green criminological, non-anthropocentric approach towards the social construction of the value of wildlife may provide a more comprehensive and profound understanding (Benton, 1998; Halsey and White, 1998). Green criminologists have emphasized in the past decades that the anthropocentric view within criminology is strongly influenced by the human–nature dualism within western culture (e.g. Brisman and South, 2018; Larsen, 2016). This strong anthropocentric tradition—viewing humans as separate from and somehow above the rest of nature—would be one of the most important explanations for the degradation of nature and anthropocentrism in the scientific disciplines (White, 1967). In contrast to the historical and ongoing valuation of wildlife in functional, symbolic and social terms, in contemporary society, wildlife has increasingly an extended meaning from eco-centric and biocentric perspectives as living beings with intrinsic value and with great value for the environment they belong to (Beirne, 1999; Benton, 1998).

**Discussion and conclusion: The social life of wildlife**

This article has demonstrated that the value of a commodity is not an established fact, but is dependent on human attributions, such as the perceived scarcity of a commodity or the association of that commodity with certain classes of people. Indeed, while the functional use of wildlife was present in many ancient societies, the exclusivity and rarity of certain animals or products thereof may form the foundation of their value—in other words, the more scarce an animal, the greater its value (Courchamp et al., 2006; Sollund, 2017b). This is reflected in many examples discussed in this article: from the pharaohs collecting rare animal species for their private menageries to the demand for extraordinary objects for curiosity cabinets of the elite during the Renaissance. The value of these objects was determined by exclusivity and scarcity (Baratay and Hardouin-Fugier, 2003; Kisling, 2001).

The current economic value of rhino horn on the black market, which exceeds the price of gold and cocaine, supports this assumption. That we have a desire for exclusivity is reflected by the ‘originality’ or ‘authenticity’ of exotic species and products thereof that determines its value; it is believed that wildlife products from wild animals are more ‘pure and natural’ than wildlife products from captive-bred species (Van Uhm, 2016a). Accordingly, the attributed value of ‘original’ tiger bones, rhino horns and caviar, for example, is higher due to the (traditional and cultural) belief that the taste is more exquisite or the healing qualities more profound. Therefore, rhino horns from farmed rhinos are believed to have less medicinal value, tiger bones from Chinese farms are of a lower
value than the tiger bones of ‘real wild’ tigers and caviar from cultivated caviar is sold as ‘illegal’ wild caviar to increase its monetary value (Van Uhm and Siegel, 2016).

Simply attributing value only to the degree of ‘scarcity’ or ‘originality’ would detract from the social life of things, however. In fact, the vast majority of ‘almost extinct’ animals are humble insects (Dunn, 2005) and, generally, the assigned (social and economic) value of these insects is extremely low compared to their vulnerable status in our society. Appadurai (1986) clarifies that the social life of things is dependent on human transactions, attributions and motivations; value—economically, symbolically or socially—would be a property that is attributed to an object in its social context instead of a property that is inherent in an object. As Saffron (2002: 152) points out, ‘stripped of its shroud of legend and tradition, caviar would just be fish eggs’. Indeed, caviar, which was once considered a food for the poor, became a status symbol of the Tsars and upper-class society and even a national symbol of Russia (Van Uhm and Siegel, 2016). As stated by Mintz (1985), the value of an object increases when the meaning in a certain social context rises. But the opposite can also occur. As Mintz (1985) points out, tea was initially considered as a luxury product for the wealthy elite, but became a daily necessity adopted by the lower classes. Over time, we have seen that increased wealth in the leisure class provides opportunities to display products symbolizing wealth (Veblen, 1912). In other words, imitation is a form of social equalization as the masses emulate the aristocrats and elite in order to reduce the external distinctions of class (Simmel, 1957). During several historical periods, this process of copying fashions from the upper classes has appeared with sugar, tea and wildlife.

Thus, the social meaning, judgement and value of wildlife can be subject to change over time. This can be illustrated by the three introduced anthropocentric ‘values’ of wildlife: the functional, symbolic and social value. At any point in time, one particular ‘value’ for wildlife can transform into new attributed values. First, caviar, as noted above, was initially valued as just as food, but through history the symbolic value became of higher importance: ‘You do not eat caviar, but you enjoy caviar!’ is a commonly used saying in the context of luxury and delicacy. The social construction of caviar as a luxury product exceeds its original use as food (Saffron, 2002). Second, many people today keep pets for ‘companionship’ which reflects a rather social value (e.g. Green, 1999; Laufer, 2011; Sollund, 2011), while some maintain that caring for a pet helps develop parental skills and empathy (e.g. Bradshaw and Paul, 2010; Serpell, 2003), but for centuries, ‘owning’ an exotic pet was mainly driven by their attributed symbolic value as a status symbol (e.g. Janson, 1952). Third, similar to the symbolic value of caviar and exotic pets, the use of raw animal parts from exotic animals for traditional medicines may function as status symbols (Ayling, 2013; Montesh, 2013). Along these lines, badges made from rhino horn were worn by high-ranking military officials in the Ming and Qing dynasties (Ayling, 2013). Today, growing demand for rhino horn after claims that it can cure cancer reflects the belief in its functional value as cancer sufferers consume powdered rhino horn while undergoing radiotherapy and chemotherapy treatments (Sellar, 2017).

In addition to anthropocentric wildlife values, increasing ecocentric and biocentric values in society that emphasize the symbiotic relationship between ‘human animals’ and ‘non-human animals’ may change constructed demand patterns for wildlife in the
near future. For instance, the artificial distinction between humans and animals has started (albeit gradually) to become attenuated since psychological and behavioural connections between species have become accepted more widely. We have witnessed the transformation of animals as ‘items’ into ‘individuals with intrinsic rights’ illustrated by several courts that extended the human right to freedom to great apes (Van Uhm, 2015).\(^{16}\) Moreover, the recognition that changes in biodiversity affect the functioning of global ecosystems influences the willingness to assign ecocentric values to wildlife and resist ecocide (Higgins et al., 2013; White, 2011). Biodiversity decline, for example, may have a disastrous impact on several ecosystem functions and services with global consequences for human and non-human animals.\(^{17}\) According to Bonneuil and Fressoz (2013), those attributed values reflect the co-evolution of humans and nature in which the overexploitation of nature has become a ‘social problem’ (see also Beck, 1992).

All of this illustrates how the social life of the value of wildlife changes through history and the meaning of wildlife for humans transforms and diversifies in dynamic social and cultural contexts. Even though this variability implies a complex field of functional, symbolic and social drivers intermingled with ecocentric and biocentric values, these dynamic attributions of ‘objects in motion’ may be essential in order to understand the current demand for wildlife. South (1998: 225) has already suggested that green criminologists must ‘recognize the finite nature of the earth’s resources and how this fits with global and socio-economic trends which have profound implications for the social sciences’. By responding to this call to integrate cultural criminological concepts with the social construction of green crimes, this article endeavoured to develop a criminological \textit{verstehen} of patterns of constructed wildlife consumerism through the ages.

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\section*{Notes}

1. It bears mention that Sellin (1938) and Sutherland (1940) criticized a strictly law-based approach to the study of ‘crime’ and that Schwendinger and Schwendinger (1970) proposed a broad definition of ‘crime’ that would treat as ‘criminal’ all acts and omissions that infringe on human rights. Much green criminology follows in this spirit, exploring environmental harms that stem from activities that have not (yet) been proscribed.

2. From an ecocentric perspective, humans and their activities are considered inextricably integrated with nature. From a biocentric perspective, all species are morally and ethically equal; humans are not superior in comparison to non-human species and all species have intrinsic value (see also Benton, 1998).

3. According to Naylor (2004), ivory may precede even gold as the first globally traded commodity.

4. A leopard was seen as a Typhonic animal and leopard skins were worn by the priests at important solemnities.
5. The word ‘paradise’ originates from the Persian pairidae’za and means ‘a piece of land protected by a wall’ (Hughes, 2003).
6. Although there is no consensus as to whether this was a polar bear or an albino brown bear, a Roman emperor later showed a white bear in a pool catching seals, which suggests that this was a polar bear (Hughes, 2003).
7. During this time period, performers travelled with bears and apes that were trained to dance and imitate humans for entertainment (Kalof, 2007; Strutt, 1833).
8. Yet, in comparison to the Roman spectacles, the demand for large numbers of exotic animals during the Middle Ages was relatively low (Hoage and Deiss, 1996).
9. Animal products were also used as currency. For example, a good elephant tail had the value of two to three slaves (Runge, 1987).
10. Besides non-human entities (animals, plants), human body parts were displayed in these curiosity cabinets.
11. Between 1733 and 1738, lists of products sold by the VOC showed 23,691 lbs of imported baleen (with a total value of more than 23,246 guilders at an average price of 136 cents per pound).
12. Note that in the late 20th century, zoos became sites for species’ conservation by means of breeding programmes (Patrick et al., 2007).
13. During the peak of the ‘feather fashion’ (1901–1910), 362,000 lbs of exotic feathers were imported by the United Kingdom alone—with an estimated value of £19,923,000.
14. Looking at exotic animals in history, we can see that the structural trade in wildlife during Roman and Greek antiquity had already resulted in the disappearance of species from their habitat. Themistius, a travelling Aristotelian philosopher during the 4th century CE, complained that in his lifetime, elephants in Libya, lions in Thessaly and hippos near the Nile River had disappeared (Hughes, 2003). But the contemporary rate of extinction is staggering: over the past few hundred years, humans have increased species extinction rates by as much as 1000 times background rates that were typical over Earth’s history (Millennium Ecosystem Assessment, 2005).
15. Catton and Dunlap (1980: 16) propose a fundamental change in the disciplinary paradigm of the social sciences. They argue that ‘exemptionalist’ thinking must be rejected in western traditions to understand the dialectical relationship between humans and nature.
16. E.g. a court case regarding an orangutan in the Buenos Aires Zoo in Argentina: ‘[s]he was in a situation of illegal deprivation of freedom as a non-human person’ (Van Uhm, 2015: 573).
17. E.g. water quality is restored by amphibians (Whiles et al., 2013), seeds are distributed by mammal and bird species (Terborgh and Estes, 2013) and entire ecosystems may collapse due to the decline in important ‘keystone species’ (MacDougall et al., 2013; Myers et al., 2007).

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