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Between Freedom and Abandonment: Social Representations of Free-Roaming Donkeys in the Brazilian Northeast

Mariana Bombo Perozzi Gameiro[a], Cara Clancy[b], and Adroaldo José Zanella[a]

[a]School of Veterinary Medicine and Animal Science, University of São Paulo, São Paulo, Brazil; [b]Research and Operational Support Department, The Donkey Sanctuary, Devon, England

ABSTRACT

The presence of free-roaming donkeys on Brazilian Northeastern roads has significant welfare and safety implications for both humans and animals. Working donkeys have played an important historical role in regional development and are considered a cultural symbol of the Brazilian Northeast, as manifested in popular songs, tales, and other arts. Their replacement with motorized vehicles and machines has, however, led to their underuse and their proliferation as free-roaming animals. They are, therefore, reputed for their involvement in road accidents. Aside from this narrative, there is no documentation of social representations of free-roaming donkeys in Brazil. The aim of this paper is, therefore, to identify, document, and analyze social representations of free-roaming donkeys through an exploratory study based on 99 interviews conducted in Brazil. These representations were grouped and organized in a four-quadrant matrix that highlights human and nonhuman agencies. Our results show that donkey abandonment is not always perceived as an intentionally negative human attitude; donkey agency and structural and political-cultural causes are also related.

KEYWORDS

Free-roaming animals; human–animal interaction; nonhuman agency; public perception; skin trade

In Brazil, free-roaming donkeys have gained attention in recent years when the country became a supplier of an international trade network of donkey skin, and animals were sourced mainly from roads. The legality of this kind of business was criticized and prompted a public debate on how to manage this species' population and whose responsibility it is – a discussion heavily grounded in social representations about donkeys and their role in society. According to Pivetti (2005), social representations theory can offer a useful theoretical background for the study of people's beliefs about animals. More than "opinions about," social representations are able to create shared knowledge because of individual cognitive elaboration and social interactions (Moscovici, 1973). They act as consolidated discourses intrinsic to everyday conversation and cognitive structures in the mind of the individual, drawing on a wider network of influences within which specific attitudes can develop (Pivetti, 2005).

CONTACT Mariana Bombo Perozzi Gameiro marianaperozzi@gmail.com School of Veterinary Medicine and Animal Science, University of São Paulo, 225, Av. Duque de Caxias Norte, Pirassununga, SP, 13635-900, Brazil

The theory of social representations provides a comprehensive framework for studying the complex relationships that appear to lie at the heart of human–animal co-existence issues (Figari & Skogen, 2011). It has become common sense in the field of animal studies that social groups create different symbolic meanings of animals, and these narratives both affect nonhumans and people (e.g., Herda-Rapp & Goedeke, 2005; Nagy & Johnson, 2013). A particular focus is placed on how policy definitions are guided by the framing of animals by interested social actors. The perceived usefulness of animals to people is frequently at the heart of judgments made about nonhumans and, as a result, at the heart of the public and private treatment we grant to them. They are generally viewed as pests when they are thought to be useless or uncharismatic or when they are perceived to wreak havoc on human property, prey upon humans, or spread disease (Jerolmack, 2008).

These issues reveal interests, authority, and power relations that are also commonly found in donkeys' situations in Brazil. Conflicting positions about their management emerged after the recent formal authorization for donkey skin export was justified by the argument prevailing among some urban male policymakers about the inutility of donkeys. Diverging representations attributing different values and roles to donkeys were not considered in the initial political decision process; when they came to the public in the form of protests and petitions, they influenced law makers and the permission to slaughter was granted. This dispute continued and the instability between ban and authorization is still going on, as observed in other countries where the donkey skin trade is legally or illegally taking place (Gameiro et al., 2021).

Brazil has become a target for the donkey international trade owing to the large feral/abandoned population, but the trade is spreading across the globe (Skippen et al., 2021). Donkeys are native to the arid zones of Africa and were successfully established in the arid and semi-arid environments of the American continent (Dias et al., 2019; Grinder et al., 2006). They were brought to the Brazilian Northeast by Portuguese colonizers in the 16th Century (Almeida, 2009) and played an important role in regional development, along with other equid species (Salles et al., 2013).

In Northeast Brazil, donkeys were historically used as pack, draft, and riding animals, mainly owing to their resilience and hardiness, and were well-adapted to local environmental conditions. The introduction of motorized vehicles led to a decrease in the use of these animals, resulting in donkey abandonment and uncontrolled breeding, mainly from 1990 to 2000 (Almeida, 2009; Salles et al., 2013), which contributed to the establishment of free-roaming and feral populations in the Brazilian semi-arid zone (Dias et al., 2019). This scenario is similar to the one found decades ago in Australia, where teamster donkeys used to be considered indispensable for developing colonies. In the 1930s, however, donkeys were made obsolete with the establishment of mechanized transport and were released into the wild. They thrived and multiplied to such an extent that they were declared a pest in Australia's Northern Territory in 1949, owing to the problems they caused to the arid soil (Köhle, 2018). Another parallel can be traced to the "unwanted horse" in the United States, defined as those no longer wanted by their current owner because they are old, sick, injured, or they somehow fail to meet their owner's expectations (Lenz, 2009).

In Brazil, the abandonment of donkeys on public roads and streets, as well as the proliferation of feral populations, has increased the number of accidents involving vehicles

and animals (Salles et al., 2013). These accidents contribute to the existence of conflicting images of donkeys in the popular imagination, oscillating from positive representations, mostly linked to donkeys' historical and cultural importance, to negative representations related to the risks and damage they cause to human health and security. It is important to note that donkeys are frequently seen as a cultural symbol of the Brazilian Northeast, as attested by the presence of donkeys in popular songs, books, poems, movies, paintings, and sculptures (Lima et al., 2021). This symbolic meaning, however, does not prevent donkeys from being abandoned, as demonstrated by the abandonment of culturally iconic horses in the American West (Nowicki, 2011).

Free-roaming donkeys have subsequently been targeted for the meat and skin trade in Brazil and abroad in order to supply the Chinese market (The Donkey Sanctuary, 2019; Lesté-Lasserre, 2019). In Africa, the skin trade has changed the roles and economic value of donkeys, with legal and illegal exports taking place in many countries, such as South Africa (Binda, 2019), Nigeria (Maigari et al., 2020), Kenya (Carder et al., 2019), Botswana (Matlhola & Chen, 2020), and Namibia (Chiwome et al., 2019). To a lesser extent, investments in the donkey skin trade have occurred in Australia (Köhle, 2018).

More broadly, human–donkey relationships in different societies have been addressed in books (e.g., Clutton-Brock, 1992; Mitchell, 2018) and papers (e.g., Blakeway & Cousquer, 2018; Geiger & Hovorka, 2015). In Brazil, donkeys receive much less attention from social and animal science researchers than other livestock with higher commercial importance. An exception is a recently launched special issue on donkeys and mules by the Brazilian Journal of Veterinary Research and Animal Science.[1] Donkey abandonment remains a rarely explored theme in scientific arenas, despite being a daily issue for the Northeastern people of Brazil.

The aim of this study was to identify, document, and analyze social representations of free-roaming donkeys in Brazil through qualitative exploratory research. Our findings are organized in an attitudinal quadrant that allows the visual classification of the discourses linked to these representations. To date, there has been no academic research on how these social representations shape policies and practices in relation to free-roaming donkeys in Brazil. Our paper sheds light on this topic, with implications for donkey management and donkey welfare in the future.

Background: Apparatus for Free-Roaming Donkeys in Brazil

The presence of free-roaming donkeys on roads is seen as having significant welfare and safety implications for both humans and animals. In Brazil, this has been perceived as a growing problem, interconnecting public health and risk management. In light of these problems and risks, one sociological hypothesis, following the Foucauldian approach, is to suppose the existence of an apparatus (as policies and governance systems) to manage it. Apparatuses or *dispositives* (Foucault, 2004) are material-discursive practices that, in a given historical moment, classify, organize, guide, and manage human and non-human life.

One of the biggest challenges linked to the presence of free-roaming donkeys is the occurrence of car accidents, which can lead to injuries and fatalities. Statistics on accidents involving domestic and wild animals in Brazil are not well documented, but the following

figures give us some indication: it is estimated that Brazilian road traffic causes the death of 475 million wild animals every year (more than 15 per second), most of them small-bodied (Centro Brasileiro de Estudos em Ecologia de Estradas, 2020). According to the Federal Road Police, road accidents caused by animals with human victims totaled 1394 in 2019 (Policia Rodoviária Federal, 2019), while the apprehension of domestic animals on federal roads totaled 6738 in 2016, according to ABCR (Ministério dos Transportes, Portos e Aviação Civil, 2018).

According to Brazilian law, animal abandonment is a federal, punishable crime (n. 9.605/98, article 32). Ceara is the only Brazilian state that implements a systematic program of removing animals from state roads owing to concerns about road safety and car accidents. This policy is guided by Ceara's State Law n. 13.045, 17/07/2000 (Diário Oficial do Ceará, 2000), which establishes that the permanent abandonment, temporary release, or tethering of any animal on roads or in nearby areas is forbidden. The Department of Traffic and Roads (Detran) and the Military Police are responsible for capturing animals in these conditions. Owners, when identified, are subjected to fines and required to pay daily housing fees. Non-owned captured animals that can be used for food production or work may be donated to appropriate institutions (like public schools or hospitals), auctioned, or euthanized by public agencies (Diário Oficial do Ceará, 2000).

There were approximately 53,200 owned donkeys in the state of Ceara in 2017, according to official figures (Instituto Brasileiro de Geografia e Estatística [IBGE], 2018). Donkeys represented 70% of the total number of animals apprehended on the state's roads between 2015 and 2017. They are rarely claimed by owners, and one of the reasons is that the fine of R$177.50 plus the daily housing fee of R$36.50[2] is frequently higher than the price of buying a new donkey.[3] Non-reclaimed animals are kept on a 500-hectare state-funded farm. This apparatus follows, in general terms, a model of sheltering roaming livestock that has existed for centuries in countries like the United States (Irvine, 2017).

In contrast to Ceara, the state of Bahia does not currently have a policy of removing donkeys from roads, partly because of different political and economic interests and the sociocultural context. The particular configuration of these forces has facilitated the creation of a different apparatus related to free-roaming donkeys in this state, with implications for the Northeast region as a whole.

Bahia has the largest number of donkeys in Brazil, with over 93,100 owned donkeys according to official figures (IBGE, 2018) and an estimated 230,000 total donkeys, including free-roaming donkeys (Almeida, 2016). In the whole Northeast region, the number of donkeys is estimated at 800,000, both owned and free-roaming individuals (Bittencourt, 2018). In 2016, the presence of donkeys on roads was one of the arguments employed by public agents to justify the authorization of donkey slaughter in Bahia, for the purpose of meat and skin exportation. The discourse of the Government Animal Health Agency of the State of Bahia (*Agência de Defesa Agropecuária da Bahia*) indicates that this trade would allow them "to solve, in an ethical and humane way, the historical problem of roaming animals" (Diário Oficial da Bahia, 2016). This vision is related to a kind of animal welfare paradigm which maintains that it is morally acceptable to use animals as resources, as long as they are treated "humanely" and with no unnecessary

suffering (Francione, 2010). In this case, animal life still has a lesser value than human life, and the use and killing of animals do not "per se" inflict harm on them (Francione, 2010). The vision of animals as (personal) private property is under this assumption: generally, a state legal framework protects animals from abuses and cruelties undergone at particular levels, when human behavior is condemned as deviant, but does not respond to the most trivial interest of a living being (i.e., staying alive) (Favre, 2017).

Consequently, with the Bahia State's authorization and support, exports of donkey products rose from 24,918 tons in 2016 to 226,432 tons in 2018, according to data from the Brazilian Ministry of Agriculture (Advocacia Geral da União, 2019). The number of slaughtered donkeys in the country in the same period grew by 4,788% (Gameiro et al., 2021).

Since there is no commercial production chain for donkeys in Brazil, the animals were sourced from small rural communities or captured on roads for slaughter. They were transported without the correct documentation and legal requirements established by the Brazilian law (e.g., Diário Oficial da União, 2017). International guidelines for animal welfare and health in land transport regarding rest and water availability, disease control assurance, and mixing of compatible groups (World Organisation for Animal Health [OIE], 2019) were also not followed. About 300–400 donkeys were slaughtered per week in Bahia in 2018. In order to facilitate the execution of this project at the local level, the State of Bahia neglects other apparatuses created at international and national levels (e.g., OIE's guidelines and environmental federal laws) and transfers to private groups and individuals the responsibility of whether to protect or kill free-roaming animals.

These facts illustrate the most visible issues surrounding free-roaming donkeys in the Brazilian Northeast and some of the related implications of the global skin trade, describing the main frameworks (policies and strategies) that affect human–donkey relations in the two states with the largest donkey populations in the country (IBGE, 2018). To date, however, there has been very little research on how people symbolically represent – explain, justify, understand – the free-roaming donkey situation in Brazil, including the tensions that arise between these social representations and the mentioned apparatuses. The remainder of this paper will attempt to answer this through the four-quadrant matrix we developed.

Methods

The research was approved by the Research Ethics Committee on Humans of the Faculty of Animal Science and Food Engineering, University of Sao Paulo, under the register n.3.806.505.

Data Collection

This qualitative exploratory study was conducted throughout 2019 and 2020 in rural and urban communities of two Brazilian states: Ceara and Bahia (Figure 1). Both states were chosen because of their important donkey populations and their particularities in relation to the political-economic and legal frameworks (here named apparatuses) for free-roaming donkeys.

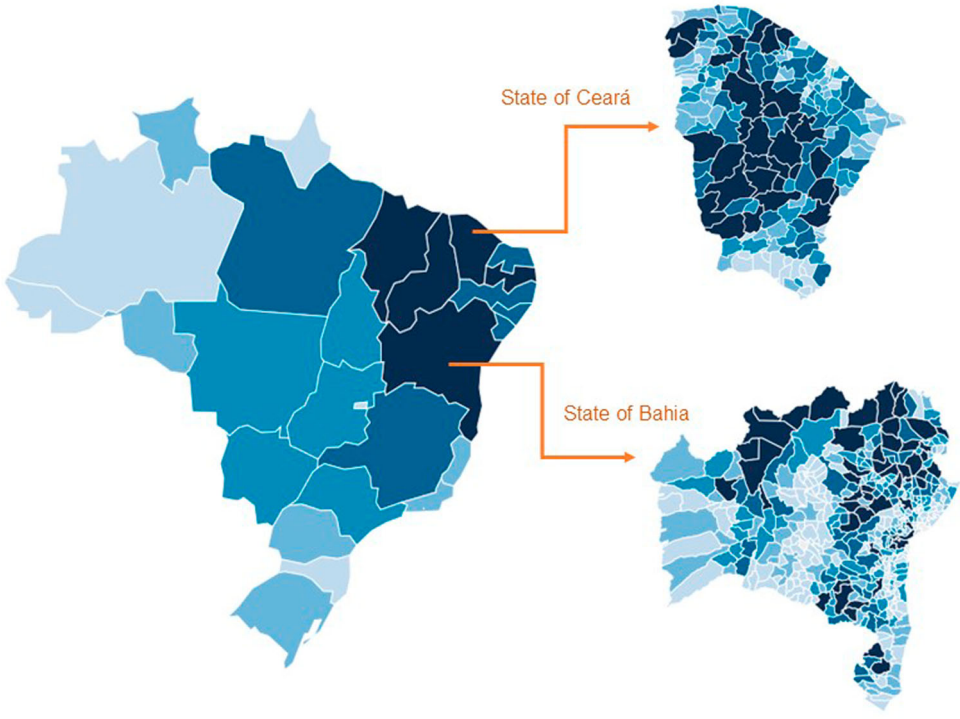

Figure 1. Map of Brazil, highlighting states of Ceara and Bahia, colored according to the density of officially registered owned donkeys (free-roaming not included) in 2017. The darker the blue, the more donkeys. Source: IBGE (2018).

Semi-structured interviews were conducted in the following locations: state capitals/metropolis of Salvador/BA, Fortaleza/CE, and Brasilia/DF (2.87 million, 2.43 million, and 2.48 million inhabitants, respectively); and small cities (urban and rural neighborhoods) of Euclides da Cunha/BA, Canudos/BA, Santa Quitéria/CE, Jericoacoara/CE (60,500, 16,700, 42,800, and 17,700 inhabitants, respectively). Both donkey behavior and people's behavior toward donkeys were observed when possible, along the roads and in the communities we visited.

Respondents were selected following a purposive sampling method (Palinkas et al., 2015), according to their importance or direct participation in events related to donkey apprehension or the donkey trade. Participants included animal health authorities, traffic authorities, animal protection organizations, public prosecutors, veterinarians, rural producers, brokers (intermediary agents) for donkey trade, and slaughterhouse representatives. Initially, the stakeholders and interested parties were recruited by names selected in press articles; the sample was enlarged by the subsequent suggestion/indication of names made by the social actors we interviewed. These interviews represent 60% of the sample ($n = 59$). The remaining 40% ($n = 40$) refers to semi-structured informal interviews with a random sample of social actors (Hammersley & Atkinson, 2007), met randomly during fieldwork in public markets and streets; their socioeconomic profile is heterogeneous, but balanced in terms of gender and age. Among the whole

sample ($n = 99$), there were 54 men and 45 women; the mean age was 47.5 years, with a range of 14–89 years. Written or verbal informed consent was obtained from all of the participants, depending on the context in which the interviews took place.

The interviews comprised open-ended questions about, for example, how people relate to donkeys, childhood memories (if any), emotional attachments, the economic importance of donkeys, representations on abandonment, trade, slaughter, and animal welfare. Audio-recordings were transcribed and systematized along with the written fieldnote records. The analysis of interviews was guided by the search of keywords (in Portuguese: abandono, abandonado, estradas, captura, solto, acidentes),[4] later grouped and classified by themes and content (Bauer, 2000). The identification of these themes, guided by the logic of relational socially constructed and shared representations (Markova, 2017), allowed the construction of the quadrant framework described in Figure 2.

Data Interpretation

The social representations we identified through the analysis of narratives are multidimensional and range from positive to negative perceptions of donkeys, sometimes relating to human individual attitudes and societal contexts, and sometimes relating to the perceived characteristics and agency of donkeys themselves. In order to visually display the plurality of social representations of free-roaming donkeys in Brazil, we developed an *a posteriori* four-quadrant matrix (Figure 2), which means that fieldwork questions were not made with prior assumptions of the four main categories shown in this matrix. Instead, the axes were created after the identification of themes that resulted from a content analysis, using an inductive approach (O'Reilly, 2011).

The matrix provides a common language to explain behaviors, experiences, and interactions in human–donkeys relations, and it offers the first scientific effort to organize and

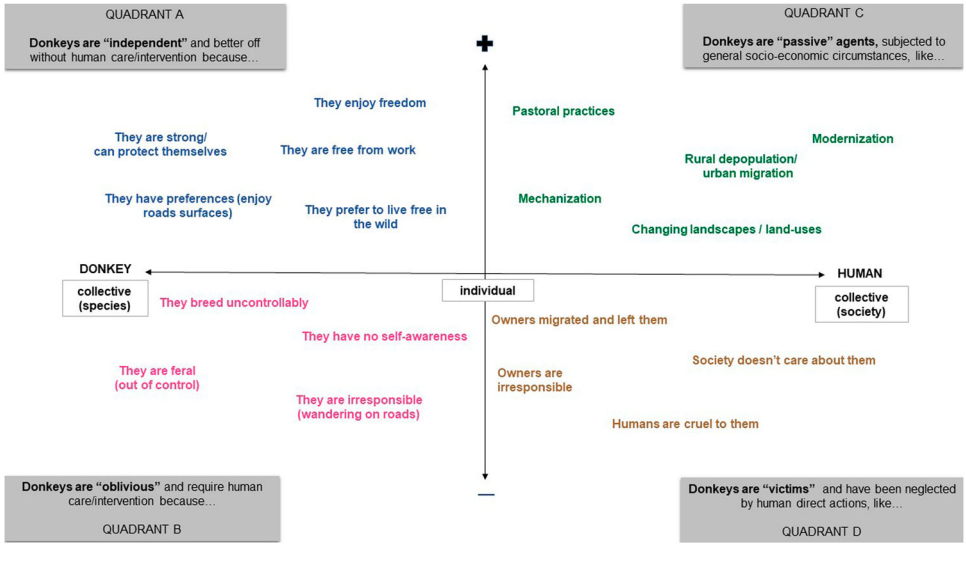

Figure 2. Matrix of the social representations of free-roaming donkeys in the Brazilian Northeast. Source: The authors.

present individual and collective perceptions on donkeys in a systematic and rigorous way. The social sciences have applied graphic schemes to a diverse range of topics and disciplines, including philosophy, anthropology, and sociology (e.g., Boltanski & Esquerre, 2017; Douglas, 1970; Foucault, 1966). Lynch (1991) and Swedberg (2016), among others, debate the use of visual representations in social theory. In the field of human–animal studies, Serpell (2004), for example, employed graphic representations to explain human attitudes toward animals.

In our matrix, the vertical axis represents a positive and a negative pole, which indicates whether respondents classify the free-roaming donkey phenomenon as a mostly positive (good, acceptable, beneficial) situation or a negative (regrettable, unwanted, unacceptable) one. Points that are marked closest to the intersection with the horizontal line represent the most neutral sentiments, while those marked at the extreme ends of the vertical line represent the strongest positive/negative sentiments.

The horizontal axis shows the range of perceived agency, from "individual" at the vertical intersection to either a "species" (donkey) or "societal" (human) collective at the extreme ends. Points closer to the intersection with the vertical line are closely linked to an individual (human or nonhuman) feature, whilst points furthest from this intersection are linked to a collective (the society or the species) feature. It is important to highlight that, even if they are presented as graphically separated in this matrix, human and nonhuman agencies coexist in space and time: one neither excludes nor opposes the other.

"Agency" is here understood as the capacity to exert influence over a situation, following theoretical principles laid out in the social sciences for the past three decades (e.g., Buller, 2014; Jones & Cloke, 2008; Knappett & Malafouris, 2008; McFarland & Hediger, 2009; Notzke, 2013). Agency, in this sense, does not refer to the reflexive choice taken after the critical consideration of all of the aspects involved in a situation; nor does it refer to the power to freely act according to one's own interest. Rather, agency in this sense is the relational and situational capacity of acting itself, merging human and nonhuman elements. It is also important to highlight that the idea of donkey or human agency is the result of the social representations we identified through interview respondents, and it is not an intrinsic characteristic that we (the authors of this paper) consider to be inherent to donkeys or humans. In animal studies, scholars have documented a vast array of animal behaviors that validate their cognitive and emotional capacities, including love, joy, sadness, and disappointment, as well as feelings of empathy, cooperation, and forgiveness to other animals (Kalof, 2017).

Embedded in the methodological construction of this scheme is a recognition of the continuities and discontinuities between humans and animals (Descola, 2005). It also comprises a notion of symmetry (e.g., Ashmore et al., 1994; Latour, 1999; Law, 1992), which places humans and nonhumans involved in a situation at the same analytical level.[5]

Results

The Four-Quadrant Matrix of Analysis

The four-quadrant matrix (Figure 2) organizes the main social representations of free-roaming donkeys that we identified in this research. Plotting the social representations

of free-roaming donkeys in this matrix allows us to extract a typology which is not intended to reduce or oversimplify the plurality of perceptions and experiences of these animals. Instead, it helps us group, organize, and better understand these plural and dynamic social constructions. The typology of these general categories is as follows:

Quadrant A (top-left): donkeys are autonomous beings, capable of deciding their own fate; they are better off without human care and/or intervention;

Quadrant B (bottom-left): donkeys are oblivious beings, unable to make good choices; they are better off with human care and/or intervention;

Quadrant C (top-right): donkeys are subjected to societies' ways of life; human influence on the fate of a donkey is not intended, it is rather a consequence of society's development;

Quadrant D (bottom-right): donkeys are victims of human attitudes; humans are generally unkind or even cruel to them.

In the following section, we present some extracts of the interviews gathered during our fieldwork, organized according to the typology constructed above and framed within the apparatuses described in previous sections.

Social Representations of Free-Roaming Donkeys: Extracts from the Interviews

Our first collection of representations (Quadrant A) refers to donkey agency. Some of the respondents perceived donkeys as agents capable of acting (intentionally or not) and exercising choice whenever it is possible; they believe that free-roaming donkeys are better off without human care and/or intervention. This is shown by representations that attribute "human-like" feelings to donkeys or evaluation criteria based on human parameters:

> Donkeys have feelings, they need to face challenges to feel motivated to live. They like/enjoy the feeling of freedom, not that of confinement. In the natural environment they find freedom. (male road traffic officer, CE)

> We used to see donkeys on roads and we have never seen a thin donkey. Because donkeys know how to care for themselves, they are not thin without an owner. [On the roads] they were fat, healthy according to people who are not "donkey-experts." They [donkeys] know how to deal with it. (male public prosecutor, BA)

Other comments included the impression that, when released, donkeys are better off because they are free from work and suffering, and that they prefer to live in the wild. On this point, it is worth noting the association made by respondents between "nature"/"the wild" and the road environment.

There was also a perception that donkeys are able to search (and that they enjoy searching) for their own food, and that donkeys like warmer temperatures (hence why they keep close to roads). Sometimes these actions were framed positively (donkeys are happy in doing that) or negatively (donkeys are irresponsible for doing that), so we plotted each representation on the positive and negative axis of the matrix, as appropriate.

The representations of this quadrant acknowledge that agency is a characteristic shared by humans and nonhumans, even if the degree of intentionality attributed to

nonhuman agency is variable. According to Pearson (2017), animals do not need to speak a language that is comprehensible to humans to be considered skillful agents. Animals display a diverse range of agencies, and intentionality-based agency is perhaps best treated as a continuum shared by humans and nonhumans of differing abilities (Pearson, 2017).

Our second collection of representations (Quadrant B) refers to donkeys' *unwanted* agency. We identified public perceptions that consider the donkey oblivious, unable to make good choices, such that they put themselves or others at risk. For this reason, some respondents argued that they need humans to take care of them. These ideas are exemplified in the extracts below:

> We always see animals coming from roads like this, with many wounds,[6] and we know it was caused by cars. […] Donkeys [kept on closed spaces] always look for exits [to go to outer areas]. If the pen does not have a wall or a fence, they walk off. (female veterinarian, CE)

> The donkey has become a problem. If nobody takes care of it, it dies. And the population has no sympathy for donkeys because when they roam free, they cause fatal accidents. (male professor, CE)

Other comments inserted in this collection of representations related to the uncontrolled breeding of donkeys and the belief that current free-roaming animals are born from feral donkeys. The term "feral" usually describes free-living organisms or populations that are primarily descended from domesticated ancestors (Gering et al., 2019), but the lines between the domestication and feralization processes are sometimes blurred by continuing contact with humans. Sociocultural perceptions of what is "wild" and what is "feral" also affect the management of free-ranging animals, as in the case of horses, where the term wild usually has a positive (romantic and mysterious) connotation, while feral alludes to a population that is neither livestock nor wildlife, an illegitimate part of the ecosystem they inhabit, thus contributing to its degradation (Bhattacharyya et al., 2011).

Another negative aspect of their "free-roaming existence" (identified by respondents) included the perception that donkeys lacked self-awareness; that they were unconscious to their presence on roads and the danger this posed for people. In general, donkeys were seen as somehow responsible for their situation, no matter whether this was intentional or not.

It is worth highlighting that, in our research, aspects relating to the materiality of roads (e.g., conservation, illumination, safety signals) and to the behaviors of *human* road users (drivers) were not emphasized by the respondents. This creates a "silent gap" in the discourse around other factors that may be linked to car accidents, although we observed very poor road conditions and imprudent behaviors by drivers during our fieldtrips. These factors undoubtedly contribute to the occurrence of collisions involving animals, even if the causes are commonly attributed to donkeys. The difficulty in recognizing how the agency of one group of nonhuman actors is constrained within particular spaces and industrial society as a whole (Wadham, 2021) favors the construction of these social representations.

Our third collection of representations (Quadrant C) refers to donkeys as passive/inconsequential beings that will "naturally" become outdated as society adapts and

modernizes; animals are, therefore, subject to humanity's ways of life. The particular characteristics of donkeys are recognized, but the animal condition is seen as a result of broader sociohistorical and economic processes, related to modernization, migration/urbanization, mechanization or, on the other hand, to the perpetuation of traditional agricultural practices. Human agency is referred to in different degrees, but it is mostly assumed that humans have a neutral or unintentional influence on the fate of free-roaming donkeys. Frequently, the explanations of this category intersect with other categories in the matrix (such as donkey preferences and inherent traits):

> It is not abandonment, it is another word that I want to say … Donkey no longer has utility, so people stopped using it. Do you know what this is? Evolution!! Social progress! People have been evolving. It is like the old habit of having large radios in your house; today you no longer have them. Today you have a cell phone … (male journalist, BA)

> The problem is that we don't have where to house them when we leave the countryside. My grandfather had 15 donkeys; they had no utility, he only fed them. But after he gave one by one to the people in the community, to transport water. Later I don't know what happened to them. I used to play a lot with donkeys when I was a child. (young man in the street market, BA)

> The donkey is the king of the "sertao" [semi-arid region]. He is tolerant to drought and used to work, even more than horses. Today, however, there is not much grass in the pastures. Brazil is a poor country. So, in general, people do not abandon donkeys, they just release them so that they can find food around the roads. And after, if they can, they catch them back. Another thing is that today people prefer to have a motorcycle and liberate donkeys from working; they don't have too much utility now. (female local state officer, BA)

> There is always a poorer small producer who wants to have that donkey that is being discarded. And these poorer people really raise animals outside their properties, around the roads. He is raised like this, loose/untied. It is not abandonment, it is a pastoral practice (male member of the Federal Council of Veterinary Medicine, Brasilia)

These examples reveal that donkeys may be seen as no longer having a place in "modern society," mostly as a consequence of factors not directly linked to donkeys. Feelings associated with this are sometimes emotional (evoking childhood memories, for example) and sometimes rational (accompanied by socioeconomic interpretations). Working donkeys, however, continue to exist in the Brazilian Northeast; respondents who believed that donkeys still have a utility associate donkeys with poor rural communities, where traditionally animals were left untied and free-grazing during the day and brought back in at night. Respondents explained that this is a traditional method for animal raising in the semi-arid region (called "fundo de pasto"), and therefore may not be considered abandonment.

Working equids are estimated to help approximately 600 million people globally, often in poor and marginalized communities (Valette, 2015). In countries where donkeys still play this important economic role, as in Kenya, selling working donkeys may provide an instant boost to a smallholder farmer's income, but it is unlikely to be a sustainable livelihood option in the long-term (Carder et al., 2019). In Botswana, the donkey is represented as a highly valued contributor to the household owing to perceived heartiness, stamina, approachability, and loyalty, but this material-discursive practice changes as the

donkeys' political and economic value lessens (Geiger & Hovorka, 2015), which is supported by the current findings in Brazil.

It is also worth noting a linguistic feature that may help shape social perceptions on this issue: in Portuguese, the most common terms are "jumento abandonado ou errante," translated as abandoned or stray donkey. This discursively outlines a general negative understanding of the situation, in contrast with the English language, where the term "free-roaming donkey" carries implicit an idea of "freedom" (in the positive sense).

Our fourth collection of representations (Quadrant D) relates to the perception that free-roaming donkeys are victims of human values or attitudes. Sometimes these perceptions are presented in very emotional ways, linked to religious beliefs, personal experience, and ethical/moral (value-based) sentiments:

> When I was a child, donkeys carried water and wood. People used to take good care of them, kids rode on donkeys. Today not even the owners care for them, they release them so that cars will kill them on the roads. How could someone abandon an animal he raised since it was a foal? You do this to the animal, you will pay later. After the animal has served you, are you going to let him for a car to kill? Are you going to let him starve? This is so unfair, it is a shame! And nobody does anything about it! (elderly female in the street market, BA)

> I have four donkeys in my house [rural area]. I like to have them, they do not work. Just like I have dogs and cats. My family like them, my husband, my children. They don't cost much. I am shocked with people who mistreat donkeys, show no affection. Then, animals die on the roads. Owners are irresponsible and release them. I don't blame the animal, but the owner. In my family, we have the instinct of taking care, of loving, mainly the donkey, because Jesus rode on donkeys. Do you know that cross that donkeys have on their back? It is because baby Jesus piddled when riding on a donkey. The donkey is very special, it is sacred. And now it is in danger, with people catching them to kill and eat the meat. (female in the street market, BA)

> The [donkey] population is larger than the environment can support. Animals cannot find adequate places and they search for the road. But the whole problem is due to human behavior, because donkeys are not there for nothing. They are there because of years of negligence of people who abandon them, who let them breed without control; the negligence also comes from the state power, because of its omission. So the donkey is not to blame, it's us. (female veterinarian, Ministry of Agriculture, Brasilia)

The perception of the donkey as a "victim" is also independent of a possible instrumental value the animal might have, being mostly associated with the animals' subjectivity and "right to live," This right may come from a symbolic idea of the donkey's religious significance: according to Christian testaments, donkeys framed both ends of Jesus' life, first carrying his mother to Bethlehem and being present at the Nativity, and later carrying Jesus when he entered Jerusalem on Palm Sunday (Mitchell, 2018). The "right to live" also results from a technical appreciation of the animal's natural needs. The remark – whether intuitive or not – that capitalism reshapes animal living conditions in ways that ignore non-human biological requirements, producing new social and environmental problems (Stuart & Gunderson, 2020), underlies our respondents' representations. In our interviews, respondents placed responsibilities for the donkey on both individuals and civil society in general.

These are some of the dimensions we identified during the field research, and even though we categorized them for analytical purposes with the help of the matrix, they

still present many aspects that interpenetrate each other. For this reason, in the following discussion we interconnect the discourses to show the complexity of human–donkey relations.

Discussion

Social representations of free-roaming donkeys contain a wide range of nuances. The combination of these issues, and people's experience and interpretation of them, shapes the complex situation of free-roaming donkeys in Brazil. No previous work on donkeys has used the methodological approach that we proposed. Studying roaming dogs, Arkule and Atema (2017) suggest these animals can be understood as a symptom of a larger social problem or as a social problem by itself. When roaming dogs are seen as a source of community concern, fear, or dread, they represent the undesired, if not dangerous. As a result, roaming animals are often distanced from and blend into the urban landscape as one more feature of disorder and decay. Our paper gives new information and a novel way to assess the relationship between donkeys and humans. The summary of the data, presented below, offers a scenario where the combined factors may compromise the welfare of donkeys. However, the factors presented in the matrix, at times, offer potential solutions to foster strategies to re-signify this animal in the context of the twenty-first century in the Brazilian Northeast. A brief summary of the nuances identified include:

(1) Societal/structural issues such as: rural depopulation and the loss or, conversely, the maintenance of traditional farming practices; the sense that society is "getting worse" or, conversely, is "progressing"; inaction or omission from public powers;
(2) Individual owner issues such as: owner irresponsibility, including the practice of keeping animals tied loose; a lack of resources to feed the animals, particularly in the dry season. In these situations, the owner is either perceived as "guilty" or as a victim of poverty, and with the latter, the presence of donkeys on roads to search for food is then seen as legitimate;
(3) Donkey agency issues: donkeys prefer to be on roads; breed without control; have no notion of danger; prefer to live free in the wild; are strong and know how to protect themselves; like to search for their own food; and the idea that, when released, donkeys are free from work and from suffering. All of these representations may have positive or negative connotations, according to the respondents' subjective and objective experiences.

According to Geiger and Hovorka (2015), donkey subjectivity encompasses lived experiences that appear, from a human perspective, both purposeful (when ploughing or transporting) yet unfocused (when they are wandering), as well as peaceful (when they stand on the tarmac bathed in sunlight) yet dogged (when humans order them to do otherwise). Kellert (1980) suggests that people may view animals from the perspective of their utility to humans, ethical standing, scientific or ecological value, esthetic or symbolic qualities, or with fear or distaste. Our research reveals a strong and historic notion of utility linked to free-roaming donkeys, leading to the collective understanding that

donkeys mostly have a place in society when they can be used by humans. The "property status" of animals would foster their exploitation and hinder any attempts to take animal interests seriously because, as a thing or a commodity, animals only have the value given to them by humans (Francione, 2004, 2008, 2020).

Despite being present in most of the interviews, this "utility argument" is frequently associated with multiple feelings, sometimes negative (e.g., useless donkeys cause problems) and sometimes positive (e.g., donkeys are useless but we still like them). This complicates a direct and linear correlation between economic use and mistreatment, since situations of non-use can also be the reason for poor welfare conditions. In our research, respondents generally pointed out that the lack of utility led to abandonment and then to neglect/mistreatment. This vision tends to exclude animal mistreatment implied in the economic exploitation of donkeys, such as when they are subjected to overloading, physical abuse, and heavy work in challenging conditions and on long journeys – elements that are not regarded as violence for people who have incorporated them as "necessary practices." Conversely, some respondents (mainly the ones linked to animal protection movements) are critical of both abandonment and any form of animal use.

Aside from the potential commodification of donkeys, other economic dimensions are clearly shown in these interviews, in association with individual habits and collective cultural practices. Some examples include owners' patterns of life and the lack of resources to feed donkeys; traditional methods for raising animals and the availability of natural pasture and fodder; migration to towns and the adoption of new technologies/transportation modes. Respondents who lamented the replacement of working donkeys with vehicles and machines sometimes suggest that rural communities still use them for these or other purposes, reinforcing a symbolic division between urban-rural, modern-archaic, and developed-underdeveloped, pre-defining what has legitimacy in each of these cases and who has the right to "progress."

According to Serpell (2004), attitudes to animals appear to be expressed primarily in terms of two distinct value orientations: an affective or emotional evaluation based on feelings and a cognitive evaluation based on the perceived instrumental, practical, or economic value of animals, either to the individual or the group to which they belong. Human–animal relationships based on sympathy or identification (positive affect) would typically engender certain moral obligations that facilitate private and public opposition to acts of harm; contrarily, animals employed for non-benign instrumental purposes would commonly be excluded from becoming the objects of people's positive affections (Serpell, 2004; Serpell & Hsu, 2016).

These two distinct value orientations can be witnessed in some of our interviewees' responses: for example, some respondents assigned to quadrants b and d, whereas other responses suggested a more fluid appreciation of free-roaming donkeys. For instance, we found several cases where an instrumental evaluation of the use-value of donkeys (or lack thereof) did not prevent a feeling of affection toward the animals. In a different vein, some people accepted or legitimated donkeys living in bad conditions on roads, despite having emotional and sentimental attachments to them. Indeed, while affective and instrumental value orientations provide a general baseline description of human attitudes to animals, they can only account for a certain proportion of the variance in people's attitudes (Serpell, 2004).[7]

Our findings indicate that diverse symbolic constructions are frequently evoked to explain the presence of donkeys on roads. The donkey's alleged need for freedom could be seen as an act of anthropomorphism (the habit of attributing human traits to nonhuman entities), or it could be seen as the consideration for the animal's sentience, or a recognition of donkey agency. In this sense, we found repeated/recurrent representations of donkeys' need for freedom as the individual wish of an animal or a natural intrinsic characteristic of the species. The interest in "donkey freedom" was not only expressed by members of communities, but also by agents responsible for the execution of the legal apparatus that remove animals from roads in Ceara. Acknowledging the lack of freedom experienced by donkeys after they are captured and confined, one respondent from Ceara believed that donkeys kept in holding facilities died because of sadness, despite having their biological needs met. This kind of belief puts donkey agency in the foreground without delegitimizing this apparatus (the state policy that regulates the removal of donkeys from roads) as a control mechanism, with its main concern of human safety. It highlights a tension between the official "objective" policy on free-roaming donkeys and the subjective values/beliefs of individuals in positions of authority.

We noted other assumptions about donkey agency: for instance, the collective perception of the donkey's resilience and the animal's intuitive knowledge of its own nutritional needs. These social perceptions, built upon empirical observations made throughout centuries of daily human–donkey contact in semi-arid contexts, are also supported by scientific studies. According to Smith and Pearson (2005), donkeys have a range of physiological and behavioral adaptations that individually provide small survival advantages but collectively may make a large difference in surviving drought. They spend less energy while walking for food, resulting in lower dry matter intake requirements. In addition, donkeys can efficiently digest low-quality and lignin-rich fibrous diets and they can spend many hours and travel large distances to forage.

In the Brazilian collective imaginary, donkeys' tolerance to drought and a scarcity of food is recognized as a signal of strength, which enables the donkey to work hard and, occasionally, to self-protect. Donkey resistance and strength is frequently linked to the resilience of people from the country's Northeastern region, who also struggle to survive in difficult climatic and economic conditions.[8] This creates a symbolic identification between people and animals but, as we could perceive during our research, this does not necessarily translate into concrete welfare improvements for donkeys or for other equids (e.g., see Nowicki, 2011). Even though donkeys are seen as a cultural symbol of the region (Lima et al., 2021), they are generally not regarded as subjects in their own right, usually only receiving political or legal consideration when they affect human wellbeing, as in the case of car accidents or issues concerning the transmission of zoonotic diseases.

We can state that, in Brazil, issues with free-roaming donkeys have become more apparent because of the global skin trade. In Bahia, collective fears constructed around the presence of free-roaming donkeys on roads were used by public authorities to justify a controversial slaughter strategy, implemented with the primary aim of exporting donkey meat and skin. According to Mason (2017), the closer animals are perceived as posing an actual threat to human welfare, inspiring fear or loathing, the easier it

becomes to control, use, and kill them. Through Bahia State's apparatus, the responsibility for removing donkeys from roads, regardless of the animal welfare implications, was transferred from the public to the private sector. This transfer of power did not happen without difficulties, since it provided opportunities for foreign commercial interests (mostly from China) that were not aligned with local habits and cultural practices. The legitimacy of this apparatus was, therefore, constantly questioned by different social groups.

Methodologically, the four-quadrant matrix we present in this paper offers a way to systematically organize the variety of perceptions relating to free-roaming donkeys. The plotting of representations in the matrix is carried out subjectively by researchers and does not imply any quantitative measure. Often, discourse is composed of parts that can belong to different quadrants of the matrix, whether it refers to causes, consequences, personal experiences, or material conditions. For example, arguments at the intersection of quadrants are, therefore, also found – hence why we identified many nuanced representations of free-roaming donkeys.

This matrix is not exhaustive; it does not call for deterministic causation and does not suggest a fixed or static framework for the interpretation of human–animal relations, which are in a continual state of mutual, contextual, and simultaneous shaping. This scheme is otherwise open to permanent revision and is flexible enough to incorporate the addition of new representations, beyond those identified in this study.

Conclusion

By using semi-structured interviews and participant observation, this paper identified multiple social representations of free-roaming donkeys as a complex phenomenon in the Brazilian Northeast. Our results show that donkey abandonment is not always perceived as a negative intentional attitude of an owner who does not need/want the animal any longer; donkey agency and structural (political, social) causes were also offered by our respondents to explain their presence on roads. The presence or absence of instrumental use-values is not directly associated with emotional or rational representations, nor with the acceptance or rejection of a free-roaming existence for donkeys.

In order to better understand the aspects of human–donkey relations, we created a qualitative four-quadrant matrix that visually displays the plurality of these social representations. We encourage other scholars to continue to develop this matrix with different representations obtained from their research in other areas where donkeys exist. We hope that this scheme will inspire research on other free-roaming animals.

Notes

1. "Special issue: Donkeys and Mules", *Brazilian Journal of Veterinary Research and Animal Science*, 2021. v.58:e174255. Available at: https://www.revistas.usp.br/bjvras/issue/view/11945. See also "Special issue: Research Advances in Donkey and Mule Science and Medicine" (Eds. A. Martins-Bessa & A. McLean). *Animals*, 2020–2021. Available at: https://www.mdpi.com/journal/animals/special_issues/Advances_Donkey_Mule_Research
2. Respectively, US$41 and US$8.45 (average dollar-real exchange rate in February 2020).

3. Personal communication, 2019.
4. Abandon, abandonment, road, capture, release, accident.
5. Symmetry, in this sense, is to be understood as an assumption at the methodological level; it has nothing to do with balanced hierarchies or neutral power relations.
6. At the moment of the interview, we are near severely-wounded donkeys in a facility that houses animals captured on roads.
7. According to Serpell (2004), other factors can be intrinsic or extrinsic to animals, as animals attributes, individual human attributes (like gender, age, social class) and cultural factors (like historical attitudes, religious and ideological beliefs) (see also Hsu et al., 2003, for a case study on attitudes toward free-roaming dogs).
8. These identity constructions are particularly revealed by the analysis of popular art manifestations, as music and literature (Gameiro, 2019).

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