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Review

Unraveling Feline Myths: A Review About Misperceptions and Beliefs Surrounding Domestic Cat Behavior

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Abstract

Despite the growing preference for cats as companion animals, beliefs and misperceptions about them are still common. Cultural and sociodemographic aspects can influence society's attitudes towards cats, affecting the way they are kept and cared for and, consequently, their welfare. This narrative review aimed to identify and categorize beliefs and misconceptions about domestic cats commonly described in the scientific literature, particularly those related to behavior, sociality, health, and management, in order to foster critical thinking about these perceptions. Our bibliographic search included three electronic databases (Web of Science, PubMed and Scopus). This review highlights a set of recurrent beliefs of general society reported by the scientific literature, such as the perception of cats as independent and non-social animals, bringers of bad luck, incapable of forming emotional bonds with their guardians, or in need of outdoor access to thrive. Although widespread, many of these beliefs lack empirical support. Identifying and fostering critical reflection on such beliefs can contribute to deconstructing them, improving the guardian–cat relationship and enhancing the welfare of both cats and humans.

Keywords: attitudes; cats; feline behavior; human-cat relationship; welfare

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1. Introduction

The relationship between humans and companion animals plays a significant role in contemporary society, providing humans not only companionship but also emotional comfort and benefits for both mental and physical health, among others [1–4]. Nevertheless, it is important to acknowledge that evidence for the so-called 'pet effect' is mixed, with some large-scale studies finding no measurable health advantages for pet owners compared to non-owners [5]. Despite being valued by many people, there is still much ambiguity in the way animals are kept and treated. This disparity can be seen in several contexts, especially in the domestic setting. While some companion animals are seen as family members, receiving affection and care from their guardians, others are neglected and mistreated [6–9].

This disparity is particularly evident in the case of domestic cats, especially when viewed through different cultural perspectives and attitudes [10]. While many are raised

by guardians who offer them affection, comfort, environmental enrichment and veterinary care [8,11], others face abandonment on the streets and in shelters, becoming vulnerable to injuries and mistreatment by individuals who harbor an aversion to cats [9,12,13]. Mistreatment is defined as intentional abuse or unintentional neglect, which can result in significant and lasting harm [14].

Domestic cats are among the most popular companion animals worldwide. In the United Kingdom, Japan, and the European Union, they are the most common species in households [15–17]. Even in countries where dogs remain more popular, the number of cats has been growing, such as in Brazil. According to data published in July 2024 by the magazine Cães & Gatos, based on a joint survey by Abinpet and the Instituto Pet Brasil (IPB), an estimated 30.8 million cats live in Brazilian households [18].

Although there has been an increase in people's preference for cats, many misconceptions persist regarding their image [9,19,20]. Cats have been the target of several myths and beliefs throughout history, and such perceptions often influence the way these animals are treated and perceived even today. For example, in the Middle Ages, they were associated with superstitions and mystical beliefs in several cultures, being seen as malevolent demons, diabolical beings and treacherous companions of witches and occultists [9,19,20]. Despite social and scientific advances, mystical and superstitious beliefs associated with cats continue to be reproduced in certain social groups.

This symbolism surrounding cats can be found in fiction, from literature to cartoons and films. The media, through film or literature, also influences the way we view animals, and can contribute positively or negatively [21]. Although misconceptions may seem harmless to some, they can have serious implications for the welfare of cats and for decisions related to their management and care by their guardians.

Another common belief related to cats refers to their supposed extreme independence, suggesting that they do not need or desire human care and companionship [19]. However, behavioral studies have shown that cats can form emotional bonds with their guardians and seek their company at specific times [22,23]. Even cats housed in shelters for adoption may benefit from human interaction, including if it is from an unfamiliar person [24]. In addition, evidence suggests that these animals can develop separation-related problems [25,26], contradicting the idea that they are a non-social species. The perception that cats have low care requirements is also seen, which is often cited as one of the main reasons that lead people to choose to adopt them [11,27]. Nonetheless, cats have specific needs which, if unmet, can significantly compromise their welfare. Taking environmental enrichment as an example, some people believe that providing cats with toys is unnecessary, as they do not benefit from these items [8,11]. However, environmental enrichment, whether physical, olfactory, social or nutritional, provides numerous benefits for the welfare of cats, as it promotes the display of natural behaviors, physical activity, mental stimulation, and reduction of boredom, among other benefits [28–30]. This is especially true for indoor-only cats [31–33].

Cat management is one of the most debated and controversial topics. Some people believe that these animals should be free to roam without territorial restrictions [34]. Others argue that the most appropriate way to keep cats is indoors [35–37]. Advocates for outdoor access often justify their position based on the perception that cats are independent, with an intrinsic need to explore and travel long distances [8,37]. However, this belief may have cultural roots, and studies suggest that, in certain contexts, outdoor access may arguably bring more harm than benefits to cats' welfare [30,38,39].

In general, cats kept outdoors face several risks, including accidents such as falls and attacks from people or dogs. The danger of being run over can be high, especially in densely populated urban areas [40–43]. Furthermore, free-roaming cats are more susceptible to

contracting diseases such as FeLV (Feline Leukemia) and FIV (Feline Immunodeficiency Virus), as well as internal and external parasites [38,44–46]. Another relevant impact is the predation of wildlife and the transmission of diseases to native species [31]. In short, several beliefs surround domestic cats, from mysticism and superstition to aspects related to their biology. Recent research indicates that guardians' attitudes and their management practices play a fundamental role in promoting cat welfare [1,30]. Understanding which beliefs and misconceptions are associated with cats is the first step towards developing strategies to demystify and improve their welfare and quality of life.

This review aims to identify and categorize the society's beliefs and misconceptions about domestic cats most commonly reported by the scientific literature, particularly those related to behavior, sociality, health, and management, in order to foster critical thinking about these perceptions. By analyzing scientific literature, we intend to highlight the contrast between popular beliefs and empirical evidence, and to discuss the practical implications of a more accurate understanding of feline behavior for cat welfare and the human–cat relationship.

2. Literature Search

This narrative review was based on a structured literature search in three electronic databases: Web of Science, PubMed, and Scopus. The goal was to identify peer-reviewed studies that addressed beliefs and perceptions related to domestic cats, particularly concerning behavior, health, sociality, and management.

Works published between 2000 and 2025 were considered, using combinations of keywords such as: "Cat AND Misperceptions AND Beliefs", "Behavior AND Cat AND Beliefs", "Feline AND Belief AND Misperceptions", "Cat AND Behavior AND Misunderstandings" and "Cat AND Myths AND Behavior". No controlled vocabulary was used, as the aim was to gather a broad and exploratory sample of relevant literature.

The search resulted in 547 articles. Titles were initially screened, and in cases of doubt abstracts were consulted, resulting in 117 articles.

3. Popular Beliefs Associated with the Perception of Cats

Although many people love cats, there is still a gap in knowledge about cats' behaviors and needs, both in society in general and among guardians [1,8,11,19]. Beliefs and misperceptions can influence how cats are perceived and treated, potentially impacting their welfare. These beliefs cover a wide range of aspects, from mysticism and superstitions to the perception that cats are non-social animals [19,20] or are low-maintenance [47,48]. Based on recurring themes found in the reviewed literature, we present below a set of belief categories commonly addressed in academic studies, establishing parallels with the guardian-cat relationship and feline welfare in light of available scientific evidence. The beliefs discussed in the following sections are not presented in order of frequency or relevance. Instead, the categories are organized thematically to reflect the diversity of misconceptions found in the literature.

3.1. Cats as Animals That Require Outdoor Access for Their Welfare

One of the most debated topics regarding the behavior and needs of cats is related to the type of management, indoor or outdoor. It is common for many people to have perceptions such as: "Cats need outdoor access to be happy", or "Cats need outdoor access to hunt" [8,49]. In fact, when their guardians allow unrestricted access outside the boundaries of their property, cats begin to explore the surroundings. If they are not neutered, the areas they roam are even larger [50–52].

In places where there are many campaigns encouraging keeping cats completely confined, generally the management method adopted by the majority tends to be indoor, as occurs in the United States [49,53], and in the rest of North America [37]. In the United Kingdom and Denmark, however, most guardians allow their cats to have free access to the street [30,36,54,55]. In Brazil, there is no representative data on the management method commonly adopted by cat guardians, but recent studies indicate that many people keep their cats indoors [8,25,38].

The choice of each management method is generally related to cultural aspects, which may vary depending on the guardian's country of origin, as well as their perceptions of what is best for the cat [35,38,54,56]. The guardians' previous experiences also influence the choice. People who have lost cats due to being run over or other accidents resulting from access to the street tend to opt for exclusively indoor management [49].

Indoor management refers to a type of care in which the animal is kept entirely indoors, with no access to external environments. In this case, the guardian maintains control over the animal's feeding, reproduction, and movement [57]. Outdoor management is characterized by providing cats with unrestricted access to areas outside the home environment. In this case, the guardian has no control over what the animal eats when it is outside the home, where it walks, and, when the animal is not neutered, the guardian also has no control over its reproduction [33,57].

In any case, neither management method guarantees optimal levels of welfare, and there are risks and benefits associated with both. This is a topic that has generated extensive debate, and it is necessary to balance costs and benefits [36,39,53]. For example, cats with unrestricted access to areas that cross the boundaries of their residence are generally less susceptible to developing obesity, show less urinary marking within the residence, are less likely to develop behavioral and urinary problems, and experience less boredom and frustration [33,38,39,58]. However, these same cats are more exposed to contagion from viral, fungal and bacterial diseases, whether they are zoonoses or diseases typical of the species [45].

Traffic accidents are also a significant concern for free-roaming cats. Studies conducted in the United Kingdom investigating factors that predispose cats to such accidents have identified young, unneutered animals that roam freely—especially at night—as being at higher risk [40,41,59]. When they have outdoor access, they often cross busy roads and streets, which significantly increases the risk of being run over [60]. Additionally, unneutered cats roam even larger areas than neutered cats, and males tend to roam more than females [51,60].

Other problems associated with outdoor management include attacks by people who don't like cats, attacks by other animals, and falls from great heights [13,30,38,39,46,61,62]. A study on indoor/outdoor management recorded reports from people who claimed to have witnessed cats being intentionally run over, dog guardians encouraging their animals to attack neighborhood cats, and neighbors placing poison to eliminate the felines [49]. In fact, poisoning is not uncommon. In Brazil, the poisons commonly used for the intentional poisoning of dogs and cats are carbamates, organophosphates, and coumarins [63–65]. Among these, carbamate compounds are the most common, despite their sale having been banned since 2012 [64]. The motivations for such acts of violence range from hatred for cats to dissatisfaction with their presence in households [65,66].

Cats whose guardians allow free outdoor access can also compromise the welfare of other animals. Cats are carnivorous predators with generalist feeding habits [67–70]. However, although cats cause negative impacts on the fauna of many places, their impact on wildlife and biodiversity may be overestimated, considering the numerous other environmental factors involved, such as climate change, habitat destruction through de-

forestation, and pollution [70,71]. As Natoli (2024) [72] emphasizes, the arrival of cats in areas where they currently have an impact is a direct consequence of human intervention. Through predation, cats can also have their own welfare compromised by consuming prey contaminated with some type of pathogen (horizontal transmission of diseases), or poisoned, as in the case of rodents that have ingested carbamates [31].

In short, allowing cats outdoor access may, in many cases, pose more risks than benefits to their welfare. As previously mentioned, and widely reported in the literature, there are numerous dangers associated with outdoor access. Cats that roam freely are more susceptible to being involved in traffic accidents [40–43], becoming infected with pathogens [72], having unwanted litters [39], suffering injuries due to attacks by other animals such as dogs [37] and being victims of mistreatment, either by people who do not like animals, or by those who see them as a threat to their own interests, such as bird breeders [13,65].

3.2. Cats as Non-Social, Solitary, and Independent Animals

Cats have commonly been perceived as independent, solitary, and non-social animals, and these beliefs continue to be widely held today [11,19,73]. In a study conducted with 547 cat guardians in the United States, Grigg and Kogan (2019) [11] found that beliefs portraying cats as emotionally distant and socially indifferent were still present among respondents. When asked whether "cats are naturally aloof and independent," many participants showed moderate agreement, indicating that this stereotype remains widespread. Likewise, although the statement "cats are naturally antisocial, so they don't like living with other cats" received average scores below the midpoint on a 5-point Likert scale—suggesting general disagreement—the wide variation in responses reveals that a considerable portion of guardians still endorsed the belief. These misconceptions about feline sociality may influence how people interpret cat behavior and, consequently, how they care for and interact with them [11].

Additional evidence of such beliefs was found in the study by Howell et al. (2025) [73], which explored attitudes toward cats and dogs among pet owners and former owners. Among the statements presented, 28.7% of respondents agreed that cats are "low maintenance" pets, 17.5% agreed that cats are "solitary animals," and 15.6% agreed that "cats get more attached to their territory than to their owner" [73]. These results show that cats are in many cases perceived as independent, less socially engaged, and emotionally distant animals, which may contribute to a lack of understanding of their social needs and behavior.

It is important to note that both studies were conducted with samples composed primarily of cat guardians, which may lead to an underestimation of the true prevalence of such beliefs in the general population. Given their direct experience with cats, these individuals are likely to hold fewer misconceptions compared to people with limited or no contact with the species.

Despite their prevalence, these beliefs conflict with the current scientific understanding of feline behavior and domestication. Unlike other domestic animals, such as dogs and livestock, cats have undergone a process of self-domestication [74,75]. It is believed that Near Eastern wildcats (*Felis silvestris* lybica) naturally approached human settlements in the Fertile Crescent region, attracted by rodents from agricultural food production. Because they helped control these animals, their approach was allowed by people, culminating in a process of domestication by natural selection, giving rise to the current domestic cat (*Felis silvestris* catus) [75,76]. *Felis silvestris* lybica is a subspecies described as territorial, with solitary hunting habits, and that does not form complex social groups with conspecifics [74,77].

It is possible that certain characteristics maintained from its wild ancestor, such as hunting abilities and relative independence, reinforce beliefs about sociality in cats.

However, cats are facultative social animals, as they demonstrate complex social behaviors, such as affiliative behaviors, especially in environments that favor interaction, such as shelters, multicat houses, and free-ranging cat colonies [74,78,79]. In the latter case, colonies are usually composed of females, their kittens, and other related females [74,79,80].

The persistence of such beliefs may also be influenced by how people perceive behavioral differences between cats and dogs. According to Sandøe et al. (2023) [81], cats are often seen as more independent and less emotionally attached to their guardians compared to dogs, who are usually viewed as more expressive and socially engaged. These comparisons may lead to the perception that cats require less interaction, care, and emotional investment [81]. Bradshaw (2013) [82] notes that cats are often seen as less demanding than dogs, which may reinforce this perception. However, such comparisons are problematic because they perpetuate the idea that cats do not need care simply due to their independence. Although cats are not as social as dogs [83], they are capable of forming bonds and hierarchical structures, especially when raised together from kittenhood [74]. Importantly, cats and dogs differ biologically, behaviorally, and evolutionarily; expecting them to behave similarly can lead to frustration and, in some cases, to relinquishment or abandonment.

These misconceptions have practical consequences. Research has shown that many people fail to provide essential care for their cats, both in terms of veterinary attention and behavioral needs. For example, Machado et al. (2020) [8] found that 13% of cat guardians did not provide a litter box. Additionally, brushing (23%), toy provision (21%), and nail trimming (37%) were also often neglected [8]. Such practices may be overlooked because many people believe that cats, being independent, neither require nor enjoy human interaction.

In relation to veterinary care, research has shown that cats visit the veterinarian less than dogs and one of the reasons is the lack of knowledge about preventive clinical care [48]. This negatively affects feline health, as many medical problems, such as obesity, respiratory diseases and behavioral disorders, could be avoided with regular veterinary care and discussions about the appropriate environment for cats.

3.3. Cats as Symbols of Evil and Objects of Superstition

Throughout their history of domestication, cats have been the subject of a series of myths, superstitions and mystical beliefs, being associated with evil forces and bad luck [20,84]. In a study conducted in Maiduguri, Northeastern Nigeria, Bukar-Kolo et al. (2018) [85] reported that participants believed statements such as “Witches transform into cats at night”, “Black cats are bad luck” and “Male cats are associates of the devil and evil spirits”. The authors also report that myths and superstitious beliefs were even more prevalent among respondents who did not have cats [85]. Machado et al. (2025, manuscript submitted) [86] also verified the occurrence of superstitious and mystical beliefs in their study with Brazilian respondents. In this work, 24.2% of respondents agreed with the statement that “cats can see ghosts” and 37.8% agreed that “cats absorb the negative energy in the house and purify the environment” [86]. The latter is also mentioned in the work of DeVera and collaborators, on the experiences and challenges of Filipino cat lovers [87].

In another study, conducted with students from two municipal schools in Recife, Brazil, researchers reported that the most prevalent beliefs among children were related to cat coat color. Phrases such as “black cats are bad luck” and “black cats bring bad luck” were observed, with 93.10% of students responding that they were afraid of black cats [88]. Another study conducted in two shelters in Colorado found that black cats, regardless of

age or sex, remain in shelters longer than cats of other colors [89]. In other words, cats with coats other than black take less time to be adopted.

In Ancient Egypt, cats were revered as sacred and protective beings. This reverence was particularly linked to the temple of Bastet, the feline goddess of fertility. The temple was the center of cat worship, where thousands of felines lived and received special care. Cats were also protected throughout Egyptian society, not just in the temple. The act of injuring or killing one of them, even by accident, was punishable by death. Regarding companion cats at the time, when one of them died, the entire family would mourn and shave their eyebrows as a sign of respect [90].

This positive image, however, did not persist. During the Middle Ages (between the 5th and 15th centuries), cats began to be viewed negatively due to their association with Bastet and other pagan deities. They were increasingly seen as demons, and their image became closely tied to witches and fortune tellers [90]. It was believed that witches had cats as familiars—that is, demonic spirits that assisted them in casting spells—and that cats themselves could be incarnations of the devil [20]. This belief led to the systematic persecution and extermination of cats in several regions of Europe, as part of efforts to eradicate practices linked to pre-Christian religions. Elderly or young women who were seen with any animal, especially cats, were often accused of witchcraft [90]. Methods of killing cats included burning them in bonfires, throwing them from high places, and other brutal practices [20,90,91].

This negative connotation regarding cats—particularly black cats—possibly has its origins in this medieval context, and continues to shape superstitions in many cultures today [20,91].

Although cats have gradually regained their place in society, this negative association has persisted over the centuries, influencing superstitions and beliefs about felines to this day. Such superstitions and symbolism related to the image of the cat are frequently portrayed in art, including literature, films and animations, often from a negative perspective [21,92].

In addition to the mysticism surrounding cats that has been passed down over the years, it is possible that their eating habits and predatory nature also influence the negative view that some people have of them even today. Thus, they are labeled as cruel and ruthless creatures [9,20], simply because people do not understand that predatory behavior is part of the group's biology and is essential for the survival of any species of carnivorous mammal.

When it comes to beliefs, several factors can influence the degree to which people adhere to these ideas. In the specific case of cat fur, for example, superstitions and symbolic interpretations vary significantly between countries and sociocultural contexts. Machado & Paixão (2014) [20] argue that the way a person thinks and acts in relation to animals varies according to the physical and behavioral attributes of the species in question, as well as the characteristics of the person themselves, such as gender, education, having had contact with animals in childhood, personality and level of information about the animal. Religious aspects also have a great influence on the way people deal with animals [9,20].

Many years have passed, but unfortunately the pejorative image of cats still persists in many cultures, making it necessary to carry out campaigns such as "black cats do not bring bad luck", promoted by NGOs and independent protectors. Furthermore, it is common to see animal welfare organizations discourage the donation of black cats on Friday the 13th, due to reports that some people seek them out for black magic rituals [20,93]. It is also often requested that guardians of black cats do not allow their cats to go outside on these dates, as the chance of the animal encountering someone who believes that they need to kill the cat to avoid bad luck is high.

The negative image still attributed to cats influences the persistence of certain beliefs. The consequences are severe, including mistreatment, cruelty, abandonment, and even death [65,94]. In many cases, although individuals may not directly cause an animal's death, abandonment itself often leads to this outcome. In countries such as the United States, Japan, and Spain, animals left in shelters are euthanized if not adopted within a certain timeframe [65,94,95]. In Brazil, although healthy animals are not routinely euthanized, the outcome can be similar due to overcrowding and the intake of sick animals. Infections that could be managed in other environments may spread rapidly in shelters, increasing mortality rates [96]. This additional time in shelters negatively affects the animal's health. Black cats, in particular, are less likely to be adopted and more likely to die in shelters that apply euthanasia policies for population control. In other words, healthy black cats are sometimes killed simply because no one wants to adopt them. Although other factors may influence adoption rates, beliefs specifically associated with black cats remain a major concern [97].

In short, beliefs about cats over the centuries have influenced their treatment and welfare. Even today, these myths impact adoption and contribute to cases of mistreatment and abandonment. Demystifying these misperceptions is essential to promote the appreciation of cats as moral subjects.

3.4. Cats as Disease Vectors: Misconceptions, Toxoplasmosis, and Scientific Evidence

There are also many misconceptions surrounding cats and disease transmission. For example, a study conducted in Misan, Iraq, among 6055 women to assess their understanding of the facts and myths surrounding toxoplasmosis revealed that 96% of participants believed that cats are the main route of transmission of the disease. Most participants were low-income (52%), and a significant proportion (25%) were illiterate [98]. Although it is indeed transmitted by cats, these data show that almost all women in the study still associate cats as the main route of transmission of the disease, which can lead to consequences such as abandonment.

Another study carried out by Kasereka and Hawkes [99] analyzed community perceptions about the origin of Ebola in the Democratic Republic of Congo, where the disease is considered an epidemic. The results indicated that 53% of the population attributed the spread of the virus to wild animals. However, the origin of Ebola is also often associated with a local myth in which two twin brothers, after eating their aunt's cat, were punished when the aunt allegedly created the virus to punish the community. This cat is often referred to as "The Cat That Kills People" [99].

Although less prevalent, misconceptions about cats as disease vectors also emerged during the COVID-19 pandemic. In the study by Howell et al. (2025) [73], 7.1% of respondents agreed with the statement that it is possible to catch COVID-19 from pet cats. While this percentage is relatively low, it nonetheless illustrates how public health crises can give rise to misinformation that reinforces fear and stigma toward the species.

Toxoplasmosis, in particular, remains a focal point of misinformation. A recent narrative review that analyzed 60 studies on congenital toxoplasmosis—23 conducted in Brazil and 37 in other countries—reinforced the persistence of misconceptions about cats as disease vectors. Among pregnant women, 66% in Brazil and 72% worldwide lacked sufficient knowledge about the disease, and the most frequently cited source of transmission was cats, followed by raw or undercooked meat and improperly sanitized vegetables or water. Similar gaps were found among healthcare professionals, especially in the interpretation of diagnostic tests [100].

Despite the widespread belief that cats are the main source of transmission for several diseases, scientific evidence suggests a more nuanced reality. Indeed, domestic cats can be

vectors for transmitting diseases to humans, other cats, and wildlife [101–103]. However, it is important to highlight that many of these diseases have primary routes of transmission unrelated to cats and are more commonly spread by other means. For example, toxoplasmosis can be contracted through contaminated food or water, and not solely through exposure to feces from infected cats [100]. Notably, cats are the definitive hosts of Toxoplasma gondii and shed parasite oocysts for a limited period, usually within 7 to 10 days after exposure. Furthermore, the shed oocysts are not immediately infectious and require at least 24 h to become capable of causing disease. Therefore, a combination of proper hygiene and daily cleaning of the litter box prevents oocysts from maturing and becoming infectious [100,102].

Toxoplasmosis can be transmitted vertically from a pregnant woman to her fetus during pregnancy if she becomes infected while pregnant [103]. However, the most common routes of transmission remain contaminated food and water, especially through raw or undercooked food. Direct transmission from oocysts in cat feces is rare, but it is still not recommended that pregnant women handle litter boxes without proper protection [104,105].

The belief that cats could transmit COVID-19 to humans, although not widespread, may be partly explained by early uncertainties and the way information was disseminated during the pandemic. Initially classified as a zoonosis, COVID-19 was later redefined as an "emerging infectious disease (EID) likely of animal origin" [106], as no definitive animal reservoir was identified. Scientific evidence shows that cats can indeed become infected with SARS-CoV-2, primarily through close contact with infected humans, due to the structural similarity of their ACE2 receptors [107]. However, there is no evidence that cats can transmit the virus back to humans [108].

In general, cats that do not receive adequate veterinary care and have unrestricted access to the outdoors are more likely to transmit infectious diseases [37,38,109]. In conclusion, vaccination, deworming, and restricting cats to the indoor environment—especially those living near forested areas—are the most effective strategies to mitigate disease transmission between animals and humans [38,45,110]. Educational campaigns and awareness initiatives are essential to dispel misconceptions about cats as disease carriers, ensuring that guardians and the general public receive accurate information about disease prevention and control, thus promoting both cat welfare and public health.

3.5. Cats and Their Negative Interactions with Other Animals

There are several beliefs related to cats' interactions with other animals. For example, Menor-Campos et al. (2024) [47] reported that 1.6% of participants agreed with the statement: "Cats suffocate babies while they are asleep in their crib". Similarly, Machado et al. (2025, manuscript submitted) [86] also found that, although with low prevalence, some individuals still agreed with statements such as: "Cats do not coexist peacefully with birds, parrots, and rodents, as they are these animals' natural enemies" (27.52%). Another statement observed in this work was: "Cats and dogs are natural enemies" (2.6%) [86]. As both studies were carried out with guardians and people who live with cats, it is reasonable to assume that, if these studies were applied to the general population, the prevalence of these beliefs would be even higher.

Taking dogs as an example, although popular culture depicts them as mortal enemies, more and more dogs and cats live under the same roof [111,112]. Many people believe that interspecific communication between dogs and cats is problematic, due to their distinct evolutionary developments and different social structures [113]. Although there are social differences, when conditions are right, both species can express friendly behavior towards each other [114]. The compatibility between dogs and cats is influenced by several factors, such as the personality of the individuals, early socialization, environmental factors, among others [111]. A study carried out in Israel to evaluate interrelationships between dogs

and cats living together revealed that, in most of the homes evaluated, dogs and cats demonstrate a friendly relationship, usually visible through mutual play. In addition to playful behaviors, the authors also observed nose-to-nose sniffing between dogs and cats, a common affiliative behavior among felines [113].

Regarding the coexistence of cats with other species, such as rodents and birds, there is a lack of scientific studies focusing on interactions within domestic environments. Nevertheless, laboratory studies have shown that, under certain conditions, cats and rodents can form peaceful relationships. For instance, while 54% of the cats raised in isolation killed rats, none of the cats raised as kittens with rats as cagemates did so [115]. Moreover, pet owners have reported cases of interspecies social bonding between cats and rats. Although cats are natural predators of some birds, some guardians report peaceful relationships between cats and pet parrots or small passerines. While these accounts are not yet supported by systematic research, it is possible that early socialization, appropriate handling, and environmental enrichment—factors shown to improve dog–cat interactions—may also contribute to reducing interspecies conflict [28,113,114].

Both within the same species (with conspecifics) and with humans and other groups, displays of affiliative behaviors such as mutual rubbing, allogrooming and purring can be observed [74]. Therefore, the interspecific social behavior of the domestic cat is plastic, varying according to the personality of the individuals involved, the environment, the age of introduction, learning capacity, among other factors [113,114]. For a satisfactory interspecific coexistence, it is important to pay special attention to the cat's behavior, together with the age of introduction, to promote positive relationships.

3.6. Cats and Beliefs About Neutering

Despite being widely recommended by veterinarians and behaviorists for its benefits to feline welfare, cat neutering remains a topic surrounded by popular beliefs. This may help explain why many guardians are resistant to the procedure, possibly influenced by cultural and even economic factors [116,117]. In the study by Machado et al. [86], 4% of respondents disagreed that cats should be neutered and 6% did not know what to think about neutering. The sample for this study was collected online, which may partly explain the low level of disagreement with neutering, given that there are numerous campaigns online encouraging the neutering of dogs and cats [86]. Thus, it is assumed that if the study were replicated for the general population, a higher percentage of people disagreeing with neutering would be observed.

A common belief is that a female cat should be allowed to have at least one litter before being neutered [118–120]. However, studies show that spaying before the first estrus reduces the chances of mammary neoplasms, without compromising welfare [121].

Another belief surrounding neutering concerns obesity. Many people believe that neutering inevitably causes obesity in cats, leading some guardians to avoid the procedure. Although neutering can reduce the cat's total metabolic rate [122,123], weight gain in cats is more closely linked to increased caloric intake, coupled with lack of or little physical activity [123,124]. With a balanced diet and management practices that include regular exercise, obesity can be prevented in neutered cats.

Early neutering is also widely discussed. Many veterinarians suggest early neutering (before four months) to avoid unwanted litters. However, early neutering is also subject to various beliefs and concerns. Some veterinarians are reluctant to perform early neutering for fear of urinary problems, joint problems, and bone fractures [123]. Researchers have evaluated the impacts of early neutering on the health and behavior of dogs and cats in Portugal. The results indicated that there was no difference between the groups (neutered before four months vs. neutered after six months) in relation to obesity, urinary diseases,

behavior or joint problems [125]. Morbidity is lower and recovery is faster than in adult animals [122].

A study conducted in the United Kingdom to understand public views on neutering dogs and cats found that pet guardianship influenced the opinion of survey respondents. Guardians were more likely to support neutering than people who were not pet guardians [120]. The authors argue that people without companion animals may not have direct experience with the benefits of neutering, unlike guardians.

In short, neutering is seen by some people as an unnecessary interference in the life of the animal, be it a cat or a dog, especially if there are no medical issues that justify the procedure [120]. However, it is a safe and effective procedure, even when performed before four months of age, and is in fact recommended for cats as young as six weeks by major veterinary associations with no significant negative impact on the health of cats [123,125,126]. In addition to its benefits for feline welfare, neutering is considered the primary strategy for controlling the population of abandoned or sheltered dogs and cats [119,122].

3.7. Other Beliefs and Their Connections with Welfare

Beliefs related to cats extend beyond the aspects discussed in previous sections, encompassing a wide range of ideas and perceptions. In many cultures, it is said that cats can see spirits or that they possess multiple lives—commonly seven in Brazil or nine in other countries—among other mystical or cultural beliefs [20,86]. While often seen as harmless or folkloric, such beliefs can negatively impact feline welfare. For instance, because cats are perceived as independent and resilient, some people may believe that, if injured or abandoned, they are capable of recovering and surviving on their own [20].

It is not uncommon for guardians to report that their cats "moved out" or went for a walk and never returned [38,83]. Although beliefs and interpretations may vary, when a cat does not come back home, it is likely that it suffered a fatal incident. While it is also possible for an animal to get lost, especially during events like moving, the most common outcomes include poisoning, traffic accidents, or attacks by other animals, particularly dogs. In many of these cases, guardians are left without knowing what actually happened [38,65].

In a study conducted by Machado and collaborators (2021) [38], 38% of 8485 Brazilian cat guardians reported having experienced the disappearance of a cat that left home and never returned. This finding aligns with another study carried out in the municipality of Itaperuna (Rio de Janeiro) during a vaccination campaign, in which 68% of the 48 guardians interviewed stated that they had cats who, for some reason, did not return home [127].

In general, cats with unrestricted outdoor access are exposed to various risks and incidents, including disease transmission, which compromise their welfare and often lead to death [37,38,45].

4. Final Considerations

There are many cultural aspects that can influence the formation of beliefs and consequently the welfare of domestic cats. Over time, the public image of this species appears to have been shaped by factors such as mysticism, excessive comparisons with dogs, and limited societal knowledge about feline biology (including their physiology and natural behavior). While many see them as affectionate pets, members of the human family and excellent companion animals, others still associate them with aversive or negative traits.

Increasing guardian awareness of the issues discussed in this review is likely to play an important role in mitigating risks to feline welfare. In addition, broader public engagement may help reshape societal perceptions. Educational campaigns focused on feline behavior and welfare—particularly those reaching beyond digital media—could represent a valuable

tool in this regard. For instance, outreach efforts via radio and television might help disseminate accurate information to populations with limited internet access.

Promoting public understanding of myths and misconceptions about cats may contribute to more informed and responsible caregiving practices. By addressing culturally embedded stereotypes, such initiatives have the potential to support healthier human–cat relationships and improve the overall quality of life for companion cats.

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