

RESEARCH PAPER

SYSTEMS and BEHAVIORAL
RESEARCH SCIENCE

WILEY

Towards the sociology of pets—Social functions of animals in contemporary societies observed from systems theoretical perspective

Krešimir Žažar^{1,2} | Lars Clausen²

¹University of Zagreb, Zagreb, Croatia

²Kazimieras Simonavičius University,
Vilnius, Lithuania

Correspondence

Krešimir Žažar, University of Zagreb,
Zagreb, Croatia; Kazimieras Simonavičius
University, Vilnius, Lithuania.
Email: kzazar@ffzg.unizg.hr

Abstract

This paper advocates for introducing sociology of pets as a particular field of research as the response of ever growing social relevance of pets in contemporary societies. Though other theoretical approaches are suitable for tackling these complex issues, the article offers viewpoint from Luhmann's social systems theory. Based on Luhmann's writings on ecological communication, the article departs from the system/environment distinction and conceives pets as being part of a society's environment that attained resonance of a social system. Further, entry of pets into a social system is interpreted through differentiation theorem arguing that pets perform highly relevant social functions for all functional subsystems of a society by contributing to their autopoietic reproduction. This is primarily accomplished through *communication* about pets, emerging specific semantics, usage of binary codes specific for different subsystems, correspondence to their mediums, programs and functions. The major part of work is presenting relations of pets to 10 functional subsystems of a society, as this delineates scope of empirical phenomena of potential interest for sociology of pets. These processes might be observed at systemic, organizational and interaction levels. Despite possessing multiple merits, also, certain limits of Luhmann's account of pets are unfolded, such as incapability to hear authentic voices of animals, but rather distorted semantic codes emerging from consciousness of human psychic systems, afterwards structurally coupled with communication as a medium of social systems. At this point, social systems theory might be complemented by theory of interspecies communication, as taking into consideration other theoretical approaches anchored at ontologies pertinent to include non-human agents is invoked. The tentative outcome of this introductory discussion is that apparent process of anthro-morphosization of animals is taking place while the question of relation between humans–humans in the context of building just societies of the 21st century still remains open.

KEYWORDS

anthro-morphosization of animals, flat ontology, interspecies communication, pets, resonance, social systems theory

1 | INTRODUCTION

Pets are saliently important element of contemporary societies. We can barely avoid pets literary on a every step: in streets, in shops, on beaches, on television, on pictures, in daily conversation, in travelling plans and in a wide variety of other occasions. Perhaps, they only do not appear in places like theatre or churches, at least for now. This omnipresence of pets in contemporary societies does not surprise, as they principally become full members of a family.

However, there is a sharp discrepancy between pets' social presence and research on them from the viewpoint of social sciences. In general, there is a severe and persistent ignorance of animals from the side of sociology (Carter & Charles, 2018). Despite relevance of animals to widest aspect of social life, for sociologists, they remain invisible. Carter and Charles (2018) summarize several reasons for expelling animals from sociology: (1) fraught of biology—stemming out from distancing sociology from biological explanatory models after bitter episodes of eugenics and social Darwinism; (2) human exceptionalism—based on assumption that only humans are capable of symbolic thinking (whereas all others non-human agents are excluded from the scope of sociological scrutiny); and (3) emergence of modern sociology in the context urbanization and industrialization within which animals, contrary to pre-modern rural settlements, were removed from daily experience of urban dwellers. While once shared the same living space, modern development has drawn sharp division between humans and animals with latter excluded from the notion of society and have remained the part of the nature. Relation between humans and animals is conventionally conceptualized in terms of dichotomies such as society/nature, culture/nature, civilization/nature, and, in this line, for the purpose of this work particularly important—Niklas Luhmann's (1989) system/environment distinction.

Carter and Charles (2018) advocate for reconceptualization of main sociological categories by taking into account that humans and animals are entangled in 'mutually constitutive social relations' (Carter & Charles, 2018, p. 80), which are often based on domination and exploitation. Current sociology very slowly copes with the 'animal challenge' (Carter & Charles, 2018, p. 79). Though anchored in a different account, this article supports attempts of entry of animals as indispensable subject matter of sociological research and aims to contribute in overcoming denoted epistemic gap primarily by sketching a sociology of pets, the sociological inquiry of widest social aspects of pets as inevitable social fact in societies (primarily western) of the 21st century.

In order to convey stated goal, the key point is to offer a convenient theoretical standpoint pertinent to provide set of proper conceptual explanation of the subject matter under consideration. In our view, social system theory developed by famous German sociologist of the 20th century Niklas Luhmann represent such reliable position at which our analyses could be anchored. Especially following aspects of this theoretical position are relevant for our discussion. (1) First is distinction between system and environment and in more narrow sense society/nature distinction as elaborated in 'Ecological Communication' with particular relevance of the concept of *resonance* (Luhmann, 1989). Animals in general and pets represent environment of social systems with relation to both: humans and societies. Hence, the crucial task is to provide theoretical explanation of relations within triangle: *pets-people-societies*. (2) Furthermore, theorem of functional differentiation of modern societies is relevant, as we will argue that pets, as a part of the systems' environment, have entered into operations of functional subsystems of contemporary societies. We will empirically demonstrate how this process has taken place nowadays or, that is, how pets are related to functional subsystems of societies. Among system thinkers, there is no consensus how many functional subsystems can be identified in contemporary societies. Indeed, this is not the pivotal question we strive to address as conducted empirical corroboration primarily exhibits heuristic purpose. With that regard, we follow suggestion of Roth and Schütz (2015) that 10 function systems¹ can be identified and even more important is our claim that pets are inevitably important to every single function system (though not equally), as pets contribute to reproduction to their specific binary codes, also new semantics² emerge surrounding them, correspond to programs of subsystems. By providing examples of relation of pets to single functional systems, simultaneously, we illustrate possible spectrum of topics under loop of sociology of pets.

However, not solely for the level of functional systems, pets exhibit social relevance also at organizational level (through organizations notably tailored for pets),

¹Roth and Schütz (2015) provide convenient overview of the debate about the number of functional systems with some authors referring to five basic ones (law, economy, politics, science and religion) to those who go beyond 10 systems while mentioning also tourism, love, social movements, family, social work, and so forth. Roth and Schütz (2015, p. 13) are against 'inflation' of function systems and advocate for a clear definition in that regard. In any case, it is important to underline that according to Luhmann understanding of functional differentiation is not fixed or historically confined, but rather open-ended what means that the process continues and one can assume emergence of novel function systems.

²For a discussion on multifunctional semantic reservoir emergence in a complex polycentric environment, see Neisig (2017).

and also at interaction level what is easily ostensible in a dozens of everyday situations. At the end of the day, when looking in the mirror, a question appears how human treatment of pets that might be depicted as humanization of animals is related with human treatment of humans that sometimes takes a form of dehumanization. The question of relation of humans and pets with respect to the relation of both to society is supplemented by the (3) third important theoretical position discussed in the article—theory of interspecies communication. When discussion relations within *human–pets–societies* triangle some constraints of Luhmann's position, like assumption that communication about pets is never communicated by pets themselves, are unfolded which might be circumvented owing to theory of interspecies communication. Albeit advocating for application of social systems theory as a pertinent conceptual tool for introducing sociology of pets, in that regard also some other potentially fruitful approaches embracing diverse ontological and epistemological views are anticipated, as well.

The mentioned issues particularly in such order reflect composition of the paper. However, prior to tackle these questions, we need to make a condensed overview on relation of humans and animals in order to genealogically conceive the emergence of the concept of a pet.

2 | HUMANS AND ANIMALS—A JOINT BIOLOGICAL AND SOCIAL EVOLUTION

From the dawn of the species, humankind has always been in a fierce relation to animals from its immediate environment. Paintings in the caves of Altamira (up to 36 000 years ago) and Lascaux (20 000 years ago) clearly indicated that animals had highly relevant, even crucial, role for reproduction of early hunters' societies by performing central economic function. Besides, animals performed important religious function as having mystical meaning not solely to pre-historic communities but having considerable symbolic importance for various socio-cultural systems over space and time. In his classical book about rudimentary forms of religion, Durkheim (1995) on the example of totemism showed that totem often represents a holy animal, as the symbol of adoration, though background meaning is primarily maintaining social cohesion. Even today, in some societies, animals are given sacred status with an inevitable reference to cows in India. Alongside religious meaning, symbols of significant animals often took semantically coded communication with an aesthetic value. A pertinent example in that respect is statues of noblemen mounted

on a horse, 'the iconography of power, embodies in the expression and understanding of leadership' (Clausen, 2024). Since the Roman times over long centuries, statues of mounted horses embodied imaginary of power and possess tremendous value as a medium of transfer of a royal memory, also expressing symbolic unity of man and horse (Clausen, 2024).³

A particular threshold in relation of humans and animals occurred during Neolithic revolution when nomadic type of life was substituted with emergence of permanent settlements and hunting with agricultural type of economy. Then, a process of *domestication* of wild animals marked beginning of the new era within which 'wild' animals were detached from 'environment' and integrated 'within' human communities and hence borderline between 'human societies' and 'domesticated animals' became blurred. Porcher (2014) argues that human societies would never develop in existing shape without experience of co-existence with domestic animals for 10 000 years and particularly without their *work* though regularly being profoundly undervalued. 'Domestication is above all the cooperative process of inserting animals into human society through work which involves, as Marx wrote, elements of exploitation and alienation, but also, and more particularly, the prospect of emancipation' (Porcher, 2014). With the rise of agriculture, economic function of animals transmuted as once target in the hunt become 'driving engine' of a plough or a reliable 'vehicle'. Alongside this, novel functions appeared such as being a 'home keeper' and/or 'man's best friend'. Especially important were horses, which through domestication became 'biotechnology', 'living machines' in a service of man, conducting broadest spectrum of duties ranging from war, transport, sport, and so forth (Greene in Carter & Charles, 2018, p. 84). A horse also had a major role in expansion of a colonial project and represents first driving engine of the rise of industrial capitalism (Greene in Carter & Charles, 2018, pp. 84, 86). Once technological advancement brought powerful mechanical vehicles, like automobiles in the first half of the 20th century (Greene in Carter & Charles, 2018, p. 86), horses were outpaced by ever-accelerating technological enhancement (Clausen, 2024) and lost their 'practical' and symbolic importance, which lasted for 5000 years of mutual co-existence. In brief, contribution of horses and other domestic animals is essential for shaping modern societies (Carter & Charles, 2018; Porcher, 2014) and with the victory of industrial modernity, domestic animals were expelled from society back to its natural environment and to greatest extent left out of

³Remnants of that glorious past are today observable on cities squares and museums, mainly as a part of commodified tourist products.

the loop of modern social sciences. After domestication, this is actually the second largest threshold in relation of animals and humans. Today, depending on the dynamics and intensity of industrialization process, it is likely that some still dominantly rural and agricultural areas of the world, especially in the global South, are much closer to the animals than this is the case in the post-industrialized North, which is 'progressively' detached from animals (with, probably not surprisingly, exception of pets). Rather than presenting a minute historical overview of relation of animals and man, the main focus of the paper is to examine position and functions of animals from immediate human environment in modern societies which are known under the label 'pets'. As geographers indicate, now, we are living in the epoch of Anthropocene marked by immense human impact on climate, ecological environment and the entire biosphere, that is, living world. A question how within such context humans configure relation with animals from their immediate environment inevitably appears.

2.1 | The notion of pet

In a lack of strict scientific definition, we are referring to the following conceiving 'A pet, or companion animal, is an animal kept primarily for a person's company or entertainment rather than as a working animal, livestock, or a laboratory animal' (Wikipedia, 2023), which is highly congruent with a common understanding of a pet. According to Britannica dictionary, a pet is an 'animal (such as a dog, cat, bird, or fish) that people keep mainly for pleasure' (Britannica, 2023). 'Companion animals can be horses, dogs, cats, or a range of other beings willing to make the leap to the biosociality of service dogs, family members, or team members in cross-species sports' (Haraway, 2003, p. 14). Apart from other animals from immediate human environment, pets have privileged status being considered as members of a family and very often their owners refer to themselves as pets' 'mom' or 'dad' (Grimm, 2015). Ninety per cent of Britons conceive their pets as family members, and sixteen per cent even included their pets into Census (McRobbie, 2017). Considerable number of British said that they are more emotionally attached to their pets than to their partners, children or best (human) friend (McRobbie, 2017). Population of pets worldwide is huge counting around 202 million of cats and followed by 171 million of dogs (Wikipedia, 2023). These figures are from 2010, and it is most likely that they are significantly bigger today taking into account dynamics of growth. For instance, in the United States, ownership of cats and dogs in ca. 50 years increased four times, and more households have cats and

dogs than children nowadays (Grimm, 2015). Such numbers reinforce our starting premise on vast relevance of pets in contemporary societies. However, in order to understand real impact that pets have on humans and societies nowadays, we cannot remain on a purely descriptive level, but to immerse into topic much deeper theoretically. In this respect, social systems theory represents a robust adequate conceptual tool.

3 | DEVELOPING THE SOCIOLOGY OF PETS FROM SYSTEMS THEORY PERSPECTIVE

3.1 | Ecological communication—Resonance of pets within social systems

When reflecting upon ecological issues, rather than attempting to grasp unity of a social system and its environment (including nature) Luhmann's (1989, p. 7) approach is focused on 'the unity of the *difference* (emphasis ours) of the system of society and its environment'. Society is conceived as 'all-encompassing social system of mutually referring communications' (Luhmann, 1989, p. 7) whose autopoietic reproduction depends on continuous communicative acts (communication by communication) that differentiates it (communication) from the environment. According to Luhmann, such conceptualization cannot entail solution to ecological/environmental issues or adaptation of a social system to its ever more complex environment, but it rather enables recognition/reflection through communication of ecological/environmental issues (Luhmann, 1989). It should be stressed that 'ecological communication is concerned only with how a society reacts to environmental issues, and not with how a society should react to improve its relations with its environment' (Wahyuni, 2019, p. 14). In other words, communication about certain ecological risks, such as a water pollution, a nuclear waste disposal issue, a global warming, raise awareness that a particular ecological problem exists otherwise, without an issue being communicated, it would not be perceived as an issue. Only through ecological communication an ecological issue has been recognized as such. For Luhmann's apprehension of the ecological communication, the concept of *resonance* is crucial (Luhmann, 1989, pp. 15–21) by which interplay between a system and its environment is portrayed (Wahyuni, 2019, p. 13). The simplest explanation is that resonance refers to situations when a society (once again through communication) reacts on particular irritations, specific cases (Luhmann, 1989, p. 15), or disturbances from environment (Wahyuni, 2019, p. 14), then changes in environment attain resonance of a society (Luhmann, 1989, p. 16).

When applying above presented Luhmann's theoretical categories on the particular case of pets, we assume that pets, conceived as organic but also psychic systems, represent part of a natural environment of a society. However, pets' entry into a society (or a social system) by 'contributing' in performance of particular functional systems of society. As social systems should be conceived as systems of iterative self-referential communication, this entry has nothing to do about agency, but about *communication* about pets, specific *meanings, codes, semantics* emerging around them. Entry of pets into operations of functional systems of society might be also conceived as the example of a resonance, as elaborated above, of that particular part of environment into social systems, as pets attained resonance of a society. Moreover, entry of pets into functional systems allows for an empirical analysis which exact communicative patterns or semantics this may take, which is line of Luhmann's conceiving of ecological communication that 'important performances of the societal system are constantly executed by *subsystems* (emphasis in original)' (Luhmann, 1989, p. 19), thus presumes distinction between a society as autonomous autopoietic system and its environment.

3.2 | Entry of pets into functional systems of society

Unlike traditional societies characterized by low level of specialization of functions and easily detectable centres whether in concentrated political or religious power, according to Luhmann (1995) (Luhmann, 2012, see also Baraldi et al., 2021), modern societies are progressively functionally differentiated comprising several autonomous subsystems performing important social functions. It is relevant to emphasize that modern societies are polycentric (Roth et al., 2024), that is, that all subsystems are equally important. Each system that is autopoietic is a sense that it tends to automatically reproduce itself, and they primarily should be conceived as systems of communication of specific binary codes, logic, programs, semantics, and so forth. For instance, key code of economic system is payment/non-payment, of science true/untrue, of health system health/unhealthy and so forth. Luhmann theoretical position is primarily constructivistic, and not substantialistic, and hence, the key is in epistemology, not ontology, what means that there is no entirely objectivistic view on social phenomena and processes, but their conceiving depends on a perspective of observers: whether first order observation or the second order, scientific, one. Different systems are autonomous in a sense that other systems represent their environment through they get in touch with other whether through

structural coupling or irritate each other, that is, produce tensions, but their boundaries remain clear. As for this discussion, it is not of narrow relevance; we will not step further in disputing inter-systemic relations. It is, however, important that observations might occur at organizational level where a particular organization, for example, a sport club might perform activities within sport systems, but while making payments, it also relates to a system of economy. Despite a specific organization has a core mission that might be subsumed under a specific function system, organizations are multi-functional striving to achieve functions attributed by different function systems. Moreover, from systems theory standpoint, it is also valuable to observe interaction level that comprises communication process among people (and as we will argue later—also between people and pets).

For further discussion, it is important to stress that a society is not conceived as neither consisting of people nor of other non-human animals, mechanical entities, or any type of entities possessing agency. It is a non-subject ontological position. A society as a special type of a system has a clear boundary with its environment. In other words, everything that is not a society is considered as its environment. Environment of a social system is multiple; it comprises ecological environment (nature), biological systems (different types of living organisms) and psychic systems (human consciousness in particular). Here, we come to the crucial point: both animals and humans represent environment of a social system. In order to develop sociology of pets from social systems theory viewpoint, we need to conceptualize relation between pets (as distinctive category of animals) and humans but also how both of these systems are interrelated to social systems.

3.3 | Systemic level

In this section, we will focus on the question how pets entry into social systems, that is, which functions pets, with regards to previously mentioned 10 social systems⁴ (see Table 1), perform nowadays, having in mind codes, mediums and programs attributable for specific systems. It should be highlighted that we do not have ambition to provide a comprehensive analysis that would encompass all features of this vastly complex topic, but rather to address main questions relevant for each function

⁴If a *family* is to be considered as a specific function system, relevance of pets for it would be undeniable. However, there is no consensus on this matter and we find Roth and Schütz's (2015, p.19) arguments that family primarily should be conceived as a self-reflective (not function) system convincing. Besides, in our further discussion we refer to their recognition of 10 function systems, so we prefer to consistently apply denoted criterion.

TABLE 1 The function systems of society (Roth & Schütz, 2015, p. 24)

	System	Code	Medium	Program	Function
1	Political system	government/opposition	Power	Ideology	Limitation
2	Economy	payment/non-payment	Money	Price	Distribution
3	Science	true/untrue	Truth	Theory	Verification
4	Art	innovative/imitative	Style	Fashion	Creation
5	Religion	immanent/transcendent	Faith	Confession	Revelation
6	Legal system	lawful/unlawful	Norm	Law	Standardization
7	Sport	success/failure	Achievement	Goal	Mobilization
8	Health	ill/healthy	Illness	Diagnosis	Restoration
9	Education	placeable/unplaceable	Vita	Curriculum	Formation
10	Mass media	informative/non-informative	Medium	Topic	Multiplication

system. This will also corroborate scope of possible topics that urge for a detailed empirical scrutiny.

3.3.1 | Political system

In December 2022, a few days before New Year's eve, a decision of several city majors in Croatia not to prepare a traditional firework as part of public celebration for the sake of pets (notably dogs) benefit ignited a huge public dispute about rights of pets not to be distressed or of people to have a party. Proponents of latter standpoint argued that there they anyhow disturbed by dogs all over a year. Opinions concerning these matters were considerably polarized without clear conclusions. Without empirical research, we only can guess on relation between political profiles and sympathy (and empathy) towards pets if political affinity makes any difference with regards to that at all. But it is pretty evident that pets are subject matters of political and ideological debates, and their representation in political debates requires a more detailed analysis especially since ideological articulations and power games in political power system effect on a regulatory framework setting pets' rights.

Additionally, when focusing on a pet-human relation, there is obvious asymmetry of power in favour of human, indeed. Hence, a question whether animals are in certain sense misused and abused within framework of being a 'human companion' might be legitimately asked. However, this is more addressed to legal and moral issues.

3.3.2 | Economy

Relevance of pets for economic subsystem of economy is perhaps most easily to elaborate. This is mainly due to

commodification and commercialization processes in the current neoliberal context. There is a growing industry emerging surrounding pets: special food, hotels for pets, entertaining features, different accessories, special television channels, party gathering pets, fashion clothes customized for them and dozens of imaginable (and unimaginable) things nearly everything that might be sold to humans. There is estimation that the British pet industry is worth 10.6 million of GBP, while Americans spent more than 66 million USD in the 2016 (McRobbie, 2017). Hence, the major economic code payment/non-payment is frequently on a daily basis applied for pets' benefit. Sociology of pets is thus interested for broadest scope of phenomena where economic code related to pets appear. Undoubtedly, there is enormous money (medium of system of economy) circulating around pets. Moreover, there is another important phenomenon that requires a detailed inspection comprised in the question how class position and social inequalities are projected in domain of pets. Not all people can afford to own particular pet since some species especially those owning certificates of origins are vastly expensive. Obviously, there are pets for rich and for poor people what transpose class division in the animal world and imply considerable differences in expenditure for pets in terms of purchasing and providing care for them what also affect size of corresponding industry. There are also cheaper and more expensive products, like food, for pets. How their overall well-being is connected to their 'class position', that is, class position of their owners (if there is any difference), is a valuable question that can be summarized as relation between general social and pets' inequality. Finally, some pets relate to economic system by becoming 'owners' of whether real-estate or money, but that it is the topic we will tackle in the legal system subsection.

3.3.3 | Science

Function system of science is centred around true/false or true/untrue codes; scientific knowledge is articulated in form of a theory and seeks for a truth as the outcome of verification of claims process. From depiction of such attributes, it is a quite obvious that pets do not have such vigour linkage with the science system. Still, some intersections exist. Namely, animals, likes mice, traditionally had crucial roles in new drugs testing and being subject of diverse, mostly medical experiments or sheep as object of genetic experiments. Besides, well known examples of 'sacrifice' of animals due to knowledge advancement coming from pharmaceutical companies within testing of novel products were conducted on them. It is important to note that those animals from laboratory do not presume personal relations or emotional attachment but are rather 'depersonalized' animals without connotations of being pets. On the other hand, it is reasonable assumption that there are scientific research aiming to elevate pets' well-being. Therefore, an interesting question would be how much companies coming from emerging pets' industries invest in research and development specially in domain of veterinary. But this aspect will be commented later when dealing with health system.

3.3.4 | Art

Central binary code of art functional system is innovative/imitative. Whereas animals traditionally were objects of portraying of human art, with the social rise of pets, there are also example of animals becoming artists. Probably, the most famous is pig painter of indicative name Piggasso (please, see <https://piggasso.org/>). Though there is indisputable that animals are intelligent beings, a capacity of their artistic creation and/or expression is relatively novel phenomenon. Without omitting into discussion on justification of any parallel between human and animal creativity, even less about aesthetic dimension of their work, it is worthy to examine pets' artistic capacity in the current social context. If the fashion is the program of art function system, it is also important to grasp phenomenon of fashion developed for pets. Not just clothes as also emerging industry but fashion pieces for beloved pets in particular. One could even imagine a rise of new fashion models stars.

3.3.5 | Religion

Bearing in mind aforementioned vast symbolic meaning of animals for religious thought and rituals in traditional

societies especially in religious systems like animism, totemism and akin forms, as well as the one central roles religion once had, the preliminary thesis is that animals, and pets in particular, has lost their religious significance. However, there are certain exceptions to the rule as fore mentioned case of cows in India, which still managed to retain sacred status. Though religious function of animals has principally diminished nowadays, still, there is a linkage between pets and subsystem of religion that might span across multiple levels. For instance, for some pet owners, relation with pets is a kind of metaphysical experience, a type of substitution for religious experience in progressively secularized world, particularly if it includes a deep emotional attachment and unconditional love. A pet becomes a certain God. Simultaneously, it becomes a type of priest with whom most intimate personal secrets are shared, a priest to whom sins are confessed. At the other level, there is growing importance of moral issues connected to rights of animals comprising particular religious' connotations especially in terms of theological reconsiderations of relation of human and animals in natural environment. For example, leader of Catholic Church Pope Francis lately stated that 'choosing pets over kids is selfish' (BBC, 5 January 2022), the opinion that initiate vibrant public debate. While a part of public and citizens welcome such interpretation finding relation towards pets really exaggerating and prioritizing animals at the stake of having children, the other found themselves offended. Without having any attempt to judge about this debate, we would like to stress that position of pets in contemporary societies is a subject matter of discussion with religious implications, and also within religious communities reconsidering relation within our triangle pets-humans-society, but also with regards to the realm of transcendence.

3.3.6 | Legal system

Probably you have not heard for Gunther VI? No, it is not a king from an ancient monarchy, but German shepherd, richest animal in the world. The fortune of this dog is estimated on 500 million USD (Lau, 2022) due to inherited wealth and received investments. And this is not isolated case as the list of richest pets is impressive (Lau, 2022). The fact that a human may entail his legacy to an animal (and, of course, define a curator as a pet obviously cannot take care for itself or take any decision) is apparent evidence that legal framework with regard to animals' rights has been gradually shifting in linear direction of elevating their rights. Certainly, it is worthy to inspect how the rise of animals' rights have occurred, differences in national legal systems, is there any

international regulatory framework, and so forth. Furthermore, an inevitable question is how far scope of animals' right could be expanded: would it be possible to merry with a pet? What social implications of such tendencies are? On the other hand, there is an open ethical debate on morality to 'own' or keep an animal as a pet with more and more voices underlining contentious character of the entire concept (Briggs, 2022; McRobbie, 2017; My Assignment Help, 2022). Definitely, pets have obvious relation to legal system as normative framework defining rights of pets has been drastically reformulated and this is domain of sociology of pets that may provide most valuable insights. In that regard, some Luhmann (2004) might be theoretically instructive.

3.3.7 | Sport

Traditionally, animals from immediate human environment had important role in sports competitions, especially horses as being 'driving engines' in horse races or polo. Here, strict separation line between animal from immediate environment and category of 'pets' is not easy to draw as it before further research (both conceptual and empirical) remains blurred. However, there is apparent extension of sports competitions on diverse species, like races of squirrels or dogs. There are also competitions of dogs running through polygons. Interesting, one of the authors of this paper shares the hall for futsal as recreational activity with dogs running through the polygons. A narrow empirical observation uncovers blatant similarity with patterns of training as it is in case of any other human athletes. Thus, one might assume that pets are trained for a competition as, for instance, someone's children would be. Moreover, certain antropomorphization is visible in manners of celebrating victory, that is, gaining success (key code of sport system). Finally, resemblance with human sports is present in aspect of possibility to bet on your favourite pet runner.

3.3.8 | Health system

Health aspects of relation humans–pets are highly interesting and relevant. Being a companion or a type of 'substitution' for a human friend yield tremendous benefits to health of people. They are source of an emotional support and assistance. Sometimes, it is demanding to draw strict demarcation line between a pet and an animal dressed to provide help, like assistance to blind persons or disabled people, as the professionally trained assistant becomes the pet. Pets are generally beneficial for

psychological health, even more in case of single persons in situations of a traumatic experience. They definitively contribute to restoration of humans and so contribute to performance of main health subsystem's function.

From the other perspective, also, health of pets is a topic of ever growing relevance. There are numerous specialized veterinary (both public and private) ambulances and clinics taking care of pets' health. Moreover, it is a question of living conditions, quality of food provided, time to promenade pets, and so on. All those aspects are connected with social attributes of their owners and might be connected with a class background. With regard to living conditions, there is a feedback loop as humans and animals cohabitating within the same physical space may have harmful healthy effects like allergies or akin issues.

3.3.9 | Education

Relation of pets towards educational system of society is at least twofold: at one hand, pets may contribute in education process particularly in the case of people with special needs (similarly as just described with regard to the health system); on the other, pets are undergoing education too. The latter is connected with drilling pets in order to achieve particular patterns of preferred learned behaviour. It cannot be considered as education in narrow sense of the term when applying to education of humans, but still the parallel, as process of 'formation' (function of the education system) of a pet's behavioural traits, holds.

3.3.10 | Mass media

In the current digital media environment marked by enormous number of technological devices, nearly on every screen appears a cat, dog, rabbit, bird, snake, fish, monkey, crocodile or any other pet you can imagine. On social media, humans proudly upload images, videos, share posts, and multiply mems about their emotional companies. Pets have certainly become an indispensable topic of endless mass media horizons. This holds true not solely to newer digital media and Internet but also to more traditional media like television or specialized printed magazines, also, in the context of commodified society, pets often starring in advertisements. From the angle point of sociology of pets, there is a vast space for analyses of different aspects of their media appearance, messages their appearance carries and semantics they imply.

3.4 | Organizational level

When grasping theme of pets as social phenomenon from social systems theory perspective, it is important to stress that above depicted systemic level of analysis is just one piece of a puzzle, since there is also important to inspect a topic at organizational, as well as interaction level. There is a vast bulk of organizations within societies setting their own goals, mission, performing diverse types of action, taking different decision, ranging from international organizations of a global scale, over national governmental organizations to business enterprises to local NGO's. Many organizations at the spotlight of their activities have pets or, in more general sense, take care of animal welfare. Moreover, there are companies within pets' industry manufacturing and selling goods and provide services for pets. Also, activities of some organizations are partially dealing with pets, for instance legislative bodies formulating regulations addressed to position of animals, or stores which alongside other articles offers goods for beloved home animals. Of interest to sociology of pets would be to inspect how organizations' performance is shaped by social context with regard to pets and, on the other hand, how pets' social position, their function and conceiving has been reconfigured by action taken by organizations. Indeed, these are the most general questions and multiple more narrowly focused might be formulated, as relation of pets towards social system (and its organizations) is multi-layered, multi-facet, highly complex phenomenon that urges for proper scientific examination.

3.5 | Interaction level

Pets should also be observed at the interaction level. Indeed, for sociology is not interesting how animals (*pets-pets* relation) interact among themselves (though that might be of concern for some other disciplines), but rather, relation *humans-pets* is in focus, as well as relation *humans-humans* with respect to communication about pets. Human-pets relation might be grasped primarily by methods of observation whereas patterns of human communication about animals is more likely to be delineated with diverse types of discourse and narrative analysis approaches. Besides, with owners of pets, volunteers, workers within pets' industry, and other types of actors directly in touch pets, but also with general audience, interviews, focus groups, questionnaires could be conducted in order to grasp complexity of interaction with or towards pets, or about the pets. Yet uncharted map of that huge territory patiently waits to be filled in with numerous insights. Also, reflection about

communication about pets could be enriched by referring to theory of interspecies communication and this is another important point we should emphasized as entails far-reaching consequences for tackling the theme from social systems theory perspective.

3.6 | Pets–humans–societies triangle: Interspecies communication

Even bacteria possess chemical systems providing them capacity to communicate within their own, but also with other species (Federle & Bassler, 2003). This quite fascinating discovery for one of the most rudimentary form of life is pretty indicative with regards of a bulk of other more complex organic systems inhabiting Earth. Traditionally, comprehension of relation of humans with all other living species was blatantly anthropocentric, emphasizing human exclusivism, 'hegemony' or 'exceptionalism' (Spiegelhofer, 2020, pp. 2–3), whereas other 'animals' were considered as 'voiceless', without capacity to speak (Spiegelhofer, 2020, p. 1); that is, language was regularly underlined as distinctive feature of humans (Kulick, 2017, p. 359). However, by the end of the 20th century different tendencies in rendering human-animal relation have emerged as a part of 'animal turn', which has lead towards emerging Anthrozoology or (Human-) Animal Studies field (Spiegelhofer, 2020, pp. 2–3). Within this hybrid highly interdisciplinary knowledge domain comprising natural and social sciences also related fields labelled as 'human-animal communication', 'cross-species communication' or 'trans-species dialogue' or 'interspecies communication' appeared (Spiegelhofer, 2020, p. 7). Kulick (2017) in overviewing developments in human-animal communication studies identifies six overlapping approaches: (1) cognitive connection related to early interest on a research of ape, dolphin and parrot language; (2) psychic connection based on premise that telepathic connection between human and animals is reachable⁵; (3) psychological connection literature anchored in assumption that animals, like humans, have subjectivity, sentiments and emotions; (4) interactional connection including mainly communication studies and conversation analysis dissecting attributes of communication comprising human narrations and sensible being not capable to provide discursive feedbacks; (5) ontological connection reframing human-animals relation through lenses of 'perspectivism', which leads towards reconsidering conceiving of nature or

⁵Within this a bit controversial and scientifically contentious camp also a concept of 'intuitive interspecies communication' can be included (Barrett et al., 2021).

biosphere; and (6) ethical connection as the most topical branch of research—‘the main point of studying human–animal communication here is to explore and extend the grounds for respectful engagement with animals in ways that do not either reduce animals to anthropomorphic projections, or claim them to be fundamentally unknowable aliens whom we can continue to exploit because we can never know what, or even if, they think’ (Kulick, 2017, 359). Thus, such standpoints mark upheaval with former anthropo-hegemonic position and reclaim worthiness of animals as ‘significant others’ (Haraway, 2003). Besides, this highly relevant contribution, the emerging field of human–animal communication also expands our understanding of language and communication beyond conventional definitions, stretches our conceiving of animals’ capabilities and, so, opens a possibility of giving a voice to non-human animals (Kulick, 2017, pp. 372–373). Hence, inclusion of animals occurred in hybrid disciplinary field, and this task is still facing sociology.

Without omitting further in these vastly interesting debates within interspecies communication studies, we should render linkages with presented insights and main argumentation line developing here. In brief, humans and pets communicate and this communication mainly occur at *interaction level* in Luhmannian terms. The communication may take different forms, being a verbal (human utterances apparently) like imposing a direction to a pet through training process, non-verbal as a dog wagging a tail while being provided by (favourite) food, it may (or not) contain a semiotic content, it may (or not) carry emotional component, we can also allow an open space for the assumption that it has been performed at the intuitive level, and so on. In any case, the interspecies communication between people and pets occurs. It is important to stress anew that both humans and pets represent *environments* of a social system: humans as primarily psychic (though simultaneously biological) systems and pets primarily as biological (though as interspecies communication theory just suggested in a specific manner also psychic) systems. Additional emphasis is that pets’ relation towards social systems is mainly mediated by humans, that is, pets entry into social systems indirectly only through communication of humans, and this important remark should be specially stressed.

Though pets, as humans, represent both organic and psychic systems, as a subject matter relevant to social systems, the core category is *communication* about them meant in terms of autopoietic operations of function systems, at level of organizations and at interaction level. Therefore, the key to understanding pets from Luhmann’s perspective is in *meanings* and *semantics* emerging about pets. In this respect, it seems that there is a

discrepancy between social systems theory and theory of interspecies communication. According to the latter, animals are capable to communicate among themselves and with humans with their own languages. However, as a socially relevant subject matter pets are present exclusively by mediation of human psychic systems,⁶ that is, by semantically coded communication about them. Semantics such a loneliness, joy, empathy, support, happiness, fear, safety, and so forth emerging about pets are introduced in the social systems through coding of meaning of pets’ reactions, emotional statuses, information⁷ and messages we receive by human psychic systems. Hence, from viewpoint of theory of interspecies communication one can object that in Luhmann’s approach entry of pets into society is biased by anthropocentric mediation whereas authentic voice of animals remaining silent. This argument is rather convincing so it is worthy to seek for overcoming mentioned blind spots of social systems theoretical account of animals by combining it with theories of interspecies communication or with some other positions.

4 | MULTIPLICITY OF RESEARCH APPROACHES

We have unfolded huge box of social relevance of pets nowadays. In this line, we have elaborated, hopefully convincingly, on suitability of Luhmann’s social systems theory approach. However, it would be misleading to hold that this is solely pertinent theoretical standpoint dealing with the subject matters as also other theoretical framework might convey valuable knowledge. For example, critical realism and analytical dualism in particular (Archer, 1995) could be instructive in explaining how individual patterns of interaction with and towards pets gradually re-shape structural conditions and cultural conceiving of animals. Certainly, this approach may explain such morphogenesis of overall elevating position of animals through the history. For the purpose of providing genealogical explanations, also, Elias’ (2000) conceiving of civilizing process might be promising, as well. Moreover, conceptual approaches labelled as *relational*

⁶It should be reminded that, according to Luhmann, psychic systems (being self-reproduced by consciousness) are not part of social systems (being self-reproduced by communication) but can interact through mutual interpenetration (Bombaerts, 2023:31). The structural coupling of psychic and social systems occurs through medium of language (Maurer, 2010).

⁷Another reminding note is that for Luhmann, information is just one of the three, alongside utterance and understanding, key elements of communication (Maurer, 2010, p. 5). Thus, communication is always more than a simple transmission of information.

sociology (Donati, 2014) examining interlinkages within complex networks of diverse entities, particularly, might also be suitable.

Not solely *relational* approaches focused on interplays within complex networks, but also complementary ‘non-human ontologies’ could be promising in research of social position of pets. One stream of social sciences and humanities today has undergone non-human turn what means: ‘nonhuman turn more generally, is engaged in decentring the human in favour of a turn toward and concern for the nonhuman, understood variously in terms of animals, affectivity, bodies, organic and geophysical systems, materiality, or technologies’ (Grusin, 2015:vii). This type of ‘flat ontologies’ (Ash, 2020) neglecting privileged status of humans thus might be pertinent for sociology of pets’ inquiries.

In the same line stands also proposal of Carter and Charles (2018, p. 87) who advocate development of ‘a social ontology able to encompass humans and other animals, enabling us to get to grips with the complex forms of their entanglement’ what requires a profound revision of the key sociological concepts such as, for instance ‘society’ and ‘agency’. Regarding the former, the authors argue that notion of society cannot be privileged only for human, since some other species, such as higher primates, exhibit patterns of organized social life (Carter & Charles, 2018, p. 90). Concerning latter, animals could also be conceived as agential beings (Carter & Charles, 2018, p. 90).⁸ Apparently, here is another example of relational and also flat ontology, which goes beyond the anthropocentrism of conventional sociologies.

With these regards, one approach seems to be especially propulsive: *actor-network (ANT) theory* of Bruno Latour (2005). The most advantageous feature of ANT is allowing that agency of not just humans, but also of non-human entities should be taken into account when explaining social phenomena. Therefore, rather about ‘agent’ in classical social theory sense, he talks about ‘actants’ within which alongside people, Latour subsumes technological devices, material objects, and so on. Such expansion in conceiving social agency perfectly fits with the idea that pets are actants and part of social

networks consisting of humans despite not possessing the same type of capacity to act as latter do. However, ANT enables to go even step further if in a network robots-pets, that is, robotical emulation of pets, are incorporated. Technological advancement brings ever growing emergence of pets robots whether for entertaining or assistance purpose. This may imply question of relation pets/robots-pets, but omitting into that discussion would not be wise due to space constraints. Finally, technological environment as environment of social system (like animals, humans, etc.) becomes more complex as it comprises cyborgs, chabots, AI systems and akin phenomena. ANT theory exhibits potential to absorb these entities into more expanding network of actants. So, its heuristic potential is tremendous. It would be advisable to combine Luhmann’s social systems theory and Latour’s ANT theory as the *conceptual approach* that would enable for more adequate observation of relation of humans, pets and other non-humans and their complex interactions and interrelations in even more complex social systems within which borderlines between social systems, humans, animals, natural environment and technical environments have become ever vaguer.

5 | DISCUSSION AND CONCLUSION

In everything said so far, we have tried to advocate for introduction of sociology of pets as specific sociological sub-discipline as a response to apparent growing social importance of pets. In this attempt, we argued that social systems theory is the adequate approach in coping with that challenging complex subject matters and delineated broad scope of topics of potential interest to newly forging discipline. This was conducted by departing from Luhmann’s conceiving of ecological communication based on system/environment distinction and their interplay conceptualized as the resonance, which we have identified in pets, as part of environment attained resonance within functional systems of society. In the following step, it was indicated that pets to lesser or greater extent are relevant to all social systems, or more precisely, contribute to their self-reproduction by being subject of intensive communication through which particular codes are reproduced, as well as novel semantics surrounding pets emerge. Moreover, it is important to inspect how meanings about pets is communicated and how interaction between humans and pets occur. At this point, there is perhaps a heuristic constrain of social systems theory, as we could never hear authentic voices of animals, but rather distorted semantic codes emerging from consciousness of human psychic systems and

⁸The authors use following argument in favour of such position: ‘They (animals) are entangled and enfolded in all sorts of relations with humans (many of which are fatal for them) and thus will find that their agential conditions are modified involuntarily (sheep do not decide when they are to be slaughtered; chickens do not decide to live in cramped and insanitary battery cages; wolves and pheasants are unaware of the shooting season) and that their choices, when they are exercised, are already circumscribed (the caged chicken cannot walk freely and the pheasant cannot fly safely within range of armed humans)’ (Carter & Charles, 2018, p. 90).

consequently structurally coupled with communication as medium of social systems. It is arguably helpful to refer to theory of interspecies communication in order to overcome denoted limits of Luhmann's approach. In any case, we do firmly believe that presented invocation to sociology was convincing and that there is no need for further elaboration for its urgency.

In fact, there are two additional arguments with that regard as they unveiled two important processes surrounding the rise of pets in the 21st century. (1) Observed phenomena lead towards conclusion that process of *humanization* of pets has been taking place, as very often they are treated as people. Hence, by such *anthro-morphosization*, pets are ascribed with certain agency, as 'agents' and their subjectivity are perceived of particular importance. However, very often there is a case that pets are given even 'more' privileged status than people especially in looking global distribution of wealth. Many pets in the West and North live in incomparable better conditions than millions of people at global East and South, in particular. One may argue that pets attained resonance within society merely because being anthromorphosized, or that their entry into functional systems is due to (re)gaining privileged position once domestic animals enjoyed. Posed question certainly requires more exhaustive theoretical elaboration. On reverse, (2) process of dehumanization/animalization of humans take place especially prior to and during war conflicts where 'enemies' are neglected of their humanity. It would not be accurate to assume causality between the two processes, but they are synchronic, that is, occur parallel. Without having ambition to moralize or express any type of normative judgements in this moment, there is definitively need to reconsider anew on relation between humans and humans in terms of establishing just society and to reflect on relation between humans and animals. Different types of strong arguments in any direction might be provided by sociology of pets. It is important to reflect about moral implications of the two simultaneous processes, as legal regulation not necessarily correspond to potential moral estimation. Having in mind Luhmann hesitation towards moralization as a rather harmful form of communication⁹ (Luhmann, 1996, 2012), perhaps such discussion will go beyond social system theoretical standpoint.

In our view, it is indisputably relevant to put pets under the loop of social sciences, to introduce them into sociology in a general sense, even to develop special sub-field in a form of sociology of pets. In this line, as demonstrated in the article, social systems theory offers a convenient theoretical tool. Certainly, there are multiple merits in relying on this theoretical toolkit when bringing

back animals (at least pets) under lenses of sociological analysis. This does not mean that this approach is without flaws, indeed. It is also worthy attempt to supplement Luhmann's standpoints with other theoretical traditions striving to give voice to animals, to include animals and other non-human agents into fundamental categories of sociology. Reconsidering categories of conventional social science is perhaps preferable direction if contemporary societies possess a least good will to cope with multiple burning environmental challenges nowadays. A first leap into that direction is to remind ourselves that 'we—humans' are not alone in the social systems environment, and are not alone on this planet, though this in the age of Anthropocene is not easy to comprehend.

ACKNOWLEDGEMENTS

The authors are highly grateful to two anonymous reviewers for a detailed reading and providing vastly valuable comments and suggestions for revising the first version of the manuscript.

DATA AVAILABILITY STATEMENT

We declare that this theoretical/conceptual research has not include any type of empirical inputs, data and/or analysis, so consequently, there is no data repository connected to the manuscript. On the other hand, all consulted bibliography units and referred on-line sources was listed in the literature, indeed.

REFERENCES

- Archer, M. (1995). *Realist social theory: The morphogenetic approach*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511557675>
- Ash, J. (2020). Flat ontology and geography. *Dialogues in Human Geography*, 10(3), 1–17. <https://doi.org/10.1177/2043820620940052>
- Baraldi, C., Corsi, G., & Esposito, E. (2021). *Unlocking Luhmann. A keyword introduction to systems theory*. Bielefeld University Press.
- Barrett, M. J., Hinz, V., Wijngaarden, V., & Lovrod, M. (2021). Speaking with other animals through intuitive interspecies communication: towards cognitive and interspecies justice. In A. Hovorka, S. McCubbin, & L. van Patter (Eds.), *A research agenda for animal geographies* (pp. 149–165). Edward Elgar Publishing. <https://doi.org/10.4337/9781788979993.00018>
- Bombaerts, G. (2023). Relational positionism: A constructive interpretation of morality in Luhmann's social systems theory. *Kybernetes*, 52(13), 29–44. <https://doi.org/10.1108/K-03-2023-0429>
- Briggs, R. The ethics of pet keeping. (2022). Philosophy Talk. <https://www.philosophytalk.org/blog/ethics-pet-keeping> (Retrieved: December 12, 2023)
- Brittanica. (2023). Pet. <https://www.britannica.com/dictionary/pet> (Retrieved: December 12, 2023)
- Carter, B., & Charles, N. (2018). The animal challenge to sociology. *European Journal of Social Theory*, 21(1), 79–97. <https://doi.org/10.1177/1368431016681305>

⁹Though, for a newer interpretation diverse to that usual conceiving, see Bombaerts (2023).

- Clausen, L. (2024). The systemic challenge and practice of leadership in a post centaurian society. *Systemic Practice and Action Research*, 37(3), 1–28. <https://doi.org/10.1007/s11213-024-09671-5>
- Donati, P. (2014). Relational sociology, critical realism and social morphogenesis. *Sociologia e Politiche Sociali*, 17(1), 9–26.
- Durkheim, E. (1995). *The elementary forms of religious life*. The Free Press.
- Elias, N. (2000). *The civilizing process*. Blackwell Publishing.
- Federle, M. J., & Bassler, B. L. (2003). Interspecies communication in bacteria. *The Journal of Clinical Investigation*, 112, 1291–1299. <https://doi.org/10.1172/JCI200320195>
- Grimm, D. (2015). *Citizen canine: Our evolving relationship with cats and dogs*. PublicAffairs.
- Grusin, R. (2015). Introduction. In R. Grusin (Ed.), *The nonhuman turn*. University of Minnesota Press.
- Haraway, D. (2003). *The companion species manifesto: Dogs, people and significant otherness*. Prickly Paradigm.
- Kulick, D. (2017). Human-animal communication. *Annual Review of Anthropology*, 46, 357–378. <https://doi.org/10.1146/annurev-anthro-102116-041723>
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network theory*. Oxford University Press. <https://doi.org/10.1093/oso/9780199256044.001.0001>
- Lau, E. (2022). The top 10 richest pets in the world revealed: which one has a net worth of \$500 million? <https://www.thenationalnews.com/lifestyle/family/2022/03/01/the-top-10-richest-pets-in-the-world-revealed-which-one-has-a-net-worth-of-500-million/> (Retrieved: December 12, 2023)
- Luhmann, N. (1989). *Ecological communication*. The University of Chicago Press.
- Luhmann, N. (1995). *Social systems*. Stanford University Press.
- Luhmann, N. (1996). The sociology of the moral and ethics. *International Sociology*, 11(1), 27–36.
- Luhmann, N. (2004). *Law as a social system*. Oxford University Press. <https://doi.org/10.1093/oso/9780198262381.001.0001>
- Luhmann, N. (2012). *Theory of society*. Stanford University Press.
- Maurer, K. (2010). Communication and language in Niklas Luhmann's systems-theory. *Pandaemonium Germanicum*. Revista de Estudos Germanísticos 2010, (16), 1–21. <https://doi.org/10.1590/S1982-88372010000200002>
- McRobbie, L. R. (2017). “Should we stop keeping pets? Why more and more ethicists say yes”. The Guardian <https://www.theguardian.com/lifeandstyle/2017/aug/01/should-we-stop-keeping-pets-why-more-and-more-ethicists-say-yes> (Retrieved: December 12, 2023)
- My Assignment Help. (2022). Is pet ownership ethical? The perspective of different people. Retrieved from <https://myassignmenthelp.com/free-samples/core1020-introduction-to-ethics/concepts-and-metacognitive-file-A1D635F.html> (Retrieved: December 12, 2023)
- Neisig, M. (2017). Transition in complex polycentric contexts: Trusting and multifunctional semantics. *Systems Research and Behavioral Science*, 34(2), 163–181. <https://doi.org/10.1002/sres.2450>
- Porcher, J. (2014). The work of animals: A challenge for social sciences. *Humanimalia - Journal of Human/Animal Interface Studies*, 6(1), 1–9. <https://doi.org/10.52537/humanimalia.9925>
- Roth, S., & Schütz, A. (2015). Ten Systems: Toward a canon of function systems. *Cybernetics and Human Knowing*, 22(4), 11–31.
- Roth, S., Žažar, K., Stingl de Vasconcelos Guedes, T., & Clausen, L. (2024). Scientific communication observed with social systems theory. An introduction and outlook to pure science for society. *Systemic Practice and Action Research*, 37(3), 251–260. <https://doi.org/10.1007/s11213-024-09670-6>
- Spiegelhofer, E. (2020). Interspecies communication: Animal-human encounters and the potential of dialogue across species boundaries. MUNDUS MA crossways in cultural narratives (cohort 2018–2020). Dissertation.
- Wahyuni, H. I. (2019). Ecological communication in information society: Reflections on Niklas Luhmann's thought in Understanding Ecological & Disaster Issues in Indonesia. *Jurnal Komunikasi Ikatan Sarjana Komunikasi Indonesia*, 4(1), 9–17.
- Wikipedia. (2023). Pet. <https://en.wikipedia.org/wiki/Pet> (Retrieved: December 12, 2023)

How to cite this article: Žažar, K., & Clausen, L. (2024). Towards the sociology of pets—Social functions of animals in contemporary societies observed from systems theoretical perspective. *Systems Research and Behavioral Science*, 1–13. <https://doi.org/10.1002/sres.3081>