

Animal Bioethics

Old Dilemmas and New Challenges

Edited by
Zoran Todorović and Siniša Đurašević

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PRAISE FOR ANIMAL BIOETHICS

The new publication entitled "Animal Bioethics - Old Dilemmas and New Challenges" edited by Prof. Zoran Todorovic (School of Medicine, University of Belgrade, Serbia) and Prof. Sinisa Djurasevic (Faculty of Biology, University of Belgrade, Serbia) covers a wide range of topics related to animal experimentation. The authors explore the studied issues from different angles including ancient philosophical views as well as the current animal welfare science approach or relevant EU legal regulations.

To ensure the high quality of each chapter, the editors invited experts in the areas of ethics, bioethics, physiology, neurology, toxicology, pharmacology, animal welfare and legislation to provide specific texts within their area of expertise. Overall, the book is a comprehensive source of information including ethical evaluations that should not be missed by those interested in animal experimentation, whether they are researchers or people arguing for the needs of laboratory animals.

Prof. Ing. Eva Voslarova, Ph.D.

Head of Animal Protection and Welfare Unit, Department of Animal Protection and Welfare and Veterinary Public Health, University of Veterinary Sciences Brno, Czech Republic

The use of animals for scientific purposes was, and still is, a subject of debate to its true usefulness. Although there is a long list of scientific achievements which improved, one way or another, the quality of life not only for humans but also for animals, the question if we need to use animals for research purposes remains unanswered.

Nowadays, when the interest of the community for the environment is even greater, the use of animals for research purposes is no longer a controversial issue but an issue that seeks clear answers. The first answer that can certainly be given is that this use has a clear ethical background that must be taken seriously under consideration. The use of animals in experiments is not a *de facto* human right. It is a need that should be

based on the moral obligation of humans to respect non-human animals. It is a necessity that should only be realized when humans, animals or the environment benefit from the obtained results. It is an act that is covered by legal requirements, international scientific and ethical rules, ensuring the proper care and use of laboratory animals as well as the quality of the obtained experimental results.

Although thousands of pages have been written on this subject, there is always room for more. This is exactly what the book *“Animal Bioethics: Old Dilemmas and New Challenges”*, edited by Professors Zoran Todorovic and Sinisa Djurasevic aspires to achieve. Through an objective look, the authors try to approach the subject holistically, covering all scientific, legal and bioethical aspects. They do not want to influence the reader for or against the use of animals. What they want is to inform about the new scientific achievements, the new challenges and the up-to-date ethical concerns that regulate the use of animals. I do not know whether, after completing the study of the book, the reader will finally be able to answer the dilemma of using animals for research purposes or not. What I can assure you is that by completing the study of this book the reader will have more knowledge to ponder.

Nikolaos Kostomitsopoulos, DVM, PhD

**Centre of Experimental Surgery, Biomedical Research Foundation,
Academy of Athens, Athens, GREECE**

Some ancient religions of the East have long warned that animal life and suffering are worthy of human attention and consideration. In the West, however, awareness came only in the first half of the 19th century, at about the same time in England and among German pietists. They were the desperate, lonely cries of the first societies that advocated for mercy.

Two hundred years later, however, we are witnessing a very strong initiative to protect and expand animal rights: and although we are talking about hunting animals, using animals in circuses, eating animal meat, society's primary focus is on the use of animals in scientific experiments. The argument against their use is clear: if the stronger is allowed everything

just because it is stronger, will we stop at animals or will we switch to minorities and people with disabilities? There is no progress in the logic of argumentation: the view of the majority is summed up in an aphorism signed under a photo of anti-vivisection protesters - "Animal experiments have allowed you to demonstrate twenty years longer..." In practice, however, the shifts are very visible: since the famous '3R', launched at the beginning of the second half of the 20th century, to the massive refusal of ethics commissions to issue permits for experiments on non-human primates.

And while public discourse - sometimes in national parliaments - is moving on to sexual intercourse with pets, plant rights, etc., tens of thousands of diligent scientists in laboratories all around the world remain confused and even frightened by modern trends in legislation and ethics. Addressing them, the book "Animal Bioethics: Old Dilemmas and New Challenges," edited by Zoran Todorovic and Sinisa Djurasevic, comes as more than a good guide to help navigate the forest of laws, directives, codes, and attitudes, setting clear limits but also allowing good practice to evolve without stopping the progress of science.

Prof. Amir Muzur, MD, PhD

University of Rijeka, Faculty of Medicine, Department of Social Sciences and Medical Humanities, and Faculty of Health Studies, Department of Public Health, Rijeka, CROATIA

PREFACE

This book deals with various aspects of animal bioethics, from philosophical foundations to genetically modified organisms and their impact on the environment. Such a concept corresponds to the holistic approach in bioethics of Fritz Jahr and Van Rensselaer Potter, which observes the integrity of man's relationship with all forms of life and the environment. A background of monistic and dualistic concepts of the human-animal relationship is depicted as well. Then experimental models in drug development and pain testing are analyzed, and the translational aspect of in vivo experiments. A particular chapter is dedicated to neuroethics, taking into account the importance of animal experiments for examining brain function. Finally, an overview of modern legislation related to animal experiments is given, the ethical basis of the principles of Good Laboratory Practice is assessed, and the importance of animal bioethics for writing scientific projects is shown.

There are just a few publications dealing with animal bioethics. It is worth mentioning the book under a similar title published fifteen years ago: Marie M et al., Eds. *Animal Bioethics: Principles and Methods of Teaching* (1st Edition). Wageningen, NL: Wageningen Academic Publishers, 2005. Our book will predominantly cover topics not described or omitted from this publication (see the short description above). Other available literature does not have such an integrative approach. The authors are experts in various aspects of animal bioethics, from philosophy, medicine, and biology to veterinary issues and environmental protection. The unique quality of our publication is reflected in the detailed presentation of modern legislation in this area and the principles of drafting scientific projects in which animal bioethics has an important place.

Our publication is interesting for the broadest audience, from students of biomedicine and related fields to scientific researchers and members of organizations for the protection of animal rights and welfare. Some chapters will certainly be interesting to media representatives and the general public, not to mention employees in the state administration as potential stakeholders. Editors and authors have extensive experience in

animal bioethics studies. They have successfully established a national system for protecting animal welfare and served as lecturers on behalf of the RSPCA. Additionally, they have a rich scientific background in the field. The editors and authors have participated for over a decade in a joint master's program in research ethics with the Icahn Faculty of Medicine at Mount Sinai. Last but not least, one of the editors of this book has already served as the first editor of an international monograph entitled: "Bioethics and Pharmacology: Ethics in Preclinical and Clinical Drug Development" (Kerala, India: Transworld Research Network, 2012).

Belgrade, May 2022

Zoran Todorović

Siniša Đurašević

ANIMAL (BIO)ETHICS – A PHILOSOPHICAL BACKGROUND

Dejan Donev

Full professor of Ethics, History of Ethics, Ecoethics and Bioethics
ss Cyril and Methodius University in Skopje, Faculty of
Philosophy, Institute of Philosophy, Skopje, N. Macedonia

Abstract

Today, we are still dealing with the unresolved question about the relationship between humans and animals, which belong to distinctly and significantly different ontological stages. Can this ontological differentiation, which imposes certain insurmountable limits of argumentation in favour of a behaviour, guided by moral rules, concerning animals and the very thought of their rights in general, be considered sufficient? Or, in the modern ethical discussion, we should require an adaptive reorientation of the argument, if it refers to the normative regulation of our behaviour towards animals? Is it possible to create and apply animal bioethics?

Keywords: bioethics, animal (bio)ethics, utilitarianism, humans, animals, moral status

Introduction - Do animals have a moral status!?

Issues related to animal rights and our duties following their *moral status* have become an essential part of almost all major ethical debates in the last few decades, representing one of the most current areas of ethics research. This is because the “human beings relation on the planet to living non-human beings, animals, is characterised by their apparent superiority. Thanks to their overall abilities and potentials, human beings have become masters of the planet. Their *dominant* planetary position raised the question of the value regulation of their behaviour towards non-human beings, animals as *lower and subordinate species*. (...) Throughout the history of

civilisation, people have often treated their superiority as an implicit or explicit authority for complete submission to non-human beings, animals in relation to human demands, interests and needs, with the behaviour towards them being determined as *morally indifferent*." (1)

Thus, in the 1960s, the global animal rights movement was created¹, and the role of philosophy in developing the theoretical framework and forcing intellectual debates about our treatment of animals² was crucial in addressing this issue in its full significance - moral justification of current practices and regulation of normative issues regarding the attitude towards animals, in general³. Peter Singer, one of the most important representatives of this movement⁴, commented on the role of philosophy, which joined this movement as a science in the 70s of the last century, saying that: "philosophers were not the mother of the movement, but they did ease its passage into the world and – who knows – may have prevented it being stillborn". (2) Then, together with Tom Regan (3) and Klaus Michael Meyer-Abich (4), the primary thoughts that are representative of the current discussion on the new thinking and regulation of the relationship between humans and animals, they formulated in the following paragraphs:

1. animals are beings that are capable of suffering⁵, with their interests and needs that are similar to the basic needs of people;
2. if there is such similarity, the principle of equality requires that the interests of animals are respected as well as the similar interests of humans;

¹ If we go deeper we can find that these kinds of initiatives are already mentioned in the Pietist's works from XVIII century.

² Although linguistically and logically disputable, the correct term should be "non-human animals". The term "non-human animals" is used to shed light on the often overlooked fact that humans are also animals. For the rest of this text, we will generally stick to such uses, except when the sources we use relate to the more traditional human and animal dichotomy.

³ More detailed see: Sirilnik, B. & Fontene, E. de. & Singer, P. *I životinje imaju prava*. Novi Sad: Akademska knjiga, 2018, str. 15-17.

⁴ but also the founder of the Animal Liberation Movement, along with Jacques Cosnier and Hubert Montagner as early as the 1970's, shortly after the formation of the Oxford Group of Richard Ryder which defined the great principles of animalistic ethics in the collection entitled *Animals, Men and Morals* on Roslind and Stanley Godlovitch and John Harris.

⁵ In a well-known passage, which represents a departure from the mainstream of Western philosophy, Bentham says the following: „The day *may* come when the rest of the animal creation may acquire those rights which never could have been withheld from them but by the hand of tyranny. The French have already discovered that the blackness of the skin is no reason why a human being should be abandoned without redress to the caprice of a tormentor. It may one day come to be recognized that the number of the legs, the villosity of the skin, or the termination of the *os sacrum* are reasons equally insufficient for abandoning a sensitive being to the same fate. What else is it that should trace the insuperable line? Is it the faculty of reason, or perhaps the faculty of discourse? But a full-grown horse or dog is beyond comparison a more rational, as well as a more conversable animal, than an infant of a day, or a week or even a month, old. But suppose they were otherwise, what would it avail? The question is not, Can they *reason*? nor Can they *talk*? but, Can they *suffer*?". Bentham J. *Introduction to the Principles of Morals and Legislation*. New York: Prometheus Books, Amherst, 1988, p. 311.

3. animals have their value, which for some (Singer and Regan) stems from their consciousness, while others (Meyer-Abich) attribute additional importance to the affinity of animals and humans.

Animals should, furthermore, be guaranteed the fundamental "right" to life appropriate to their species, the view that is based on the parts of the fourth and fifth articles of the "Universal Declaration of Animal Rights": "wild animals have the right to live and reproduce in freedom their own natural environment ... Any animal which is dependent on man has the right to proper sustenance and care". (5)

Nevertheless, the unresolved question remains about the relationship between humans and animals, which belong to distinctly and significantly different ontological stages. Can this ontological differentiation, which imposes certain insurmountable limits of argumentation in favour of a behaviour, guided by moral rules, in relation to animals and the very thought of their rights in general, be considered sufficient or in the modern ethical discussion should require an adaptive reorientation of the argument, if it refers to the normative regulation of our behaviour towards animals?⁶ Is it possible to create and apply animal bioethics? (6)

The Western European tradition of thought and the moral status of animals

Philosophy is responsible for many of our views regarding the natural world, i.e. philosophical thought that from the very beginning influenced our absolute inclination towards anthropocentric ethics, regardless of the consequences of such ideas we face, especially in the last few decades.⁷

The dominant anthropocentric philosophical theories represent the belief that only man, a self-conscious being with the ability to act morally, and thus

⁶ Further consult: Protopapadakis, D. E. "Animal Rights, or Just Human Wrongs?", in: *Animal Ethics Past and Present Perspectives*, Protopapadakis D. E. (ed.). Berlin: Logos Verlag Berlin GmbH, 2012, pp. 279-291.

⁷ For centuries, the position and status of animals has been neglected or even in no way had its place on earth. The anthropocentric nature of this view of the world was an important reason why our natural-technical civilization did not develop in harmony with nature, but much more often in opposition to it. Elements, minerals, plants and animals are treated, not as "partners", but as resources that man uses indefinitely, so the wildlife in the jungle has fallen victim to large game hunters, and in rich countries the victim of industrial meat production.

the only autonomous being, can have moral status. Namely, "the dignity of a certain individual is considered from the perspective of the reason of one's nature, and such nature is only attributed to man. Only he is free from the realm of goals, while non-human living beings are connected by the bonds and relationships that exist in nature. Only man is aware of himself and can distance himself from himself in favour of higher goals, relativise his interests, all the way to self-surrender. This, as a moral being, gives him an absolute status that establishes his unique dignity, which in turn gives him the right not to be "enslaved" by anyone and, as a moral being, not to be deprived of his own goals. From this unique human dignity arises his unique rights" (7), guaranteed by the UN Declaration of Human Rights from 1948. (8)

Contrary to this, non-anthropocentric theories believe that there is no strict hierarchy between beings in nature. All differences between humans and animals should not be established ontologically but on a biological basis. (9) This means that the predominantly anthropocentric picture of the world and the derived relation of man toward nature and animals in the last few decades has been called into question by the non-anthropocentric expansion of ethics and the publication of (bio)ethical search for a new foundation of the relationship between humans and animals. In this context, Singer speaks of animals as "persons", while Regan speaks of them as "subjects of life" and Mayer-Abich of their dignity, from which they derive animal rights, appropriate treatment of their species, as well as for the protection of their lives, because it is forbidden to kill them for our diet. (10)

These two opposing lines of thinking about the differences or similarities between humans and animals characterise the Western philosophical-religious tradition⁸. The same, in general, which is based on two sources, shows less respect for animals and the rest of the natural world than the Eastern traditions due to the assumed absolute superiority of man over nature⁹.

⁸ The Eastern philosophical-religious tradition is in many ways opposed to Western cultural, religious and philosophical views and nurtures the idea of holiness and enthusiasm for all forms of life, not just human.

⁹ which led to a kind of crisis of man in the scientific and technical age when the imperative for the preservation of nature and natural biodiversity is increasingly imposed in relation to the devastating action of man over the natural world.

The first source primarily refers to the nature of the relationship between man and animals as described in the Old Testament Bible, the essential Christian religious-historical document. It gives us an idea of the world in which man was created according to the image of God and is thus destined to rule over all other living things on earth. The divine origin of man is not explained only by his absolute supremacy over other earthly beings. Still, it is also reflected that man is only blessed through the unity of body and immortal soul. The soul is considered a valuable component of humanity, all the more so because it enables moral thinking and action. In contrast, bodily beings, animals, are considered the most primitive level of existence. This view is maintained by the Old Testament stories of animal sacrifice. That is, animals and the rest of the natural world, according to this source, the Christian philosophical-religious doctrine, exist only for human benefit because human beings "are the only morally important members of this world. Nature itself has no intrinsic value, so the destruction of plants and animals cannot be wrong unless the destruction does not harm human beings" (11).

The most influential medieval Christian thinkers, Aurelius Augustine and Thomas Aquinas, are on this first line of thinking. They emphasised that the lack of reason in animals justifies their subordinate role. Namely, Thomas Aquinas, in his philosophical teaching, states the thesis that we are not obliged to show any kindness, mercy or compassion to animals because animals cannot experience any benefit due to their irrational nature, so their value is judged solely by how much they are suitable for human use: "Dumb animals... are devoid of the life of reason... they are naturally enslaved and accommodated to the uses of others" (12). Although it is acknowledged that irrational animals are sensitive to pain, this is not considered a sufficient reason for them to be respected in the same way as human beings. The compassion that can be felt towards suffering animals stems from the moral affection of people, so the individual who does good to people will take care of his property, i.e., the animals it owns.

The second source derives from ancient philosophy¹⁰. It is most marked by Aristotle's philosophical teaching (13), to which animals, according

¹⁰ Which is posed on Aristotle's paragraph from the *Politics* (1256b15-22), emphasized as a paradigm of the leading western tradition and its unquestionable anthropocentrism: „and that plants exist for the sake of animals and the other animals for the good of man, the domestic species both for his service and for his food, and if not all at all events most of the wild ones for the sake of his food and of his supplies of other kinds, in order that they may furnish him both with clothing and with other appliances. If therefore nature makes nothing without purpose or in vain, it follows that nature has made all the animals for the sake of men“.

to the natural hierarchy, are under humans because they possess only senses, but not reason and beliefs (14), i.e. rational soul so that man can use them as his resources. However, unlike the animal soul, the human soul is characterised by reason whose products can be communicated through language, thoughts, and reason.

Animals have a sensitive soul but not rational mechanisms for communicating pain, suffering or pleasure, so we should not treat them like any other human. Hence, it can be concluded that animals precisely because of a lack of reason cannot participate in the ethical and political sphere: "our action is outside the sphere of righteous action, so there is no friendship because we have nothing in common" (15). But human primacy over animals can also have a benevolent character. Namely, as Martha Nussbaum states, "Aristotle's great contribution is the idea that each species has its form of life and that it is equipped for life under certain circumstances. The same thing means that the good is different for every animal, and every animal has a purpose in itself and is a measure of its success. (...) Aristotle's claim from *Politics* that animals exist because of humans is contradicted by hundreds of statements from biological writings which suggest that each animal has its purpose" (16).

Exposed ideas about the position of animals in the human world were developed. They later reached their peak with the development of modern Western philosophical thought in the 17th century, reflecting the still dominant influence of Christianity. Anxiety towards animals and the assumption that justifies cruelty to them (that they cannot feel pain) is most prominent in the most important representative of the philosophy of rationalism, Rene Descartes. The differentiation of the overall battle into thinking and stretching stems from Descartes' mechanistic understanding of nature under the influence of the science of mechanics, in which animals as stretching are deprived not only of the thinking and rational aspect of battle but also of feeling. Only human beings, as thinkers, have consciousness in their body, the unique ability of language and innovative behaviour.

For philosophers of later eras such as Hume and Schopenhauer, above all, the dominance of reason in the autonomy of a being has maintained the same direction in philosophical considerations on the question of the moral

status of animals. "Animals have no rights," Hume said, although "the laws of humanity do oblige us to treat these creatures with care" (17). This careful treatment follows as an implication from the view that the compassion we can feel for animals can be a source of moral thought, but that does not mean that cruel treatment of animals can be considered as a matter of justice because justice is a moral attitude that refers to equals in force and rights. So, the righteous deed, i.e. equal respect for interests, applies only to human interests. In this context, under the influence of Indian philosophy, Schopenhauer integrated many ideas from Eastern philosophy into his philosophical teaching. While rejecting reason and self-awareness as necessary for the assumption of the moral status of a particular being, he builds the doctrine of the moral treatment of animals around the ethics of compassion. Moreover, the greater intelligence of human beings also increases their ability to suffer, thus justifying the increased moral concern for human suffering" (18).

In modern philosophy, many philosophers, especially Kant, advocated equal respect for interests and autonomy as a fundamental moral principle (19). Still, the same principle did not extend beyond the limits of its kind. Moving forward makes the founder of modern utilitarianism, Jeremy Bentham, who by "autonomy" means "the ability to choose and make one's own decisions, and hence to act accordingly. Rational and self-conscious beings, it seems, have that ability. In contrast, beings who cannot consider the alternatives that are opened to them cannot choose in the required sense and therefore cannot be autonomous. In particular, only a being who can comprehend the difference between dying and living can be autonomous and choose to live" (20).

From the above¹¹, it can be concluded that the direction in which such philosophical thinking goes is to act rationally, meaning to act morally. To act morally means to have moral significance concerning one's right and not for the interests of others. The ethical attitude according to which we have a direct moral duty only to other moral subjects supports Kant's ethics

¹¹ It can be said for sure that the history of the ideas about the moral status of the animals doesn't stop here. On the contrary! Here we can include also the ideas, thoughts and efforts of Fritz Jahr, Ignaz Bregenzner, Mark H. Bernstein or even Corey Lee Wrenn. In this sense this chapter will be richer, but also very long. So, we decide to leave some of them for in-depth analysis in the future occasion.

of indirect duties. For example, indirect moral duties toward animals, such as compassion and goodwill, are based on personal interest because our good treatment of animals also strengthens our “goodwill” relationship with humans. But Peter Singer criticises the denial of moral importance to other species regardless of the purpose of rational beings, which is a fundamental premise of Kant’s argument. He explains that “it may be true that kindness to humans and other animals goes hand in hand; but, nevertheless, Aquinas and Kant argued that this was the real reason one should be kind to animals, which is a total speciestic position” (21).

And so, until the 20th century, it was common to think that animals were immature creatures and undeserved of our compassion. In summary, Paola Cavalieri¹² speaks of “a twenty-century philosophical tradition aimed at excluding members of species other than ours, outside the ethical domain” (22). After Aristotle and Thomas Aquinas, she cites Kant as a modern follower of the most persistent and widely accepted thesis of animal relations in all Western culture. By categorising animals as “things” to which we cannot have direct duties: “animals, as pure means have a moral status of zero-order, i.e., they are excluded from the moral community” (23).

Although these are attitudes that have been slowly losing importance in the last few decades as too harsh and unfounded¹³, in general, nevertheless, it can be freely said that these are views that are pretty suitable for promoting those attitudes that led to the monstrous destruction of nature by the modern technological society that continues today with increasingly pronounced savagery.

¹² An Italian philosopher who, together with Peter Singer, founded the Great Apes Project, a movement created in 1996 that aims to extend to the great apes the three, not all, rights that until then were reserved only for man: the right to life, the right to individual protection and the right for respecting the physical integrity (prohibition of torture). See in more detail: Sirilnik B. & de Fontene E. & Singer P. *I životinje imaju prava*. Novi Sad: Akademsko knjiga, 2018, str. 17.

¹³ As Prof. Čović states, it is believed that most of the discussions about human responsibility for non-human living beings take place today within the so-called animal ethics, which task is to determine the “moral status of animals”, and within the advocacy of “rights of animals”. He adds that the “absurdist method of the speciestic leveling” has been established within the mentioned framework, which occurs in two forms, “as an Aesopian approach of “leveling upwards”, which consists in anthropomorphic attribution to non-human living beings of specifically human properties and categories such as dignity, moral status, rights, etc., and as a Singer’s approach of “leveling down”, consisting of zoomorphic reduction of specifically human traits and categories. Both procedures have the same goal - to level the gap between man and other living beings with the ability to feel, starting from the mistaken assumption that this is a good way to develop moral considerations and legal obligations toward non-human members of the sensitive community.” Čović A., „Biotička zajednica kao temelj odgovornosti za ne-ljudska živa bića”, in *Od nove medicinske etike do integrativne bioetike*, Čović A. & Gosić N. & Tomašević L. (eds.). Zagreb: Pergamena / Hrvatsko bioetičko društvo, 2009, str. 36-37.

Current (bio)ethical theories about the moral status of animals

Historically, various views and considerations have been encouraged, i.e. various theories about the attitude towards animals have been created. Each of these theories tries through ethics and philosophy to clarify the person's attitude behind that attitude by directly asking the question about the moral status of animals. This is because, in order to be able to attribute and/or recognise moral status to certain beings as a kind of opportunity for proper consideration of objects with direct moral significance, we need to take a particular moral view that they have "a kind of importance as beings, that they have their moral significance, importance" (24). Here, too, when we consider issues related to moral values, others are often involved because they are in some relationship, which says that to have a moral status means "to be an entity concerning which others (living beings) have, or they may have moral obligations" (25). When an entity is given moral status, it does oblige us not to behave as we wish, but it must be well considered whether the same entity has its interests, desires, beliefs and the like. It should be borne in mind that the rules are not binding us on such action, but the intrinsic value of the entity itself, the meaning it has in itself, according to some "own right" (26).

When we talk about animals, the question of moral status, i.e. the value in itself of the same as an entity, covers a number of different criteria, which first refer to various theories of moral status. According to several authors, "rationality is the main criterion for moral action (Aristotle, Kant), while others will be based on the Christian tradition according to which moral status is under the principle of sanctity of life, and it belongs exclusively to human species, third, most often utilitarians will focus on sensitivity as a criterion for moral status that morally binds not only people but also all other living beings who may experience pain, suffering or other mental states, fourth, ecofeminists, to the ability for compassion and care (27) ... So, there are numerous different approaches, i.e. a wide range of theories that try to explain the relevant positions for our relationship with animals and the living world of the earth (28), of which, as the most serious and mature in their positions, we single out the following few¹⁴:

¹⁴ Although others can be found in various representative works. So for example, M.A. Warren offers the following: The Moral Agency Theory, The Genetic Humanity Theory, The Sentience Theory, The Organic Life Theory and Two Relationship-based Theories. Warren M. A., "Moral status", in: *A Companion to Applied Ethics*, Frey G. R. and Wellman H. C. (eds.). Oxford: Blackwell Publishing Ltd., 2003, pp. 440-445.

- **utilitarianism or ethical humanism**, which in the behaviour of people as a supreme value emphasises the rule of the principle of utility, where decisions are made solely depending on whether they have positive or negative consequences while striving to achieve the highest possible benefit for most people (but not necessarily just people).

This principle of utility is usually defined in terms of the amount of suffering and/or enjoyment or happiness (29), meaning that individuals are interested in doing what increases their enjoyment or reduces their suffering. It follows that all living beings, human and non-human, have interests (30). Because all interests, according to this theory, are viewed from a moral viewpoint and deserve equal value, the impact of one's actions on all sensory beings, including animals, is a matter of moral importance. In other words, if someone suffers, it cannot be morally justified to refuse to take that suffering into account (31). As Henry S. Salt, one of the first to advocate for certain animal rights, states: "pain is pain ... whether inflicted on man or beast. And the creature that suffers, whether man or beast, feeling the pain as it lasts, suffers evil" (32). Hence, regardless of the creature's nature, the principle of equality requires that one's suffering be counted as much as the suffering of all other creatures.

For utilitarians, the interests of the highest weight should prevail no matter whose interests they are, and it is precisely this view that has radical measures to assess the greater use of animals (33). Namely, a small step towards a more significant consideration of the interests of animals is better than none. Therefore, according to the utilitarian position, if there are different strategies to improve production, the one that is the best, the most effective will be accepted. In the debate between those who compromise on improving animal welfare and those who seek radical reform, utilitarians do not act on the principle of discussion but consider which strategy will have the best effect on animal welfare. In this context, Signer goes most radical in animal welfare by advocating a boycott of animal products and the settlement of farms by vegetarians. However, this is not because it is fundamentally wrong to kill an animal, but because our consumption of meat and other products from commercially bred animals leads to suffering: "As long as the conscious being is conscious, it has an interest in as much enjoyment and less pain as possible. The feeling is enough for the

creature to be brought into the realm of equal consideration of interest. But this does not mean that the creature has a personal interest in continuing to live. For the being who is not self-conscious, death is the cessation of experience, just as birth is the beginning of the experience. Death cannot be contrary to the preference for the continuation of life, while birth can be under the preference for the beginning of life. (...) Since the animal belongs to a species that is not capable of self-awareness, it follows that it is not wrong to breed and kill. The condition is to live a comfortable life, and, after the killing, another domestic animal that will lead a similar life and which would not exist if the first animal was not killed. Vegetarianism is not obligatory for people who eat meat from animals raised in a utilitarian moral way. (...) The essence of utilitarianism is not that it allows killing because it does not belong to the human species, but that it allows killing animals precisely because they lack the ability to want to prolong life. This attitude also applies to members of our species who also do not have that ability" (34).

- **the animal right view**, according to which animals deserve a specific approach that includes the question of what is of best interest to them, regardless of whether people consider them "cute", whether they are helpful to humans, whether they belong to an endangered species or whether at all a person takes care of them (just as a person has his rights even when he is not beautiful, helpful, and even if no one loves him). Philosopher Tom Regan argues that (at least some) animals have negative rights such as the right not to interfere, the right not to be killed, injured or tortured (35), that animals have the right to be treated with respect, then the right to bodily integrity and the right to freedom of movement. Violation of these rights is not morally justified, regardless of the potential benefits people feel they have.

Namely, this approach is based on attributing intrinsic value to all beings who can feel- those who experience life and whose lives can be good or bad over time. As such, they have "individual experiential well-being, logically independent of their usefulness in relation to the interests or well-being of others" (36). Then this is the foundation of their rights and morally obliges us to refrain from things that would significantly hinder the life of such creatures. According to them, the main characteristic that all people have in common is not rationality, but the fact that each of us has his own life

that he cares about: what happens to us is important to us, whether it is the same for any who else. This is because we are all subjects of life with experience. Suppose this is really the basis for attributing an inherent value to individuals to be consistent. In that case, we must ascribe an inherent value, and thus a moral right, to all subjects of life, whether human or not.

It follows that an animal rights-based approach is most focused on ensuring animal welfare (experience of pleasure and pain), and attributing protected rights is the best way to achieve this common goal (37). It means understanding that animals are not our property, property that we can use for food, clothing, entertainment or experimentation. Consequently, it is considered wrong to look at animals as a commodity as a “means to an end”, just as it is wrong to treat them in the same way for the same reasons. The fundamental right of all who possess an inherent value is the right never to be treated simply as a means to an end for others. In this context, the movement for the protection of animal rights has the same weight as the movement for the protection of human rights.

- theory of contractarianism and common agreement, according to which, analogous to the theory of a common agreement of Thomas Hobbes from the 17th century, which claimed that without political rule, everyone would live in a natural state in which our lives would be endangered, the same can be transferred to the use of animals. Proponents of this view claim that because man can establish an “agreement” with other rational beings, that is, with other human beings (because both parties have some benefit from it), and thus protect its rights and interests, with animals he cannot do the same because of their lack of ability to think and make decisions, so it makes no sense to protect their rights because humans get nothing in return.

This is the basis for an argument drawn by analogy that places speciesism side by side with racism and sexism because people as human beings, as a species, hold the view that they are the only ones who deserve moral status or that they at least deserve special moral status is contrary to other species, but without any special justification which is substantiated except that it belongs to the human species (38) and that it is wrong! Namely, the morality of the members of the concluded agreement is applied only to individuals who can agree with the moral community, so it is important to define who

those members are. In terms of the moral agreement, morality is a kind of agreement between rational, independent, egocentric individuals who benefit from entering into such an agreement. A vital feature of this view of morality is explaining why we use it and who participates in it. That is, we have it for long-term personal interest, and the parties to the contract in morality include all those who have the following two characteristics:

1. be able to reap certain benefits if they are included in the contract, at least in the long term, if they do not do what they have agreed upon;
2. to be “able” to enter into the contract (39).

Given these requirements, even more, and considering several other alternative attributes such as language abilities, language or speech, rationality, rationality and reasoning, the ability to accept social and moral rules, possession of the immortality of the soul, possession of life in the biographical sense of the word, moral autonomy, the ability for reciprocity, empathy and desire for self-esteem (40) ..., as alleged features that distinguish us from animals and justify our special moral status, it is apparent why animals have no right!

The non-existence of animals in the moral community does not necessarily mean that the way they are treated is irrelevant from the position of a common agreement. Moreover, the position of the common agreement is entirely anthropocentric because any animal right to their protection depends on the human factor (41). From a self-centred point of view, man must necessarily treat animals well enough to suit their needs. Animal suffering is not an ethical problem in itself. Hence, any form of animal use is ethically acceptable and even ethically desirable because of the benefits that humans derive from animals (42).

Conclusion - For a possible bioethics of animals

According to the purpose of this chapter, to understand the central (bio) ethical approaches or perspectives regarding (bio)ethics of animals, i.e. through the use of techniques of experiential and holistic learning to establish an ethical relationship with animals, and hence to be able to recognise and

respect our similarities and interrelationships with animals to finally be able to analyse and evaluate the main arguments and directions of thinking that are at the core of (bio)animal ethics – something is more than evident. And that is a prospective treatment of this problem. However, even more so, the emergence of usable solutions for directing social practice requires an experimentally combined presentation within which complements the natural-biocentric and utilitarian point of view, as well as the traditional view of Rousseau and Schopenhauer as the main point of view for the moral conduct, but also the view of the “awe of nature” of Albert Schweitzer and Paul Taylor, as additional motivational support. That is, the idea is to find an appropriate solution and apply the two major approaches, i.e., negative utilitarianism and natural biocentrism, a hybrid theory as a new (bio)animal ethics in which it is important to think about both human and animal rights, a theory according to which decisions will be based between respect for nature and animal welfare.

With one acceptance and application of effective measures for action, i.e. those who are in the function of protecting the fundamental animal rights, and also with their legislative operationalisation (43), can prevent further suffering, the pain of the animals, so that their extinction does not occur, which requires the establishment of a benevolent and caring attitude towards them and less extreme forms of their use for human purposes. At the same time, a new culture of human coexistence with other non-human beings should be inaugurated, in accordance with the current living conditions on this planet, i.e. the real threat to biodiversity and the environmental challenges that are here in this first half of the 21st century. The current ecological crisis is simply forcing humanity in a new way to determine its attitude towards animals. And while this may seem utopian, time will tell if humans are ready for this step in evolution, i.e. the first has already been made with the eradication of cannibalism. The second is insight: “will man take the second step by stopping eating animals, i.e. will recognise the fundamental right to life of animals? While this is unlikely to happen in the foreseeable future, this does not mean that man should not work for the recognition of the dignity and protection of non-human living beings” (44). This is because although “modern man in the general humanisation of many spheres of life has significantly surpassed his ancestors, it is still paradoxical that at the same time in our epoch, as in

any epoch of mankind so far, the number of animals over which suffering has not been he was so big" (45).

The previous is a result of the fact that "a relevant purposeful socio-economic policy that strives for temporary efficiency requires the inclusion of social considerations and environmental adjustments and incorporating and adjusting to the needs of the animal population and its well-being. Even as part of such an extended perspective and a synthesised view of all the previously enumerated fundamental problematic aspects as a value framework for reforming "real capitalism", we will find ourselves on the path of using a socio-economic policy that will be in line with the needs of living in the 21st century" (46).

References

1. Jakovljević D. „Prava za životinje“, *Filozofska istraživanja*, 129 God. 33, Sv. 1 (167–182). Zagreb: HFD, 2003, str. 167-168.
2. Singer P. *In Defense of Animals: The Second Wave*. Malden: Blackwell Publishing, 2006, p. 2.
3. Regan T. *The Case for Animal Rights*. Berkeley: University of California Press, 2004; Regan T. *All That Dwell Therein*. Berkeley: University of California Press, 1982.
4. Meyer-Abich K.M. *Praktische Naturphilosophie*. München: C. H. Beck, 1997; Meyer-Abich K. M. *Wege zum Frieden mit der Natur*. München und Wien: Hanser, 1984.
5. "Universal Declaration of Animal Rights". Available at: <http://www.esdaw.eu/unesco.html>.
6. About the concept of "Animal ethics" see: Callicott J. B. and Frodeman R. (eds.) *Encyclopedia of Environmental Ethics and Philosophy*. Farmington Hills, MI: Macmillan Reference USA, 2009, pp. 42-53. Also: Jamieson, D. *Ethics and Environment*. Cambridge: Cambridge University Press, 2008, pp. 112-120.
7. Kaluđerović Ž. "Bioetički pristup životinjama", *Socijalna ekologija*, Zagreb, Vol. 18 (2009.), No. 3-4, str. 312.
8. "Universal Declaration of human rights". Available at: <https://civil.org.mk/wp-content/uploads/2013/05/djekarazia.pdf>.
9. Kaluđerović Ž. "The Reception of the Non-Human Living Beings in Philosophical and Practical Approaches", *Epistēmēs Metron Logos*, Issue 4, No 4, Athens, 2020, pp. 18-31. Also see: Caspar J. *Tierschutz im Recht der modernen Industriegesellschaft*. Baden-Baden: Nomos Verlagsgesellschaft, 1999, s. 154.

10. des Jardin J. R. states critical views on Singer's and Regan's views. de Žarden Dž. R. *Ekološka etika*. Beograd: Službeni glasnik, 2006, str. 193-200. Consult also: McMahan J. *The Ethics of Killing*. Oxford: Oxford University Press, 2002, pp. 194-203.
11. Singer P. *Praktična etika*. Zagreb: KruZak, 2003, str. 205.
12. Aquinas T. *Summa Theologica*, The Second Part of the Second Part, Question 64, article 1. Available at: <http://www.newadvent.org/summa/>.
13. Sorabji R. *Animal Minds and Human Morals: The Origins of Western Debate*. Ithaca, New York: Cornell University Press, 1995, p. 8.
14. Steiner G. *Anthropocentrism and Its Discontents: The Moral Status of Animals in the History of Western Philosophy*. Pittsburgh: University of Pittsburgh Press, 2005, p. 57.
15. Aristotel, *Nikomahova etika*. Zagreb: Hrvatska sveučilišna naklada, 1992, 1161 a 34 – 1161 b 6.
16. Nussbaum M.C. "Animal Rights: The Need for a Theoretical Basis", *The Harvard Law Review* 114, 5, 2001, pp. 1518-1519.
17. Hume D. *Enquiry Concerning the Principles of Morals*. New York: Oxford University Press, 1975, p. 186.
18. Schopenhauer A. *On the Basis of Morality*. Providence/Oxford: Berghahn Books, 1995, f. 175, 177, 180.
19. As a supplement, further see Baranzke H. "Tierethik, Tiernatur und Moralanthropologie im Kontext von § 17, Tugendlehre", *Kant-Studien*, Vol. 96, Iss. 3(2005): 336-363.
20. Singer P. *Animal Liberation*, 2nd ed. New York: New York Review of Books, 1990, p. 20.
21. Singer P. *Animal Liberation*. New York: Open Road Integrated Media, Inc., 2009, p. 285 and p. 351. Available at: <https://grupojoventfl.files.wordpress.com/2019/10/peter-singer-animal-liberation-1.pdf>.
22. Cavalieri P. *The Animal Question: Why Non-Human Animals Deserve Human Rights*. New York: Oxford University Press, 2007.
23. Cavalieri P. "Pushing Things Forward", in: *The Death of the Animal: A Dialogue*, Cavalieri P. et al. (eds.). New York: Columbia University Press, 2009, p. 98.
24. Audi R. *Cambridge Dictionary of Philosophy*. Cambridge: Cambridge University Press, 1999, p. 590.
25. Warren M. A. *Moral Status. Obligations to Persons and Other Living Things*. Oxford: Clarendon Press, 1997, p. 3.
26. De Grazia D. *Prava životinja*. Sarajevo: TKD Šahinpašić, 2004, str. 13.
27. Warren M. A. "Moral status", in: *A Companion to Applied Ethics*, Frey R. G. and Wellman C. H. (eds.). Oxford: Blackwell Publishing Ltd., 2003, p. 439.
28. Vance R. P. "An Introduction to the Philosophical Presuppositions of the Animal Liberation/Right Movement", *Journal of the American Medical Association, JAMA*. 1992; 268(13):1715-1719.

29. Singer P. "All animals are equal", in: *Animal Rights and Human Obligations*, Regan T. & Singer P. (eds.). New Jersey: Prentice-Hall, 1989, p. 150.
30. Engel Jr. M and Jenni K. *The Philosophy of Animal Rights*. Brooklyn: Lantern Books, 2010, p. 14.
31. Singer P. *Practical Ethics*. Cambridge: Cambridge University Press, 2011, p. 50.
32. Salt H. *Animals' Rights: Considered in Relation to Social Progress*. London: George Bell & Sons, 1892, p. 24.
33. Sandøe P. and Christiansen S. B. *Ethics of Animal Use*. Copenhagen: Blackwell Publishing, 2008, p.15.
34. Singer P. "Killing humans and killing animals", *Inquiry*, 22 (1-2), 1979, pp. 145-156.
35. Regan T. *The Case for Animal Rights*. Berkeley: University of California Press, 1983, p. 328.
36. Regan T. "Ill-Gotten Gains", in: *Animal Experimentation: The Consensus Changes*, Langley G. (ed.). London: Macmillan Press, 1989, p. 38.
37. Francione G. L. *Animals as Persons: Essays on the Abolition of Animal Exploitation*. New York: Columbia University Press, 2009, p. 23. Also see Francione G. L. *The Animal Rights Debate: Abolition or Regulation*. New York: Columbia University Press, 2010.
38. Diamond C. *The Realistic Spirit. Wittgenstein, Philosophy, and the Mind*. Cambridge: MIT Press, 1991, p. 319.
39. Narveson J. "A Case Against Animal Rights", in: *Advances in animal welfare science*, Fox W. M. & Mickley D. L. (eds.). Washington, DC: The Humane Society of the United States, 1986/87, p. 194.
40. Engel Jr. M. and Jenni K. *The Philosophy of Animal Rights*. Brooklyn: Lantern Books, 2010, p. 19.
41. Sandøe P. & Christiansen S. B. *Ethics of Animal Use*. Copenhagen: Blackwell Publishing, 2008, p. 34.
42. Ibid.
43. Take a closer look at Jakovljević D. „Prava za životinje“, *Filozofska istraživanja* 129 God. 33 (2013) Sv. 1 (167–182), str. 170-171.
44. Kaluđerović Ž. „Bioetički pristup životinjama“, *Socijalna ekologija*, Zagreb, Vol. 18 (2009.), No. 3-4, str. 320.
45. Op. cit., p. 311.
46. Jakovljević D. „Prava za životinje“, *Filozofska istraživanja* 129 God. 33 (2013) Sv. 1 (167–182), str. 180-181.

TWO MAIN ETHICAL/MORAL REASONS WHY WE NEED LABORATORY ANIMAL WELFARE – ANIMALS AND HUMANS AS SENTIENT AND CONSCIOUS BEINGS

Marijana Vučinić and Katarina Nenadović

University of Belgrade, Faculty of Veterinary Medicine, Department of Animal Hygiene - Animal Behavior and Welfare, Belgrade, Serbia

Abstract

The welfare of laboratory animals should be ensured for moral/ethical reasons, for the quality of scientific results and for the quality and safety of biomedical products obtained from their use, for the welfare of persons caring for them and using them in researches or testing, but also for public demands and pressure, reputation of institutions that use laboratory animals, etc. Two sentient and conscious beings - animals and humans - participate in research and testing on laboratory animals. Their well-being is common because only from animals that are spared the inconveniences that change their neuroendocrine, immune, metabolic status and behavior, quality biomedical results and products can be obtained.

Keywords: laboratory animals, welfare, ethical/moral reasons

Introduction

Probably, by ceasing to use nonhuman animals (animals), we would free them from all the sources of unpleasant experiences we bring them into (1). However, because we still use them, we must provide all the conditions to prevent their unnecessary suffering. Therefore, it is our obligation to provide all the mechanisms for their welfare during their life and at the time of death. Killing animals is an ethical issue, starting with questions why we

kill animals and how we kill them. The way animals die is also a matter of their welfare (2, 3). We do not want products from suffering animals, nor do we want scientific or testing results obtained from laboratory animals that suffer. We are not able to establish a bidirectional positive emotional connection with animals that suffer. However, we need animal welfare not only for animals but also for us as animal users, our own well-being, safety and security, our satisfaction, quality of products or results obtained by animal using, our reputation, economy, sustainability, public demands and many other reasons. In this chapter, we will try to explain why we need the welfare of laboratory animals, starting with the way people use animals, through the procedures that conduct on laboratory animals.

The ways we use animals

Human beings use a large number of non-human animals (animals) for own benefits in different ways (4, 5). They use animals for food production, the production of natural fibers, transport, for physical work, as service animals, for entertainment, as pets and companions, in education, basic and translational science and testing the effectiveness, harmfulness and safety of various products, but also for treatment of their own health disorders including both, physical and mental conditions (6).

People take care of the animals they use by providing them with accommodation and shelter from adverse weather conditions, predators and other sources of various dangers, a place for resting and sleeping, food, water, treatment or prevention of health disorders and diseases and other necessities for survival. However, humans also intentionally harm animals disrupting their physical, mental and emotional integrity (7). To get food, some animals that people take care of are slaughtered. People who care for animals have to catch and lift to examine, treat or mark them. Some animals are neutered to prevent them from giving birth to unwanted offspring. Some animals, mostly pets that have not met the expectations of their owners, people abandon illegally, leaving them to all the dangers lurking in public places. In addition, people take care of many animals in an enclosed environment that they have designed and equipped according to their own needs and the needs of the animals. Very often, in this half-half designed environment animals are exposed to various sources of

unpleasant experiences, discomfort and insecurity that come from various phenomena, objects, materials, other animals or people. In addition, people separate the cubs from their mothers, put some animals in social isolation, and prepare meals for some that do not create a feeling of satiety and physical, physiological or emotional satisfaction in animals. Some animals have to be completely deprived of food due to their own safety and safety of people who will use animal-derived products (for example, before and during transport or before slaughter).

Enclosed in an environment designed by the people who care for them, animals are often deprived of many other stimuli, space or circumstances that motivate them to physical activity and to manifest natural behavior. This means that some of animals are prevented from anticipating and controlling events in their living environment and from independently satisfying their needs by choosing the necessary substrate and the most effective behavioral strategy. Therefore, certain actions of people towards the animals they take care of and certain events in the living environment of animals can cause frustrations, fears, distress, pain, suffering, boredom and many other inconveniences and unpleasant physical or emotional experiences in them. On the other hand, there are new ways of unintentional indirect harms that people cause to animals injuring and killing vast numbers of them by disturbing the balances and processes of nature through pollution, introduction of alien/invasive species and climate change or by human artifacts such as cars, windows and communication towers (7, 8). Therefore, it seems that the 21st century and high technologies that people use need new responsibilities toward animals, new ways of interactions with animals (5) and a new ethics for animal use (8). Simply put, we need changes in the direction of a more humane and rational society.

People keep the animals they take care of in their homes, on farms, in kennels, in shelters, boarding houses, zoos or laboratories, but also in many other places. The care and use of animals inevitably leads to a certain interaction and relationship between humans and the animals they care for (9). Humans always benefit more from this interaction than animals because humans use them for specific purposes. If they could choose, animals would certainly not choose to be used in the ways that humans use them. This is especially true for laboratory animals, to which people

who use them cause a variety of physical and emotional inconveniences in the name of basic and translational biomedical science striving to study how bodies of animals and humans function; to develop and test new medicines and vaccines for humans or animals or new diagnostic methods or treatments of diseases and to assess the efficacy, harmfulness and safety of various products for human and animal health and environment (10, 11).

What we do to laboratory animals?

Personnel working in laboratories take care of laboratory animals. They keep laboratory animals that wait to be included in experiments in safe living conditions feeding and watering them, protecting them from injuries and diseases and taking care of the ambient and hygienic conditions in animal living space. They prepare laboratory animals for residence in the institutional animal care facilities, and for the procedures that the animals will undergo in the experiments in order to minimize unpleasant experiences in lab animals during experiments. Preparing animals for unpleasant procedures also means behavioral conditioning including their habituation to, desensitization to, and training for procedures that will be involved in experiments (10). Everything we do with animals that are not yet directly included in the experiment, we do to avoid all the inconveniences that can unforeseen negatively affect their physical and mental welfare and the results of the experiment. The precondition is that we have chosen the appropriate animal model and applied the “3Rs rule” - **R**eplacement, **R**eduction, **R**efinement (11). However, the question now is what we do to animals to make appropriate models out of them and what we do with animals in experiments and testing?

Laboratory animals spend their entire life in the laboratory, housed in cages or boxes. They are provided with food, water, bedding material, and a place to rest and sleep. In order to avoid the development of pathological forms of behavior caused by boredom and very limited physical and mental activity, a strategy of enriching living conditions is applied by inserting stimuli (objects, materials, phenomena) that motivate them to be physically and behaviorally active. This means that laboratory animals confined in strictly controlled living conditions are given the opportunity to manifest natural forms of behavior, including forms of behavior highly specific to the species (12).

Laboratory workers catch laboratory animals, lift them, restrain them, move them to another accommodation units, change their bedding, clean cages and boxes, regroup them, socially isolate them, mark them, and sample their body fluids and tissues, anesthetize and euthanize them.

In order to make appropriate animal models and achieve appropriate results in biomedicine, we change their phenotypic and genotypic characteristics. We modify them genetically and change their microbiological composition. We also change their immune and metabolic profile and structure of their tissues and organs. We harm laboratory animals to study the mechanisms of recovery from injuries and to study drugs and therapies that promote and accelerate the healing of wounds. By an artificial way, we cause non-infectious and infectious diseases in them in order to study the mechanisms of development and consequences of diseases, and to find medicines and biological means against those diseases. On laboratory animals we test toxic chemicals, devices and biological substances that may cause severe pathomorphological and patho-physiological changes in their organs with severe pain, distress or death. We produce tumors in them allowing tumors to cause cachexia, to spread the rough a body, or to ulcerate. There are many others examples of procedures that laboratory workers and researchers conduct on laboratory animals accompanied with severe pain, distress and death. In order to prevent suffering in laboratory animals those who use them should know legislatives, how to plan procedures that will conduct on laboratory animals, severity classification, severity assessment of procedures and the harm–benefit analysis of projects, how to develop and implement a system for the monitoring and assessment of laboratory animal welfare, how to develop and implement a suitable recording system and when to stop procedures on animals in order to prevent suffering in them (13). Otherwise, there may be severe suffering of animals, lack of expected results and disappointment of workers and researchers related to feelings of guilt, remorse, regret, grief, and loss of self-confidence, general fear of failure, fear of losing a job, etc (14). All this is the reason why it is necessary to apply mechanisms for ensuring the welfare of laboratory animals.

What is animal welfare?

Welfare is a condition that shows how an animal cope with the living conditions provided for it by the person who takes care of it (15). This