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Animal rights and technology: between dignity and disenchantment

Direitos dos animais e tecnologia: entre dignidade e pioramento

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Abstract

This article intends to show a relationship between a narcissistic character in human being and its exploiting practices in relation to animals. Its hypothesis is that, even though disenchantment could have positive features, it also shows the perversity of economic system, which tries to deviate the focus of the exploitation, showing that is aware of animal suffering - but only in order to continue its profitable and nefarious ways. Its objectives are: i) to characterize anthropocentrism as a narcissistic trace of mankind, which allows the human being to exploit animals without self-criticism in general; ii) to present animal disenchantment as a philosophical problem, as well as several positions for and against it. Results: i) narcissistic perspective conceives scientifically a sheer economic interested

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technology, and genetic engineering not only alter animals individually, but also as species. This alteration is ontologically and ethically destructive, as all relationships between human and non-human become mediated by an objectifying view; ii) philosophical contrariety to animal disenchantment can be developed from several perspectives - being the most common ones in literature one based on the dignity of the animal, and another, which rejects disenchantment based on the destructiveness of the economic system which explores the animal in very unfair means (and needs a way to hypocritically veil itself through technology). Methodology: hypothetical-deductive method of research, with a qualitative approach and bibliographical technique.

Keywords: animal rights; dignity; narcissism; animal disenchantment; exploitation.

Resumo

Este artigo pretende mostrar uma relação entre um caráter narcísico no ser humano e suas práticas exploratórias em relação aos animais. Sua hipótese é que, embora o pioramento animal possa ter características positivas, ela também mostra a perversidade do sistema econômico, que tenta desviar o foco da exploração, mostrando que está ciente do sofrimento animal - mas apenas para continuar lucrativa e nefasta. maneiras. Seus objetivos são: i) caracterizar o antropocentrismo como traço narcísico da humanidade, que permite ao ser humano explorar animais sem autocritica em geral; ii) apresentar o desalento dos animais como um problema filosófico, bem como várias posições a favor e contra. Resultados: i) a perspectiva narcísica concebe cientificamente uma tecnologia puramente econômica e interessada, e a engenharia genética não apenas altera os animais individualmente, mas também como espécie. Essa alteração é ontológica e eticamente destrutiva, pois todas as relações entre humanos e não humanos se tornam assim mediadas por uma visão objetivante; ii) a contrariedade filosófica ao pioramento animal pode ser desenvolvida a partir de várias perspectivas - sendo as mais comuns na literatura baseadas na dignidade do animal, e outra, que rejeita o desagrado baseado na destrutividade do sistema econômico que explora o animal em muito meios injustos (e precisa de uma maneira de se hipocritamente velar pela tecnologia). Metodologia: método de pesquisa hipotético-dedutivo, com abordagem qualitativa e técnica bibliográfica.

Palavras-chave: direitos dos animais; dignidade; narcisismo; pioramento animal; exploração.

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1. Introduction

Non-human animals are sentient beings, capable of feelings and, depending on the mental development of the species, self-aware. Human science has shown this fact in several opportunities, but political, economic and legal systems (to some extent) seem to deny such fact, permitting and encouraging animal exploitation through their suffering. There has been a while, however, since technology has previewed the possibilities of editing animal genoma not only to enhance some of their features (such as to produce more meat, more eggs, being more resistant to diseases, etc.), but also to disenchant others (making them blind, incapable of feeling pain, etc.) in order to favor human economic interests.

This article intends to show a relationship between a narcissistic character in human being and its exploiting practices in relation to animals - a relationship that seems to start on the simple and ancient domestication, passing through its commodification and arriving at the technology to transform the genoma of animals. In order to achieve that goal, it has been divided in two parts. The first one characterizes anthropocentrism (in its common sense perspective) as a narcissistic trace of mankind, which allows the human being to exploit animals without self-criticism in general. It also shows possibilities of developing a critical anthropocentrism, which could allow us to live aside non-human animals without a destructive attitude. The second one presents animal disenchantment as a philosophical problem, as well as several positions for and against it.

The research problem that inspired this work can be described this way: being animal disenchantment a group of techniques that mitigates (or even cancels) confined animals' suffering, is it something philosophically good? The hypothesis we present initially is that, being non-human animals sentient and self-aware, even though disenchantment could have positive features, it also shows the perversity of economic system, which tries to deviate the focus of the exploitation, showing that is aware of animal suffering - but only in order to continue its profitable and nefarious ways.

We justify the development of this work juridically, philosophically and socially. For Law studies, it is important to have transdisciplinary points of view to deal with Animal Rights, as their very bases generally are not legal, but scientific, philosophical and political ones (in other words, Law is firstly developed in theory, to be transformed into dogma and practice just after clashes, struggle and evolution). For Philosophy, it is important to

show how technology is being developed in order to deal with animals, and how its use can show to ourselves how (in)human we have been towards our environment (comprehending into it also other species). And socially, it can show how economic system has developed strategies in order to contain political struggle against the suffering it causes to animals.

The methodology used to develop this research can be described by three points of view. Its research method is hypothetical-deductive, as we start from a premise and test it along all the arguments in the work. Its method of approach is qualitative, as numbers and figures were not used to structure it - but qualities of positions and perspectives in the sense of its rationality. And its technique is bibliographical, using arguments coming mostly from research papers.

2. Narcissistic anthropocentrism and human ways of dealing with non-humans

This first section aims to analyze strategies to overcome anthropocentrism. Toledo (2014), for exemple, points that overcoming the anthropocentric tradition in important for the protection of the environment, as this overcoming would show us that the focus of preservation by Law programs would have to get wider - presupposing not only improving the quality of live for present and future generations of the human being, but also protecting non-human animals because of their intrinsic value.

Martini and Azevedo (2018) point that Brazilian Supreme Court has decided for animal right to dignity pointing that Brazilian current constitution is biocentric - because of its prohibition to cruelty towards non-human animals. It is not exactly the position of this paper (as it is more than evident that anthropocentric culture is almost ubiquitous in current society); but it is important to show that alternative arguments are present as well, and most of them point that non-human animals must be protected for their own sake. It is not the position of this paper, in addition, to "debunk" biocentrism - as it is a very important philosophical proposition, which lays, although, in a very distant horizon, which reaching depends on softening anthropocentrism in the path through. That biocentrism could be reached, as a first step, by ending all the hierarchies to achieve justice between human and non-human animals (WYCKOFF,

2016, p. 255) - but finishing those borders require, at first, to understand their origins (not only in social facts, but also in human psychology).

Defending another kind of anthropocentrism - more self-critical, open to other species, is not a position that disrespects the rights of other species. Haerberlin and Pasqualini (2018), for example, sustain that it is necessary to adopt a perceptive anthropocentrism (and not a biocentrism), considering that the centrality of the human being in Law is an inference of his/her capacity to act ethically (in order to preserve welfare of non-human beings).

In order to make another anthropocentrism possible, then, it is necessary to understand why the dominant and current anthropocentric point of view is so disrespecting to non-human animals firstly. According to Steven J. Bartlett (2007), the most common juridical paradigm about the status of non-human animals points that they are human property (even though legal decisions about animal subjectivity and animal suffering as worth of indemnity have become each day more common). But law and politics are products of human communication, then, carry human patterns of mentality, which commonly ground anthropocentrism (and property paradigm) on two reasons: judaic-christian dogma of superiority of mankind, and the "species pride", that attributes inferiority to the non-human animal for their lack of reason, language, culture, etc.

Recently two ideologies have been developed in the juridical discourse to break the property paradigm: the intrinsic value theory (each species exist for their own purposes: as they suffer, they have fundamental rights); and the homocentric theory (other species must be evaluated according to their importance to the human species, in a kind of "cost-benefit" utilitarianism). Homocentric theory justifies the banality of evil against those species which do not have a worth in function of the human interests on utilitarian grounds, obliterating the emotional perception of animal sentience.

Narcissism and self-affirmation of human species are the two main psychological explanations for the destructive, homocentric view. Narcissistic individuals and groups tend not to see their wrongness; or to justify it as something correct; or even to lie in order to mask it. In this sense, when facing someone who does not share their self-centered view, they simply exclude that person as an unpersonalized entity. That human narcissistic compassion would be grounded on an unshakeable belief

according to which the human being can stand out among all the living species, considering the animal suffering as inexistent. That behavior can be seen as a lack of empathy, or to an egoism decurrent of the genetic self-preservation of the human being - which, by its turn, develops a parasitic behavior of the human species.

Then, what is really needed is not exactly overcoming anthropocentrism in itself, but understanding that narcissistic trend that characterizes human mind, firstly. This first step is important because only with that understanding a new kind of self-critic theory about anthropocentrism can be done.

Beyond understanding human narcissism, it is interesting, as well, to understand reasons why human beings captivate and domesticate non-human animals - as that captivity relationship is the most ancient materialization, in practice, of a belief in human superiority. Bernice Bovenkerk (2016, p. 151-171) questions if the captivity of animals could be morally accepted. Arguments for moral justification of animal captivity are: i) captivity is in the interest of humans; ii) it is in the interest of the animals. The first argument is grounded on three main assertions: a) the harm done to animals by keeping them in captivity is not regarded as serious harm empirically; b) the empirical importance of some human interests is so high that captivating animals is justifiable (being that those two arguments are considered ethically balanced); and c) regardless of the harmfulness of captivity of animals, human interests simply matter more than the interests of animals (which is a speciesist argument).

But human and animal interests cannot be measured by the same scale, as both physically and mentally humans and animals experience the world differently. And even though evolutionary theory would explain that the human being is more evolved than other species - and this fact made human beings evolved to the point that developed a high degree of morality (when dealing with other people), mankind developed high moral skills just because it was an evolutive acquired advantage, not because we are the only species capable of that.

Another argument grounds morally right captivity on the best interest of animals because in the wilderness their lives are much harder. But only companion animals would be benefitted from captivity in this sense, while animals that are grown for their meat or products do not. Moreover, there is a series of diseases that commit captivated animals

decurrent of their imprisoned lifestyle. Domestication of non-human animals, because of the evolutive adaptation, causes changes on their genetic structure. Those genetic changes do not occur because of animals' natural choice, as the human is who takes them in captivity against their will.

It could be said that there is a domestication contract between human and animal, as there are some species that tacitly consented in their domestication. Whenever animals who co-evolved with human beings because of their interests, humans cannot make their lives worse than before - as it would mean that humans broke the rules of such contract. But captivity cannot be justified on the basis of a contract, because animals are not able to freely consent to domestications; and also because current domesticated animals are this way because they are resultant from a domestication process. Both arguments have in their core the same fact: domestication is only and exclusively resultant of actions undertaken by the human being intentionally or unintentionally (by human selection and genetic modification throughout millenniums).

What really has to be asked is if human being is permitted to change other natural entities in the world (genetically altering farm animals to deal better with overcrowded environments, for example). This is not a question, then, about dealing with individually considered animals, but rather, about the role the human species plays in relation to other species. It can be seen in Bovenkerk's arguments not an overcoming of the human point of view towards other species - what it is pointed is that the human being has to see the world according to his/her point of view, but considering a wider responsibility for other species. The fact that the human being uses reasoning in a more elevated degree should not be a motive for destroying (physically, psychologically and morally) other species - but a reason for taking much more care of them.

Maybe what is needed is not a kind of biocentrism, then, but a *critical* anthropocentrism, through which the human being, on the shoulders of science and philosophy could change its point of view (and then, social communications, even legal and political) about the non-human environment (where other species are). A good explanation for such a critical *anthropomorphism* was given by Burghardt (1997, p. 254–276), and would comprehend statements about suffering and pleasure, friendships and images, by animals, grounded on careful knowledge of

species, as well as careful research and observation (mainly neuro and behavioral), as well as intuition, empathy and refined publicly verifiable predictions - in other words: good science and good empathy for animals, made and used by humans when treating about them.

In this sense, Roberto Marchesini (2015) describes that the current philosophical anthropocentrism is decurrent of at least three shifts in the cultural evolution of mankind: the shift to post-sophistic philosophy (which focuses in the human on his own and with other human beings); the influence of Jewish-Christian tradition in the West (in which the human being becomes the *imago Dei* that takes part in a reality that is Other); and the ontological translation from the theocentrism to anthropocentrism. All the tradition rooted in those three theoretical moments crossed the centuries (passing through Darwin, Heidegger, Skinner and others) and can be resumed under the same label: the relegation of the non-human animal under human's phylogenetic past.

During the twentieth century another view started seeing the animal as a neighbor, because it shares its common nature with the human being. That notion, by its turn, made possible a dialogue (that presupposes recognition and co-belonging, in order to lead to an interaction) between human and non-human being. Then, understanding the co-belonging and the possibility of recognition/communication between human and non-human animal, therefore, make philosophical anthropocentrism an illusion, a falsity. Anthropocentrism puts the non-human inside a bubble where it is impossible to reach it, to recognize it; but even if it is impossible to reach the intimacy of the other, it is at least possible to reach a good level of approximation (as the non-human shares a common predecessor with the human being). The non-human is a protagonist of its life, having a specific perspective on the world that cannot be perceived as a bubble understood as a prison of its needs.

There are at least three elements that approximate species: universals (characters that are common to all species, such as sentience, avoiding harmful sources, repeating pleasant actions, etc.), homologies (characteristics that are common to two or more species because they are descendant to the same common ancestor) and analogies (specific characters that serve as evidences that some species, when compared, have suffered the same selective pressures, such as the environment).

To overcome anthropocentric observation, it is necessary to develop a *critical anthropomorphism*, according to which non-human animals have to be considered as a mix of affinities and differences - following specificities that can be separated into three types: universal ones (such as sentience), homological (those that are common to two or more species because they descend from a common predecessor) and analogical (those that evidence that some species, when compared, have suffered the same selective pressures, such as the environment).

Two are the considerations about critical anthropomorphism: i) it is necessary to identify a term of comparison (being that it is more correct to identify such term in the human being, not in a form of machinery) to evaluate animal predicates; ii) the comparison between human and other animal must be done from the space of affinity/belonging to comprehend differences between species (and not making a projection/ translation of the predicates of animals to humans').

Then, a critical anthropocentrism could show mankind, through science, that there are many shared biological and psychological characters by human and non-human animals, mainly in understandings that highlights that human and non-human share common characters (although each one in a different context). Both suffer; both share common ancestors; and both suffered pressures from analog natural factors. Then, those shared characters between human and non-human could help the first one to build a notion of *respect* towards the second ones.

This is what Tom Reagan (2004) tries to build, starting his point on a comparison between Animal Law and Human Rights. In those arguments, respect is the most powerful notion in the moral universe, when dealing about Human Rights: respect to lives, physical integrity and liberty. But the author questions why do humans have rights, while other species do not. Humans have rights not because of our belonging to a particular species (*Homo sapiens*), nor because of our moral responsibility, not even because the human being has self-awareness, capable of using language, or belonging to a moral community: although logical, this answers do not give the fundament of rights of persons who are not morally responsible, or are not self-aware, or even do not know how to use the language, such as children, mentally impaired persons, etc. Having a soul or having been given rights by God also are not justifications for having rights: the first argument explains what is going to happen with the soul after dying (of

course, if we assume the comforting idea of having a soul); the second one, because even those who do not believe in a God advocates for Human Rights. The justification given by the author is that every human being is a *subject-of-a-life*: having a life gives the human being the right to life, to physical integrity and to freedom, even when all other facts among human beings (in beauty, talent, possessions, etc.) are used to trace differences.

There is too much in common between humans and non-humans, in several species. If the human being understands the animal behavior, it is because the human him/herself understands his/her own behavior (in the struggle for freedom when locked inside a cage, for exemple). There are also many physical similarities between the human and several other species: having senses, having similar organs, similar ways of learning (through experience, mainly), similar anatomic systems to feel the pain (stimuli from the injured area go to the nervous system in human and non-humans, for exemple), sharing a common ascendent (which implies, among other characters, that both animals and humans have a mind, being the difference between them and us not of *kind of mentality*, but of *degree*).

All the arguments above serve to embase the following argument: many animals have so many similarities when compared to the human that it leads to consider they are subjects-of-life - and in this sense, they deserve the right to respect, too. The same that occurs in a courtroom in order to evidence a fact (many evidences and arguments have to be presented in a coherent accretion) has to happen to evidence the fact that animals are also subject-of-a-life: a whole complex of evidences proofs that, not a singular one.

Then, the structural coupling between humans and non-humans, according to science, would be the knowledge about shared ancestors and common sentience. But from an ethical-philosophical point of view, the basis of the respect on which Animal Law can be built is the subjectivity-to-life.

Sentience is a very important notion for building a new kind of anthropocentrism (which would hold forth human responsibility in relation non-human species), but understanding and accepting it is not enough: a significative number of law orders have already acknowledged sentience as a fundamental legal parameter related to Animal Law (FORDYCE, 2017, p. 16) - it is also important to cite that since the first modern British Act of protection of domestic animals, sentience has been that fundamental

parameter (although its basis was, exactly, *compassion*) (KRAWCZYK; HAMILTON-BRUCE, 2015, p. 334-335). As written by Horta (2015), animals not suffering is not the only interest of non-human animals: they also are fundamentally interested in not dying. Animals have, beyond capability of direct suffering, a capability of suffering because of the suffering of others - and this also has to be taken into account to built that kind of anthropocentrism.

Although animals lack metacognitive capabilities that could enable them to be considered morally responsible for their actions, they do have *moral emotions*, such as compassion and empathy (and several researches in science sustain evidences of that), meaning that they have *moral behavior* - and that fact would make them moral subjects. Also, that fact dethrone the human being as the only species that has moral capabilities in the animal kingdom (a fact that embedded all Modern philosophy, specially the contractualism in all its branches) (MONSÓ; BENZ-SCHWARZBURG; BREMHORST, 2018, p. 283-286).

Welfarism is a term that can be used when considering human action related to non-human animal husbandry. In its simplest form, it has hedonistic features, as considers only the maximization of physical and psychological pleasure, while avoiding at any cost physical and psychological suffering - although there are some other moral goods in life beyond pleasure, such as freedom and autonomy. There are moral problems with a simpleton hedonistic welfarism, though. It is a good logical position among those who endorse the protection of the well-being of sentient animals based only on pleasure and pain, but does not considers behaviors that could harm other moral goods for animal life (MONSÓ; BENZ-SCHWARZBURG; BREMHORST, 2018, p. 287-289).

For exemple, sentience is a good argument to address what animals feel towards themselves individually and directly - but species capable of empathy and sympathy also suffer influences of the other individuals in their surroundings. Through a simpleton welfarist point of view, when a sympathetic individual of one species feels bad for the harm that is done directly to other individual, it would be enough to simply isolate it from the others (MONSÓ; BENZ-SCHWARZBURG; BREMHORST, 2018, p. 289-293).

It has also to be understood by lawmakers that thinking relationships between human and non-human animals must presuppose

that the narcissism, the egoistic anthropocentrism, only views the non-human animal as a subject of sustainable economic exploration in international plan. And this is totally contradictory in relation to the national efforts of putting sentience as a fundament to animal protection - as even the sustainable exploration disregards animal suffering, terror and agony that the economic system implies to animals by subjugating them (ADAM; SCHAFFNER, 2017, p. 16-17).

Moral emotions are not only motivations (cognitive-affective mechanisms) to engage in moral behavior, but also dispositions to feel and behave in certain ways. Sympathy, by its turn, is the character trait that disposes a being to feel distressed in the presence of others in distress and, consequently, engage in an affiliative behavior (MONSÓ; BENZ-SCHWARZBURG; BREMHORST, 2018, p. 295). Then, making an animal that is capable of moral emotions suffer is not only a matter of directly doing physical or psychological harm to it, but of putting it in a situation in which it is not capable of exercise its moral capability (such as to comfort a similar one who is suffering) as well.

3. Animal disenchantment: focusing on suffering to hide oppression

Although science has shown several evidences of animal sentience and moral capability, the same science, when used in service of economy, destroys not only the physical non-human individuals, but the ontology and the ethics between human and non-humans. Thomas Heams (2018, p. 16), for exemple, approaches the term *engineering* as an evidence that human being transforms the environment according to his interests and knowledge, producing technical objects derived from rational and intentional design. Even when such products are living beings, mankind is capable of changing and re-creating them, making evident a paradigm of animal-machine in biotechnology.

It is an evidence that instead of changing human technological systems to adequate to the needs of living things, life began to be changed to fit technology. In such solutions, living things are remade and engineered genetically to suit to necessities of productive systems - proving that genetical engineering is the tool to alter life to better fit industrial systems and become a technological commodity (as all these transformation processes are also economically valued as patents) (KIMBRELL; TOMASELLI, 2011, p. 84).

In the agricultural industry, transgenic animals (those who are conceived by synthetic biotechnology, generally by combining characteristics of one species with others) are produced both to improve yields animal products (such as meat and milk) and for specific economic traits - meaning that economy simply is redefining genetic and behavioral characteristics of non-human animals. In the age of agricultural biotechnology, genetically editing animals is the main goal, so that they not only no longer present a conflict with the machinery of production, but, in fact, become the living embodiments of such machinery. Hereupon, the aim of synthetic biology is to overcome obstacles posed by behavioral, genetic and biological variability in non-human beings by applying to them the principles of computer engineering (in order to better suit the needs of production). Then, sensuous animal life is no longer autonomous but is in fact a projection of the principles of rationalization. In this sense, Zipporah Weisberg (2015, P. 41) argues that animal biotechnology constitutes a dangerous ontological collapse between animals and the technical-economic apparatus. That ontological collapse means that the elimination of fundamental ontological tensions between embodied subjects and the principles of scientific, technological, and economic rationalization.

Such collapse meant by Biotechnology is imposed in various ways: genetic reprogramming animals (in order to turn them into uniform commodities); abstraction of animals into data and code, and, in some cases (by manipulating their movements with computer technologies) among others. Biotechnology is a phenomenological nightmare for the animals involved, as they suffer devastating injuries, deformities, and illnesses as a result of the sheer alteration of their genetic structure and the ontological collapse this process occasions (WEISBERG, 2015, p. 45). Then, such ontological violence lead to profound physical suffering for the animals involved and distort the phenomenological basis of their existence, especially their perceptual experience and expression of subjective time and space.

By subordinating non-human animals to the logic of technological rationality, biotechnology perpetuates their productive extermination, in the sense of being driven beyond the boundaries of meaningful existence and destroyed completely as subjects. They are exterminated in the sense of being overproduced and overgenerated, both quantitatively and qualitatively, as well. Such trend becomes apothetic in biotechnology, a

terrain where, on one hand, animals are constructed as quantifiable ideality, mere extensions of the human mind and, on the other hand, are defined in opposition to human beings as entirely material (WEISBERG, 2015, p. 44).

The ontological collapse is sided by an ethical collapse, which is characterized by the internalization of the logic of technique, by a lack of critical distance from which to properly evaluate the pressing ethical concerns that biotechnology raises and a corresponding failure of technoscientific culture itself (WEISBERG, 2015, p. 42).

It can be said that, as thought by Arianna Ferrari (2015, p. 9), currently technoscience shapes lives because it constantly creates visions of good life - by largely defining what is possible. It does not only applies certain principles with the review to realize certain things: it shapes systems and relationships, offering a particular mode of existence and transforming how life is lived and who beings are. It happens to both human and non-human beings: animals are in the front line of many technological innovations, being shaped in their bodies, becoming base for different technologies, suffering, dying and raising fundamental political and ethical questions.

Genetic engineering is unpredictable, often causing unintended effects. The results of genetic manipulation may not appropriately expressed; the engineering can have unwanted effects on the animal; the vector used for transferring genes can escape and enter the sequence of another organism; pathogenic viruses can appear by combining the vetor used to introduce a gene with other viruses that might already be present in an animal (KIMBRELL; TOMASELLI, 2011, p. 87). Then, it can be said that technology is being used in a very risky way in practice, putting in risk not only animal ontology for non-human species: the own human existence is probably being menaced.¹

Until this moment it was perceivable that an anthropocentric narcissistic point of view would use science to conceive a technology totally attached to economic interests - even thought the same science shows that non-human animals are capable of physical and moral feelings. It was also seen that genetic engineering and synthetic biotechnology not only alter individually the non-human animals, but also as species. This alteration is

¹For a detailed observation of risks to human and non-human animal health and environment in scientific literature, see: DE GRAEFF, 2018.

ontologically and ethically destructive, as all human/non-human relationship become fully mediated by such type of objectifying view towards the animal.

All those ideas about sentience and capability of moral feelings by non-human animals, then, receives a technocratic answer on current days: the animal disenchantment, or, in other words, genetic engineering/synthetic biotechnology designed to conceive economically appreciated non-human individuals that are not capable of feeling physical or moral pain, as they would artificially lack the genes that capacitates them for such feelings/emotions. One of the first important ethical discussions suggesting the substitution of sentient non-human animals in high intensive industrial cattle raising was Adam Shriver's *Knocking Out Pain in Livestock* (2009) articles in which the author presents the fact that recent research indicates that genetically engineered factory-farmed livestock could have reduced or completely eliminated capacity to suffer, because of the concerns motivating the animal welfare movement.

But even with such technological conception, ethics has to be refined and have space for ethical considerations about it, such as the question made by John Hadley (2012, p. 41): is it wrong to confine a non-human animal in a factory farm if it cannot not feel any pain?

As it was just seen, genetic engineering/synthetic biotechnology are contingent - in other words, the results of their operations are very often unpredictable, importing on lots of risk to human and non-human life. But in order to be not so tragic, it could be imagined that even with a very careful and well proceeded engineering, animals would continue having moral preferences for exemple. Maybe the neurophysiological apparatus removed by synthetic biotechnology is not enough to eliminate moral behavior. In other hand, even if a non-human individual lacks the physical structures to feel pain, there are several other serious issues regarding ethical treatment in relation to those animals - and such questions are not related to the non-human individual itself, but centered directly on human behavior: animal pollution in factoring farms containing non-suffering animals would continue to happen even though the animals themselves would not suffer; healthcare costs would still be high for human and non-human health; and simply confining other species after genetically modifying them in order to not feel pain says a lot - negatively - about human character.

Another contingency that has to be pointed out refers to the subjacent code: if reprogramming genetically a species means to improve some parts of the entire code, it also means that the other parts of the code (the older ones) would still work when environmental stimuli happen (HADLEY, 2012, p. 43). Then, such “hiding” older traits in the animal genome would remerge to new conditions beside the “new” ones in a totally unknown way.

Meat has passed through a drastic increase in consumption - in both developed and developing worlds. This also means that high intensity industrial agriculture has been increasing quantitatively and qualitatively. It has also been showed that animals who are grown in factory farms and analog plants are submitted to intense suffering:

Here, past these Dante’s gates, we find the Procrustean myth played out in the flesh. Farmed animals are imprisoned in alien, dysfunctional, and disease-prone bodies genetically manipulated for food traits alone, bodies that in many cases have been surgically altered, creating a disfigured appearance. Animals are debeaked, de-toed, dehorned, ear-cropped, tail-docked, castrated, and (in the case of piglets), dentally mutilated—and always without painkillers. In the procrustean universe of animal agriculture, these amputations can be made to sound sensible and even benignant (DAVIS, 2010, p. 260).

The awareness of such suffering has pushed scientists, philosophers and activists for Animal Rights towards campaigns and researches for showing sentient and (to some extent) self-aware character of non-human animals. Then, it has formed a significative moral thinking that animal suffering has to stop. A response given to such moral dilemma, in science (which has discovered neurobiological mechanisms of feeling pain in non-human animals), which could be engineered in order to mitigate (or even to eliminate) the processes of (physical) suffering, in a process that could be called disenchantment - and then, animal suffering would be eliminated in industrial livestock (HENSCHKE, 2012, p. 56).

This possibility has started an interesting - and very necessary - debate in ethics. For exemple, Paul B. Thompson (2008) arguments: although he recognizes the importance of arguments against animal disenchantment (such as repugnance, dignity and integrity of animals), he

sees no utilitarian dilemma about disenchantment, as even such arguments could not morally debunk such practice. In his point of view, by the one all the ethical apparatus used to counterpoint disenchantment, based on dignity, integrity and repugnance, is not able to overcome the problem of suffering in industrial cattle raising; by the other hand, he sees no reason why showing the virtues of moral agency in non-human animal could solve the conundrums posed by enhancement and disenchantment. Clare Palmer (2011) mirrors Thompson's skeptical arguments, pointing out that a reason is necessary to show why technological disenchantment instantiates negative human qualities (arrogance, disrespect, etc.). Simply put, the main point of both Thompson and Palmer is that nanotechnology may allow for human enhancement, but also creates the possibility of animal disenchantment - and both cannot see the development of bad human character as a good reason to see animal disenchantment as something bad as well - in other words, it can be said that both disregard narcissism as a bad quality in human character.

Soraj Hongladarom (2012, p. 48) viewed ethical problems in Thompson's utilitarian argument that raising cattle that is disabled in its capability of feeling pain (or seeing other ones suffering). The argument that capability of feeling pain is a crucial function for surviving in natural environment; but in a high-tech environment of high intensity industrial livestock, where disenchantment is possible, the natural functions of non-human animals would not be needed anymore. Hongladarom, then, questions that, if human beings are what they eat (not only biologically speaking, but also culturally and philosophically), would not it mean that accepting disenchantment would also change the human beings? For that question, alternative ways of farming, more localized and less technologically oriented (such as traditional methods of raising cattle), should be encouraged.

In the context of economically very developed countries, such as the US or those in EU, the hi-tech and high-intensity cattle raising seems to be the only option - but in developing countries, large scale livestock economy is out of context, mainly because investments for that kind of activity are too high, and because the standards of presentation of the final product of the developed countries are not required in the less developed ones (HONGLADAROM, 2012, p. 52). Moreover, when factories are home grown and locally owned, the supply chain and the local suppliers are much

tighter, making possible factories to produce more efficiently. And animals raised in traditional techniques are healthier (bigger, with tastier meat, etc.).

In order to counterpoint both Thompson's and Palmer's points of view, Adam Henschke (2012) argues that, in first place, it is necessary to make sense of what is animal disenchantment, identifying justificatory reasons for action, focusing disenchantment to include actions of its agents within social institutions. In this sense, animal disenchantment is not a particular problem, but an issue inserted in a complex institutional context - the high-intensity industrial cattle raising. And such institutional context reveals that the reasons for such practice is not reduction of capabilities of suffering/self-awareness, but increasing profits and production of meat whilst minimizing criticism: "animal disenchantment is likely to increase negative consequences and may further undermine basic human rights, whilst failing to achieve its aims of increased meat production" (HENSCHKE, 2012, p. 63).

Industrial high-intensity animal production is highly pernicious to environment (for its wastes and its necessities of producing their food); it has also been proven that animal slaughterers suffer of high levels of stress and damage; high levels of antibiotics (which will enter the food chain, ending in the bodies of consumers) are administered to factory farm animals (even to those who would be disenchanted) - and such antibiotics lose their potential with time and use, making a mass human poisoning for consuming rotten meat, as well as the development of pandemics related to the development of super bacteria real possibilities (HENSCHKE, 2012, p. 60-61).

Otherwise, animal disenchantment is not the only strategy to reduce suffering of animals. In first place, changing the environmental conditions to which such animals are submitted could also reduce their stress without having to change their genetic structure. In second place, reducing consumption of meat is another strategy for reducing the necessities of mass production (with all of its impacts to environment and human health).

If economic efficiency is analyzed within meat production (in order, for example, to feed poor people), such a pragmatic argument does not subsist, as when economic concerns are observed from a global point of view, there is no reason that could sustain disenchantment too. Firstly, large portions of arable land are required to raise food (i.e. corn and other

starch plants) for the livestock. All those fields become unable to rise other nitrogen fixing vegetables (e.g. legumes). Besides that, the efficiency of energy transfer of vegetable crops is much greater than the most efficient animal production; in this sense, disenchantment would serve as a moral palliative to authorize increment of meat (HENSCHKE, 2012, p. 62).²

Arianna Ferrari (2012, p. 65) claims, as a counterpoint to both Thompson and Palmer, that empirical facts related to disenchantment technology and costs for the non-human animals have to be taken into account in order to avoid speculative ethics arguments. Then, analyzing from an antispeciesist and abolitionist perspective a wider socio-economic context in which non-human animals are used by humans, the author concludes that only in a context of exploitation, in which animals are deprived of basic rights (making their existence become totally dependent on exploitation) the contradictions between disenchantment of capabilities and improvements of welfare of non-humans (as Thompson and Palmer presenter the question) make sense.

Then, there is no ethical conundrum pertaining to the domain of disenchantment, as the context in which it would be used does not grant them basic rights (such as freedom) and only legitimate even more extensive exploitation of them. The discussion around the theme is not about strategies for protecting non-human animals, but rather about better strategies to solve some negative effects (which have economic costs) on the animal caused by human exploitation (FERRARI, 2012, p. 74-75). Creating semi (or no) sentient beings, from an abolitionist and antispeciesist perspective, is problematic because this practice distracts from: i) the technologies involved in the real modification of non-human animals; and ii) the real motives beyond such technologies.

Marcus Schulz-Bergin (2017) is an important voice to claim that the argument against animal disenchantment (which he calls “animal diminishing”), should not be grounded on animal dignity. For the author, in first place, the creation of genetically diminished animals does not offend animal dignity; in second place, the species-based approach to animal dignity - which makes species norms (most notably species-specific capacities) directly morally significant - should be rejected, as such species norms would be only indirectly morally significant (such as a “useful guide

² For a counterpoint of Henschke's point of view, pointing out successes and failures of such arguments, read: SCHULTZ-BERGIN, 2014.

to evaluating animal welfare”). But it does not mean that his position is *for* animal disenchantment, but towards the construction of another approach to thinking human-animal relations, which could be named *Historical Injustices Approach*.

Schulz-Bergin points that the genetic intervention occurs in a moment (prior to birth) when a sentient being does not exist yet - then, there is no violation to an animal's right (which would occur only *after* the start of its existence, in other words, its birth) (SCHULTZ-BERGIN, 2017, p. 846). Furthermore, animal dignity is a term that generally issued in an intuitive manner, as advocates for animal dignity are not specific in defining which specific functions compose the sphere of dignity of a species (SCHULTZ-BERGIN, 2017, p. 848).

Species norms should be considered only indirectly relevant because they are based on the natural shape a species present in its natural environment. But such features are *plastic*, for they change according to environmental pressures in order to make individuals fit to pass its characteristics to the next generation. If characteristics (among them, the functions a species play) are not absolute because of their plasticity, then they cannot be taken into account to evaluate the dignity of a non-human animal (SCHULTZ-BERGIN, 2017, p. 851).

In order to justify the ethical wrongness of animal disenchantment, then, a Historical Injustices Approach is developed by Schulz-Bergin, taking into account other elements (as the very autor had shown that animal dignity is a flaw argument in this case).

In such approach, the historical context of injustice that industrial animal agriculture represents is the *locus* where the proposal for genetically diminishing animals appear. Such kind of cattle raising creates lots of suffering to the involved animals - then, disabling their suffering would make the industry morally right. Such kind of opinion “blames the victim” (in this case, the confined animal itself), which is a perverse way of thinking. In a Historical Injustices Approach:

sentient agricultural animals are an historically wronged group. They have been systematically wronged for generations, and we have all benefitted from that wrongdoing. The intuition that diminishment is wrong, then, can be grounded not in the wrongness of creating diminished animals per se, but in identifying animal diminishment as the

solution to our wrongdoing. Creating diminished animals fails to display remorse for the wrongdoing that we nevertheless recognize (SCHULTZ-BERGIN, 2017, p. 854).

Such approach, insofar it considers the original context of wrongness (and not merely intuitively supposed dignities) show that those historically responsible for the damages caused to domesticated species are just trying, by hi-tech means, to diminish their responsibility, and to to compensate for the damages. Expressing a complementary result (although obtained following another point of view, the logic of domination from ecofeminism), Murphy and Kabasenche (2018, p. 235) point that animal disenchantment is a temporary measure to addressing the deeper issues of oppression. In such perspective, animal suffering is not the root problem, but the fact that the current high-intensity animal farming fundamentally oppresses animals, doing harms not only to the animals, but also to those who are in close relationship with them, as it disrupts any prospect of meaningful relationship human/animal. Animal suffering, in that logic, is a mere by-product of the oppressive conditions in which animals live and die, and animal disenchantment addresses only such by-product (without softly touching the surface of systematic oppression).

Then, it is clear that there is no agreement about which argument(s) should embrace a philosophical contrariety. There are some who see animal disenchantment as a good practice, as it would avoid suffering on animals and there would be no reason to justify its misuse. Others view the issue as something justifiable because of animal's dignity and integrity - but their arguments are to considered valid by others who consider "dignity" and "integrity" not as rational basis, but only intuitive. However, the last ones are radically against animal disenchantment based on other arguments, mainly the highly unjust and oppressive industrial animal farming system, that embraces the practice for mainly economic reasons, without changing its context.

4. Conclusion

After the ponderation of all those arguments, it is time to conclude this research. And in this sense, firstly, understanding the narcissistic trend that characterizes human mind is important to build a self-critic theory about anthropocentrism. Secondly, it is necessary to understand the belief

in human superiority - which leads us to question the human permission to genetically change other natural entities in the world (genetically altering farm animals to deal better with overcrowded environments, for example). That questioning is, in fact, about the role the human species plays in relation to other species, considering our wider responsibility for other species. From our capability of using the reason, then, a critical anthropocentrism starts to be built, through which the human being, based on scientific facts and philosophical arguments.

Such facts and arguments show us that there are many shared biological and psychological characters by human and non-human animals, although each one in a different context. Both feel pain, share common ancestors and suffered pressures from analog natural factors. Those shared characters between human and non-human, then, could help building a finer notion of respect - that comes from analyzing a complex of facts and arguments, which shows us that non-human animals also are subjects-of-life, and this reason gives them the ownership of fundamental rights to life and welfare. Beyond sentience and shared biological facts between human and non-human animals, that notion of being subjects-of-life has to be increased with other characteristics - such as empathy and sympathy, of which non-human animals are also capable.

The anthropocentric narcissistic perspective conceives scientifically a sheer economic interested technology (even when the same scientific knowledge is full of evidences that animals are sentient and capable moral feelings). And genetic engineering/synthetic biotechnology not only alter individually the non-human animals, but also as species. This alteration is ontologically and ethically destructive, as all relationships between human and non-human become fully mediated by an objectifying view towards the animal.

The philosophical contrariety to animal disenchantment can be developed from several perspectives - being the most common ones in literature, until the present moment, one based on the dignity of the animal, and another, which rejects disenchantment based on the destructiveness of the economic system which explores the animal in very unfair means (and needs a way to hypocritically veil itself through technology). The second position disregards dignity and integrity as plausible fundamentals for a philosophical rejection because judges such bases as being too intuitive - and that is why develops a philosophical

theory focusing on the environment (the industrial high-intensity animal farming).

Perhaps dignity is too intuitive in the current moment philosophy (even though current science has shown that animals are self-conscious and sentient), but one thing seems to be for sure: no matter what is the philosophical fundament for rejecting animal disenchantment as a fair practice, every opposition recognizes the nefarious and hypocritical characters of such practice, available to industry to masquerade its real features.

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