Introducing Veganism Education

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Abstract: The current thinking of the majority of people is based on the tacit belief that animals are objects without consciousness that can be used as food, disguise material and toys. This view needs to be changed by introducing veganism - the scientifically based viewpoint that animals are relatively primitive conscious living beings that must be treated as such. The ongoing trend toward improving animal welfare and spreading acceptance of animal rights must be supported by educational efforts. The educational community must contribute to such a change in mentality by changing school culture and educational processes. The school education system must teach and support the vegan mentality and behaviour. In this article, changes in educational goals and practises are described. Discussion topics about the use of animals for food, entertainment, and other purposes, are offered. Guidelines for promoting veganism and features for educational innovation are given.

Keywords: veganism education, veganism, humane education, eco-friendly education.

Introduction

Today, animals continue to be used for human enjoyment, entertainment and cost reduction, being seen as things having no consciousness and desire to live. This is at odds with simple observations and advances in ethology and neuroscience, which demonstrate the similarity of animal nervous systems to the human nervous system, including the ability to perform basic mathematical functions in the head (Irie et al., 2018).

Habits and attitudes towards the use of food of animal origin and animals are formed in people at pre-school and early school age. The modern education system supports the archaic system of beliefs about animals which is in the interests of the part of the society benefitting from the use of animals. However, in recent decades there have been changes in the culture and the ethics of animal use. The education community must support, sustain and develop these trends.

At least since the 19th century within the framework of the humane education project, there have been efforts to change people's mentalities and mould children’s minds into a new shape by abandoning traditional beliefs about animals that are manipulated archaic relics and developing new ones, cf (Burnett, 2000; Unti et al., 2003). The education system must introduce and further develop humane education by introducing features and activities that promote and cultivate empathy and respect for all life. Innovations in education content, methods and environment must be preceded by professional, public discussions.

Veganism elements in education and the corresponding discourse in the education community will greatly contribute to promoting sustainable mentality and life patterns, cf (Iliško, 2020). Vegan behaviour is a health and environment sustaining factor. The established health and environment components of the educational discourse will interact with the veganism component, see also (Adams, 2009; Cartea, 2005). Most importantly, vegan thinking leads to an ethically justified, humane mentality and behaviour, see also (Heasly et al., 2020). The veganism discourse and the involved people will influence and develop the educational tasks, steps and goals related to empathy with respect to both animals and humans, cf (Faver, 2010; Samuels, 2007; Thompson et al., 2003).

This article describes and explores the possible features of an education reform which would establish veganism as an educational goal. The aim of the article is a motivated call and the posing of a problem for the international education community and society in general - to introduce vegan culture and upbringing in schools via educational innovations.
Methodology

The general qualitative research problem touched in this article is the feasibility of inclusion of veganism elements into educational framework. The main research task was to formulate an extended proposal supporting development of veganism education features, to identify subareas, to collect lists of supporting arguments and educational features for such a development. The task was performed constructively studying existing published literature on animal welfare and education, applying it for needs of the task.

Results and Discussion

Overview of basic concepts of veganism

Human development has reached a level where the use of animals for survival is no longer necessary in many ways that were important in earlier stages of history and evolution. In such directions, the use of animals continues for pleasure, entertainment, cost reduction and employment. These animal uses are linked to misconceptions about animals. People do not have to live with these misconceptions, because no misconceptions are desirable and productive, and they degrade their carriers.

In this article, by veganism, the author means a concept that goes beyond the exclusion of animal products from the diet. The author defines veganism as a philosophy based on the abandonment of the use of animals for purposes that are not important to human health. Veganism - non-acceptance of the use of animals is an integral feature and part of individual and collective development and maturity. Vegans and animal rights activists are constantly expressing the need to review and change people's mentalities and attitudes towards animals to reduce the amount of animal suffering – to significantly reduce the use of animal products in food and medicine and to exclude the use of animals in all ways that are not important for human health. Apart from introducing prohibitively high costs and requirements, the pro-vegan mentality change is a necessary condition for abandoning unethical uses of animals. A significant change in people's mentality seems impossible without changes in educational goals and reforms in education.

A part of the society – individuals, business companies and professional communities that are involved in the use of animals, carry out constant propaganda to maintain the existing mentality, which is also felt in education. This is done to maintain their employment and income - demand and consumption of their products and services. They can only exist in the current proportions because people are raised not to think about animal consciousness, are brought up to be insensitive and cruel to animal suffering. The public is misled about the realities of using animals. Special attention is paid to children who, due to their “blank sheet of paper” state, their sharp feelings and instincts, are easily affected. The experience and mentality of violence and cruelty negatively affect people involved, it spreads from people working in animal husbandry and other animal exploitation industries to the rest of the society. The high weight of animal-using industries is typical of countries with a low level of industrial and general development. Non-food industries based on the use of organic matter are a sign of backwardness.

There is also the use and neutralization of animals for human health purposes, which can be considered at least partly ethically justified (use of animals in the testing of drugs and surgery techniques, training of surgeons, use of animals as donors of biological substances and organs in medicine and science, drug production, pest and pathogen neutralization).

Necessary features of veganism education

The following sections provide proposals of general guidelines for implementing veganism education and discussion themes.

General guidelines. The education system and its personnel need to adopt scientifically and ethically sound, scientifically updated views on animals and plants and change the education system and environment. Features need to be introduced and integrated into the education system to promote veganism and corresponding behaviour, to abandon the archaic thinking about animals. This should be done starting from pre-school age and first school years. Veganism education must change children’s and other learners’ attitudes towards animals which is instinctive and formed by evolution.
Vegan education must contain both global and local features which would address national traditions of animal abuse. It must be introduced with changes in national educational laws and the corresponding regulations of national authorities.

The school must encourage people to give up all uses of animals, starting with less important ones. Students need to be taught to feel guilt and other negative emotions about using animals. Schooling must initiate vegan behavioural patterns in their simplest forms which will have a potential to be developed in future years. It is unrealistic to force everyone to give up the use of products of animal origin in food before their artificial substitutes are available, as this is a basic physiological feature developed by evolution. However, the maximum possible abandonment of animal products for human consumption and complete abandonment of other uses and treatments of animals not related to human health should be encouraged. At preschool and elementary school age, given children's susceptibility to quasi-religious, emotional attitudes, it is possible to nurture the belief that humans are superior, god-like beings, who as such must treat lower beings ethically, reduce the amount of animal suffering and its extreme manifestations. Understanding veganism and renouncing the abuse of animals is a process that goes hand in hand with an individual's intellectual development. The school must stimulate students' ethical and intellectual development through veganism.

At the youngest possible age, students should be taught about the close similarity and evolutionary relations of animal and human biology, especially nervous systems. Publications in scientific journals such as Ethology and the Journal of Ethology are preferred. Studies demonstrating the ability of animals to count, such as (Irie et al., 2018), should be discussed. Vegan education can be integrated into biology, psychology, language, business, housekeeping classes and extracurricular activities.

Vegan upbringing should be done without expecting the children's immediate understanding and positive reaction. By analogy, religion and religious upbringing can be recalled - all religions proclaim high moral values that are observed by only a fraction of people who assert themselves as religious. Like religious upbringing, vegan upbringing must be seen as a facilitator of children's moral and intellectual development used to improve society. See (Linzey, 2013).

In addition to veganism, it is desirable to cultivate a mentality supporting reasonable and rational use of plants. For instance, the use and destruction of plants solely for aesthetic purposes (such as growing Christmas trees and flowers) must be viewed as ethically unjustified practices.

**Aims and directions of vegan upbringing.** The goals of vegan education should be as follows.

1. To instil in children the perception of animals as beings with human-like instincts and consciousness that are only more primitive than humans, to instil guilt feelings and a duty to stop causing suffering to these lower beings, to stop keeping animals in unnatural conditions.

2. To cultivate the complete abandonment of all uses of animals except for food and medicine.

3. To change the attitude towards the use of animal products in diet equating them to medical substances, consciously limiting their use. To cultivate dignified and emphatic treatment of animals used for food and medical purposes.

Directions of vegan upbringing include:

- a negative general attitude towards the use of animal products in food;
- a negative attitude towards the use of animal products in clothing, footwear, hygiene and perfumery;
- negative attitudes towards the use of animals for recreational purposes, such as pets, zoos, etc.;
- a highly negative attitude towards deliberate violence against animals for recreational purposes, such as hunting and fishing;
- minimally cruel and violent treatment of animals considered to be pests;
- negative and critical attitudes towards violent use of animals in low-value research and educational activities;
- understanding and empathy for justified uses of animals in food and medicine.

Vegan awareness and upbringing topics need to be introduced in several study subjects. Biology lessons should explain the similarities between animal and human body structures and nervous
systems, the potential health damage that can be caused by products of animal origin, and the impact of animal use on the ecology. Animal consciousness research and evidence need to be mentioned. The fallacy and marketing enforced nature of past and present views must be shown. Psychology classes should teach about the human mental characteristics that are related to the interaction with animals, such as aggressiveness. Subjects related to psychology should include topics and exercises on animal consciousness and intelligence and their manifestations. In housekeeping and personal hygiene classes, only vegan cooking, proper storage of vegan food and agricultural products should be taught. In economics classes, it is necessary to teach about the marketing techniques of animal users, about the place of animal-using industries in the economy. History classes may include topics on the history of the use of animals, the need for the use of animals in earlier periods of history. National features and traditions should be realistically and critically discussed in appropriate classes.

In school canteens, individual and collective events in schools, mainly vegan dishes or dishes prepared according to special recipes should be used.

During school attendance, on school premises, in teaching materials and in the electronic resources of the education system, propaganda, advertising and mention of the use of animals through visual and other means must not be permitted. Usage of animal images should be banned especially at early ages. The position of all teachers in appropriate collective and individual communications with students must be vegan. Teachers must set examples of vegan behaviour.

The education system must maintain the process of tabooing and forgetting the part of the traditional language associated with the use of animals. Teachers should exclude from their language words that refer to parts of animal bodies, products and processes related to animals, such as "meat". Such words should be replaced by words and phrases that create and support vegan attitudes. Negative words and expressions that misuse animal names, such as "beastly", should also be excluded from the language. On the other hand, words and deceptive semantic tricks invented by animal businesses to mask animal abuse, such as the phrase “to put to sleep” or giving pets verbal human characteristics for marketing purposes, should be uncovered with criticism before children. It is also desirable to introduce new features in the language that would facilitate the ability to consider animals as beings with human-like characteristics.

Students should be informed about the negative features of animal use processes. Human insensitivity and cruelty to animals must be demonstrated. On the other hand, understanding and respect of the part of the society involved in justified uses of animals in the medicine and the food industry must be taught.

Age-appropriate instincts of students and associated aggression towards animals should be taken in account. Vegan education is similar to anti-smoking and anti-alcohol education - it must be a sustained long-term project that will give the desired results after several generations.

Vegan thinking as a sign and a part of high intellectual development must be taken in account in the human resource management of the education system. It must be defined as a part of the teacher's professional competence. Vegan-minded individuals must have a higher professional status and greater decision-making rights in education. Schools and education systems must not be run by individuals who do not understand or accept veganism.

Vegan upbringing methods should be planned according to the age of the children. Personification of animals may be used at pre-school and younger age levels by giving them names. New forms of play and entertainment that do not use animals and references to them should be introduced. Scientific arguments can be used in the senior classes. It is desirable to group students in ways that would support spreading the vegan attitude. Continuing education and adult learning should contain veganism education. Vegan education should be included in university teacher training curricula. Agricultural study programs and educational practices may need reviews and changes. Humane education project, its history and current state should be discussed.

National and international workgroups of active people willing to discuss and promote veganism should be formed. Results of the discussions should be considered by the education authorities.

Use of animal products in food - upbringing and changes in the environment
The use of animal products in most traditional diets is the most widespread and cruel form of animal use that should receive a significant amount of attention at school. The previous period of evolution, in which the use of animal products has been important for survival, has imprinted into human consciousness the high nutritional value of animal products encoded as the satisfaction and valuable taste feeling of these products. Taste enjoyment as a factor of demand has significantly increased the use of animals using modern technologies. See (Linzey et al., 2019).

While it is unrealistic and unnecessary to teach complete abandonment of animal products in food, it is necessary to change people’s attitude to it.

Students should be taught that animal products can only be ingested to the extent necessary for the maintenance of health and growth. The use of animals in food must be rhetorically equated with cannibalism. Reductions in the volume of animal products can be permanent or periodic when animal products are not consumed for certain periods. The educational goal should be to equate the use of animals in food with their use in medicine, with corresponding changes in thinking and behaviour. Additionally, it is necessary to create the perception that animal products in the diet are something reprehensible, shameful and undesirable. It is necessary to train abstinence from the consumption of animal products in public, to adopt the use of necessary animal products as an intimate, covert procedure to be performed alone at home behind closed doors. It is necessary to cultivate the use of only plant-based products at celebration events. The evolutionary origin of the taste and satisfaction caused by animal products has to be explained.

In biology classes, veganism can be associated with the existence of common ancestors of humans and all other living organisms. Only vegan cooking should be considered during housekeeping classes.

**Catering in educational institutions.** Regardless of veganism education, school catering culture and meals are part of the overall educational process. Taste hedonism should be used as an educational tool. The school canteen menu and school meals must be based on symbols and metaphors and must be of high ethical and aesthetic value.

Catering activities in educational institutions must be used to support veganism education. For vegan upbringing and behavioural change, in school, kindergarten canteens and collective events, the use of animal products must be reduced or even stopped. This needs to be done particularly thoughtfully and consistently with younger students, as eating habits and pleasure reflexes (pleasure traps) develop at an early age. Students should be introduced to plant-based food and short periods of eating only such food. It is desirable to introduce vegan-oriented teachers' speeches during meals, which would be analogous to the grace prayers popular in Christianity.

Animal products must not be clearly visible, concentrated and compactly spaced in food. They must be processed and mixed or coated with plant products. Dishes with ingredients of animal origin must be deliberately made unsavoury, e.g. by removing certain components, but dishes made from plant products must be as tasty as possible, e.g. by adding extra spices. The use of delicacy products, such as ice cream, containing animal products should not be permitted. These and other appropriate modifications must be made without compromising the necessary nutritional value. Nutritionists need to offer solutions (food recipes) that support the upbringing of veganism. Opportunities for students to voluntarily choose only plant-based dishes should be encouraged.

**Use of animal products in clothing, footwear, covering materials and hygiene**

Students should be taught to take a negative view of the use of animal non-food products: clothing, footwear, cover materials for bags, furniture and car seats, hygiene and perfumery. This applies in particular to the use of these products for decorative purposes, to create tactile, aesthetical and olfactory pleasure. Children need to be taught in detail that obtaining such products follows the suffering and killing of the animals. A negative and eradicable example for students is the use of fur and skin products for decorative purposes. Students should be taught to recognize animal, plant and artificial materials. The use of animal wool as a renewable and relatively non-violent product can be mentioned. It is desirable to introduce a recommendation for students to visit the school using only clothing and footwear that do not contain animal tissues. The aim of upbringing should be the complete abandonment of the use of ingredients of animal origin in these areas.
Use of animals for entertainment

Students must be instilled negative attitudes towards the use of animals for recreation purposes, from pet keeping to hunting.

**Pet culture.** A case of widespread and reprehensible use of animals for entertainment is pet keeping. Some animal species are considered to be live toys and psychotherapy tools that can entertain, attract children's attention and satisfy parental instincts. People treat pets as things that can be kept on a chain, in a cage or confined space, castrated, thrown out or killed when the owners get tired of them. Pets are usually kept in conditions that are significantly different from wild conditions. Pet keeping differs from animal product consumption only in its relatively non-violent nature. Pet culture is promoted by businesses and individuals whose income is made by selling such animals. Children suffer the most from such propaganda because they like any kind of toy.

Apart from violence to animals, pet culture is a socially negative feature. A part of the limited human attention, time and material resources that need to be devoted to oneself and the people around is constantly wasted aimlessly while playing with animals. Pets are a procreation drive satisfaction factor and tool for females which contributes to the low human birth rate. Additionally, certain anti-social behaviour features can be developed in some young adults being close to helpless and dependent live beings. Nowadays, there is no indispensable practical justification for pet keeping. Populations of animals used and bred earlier for hunting, agriculture, transportation, domestic and aesthetic purposes should be significantly reduced and kept in sanctuaries. Different treatment of pets and food-producing animals creates a contradictory mentality in children. Pets spread infections and parasites. Dogs and other predators may cause serious, even lethal, injuries to people. Pet production overproduces these animals, which is another man-made problem that needs to be addressed by society. The most popular pets are cats and dogs - carnivores, which create additional demand for animal food products. Some pets such as cats pose threats to wildlife.

The desired situation is the complete eradication of pet culture in society. The unethical features and social harmfulness of pet keeping are not yet widely understood and accepted. On the contrary, owning living toys is considered normal and even desirable for children. Schools should change children's attitudes towards pet keeping. Students need to be educated that people must live with people, that all their time, resources and attention need to be devoted to themselves, people around them and other fellow human beings, that animals are not toys. It must be made clear that animals cannot replace humans in any sense. Misleading practices of calling pets “boys” or “girls” should be criticized and discouraged. Students should be informed about pet businesses and their marketing practices.

**Hunting and fishing.** Intensive and sustained educational work should be carried out to create a particularly negative attitude towards violence against animals for entertainment. This should apply equally to all animal species, starting from insects, to any wildlife activities that do not involve veterinary assistance or prudent non-violent bioregulation.

In particular, it is necessary to fight against such activities as recreational hunting and fishing. Children need to be taught that entertainment cannot be about killing or maiming living and conscious beings, the destruction of wild animals with minimal violence can only be allowed for legitimate epidemiological or safety purposes, people today need to protect themselves and their property from wild animals by non-violent means. It must be taught that the use of firearms against animals is permissible only for self-defence purposes, following the rules for self-defence against humans, including, for instance, warning shots. The use of other animals (such as dogs) in hunting is also reprehensible. An example of an ethically sound approach to hunting is the attitude of indigenous peoples in North America, cf. (Reo et al., 2012). Fishing as a form of recreation must also be condemned, cf. (Balon, 2000).

**Entering animal life.** Children must be taught that entering any wildlife territory or even territory which is not constantly used by humans, such as forests and agricultural objects, or contacting in any way animals should be considered a violation of animal privacy and should not be practised. As supreme beings, humans should not interfere with the lives of animals for recreational reasons.
Circuses and public zoos. Children need to be instilled a negative attitude against the use of animals for entertainment in outdated facilities such as circuses and recreational public zoos. Collective visits to circus events and zoos for entertainment purposes should not be allowed. Instead, visits to livestock farms are desirable. Negative attitudes towards the use of animals for recreational purposes should be taught, among others, in psychology classes.

Treatment of wild animals living close to humans

There is a need to cultivate less cruel treatment of animals, which people call pests. It must be made clear that negative attitudes towards pests and other animals that cause harm and discomfort to humans are instinctive. Children need to be taught that the negative effects of pests in the past, such as disease spreading, can be prevented today not just by destroying them. People can avoid it, i.e. to protect their health without unduly cruel treatment of animals. Counteracting animals that cause harm or discomfort to humans due to their survival efforts may be limited to proper storage of crops and food, proper organization of agricultural processes, disinfection, cleanliness, proper use of clothing, proper lifestyle and maintenance of the environment. Such skills must be taught in housekeeping and hygiene classes.

Use of animals in unnecessary studies

Students should be provided with information on the brutal use of animals in research and education. Every year, millions of animals are used in in vivo and other scientific research, production research and educational processes. Only part of scientific research using animals can be ethically justified, as there are areas of medical and basic biological research in which drugs are tested on animals, or which uses tissues and other materials that can only be obtained from animals or humans. Some studies that use animals violently are not essential to human health or biological progress. Even violent transfer of wild animals from their natural environment to a research facility for low-value research is not justified. Animals are considered simplified and inexpensive human models that can be used in less important studies when human use is too expensive (Greek et al., 2013). Animals are usually killed after experiments. The right of humans to use animals in experiments, including in vivo, without restriction, is not called into question. Students need to be informed about the lack of justification and ineffectiveness of many experiments (Knight, 2008). There are people who exploit the suffering and death of living beings for their career interests. For research on ethical issues, see (Rogozea et al., 2015). Students should be informed about alternatives to animal testing such as the use of computer tomography, other tissue scanning methods and mathematical modelling.

Positive consequences of vegan upbringing

Vegan upbringing will produce the following positive long-term results. A children's mentality will be formed, in which animals will be considered as organisms with a human-like nervous system and consciousness, empathy for any life will be developed. The number of people who treat animals violently and inhumanely will decrease. Vegan upbringing will have a positive effect on children's attitudes towards violence among humans and interpersonal relationships. The new generations will feel integrated into the global international movement to stop the use of animals.

Conclusions

Our study identified educational steps, activities and subareas that may be important to implement veganism. As described in this article, content of education and the school environment can be modified to support the development of vegan thinking and veganism in society. Vegan thinking can be nurtured by changing the content of appropriate learning units, introducing new skills and competencies, and modifying the school environment. Implementation of the proposed educational changes will not require extra human and material resources. Education and self-education of teachers is necessary.

Bibliography

1. Adams, W.M. (2009). *Green development: Environment and sustainability in a developing world*. NY: Routledge. DOI:10.4324/9780203929711.
2. Balon, E.K. (2000). Defending fishes against recreational fishing: an old problem to be solved in the new millennium. *Environmental Biology of Fishes*, 57, 1–8. DOI:10.1023/A:1007684911190.

3. Burnett, C. (2000). Humane education. *Animals Today*, 8, 18–20.

4. Cartea, P.A.M. (2005). In praise of environmental education. *Policy Futures in Education*, 3(3), 284-295. DOI:10.2304/pfie.2005.3.3.6.

5. Faver, C.A. (2010). School-based humane education as a strategy to prevent violence: Review and recommendations. *Children & Youth Services Review*, 32, 365–370. DOI: 10.1016/j.childyouth.2009.10.006.

6. Greek, R., & Menache, A. (2013). Systematic Reviews of Animal Models: Methodology versus Epistemology. *International Journal of Medical Sciences*. 10 (3), 206–21. DOI: 10.7150/ijms.5529.

7. Heasly, B., & Lindner, J., & Iliško, Dz., & Salīte, I. (2020). From initiatives, to insights, to implementation of the sustainability and securitability agenda for 2030. *Discourse and Communication for Sustainable Education*, 11(1), 1-4. DOI: 10.2478/dce-2020-0001.

8. Iliško, Dz. (2020). Responsible Consumption in Anthropocene. in: Leal Filho W., Azul A., Brandli L., Özyuar P., Wall T. (Eds.). Responsible Consumption and Production. Encyclopedia of the UN Sustainable Development Goals. Springer. DOI:10.1007/978-3-319-95726-5_86.

9. Irie, N., & Hiraiwa-Hasegawa, M., & Kutsukake, N. (2018). Unique numerical competence of Asian elephants on the relative numerosity judgment task. *Journal of Ethology*, 38, 127. DOI: 10.1007/s10164-018-0563-y.

10. Knight, A. (2008). Systematic reviews of animal experiments demonstrate poor contributions toward human healthcare. *Reviews on Recent Clinical Trials*. 3 (2), 89–96. DOI: 10.2174/157488708784223844.

11. Linzey, A. (2013). *Why Animal Suffering Matters*. Oxford University Press. DOI: 10.1086/652489.

12. Linzey, A., & Linzey, C. (Eds.). (2018). *Ethical Vegetarianism and Veganism* (1st ed.). Routledge. DOI:10.4324/9780429490743.

13. Martinsone, K., & Pipere, A., & Kamerāde D. (2016). *Pētniecība: teorija un prakse* [Research: theory and practice]. Rīga: Raka. (in Latvian).

14. Reo, N., & Whyte, K. (2012). Hunting and Morality as Elements of Traditional Ecological Knowledge. *Human Ecology*, 40(1), 15-27. [http://www.jstor.org/stable/41433089](http://www.jstor.org/stable/41433089). DOI: 10.1007/s10745-011-9448-1.

15. Rogozea, L.M., & Diaconescu, D.E., & Dinu, E.A., & Badea, O., & Popa, D., & Andreescu, O., & Leasu, F.G. (2015). Bioethical dilemmas in using animals in medical research. Challenges and opportunities. *Romanian Journal on Morphology and Embryology*. 56(3), 1227-31. PMID: 26662165.

16. Samuels, W.E. (2007). Humane education: How to nurture empathy in children. Encyclopedia of Human-Animal Relationships: A Global Exploration of Our Connections with Animals, In M. Bekoff, J. Nystrom (Eds.), Westport, CT: Greenwood Publishing Group, 680 – 683.

17. Thompson, K.L. & Gullone, E. (2003). Promotion of empathy and prosocial behaviour in children through humane education. *Australian Psychologist*, 38, 175 – 182. DOI:10.1080/00050060310001707187.

18. Unti, B. & DeRosa, B. (2003). Humane education: Past, present, and future. In D. J. Salem, A. N. Rowam (Eds.), The State of the Animals II: 2003.Washington, D.C.:Humane Society Press, 27–50.