



Meinungen und Kommentare

Goran Knežević

Animal Use in Higher Education in the SEE (South Eastern Europe) Region

Summary

In the SEE region the alternatives to animal use in higher education, which can decrease or completely exclude animal use for dissection and vivisection purposes, are still not well known. A survey of the current situation at universities and other educational institutions, including primary and secondary schools, shows that alternatives will remain under the shadow of unnecessary dissections and animal experiments performed on numerous animal species for a long time to come.

Zusammenfassung: Tierverbrauch in der universitären Ausbildung in Südost-Europa

In Südosteuropa sind Alternativen zur Verwendung von Tieren im Unterricht, die eine Verringerung der Tierzahlen oder gar den Ersatz der Versuche bewirken könnten, noch kaum bekannt. Eine Betrachtung der gegenwärtigen Situation an Universitäten, aber auch an Primar- und Sekundarschulen zeigt, dass Alternativen noch für eine beträchtliche Zeit im Schatten von vielen unnötigen Sektionen und Tierexperimenten stehen werden.

Keywords: South Eastern Europe, education, alternatives

Current situation

The SEE (South Eastern Europe) region includes a number of countries that have been classified as so-called "countries in transition". Many of these countries are faced with problems of fickle financial, political and social stability that have a big influence on the application of many laws and regulations responsible for coordination of the society as an entirety. The consequence of chronic social underdevelopment also has its effects on higher educational institutions, which play a key role in shaping the highly educated class of the society. The consciousness of the importance of this role that educational institutions take has still not developed far enough and, unfortunately, many universities have not included significant innovations in their curricula for a long time.

A number of universities which provide lectures in biology, human and veterinary medicine, agriculture, etc. are still using a great number of animals with to explore their anatomy and physiology. Mostly, the animals are used not only for educational purposes but also for research, if there are financial or strong scientific justifications. It is common that students, with the support of their professors, perform experiments on animals and dissections for their seminars and ex-

ams. The Faculty of Sciences in Banja Luka (Bosnia and Herzegovina) is an example of such practice. In general physiology lessons, biology students performed toxicity tests on fish with pesticides. A great number of animals from different species is killed for dissection to explore their anatomy. For instance, at the Faculty of Sciences in Banja Luka, students are required to dissect a number of cuttlefish, snails, sea urchins, earthworms, crayfish, etc. every year to study the zoology of invertebrates. As every group of two students dissects one specimen, the number of invertebrates killed for dissection every year is very large. Very often, students dissect even more animals for practical training for their exams. Students of biology at the Faculty of Veterinary Medicine in Belgrade (Serbia and Montenegro) are required to perform dissections and vivisections on sixty mice per class (160 students) to study the preparation of chromosomes and 48 frog hearts to study the physiology of the heart. For subjects such as anatomy and morphology of animals, physiology, zoology of invertebrates and vertebrates at biological, veterinary and medical faculties an enormous number of different animals, including invertebrates (mussels, snails, crayfish, etc.) and vertebrates (frogs,

chickens, pigs, sheep, etc.) are used every year.

Where do the animals come from?

Many invertebrates are taken from their natural habitats. Thus "scientists" are causing huge changes in different ecosystems and affecting the biodiversity. Students of biology, ecology and environmental protection in their third and fourth term at the Faculty of Sciences in Banja Luka are obliged to go on an excursion and participate in catching specimens for dissection purposes. These students are also requested to participate in a seven-day excursion to the Montenegro seaside to catch marine animals for educational purposes. On such tours, students with professors and qualified workers catch marine animals from a fishing boat with nets. Everything up to thirty meters below sea level is captured and preserved for future analysis by dissection. After this procedure, the bottom of the sea is left as a desert. Some other faculties such as, for instance, the Biological Faculty in Belgrade and Faculty of Science in Zagreb (Croatia) have their own "breeding farm" for rats and other animals for experimental purposes. But also captured animals, such as snails, frogs and earthworms are kept there.



Often students are asked to buy and catch animals by themselves for dissection and vivisection purposes. In this way unqualified students catch and kill a number of animals without real necessity, disturbing animals in their natural habitats and affecting the biodiversity of ecosystems. A smaller number of animals is supplied by slaughterhouses, veterinary clinics, farms and stray-houses for educational and research purposes. Animal lovers, who do not know how the animals will be treated, bring their unwanted animals to establish aquariums and terrariums within the faculties and schools, believing that science could benefit from observing the animals.

What happens to "used" animals?

In most cases the final storage of dead animal bodies used for vivisections and dissections is not clearly defined. Many faculties store the corpses of dead animals in plastic bags and throw them in the city garbage containers. Although some institutions have specially built storage containers, they are often not used for this purpose.

What is the students' attitude toward dissections and vivisections?

Students' reactions to animal experiments and dissections are different. Most students accept dissections and vivisections as an obligatory part of the curriculum of their studies. Many students

express their disdain for such approaches, but still only a minor number of students voice their disagreement publicly and protest by refusing to participate in performing and observing the dissections and vivisections.

The main reason why many students, despite differing moral and ethical beliefs, continue to dissect and perform experiments with animals, is the penalty provided by professors. Many conscientious students are exposed to blackmail from professors and are even forced to change their study group. A number of students do not want to provoke the professor's anger and in the end accept to perform dissections and vivisections.

The students' thoughts and attitudes toward dissection and vivisection issues have not been surveyed yet and thus the distribution of opinion on these questions is not clear.

According to a survey that carried out by the student association of the Biological Faculty in Novi Sad (Serbia and Montenegro), *Jofis Pancic*, more than 70% of the questioned students said that the dissections and vivisections should be offered as an optional course, not as an obligation. Also, a great number of students said that they would support alternatives to dissections and vivisections if they existed. The survey included 58 students from the Biological Faculty in Novi Sad (general biology, ecology and environmental protection majors) and 46 students from a high school

"*Svetozar Markovic*" in Novi Sad.

The students were asked to answer Yes or No to ten questions. The results are as shown in Table 1.

Why are alternatives so far away from being used in the SEE region?

There are many reasons for the lack of the alternative methods in higher education in the SEE region. One is the poorly equipped classrooms regarding computers and other multimedia equipment. A second reason appears to be insufficient communication between professors and students with their colleagues abroad, who have experience in the use of alternatives. This fact is not surprising as less than 10% of inhabitants of the SEE region have access to the internet (Croatia 18%, Serbia and Montenegro 9%, Bosnia and Herzegovina 2%). Another huge barrier to gaining knowledge on alternatives is the language barrier: Most information concerning alternative methods is written in English.

What could be changed?

Education is the key. Teachers at primary, secondary and higher schools as well as students and pupils should pay more attention to the creation of a public conscience for the diversity of life and its importance and for respect of all living beings. A more intensive use of computers and other media would be an important tool to replace invasive experiments and dissections in higher

Tab. 1: Results of a survey at the University of Novi Sad in Serbia and Montenegro concerning animal use in biomedical education (58 students from university, 46 students of a high school)

Question	University students (%)		High-school students (%)	
	yes	no	yes	no
I wish I could choose whether or not I want to perform dissections	72,5	27,5	79,2	20,8
I face a huge stress when I dissect	32,8	67,2	35,2	64,8
If I could choose I would never perform animal dissections	48,3	51,7	57,2	42,8
I think I would learn less by observing a dissection or experiment presented on a computer	69,0	31,0	81,2	19,8
Each student has a right not to participate in dissections if he/she doesn't want it	77,7	23,3	66,0	34,0
I don't care if I kill animals while performing experiments and dissections	23,3	77,7	45,0	55,0
If an alternative to dissections existed I would immediately support it	69,0	31,0	52,8	47,2
Computer simulations cannot replace experiments <i>in vivo</i>	74,1	25,9	73,6	26,4
Animals are not worthy beings and have no feelings	6,8	93,2	29,6	70,4
I would have more volition to learn certain subjects if they didn't contain dissections and vivisections	29,3	70,7	35,2	64,8



education in the SEE region. Seminars, lectures or workshops on the possibilities and advantages of alternative methods should become an essential part of higher education. Most significant would be an improved communication and exchange of experiences and knowledge among educators, students and the public.

The educational systems in the SEE region must develop further. This is a great challenge for all participants in education. Now it is up to the conscience of professors and students to make first steps. Certainly, only real scientists will recognise the importance of the alternatives and join the new progressive way of "humane" education.

Correspondence to

Goran Knežević
Student Organisation of Faculty of
Sciences, Banja Luka
Mladena Stojanovica 2
BiH – 78 000 Banja Luka
phone: +387-65-757 268
fax: +387-51-320 960
e-mail: marburg@blic.net

CHN: Chinas erster Anlauf für ein Tierschutzgesetz ist gescheitert

Noch am 10. Mai 2004 hiess es in der Presse (AFP), die chinesische Regierung würde erstmals in der Geschichte Chinas über ein Gesetz zum Schutz der Tiere nachdenken. Die Regelungen hätten den Missbrauch von Tieren unter Verbot stellen, sowie den Umgang mit Tieren, den Transport und die Art und Weise der Schlachtung regeln sollen. Die Massenschlachtungen von Zibetkatzen im letzten Jahr während der SARS-Krise und der Tod Millionen von Hühnern, Enten und anderem Geflügel hatten China international einen sehr zweifelhaften Ruf in Bezug auf den Tierschutz gebracht. Strafen in Höhe von umgerechnet rund

1020 Euro sollten nun möglich sein. Die bisherigen Tierschutzregelungen in China beziehen sich nur auf bedrohte Tierarten.

Doch bereits eine Woche später hat Peking den Entwurf für eine Tierschutzgesetzgebung zurückgenommen. Er wurde als impraktikabel und für eine Entwicklungsnation verfrüht verworfen. Der Entwurf wurde per Internet auf einer Regierungsseite publiziert, um die öffentliche Meinung dazu einzuschätzen. Das Regierungsblatt *China Daily* zitiert nun Mitglieder des chinesischen Justizbüros, die verlauteten ließen, Experten hätten sich gegen die Gesetzesnovelle

ausgesprochen und es gebe keine neuen Anläufe zu ihrer Umsetzung innerhalb der nächsten fünf Jahre.

Doch auch der IFAW (*International Fund for Animal Welfare*) kam im *China Daily* zu Wort. Er kritisierte die Entscheidung auf das schärfste. Über 100 Länder hätten bereits Tierschutzgesetze erlassen, darunter auch afrikanische Entwicklungsländer. Sogar die Welthandelsorganisation WTO berufe sich auf Tierschutzrichtlinien. Eine Nichteinhaltung dieser Grundsätze könne Chinas Exporte mit Tierprodukten negativ beeinflussen.

fpg

OECD akzeptiert tierversuchsfreie Prüfmethode

Im Mai 2004 hat die Internationale Organisation für Wirtschaftliche Zusammenarbeit und Entwicklung (OECD) die ersten vier tierversuchsfreien toxikologischen Prüfmethode in das OECD-Prüfrichtlinienprogramm aufgenommen. Es sind dies zwei tierversuchsfreie Tests, die abklären, ob und wie stark ein Stoff auf der Haut ätzend wirkt. Für diese bis anhin an Kaninchen durchgeführten Tests werden in Zukunft biotechnologisch hergestellte menschliche Hautmodelle verwendet. Die beiden anderen Methoden ermitteln die Aufnahme von Fremdstoff-

fen über die Haut und phototoxische Eigenschaften von Stoffen. Erstere wird durch menschliche Hautproben und Hautproben von Schlachttieren ersetzt, phototoxische Eigenschaften von Substanzen werden nicht mehr an Versuchstieren, sondern an Zellkulturen ermittelt.

Diese Tests sind damit jetzt international von staatlichen Behörden für den Arbeits- und Verbraucherschutz beim Einsatz neuer chemischer Stoffe vorgeschrieben. Die Alternativmethoden ersetzen belastende Tierversuche bei der Prüfung von Industriechemikalien und

Kosmetikinhaltstoffen sowie von Pflanzenschutz- und Arzneimitteln.

An der Entwicklung und Validierung dieser Methoden war die Zentralstelle zur Erfassung und Bewertung von Ersatz- und Ergänzungsmethoden zum Tierversuch (ZEBET) des BfR massgeblich beteiligt. „Das BfR“, so Horst Spielmann, Leiter der ZEBET, „hat damit einen wichtigen Beitrag zur Ablösung behördlich vorgeschriebener Tierversuche durch tierversuchsfreie Methoden geleistet“.

sus