



Communication

# Prevalence of Conscientious Objection Policies to Harmful Animal Use in Education at Medical and Veterinary Faculties in Europe

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**Abstract:** The harmful use of animals in university education has been the topic of an ongoing debate for many years. With growing animal welfare concerns and the advancement of humane teaching methods, students have been asking for more ethical educational approaches. Consequently, many universities have established policies regarding conscientious objection to harmful animal use in education. These policies allow students and faculty members who object to the harmful use of animals on ethical or religious grounds to opt out of participation in such activities without facing negative consequences. Several universities worldwide have already implemented formal policies. However, no studies have yet investigated the extent of conscientious objection policies at universities within the EU and Switzerland. Therefore, the aim of this study was to assess—for the first time—the prevalence of conscientious objection policies at medical and veterinary faculties in Europe. The data showed that 94% of 348 faculties across 28 European countries still do not have a written and publicly available policy that allows students to use humane teaching methods. The future development and widespread implementation of such policies is an essential step toward creating an educational environment that is inclusive, respectful, and committed to ethical and innovative practices.

**Keywords:** 3Rs principles; humane education; university policy



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## 1. Introduction

Animals have long played an important role in education and training across all education levels. At the medical and veterinary faculties, animals are being used to teach surgical skills and sometimes also clinical procedures, such as resuscitation [1]. This training has traditionally utilized anaesthetised, conscious, or euthanized animals to demonstrate and practice various tasks. Any use of animals in teaching activities that cause pain, suffering, distress, or lasting harm—including death—without any clear benefit to the animals themselves can be considered harmful [2].

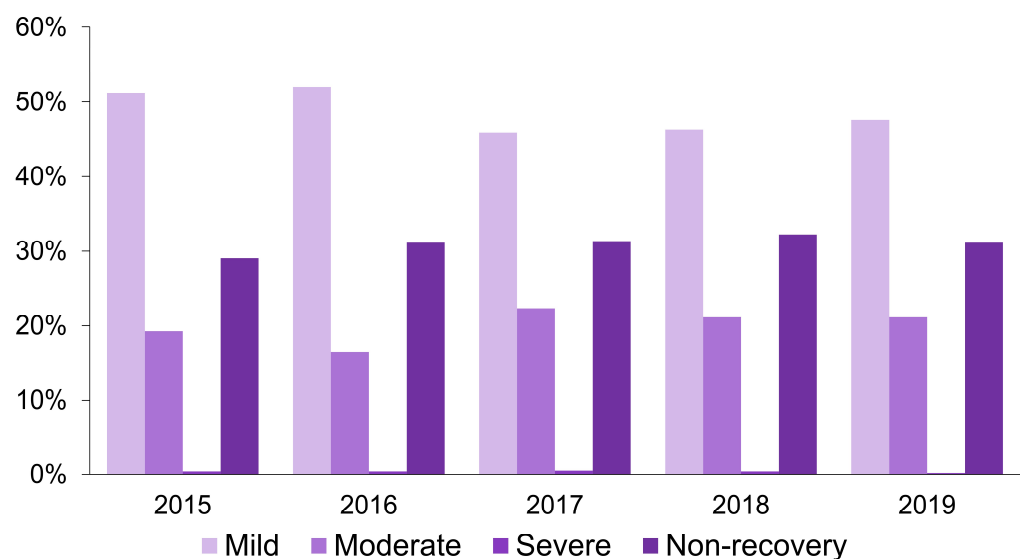
Within the EU, the use of animals for research and educational purposes needs to be ethically justified as required by the EU Directive 2010/63. This ethical consideration is an indispensable part of the 3Rs principles, Replacement, Reduction, and Refinement [3]. Replacement could be achieved through the employment of humane teaching methods, for instance, computer simulations and videos, anatomical models, patient simulators, non-invasive self-experimentation, preserved specimens, ethically sourced cadavers or supervised clinical experience [1]. Many studies have already shown that participation in harmful animal use during education is not essential for a successful career in life sciences, including veterinary medicine [4–6].

Despite the availability of humane teaching methods, the replacement of harmful animal use in education remains challenging for many educators [7]. According to the latest available statistics, across the European Union and Switzerland, over 170,000 animals are still being used for the purposes of training and education every year (Table 1). Around

30% of these procedures are categorized as non-recovery, meaning that animals are under general anaesthesia from which they will not recover consciousness (Figure 1). A recent analysis of publicly available non-technical summaries of projects using animals for the primary purpose of education and training within the EU revealed that the two main reasons for the continued animal use described in the non-technical summaries were (1) belief in the necessity of using a living animal for ‘proper’ learning, and (2) the perceived lack of an adequate alternative [2]. These reasons are nevertheless in opposition to the best available evidence. The most comprehensive systematic review of published studies that compared learning outcomes of humane teaching methods with those resulting from harmful animal use was published recently [6]. Out of 50 assessed studies, 30% reported superior learning outcomes and 60% equivalent learning outcomes of humane teaching methods.

**Table 1.** Number of animals used in the 27 EU Member States and Switzerland for educational and training purposes in 2015–2019 and the proportion of most commonly used species (mice, rats, and pigs). In the years 2018 and 2019, Norway is also included in the EU statistics. Data source: ALURES Statistical EU Database and Swiss Federal Food Safety and Veterinary Office.

Year	Total	Mice	Rats	Pigs	Other
2015	170,570	45%	26%	8%	22%
2016	170,879	46%	26%	7%	20%
2017	172,750	52%	25%	7%	17%
2018	176,604	48%	24%	8%	20%
2019	171,456	47%	25%	8%	20%



**Figure 1.** The proportion of severity degrees of procedures conducted on animals for educational and training purposes in the EU in 2015–2019. Severity degrees are categorized by the EU Directive 2010/63 into these categories: Mild: Procedures causing short-term pain or distress or no significant impairment; Moderate: Procedures causing short-term moderate pain or long-lasting mild pain or distress or moderate impairment; Severe: Procedures causing severe pain or distress, long-lasting moderate pain or distress, or severe impairment; Non-recovery: Procedures under general anaesthesia without recovery of consciousness.

An important aspect of harmful animal use that is often overlooked is that this practice does not only harm the animals but might be detrimental to students as well, particularly in the form of moral distress. Moral distress occurs when one engages in or fails to prevent decisions and actions that conflict with one’s personal values or beliefs [8]. The harmful use of animals for teaching purposes is a prime example of a situation prone to causing

moral distress—students with ethical objection may complete the exercise even though this action goes against their conscience. The veterinarian Catherine Tiplady describes how the harmful use of animals during her education (2004–2008) caused her extreme moral anguish [9].

Coercing unwilling students to conduct an exercise involving harmful animal use can result in some undesirable impacts on their learning process, e.g., the dulling of observational critical thinking skills [10]. Moreover, emotional numbing and desensitization to an aversive experience have been reported by several studies [11]. Cunningham [12] posits a question: “What message are we giving to students when we tell them that they must go against their beliefs in order to fulfil a course requirement?”. Potentially that their values and beliefs are not welcome in academia, that knowledge takes precedence over morals, or that conscience has less value than the desire to know and understand [12].

Beyond the legislative requirements, such as the implementation of the 3Rs required by the EU Directive 2010/63/EU, often the biggest advocates against the harmful use of animals in education are indeed students. Previous studies have shown that a significant proportion of students oppose harmful animal use in their education [13,14]. Students may be concerned about their involvement in specific parts of medical or veterinary training involving harmful animal use due to ethical reasons, such as their personal beliefs about animal rights and welfare, a belief that animal use in training is unnecessary and could be replaced with alternative methods, a belief that causing harm or distress to animals for the sake of education is unjustified, and a concern that their participation in such activities may violate their personal ethical principles [15]. Some students may also object to animal use in training on religious grounds, seeing it as incompatible with their religious principles or beliefs [16].

The increased availability of elaborate humane teaching methods as well as growing ethical concerns has led in some countries to the creation of policies that give students the option to refuse participation in teaching activities involving (harmful) animal use or demonstrations that they object to for ethical, religious, or moral reasons, and unrestricted access to educational approaches that avoid the harmful use of animals [17]. For instance, Western Australia’s Murdoch University adopted the first written policy in an Australian veterinary school in 1998 after a student campaign for humane teaching methods. The policy covered any teaching or assessment activities that students might object to and applied it to the whole university [15]. Similar policies have since been adopted at several other veterinary schools in Australia and abroad, such as at the Universities of Sydney [18], Illinois at Urbana-Champaign [19], Queensland, and Adelaide [15] as well as by other universities that do not have veterinary faculties.

Conscientious objection policy can provide guidance to both students and teachers and ensure equal treatment regardless of the subject or discipline [20] and is also important for ensuring diversity of students and their opinions and beliefs. To date, only a handful of published peer-reviewed articles have focused on conscientious objection policies to harmful animal use in education, e.g., refs. [15,16,21,22] and no study has so far investigated the prevalence of conscientious objection policies at European universities. However, understanding the current state of conscientious objection policies is an important step toward more transparency and accountability in university education.

## 2. Materials and Methods

In order to evaluate whether there is a conscientious policy to harmful animal use in education available and accessible on faculties’ websites, I analysed the websites of 348 medical and veterinary faculties and schools across 298 universities in 27 EU Member States and Switzerland (Tables 2 and S1). I followed the double-standardised methodology described and implemented by Baldelli et al. [22] with slight modifications. Specifically, I searched and consulted the relevant sections, such as “Education”, “Research”, “Courses”, “Services”, “Student Section”, “Animal Legislation”, and “Regulations”. Next, relevant expressions, such as “animal experimentation”, “conscientious objection”, “alternative

methods”, “3R”, and “animals in education” were used to fill in the search box of the faculty and university websites, being translated to the local language using online translation tools (Google Translate and DeepL) and dictionaries.

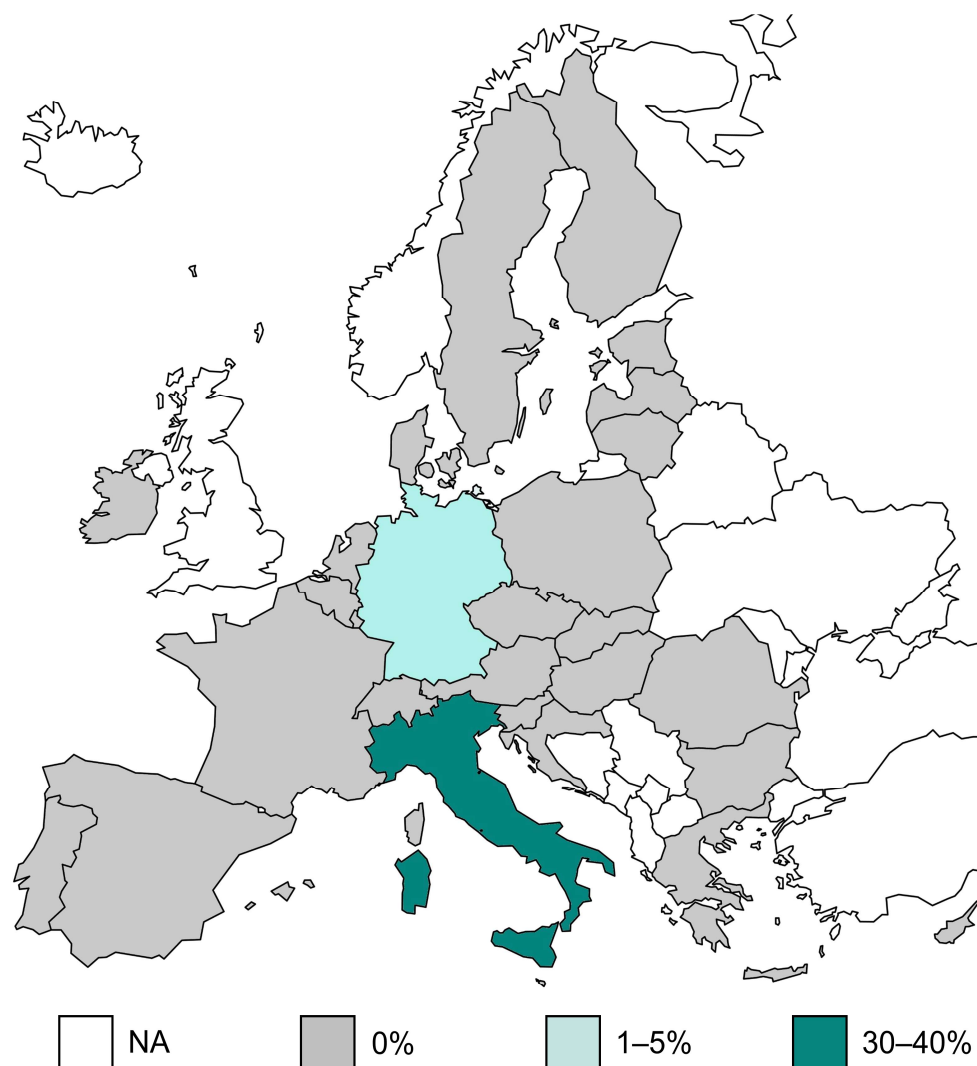
**Table 2.** Number of medical and veterinary faculties assessed and how many of them have a written conscientious objection policy within the 27 EU Member States and Switzerland (status March 2023).

Country	Medical Faculties Assessed	Medical Faculties with Policy	Veterinary Faculties Assessed	Veterinary Faculties with Policy
Austria	8	0	1	0
Belgium	10	0	4	0
Bulgaria	6	0	2	0
Croatia	5	0	1	0
Cyprus	8	0	2	0
Czech Republic	8	0	1	0
Denmark	3	0	2	0
Estonia	1	0	1	0
Finland	5	0	1	0
France	25	0	3	0
Germany	35	1	5	0
Greece	7	0	2	0
Hungary	4	0	1	0
Ireland	6	0	1	0
Italy	42	16	13	5
Latvia	2	0	1	0
Lithuania	2	0	1	0
Luxembourg	1	0	1	0
Malta	1	0	NA	NA
Netherlands	8	0	1	0
Poland	17	0	7	0
Portugal	8	0	6	0
Romania	9	0	4	0
Slovakia	3	0	1	0
Slovenia	2	0	1	0
Spain	30	0	11	0
Sweden	7	0	1	0
Switzerland	8	0	2	0

For the purposes of this article, conscientious objection policy was defined as a set of guidelines or regulations that allow students to refuse to participate in activities that involve the harmful use of animals in teaching. This may include procedures for filing a conscientious objection request, protections against discrimination or retaliation, education and training requirements for those who object, and identification of alternative teaching methods that do not involve animals. Both basic and comprehensive conscientious objection policies were considered in the assessment.

### 3. Results

Out of the 271 medical and 77 veterinary faculties or schools, only 22, i.e., 6%, have a written conscientious objection policy to harmful animal use or animal experiments publicly available on their website (Table 2, Figure 2). Out of these, one is a medical faculty in Germany, the rest are medical ( $n = 16$ ) and veterinary ( $n = 5$ ) faculties in Italy.



**Figure 2.** Proportion of written conscientious objection policies in 27 EU Member States and Switzerland. The only two countries in which universities have a written and publicly available policy are Germany (1 faculty out of 40) and Italy (21 faculties out of 55). For more details, see Tables 2 and S1.

#### 4. Discussion

##### 4.1. Prevalence of Conscientious Objection Policies at the EU and Swiss Universities

The majority of European universities continue utilizing animals in education [2] and yet 94% of the assessed faculties do not have openly declared conscientious objection policies to harmful animal use (Table 2, Figure 2). The remaining 6% of faculties are limited to two EU countries: Germany and Italy (Table 2, Figure 2). This observation can be attributed to local legislation. In Germany, students at universities in the Federal States Bremen, Hesse, North Rhine-Westphalia, Saarland, and Thuringia have the possibility to be exempted from participating in harmful animal use on the basis of the respective State University Law [23]. Still, only one faculty in Germany currently has a written and publicly accessible policy (Table 2, Figure 2).

In Italy, the Directive 2010/63/EU was implemented in Law 26/2015. Article 5 states that the use of animals in educational courses at universities cannot be authorised, with the exemption for university training in veterinary and human medicine [16]. Nevertheless, university faculties are obliged by law (Law 413/1993, “Norme sull’obiezione di coscienza alla sperimentazione animale”) to inform students of their right to exercise their conscientious objection to animal use for scientific or educational purposes. However, the survey by Baldelli et al. [22] revealed that less than half of Italian faculties comply with the law

which is consistent with my findings, showing that only 21 faculties (38% of all assessed) have a written and publicly available policy in place (Table 2, Figure 2). More recently, Baldelli et al. [16] published a survey among veterinary and medical students with results confirming that Italian universities often neglect their duty to inform their students.

#### 4.2. Advantages of a Written Conscientious Objection Policy

The students who oppose the use of animals should be able to decide whether they want to participate in objectionable courses and explore and develop their moral position [12]. However, many students may feel uncomfortable voicing their concerns due to, for example, the fear of possible embarrassment in front of their peers or rejection or punishment (receiving a lower grade) from the teacher [12]. Consequently, it is helpful to have a formal process for acknowledging the objections of individual students and for addressing conscientious objections without disadvantaging the students [20]. Having a policy in place also mediates the potential student–teacher conflict regarding the use of animals in education [12]. When a formal policy is missing, universities and faculties have to deal with cases of conscientious objections on an *ad hoc* basis, potentially resulting in inadequate preparation and inconsistent responses [15].

The additional advantages of having a conscientious objection policy in place are that the students have the opportunity to develop their values, increase their ability of critical thinking and decision-making, and become more active in their role of shaping faculty policies [12]. Accommodating students who object to animal use can also help promote a more inclusive and diverse academic environment, encouraging the participation of students who may not have previously considered veterinary or medical training due to ethical conflicts [24,25]. This might expand the pool of qualified professionals in these fields and promote greater understanding and awareness of animal welfare issues [12]. Lastly, policies on conscientious objection can serve as a catalyst for finding and implementing alternatives to animal use in education. By establishing a formal process for objections, universities can create a culture that is supportive of finding new, innovative, and ethical methods for teaching and learning [15].

Admittedly, at some of the faculties and schools assessed in this study, there may be an informal practice that allows students to choose not to participate in harmful animal use, even if there is no published policy on the matter. However, it is crucial that conscientious objection policies are formalized and recorded in a written document which should be made publicly accessible. This is important because prospective students should have the ability to make informed decisions when choosing a medical or veterinary faculty based on whether their ethical or religious beliefs will be respected.

#### 4.3. Recommendations for Establishing a Conscientious Objection Policy to Harmful Animal Use

It can be assumed that most faculties and universities that rely on harmful animal use in teaching will encounter the issue of conscientious objection [20]. It is, therefore, highly recommended that universities implement policies to make reasonable accommodations for students who object to participating in harmful animal use, as this demonstrates institutional commitment to fostering a culture of diversity, increases compliance with anti-discrimination legislation, and minimizes conflicts and crisis management [15]. Whittaker and Anderson [20] provided an outline of which considerations should be included in the development of conscientious objection guidelines: (1) recognition of conscientious belief concerning the use of animals and definition of what constitutes a belief, (2) opportunity to discuss concerns without fear of consequence, (3) student access to legislation and knowledge of the institutional process for approval of animal use, (4) staff member responsible for identifying conscientious difficulty with a teaching practice or form of assessment, (5) staff member responsible for assessing the legitimacy of belief and maintaining records of discussions, (6) process of an ongoing review of the objection, and (7) student right to request a suitable alternative teaching method or form of assessment. Information on

conscientious policies should be included in student handbooks or course guides and be available before course commencement [1].

## 5. Conclusions

As societal values and attitudes shift, it is becoming more widely recognized that the reasons for using animals in education must be closely examined and adapted to align with advances in our understanding of animal welfare and suffering as well as ethical norms. To this end, it is crucial that medical and veterinary faculties establish conscientious objection policies that respect students' right to object to harmful animal use on ethical, religious, and moral grounds. Conscientious objection should be viewed not as disruptive rebellion but rather as a reflection of genuine concern [26]. In conclusion, implementing written conscientious objection policies to harmful animal use is essential for respecting ethical and religious beliefs, promoting transparency and accountability, encouraging alternatives to animal use, and supporting pluralism and diversity in education.

**Supplementary Materials:** The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/higheredu2020019/s1>, Table S1: Number of medical or veterinary faculties or schools assessed in the 27 EU Member States and Switzerland.

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