NCCR Evolving Language Animal Ethics Charter

Overview of principles

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   i.   The NCCR Evolving Language conducts research in compliance with Swiss animal welfare regulation.

   ii.   The NCCR Evolving Language aims to prevent animal welfare opportunism and arbitrage in international cooperations.

   iii.   The NCCR Evolving Language observes the principles of non-maleficence, beneficence, and non-coercion in its research involving animals.

   iv.   The NCCR Evolving Language commits to high standards of scientific rigour in its work with animals. It distributes its contributions to the scientific community widely and transparently.

   v.   The NCCR Evolving Language commits to transparent and realistic public communication about its research involving animals. It is mindful of its communication's impact on the perception and treatment of animals.

   vi.   The NCCR Evolving Language does not campaign politically on issues not compatible with this charter.

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1. Preamble

The NCCR Evolving Language Animal Ethics Charter was written by the TTF Ethics on behalf of the NCCR directorate to serve three purposes:

1. to inform or remind researchers about the legal norms in Switzerland for research involving non-human animals («animals» henceforth);
2. to state ethical norms for research involving animals within the NCCR Evolving Language;
3. to facilitate the resolution of difficulties related to animal ethics that may arise within the NCCR Evolving Language.

Please note that **the charter is not intended as a guide to obtaining approval by ethics committees**. Observance of the charter does not guarantee approval. A guide to applicants is already offered by the Swiss Academies of Arts and Sciences here.

Please note also that **the charter is not intended as a replacement for ethics consultations within the NCCR Evolving Language**. The TTF Ethics offers consultations to individual researchers and groups (projects, work packages, TTFs, parts thereof).

2. General animal ethical commitment

The NCCR Evolving Language commits to ethical standards that go above and beyond the legal requirements in Switzerland. The reason for this lies in a general animal ethical commitment.

Swiss animal welfare regulation first arose in the 19th century from purely human-centered considerations (Häsler 2010). The primary aim was to prevent the development of cruel character dispositions in human beings, not to protect animals for their own sake. Still today, AniWA (Art. 4 lit. b) demands only that animal well-being must be ensured «as far as the intended purpose permits», largely privileging human interests in using animals over animal well-being.

The law has since slowly progressed towards more animal-centered elements. Most notably, Art. 3 lit. a AniWA acknowledges that animals have a «dignity» defined as «inherent worth», independently of their utility for human beings. Hence in part, Swiss animal welfare legislation rests on a non-anthropocentric ethical commitment, according to which animals matter morally for their own sake (EKAH and EKTV 2001).

The NCCR Evolving Language is conscious of the historical development away from anthropocentrism and towards non-anthropocentrism. It sees itself as a progressive institution in this development. While it does not subscribe to any particular theory in animal ethics, it commits to the broad ethical view that animals matter morally for their own sake, not merely as means to human ends. The central upshot of this commitment is that the NCCR Evolving Language endorses ethical principles designed to avoid or reduce harm to animals. These principles go deliberately further than Swiss law in order to take into account the independent value of animals.

3. Principles

i. Compliance with Swiss regulations

«The NCCR Evolving Language conducts research in compliance with Swiss animal welfare regulation.»

While observance of Swiss regulations is of course a legal requirement, it is also an ethical commitment of the NCCR Evolving Language. Swiss law regulates the approval and conduct of animal experiments, but also the breeding, procurement, transport, and husbandry of animals. Research involving animals is regulated in the Animal Welfare Act (AniWA), the Animal Welfare Ordinance (AniO), and the FSVO's Animal Experimentation Ordinance (AEO). The definition of an «animal experiment» is broad. For instance, it includes any use of animals with the aim of testing a scientific hypothesis (Art. 3 lit. c AniWA). Cantonal ethics commissions perform reviews of research proposals. They work on the basis of harm-benefit analyses, weighing the potential good of findings against the good of the well-being and dignity of animals.

In harm-benefit analysis, the classic «3R» principles are considered (among other things). The principles demand the following, in this order of priority (Russell and Burch 1959): 1) replace animals by non-sentient tissue in experimentation wherever possible; 2) reduce the sample size of each experiment to the indispensable; 3) refine experimental techniques in any possible way that reduces distress to animals. An SNSF National Research Programme on the advancement of 3R principles was launched in 2021. This reflects the importance the authorities place on the 3Rs. However, neither the 3R principles nor harm-benefit analysis more generally are very sensitive to opportunity costs (Lauwereyns 2018). The procedures select for a positive balance of benefits and harms, but not for the best balance possible. Therefore, the TTF Ethics advises that researchers recognize their responsibility to identify and pursue research goals that provide the most social benefit with the least harm to animals.

ii. International cooperation

«The NCCR Evolving Language aims to prevent animal welfare opportunism and arbitrage in international cooperations.»

In certain respects, Swiss regulation is comparatively strict and can make it more difficult for researchers to obtain approval than in many other countries (Crettaz von Roten 2021). Outsourcing of experiments to countries with looser (or no) regulation is a known problem (Bayne et al. 2013). This practice of «animal welfare arbitrage» leads to worse outcomes for animals and fuels a legislative race to the bottom (Blattner 2019; Peters 2020). The NCCR Evolving Language aims not to contribute to this ethically undesirable practice. If possible, animal experiments are to be conducted in Switzerland. No animal experiments should be conducted abroad that contravene Swiss regulations (in line with the SAMS/SCNAT Ethical Principles and Guidelines for Experiments on Animals) or that are incompatible with this charter.

At the same time, the NCCR Evolving Language recognizes that there exist many different ways and extents of cooperating internationally in research. While obvious attempts at circumventing Swiss regulation are in clear conflict with the principle, there may be many more complicated cases. For example, foreign-based researchers might offer to conduct experiments. Experiments might have already taken place and data may be offered. Researchers in the NCCR Evolving

Language might plan to cooperate only in ways that are independent of the animal experiment in question. Such tough cases must be considered carefully one by one. The TTF Ethics advises that an arbitration body be installed to examine instances of international cooperation in potential conflict with the principle on a case-by-case basis.

iii. Non-maleficence, beneficence, and non-coercion

«The NCCR Evolving Language observes the principles of non-maleficence, beneficence, and non-coercion in its research involving animals.»

The principle of non-maleficence requires that animals be protected from serious harms such as severe or sustained pain, psychological distress, permanent disability, suffering, and death (Ferdowsian et al. 2020). Hence, the NCCR Evolving Language does not conduct any animal research of a severity degree above 1, as defined by Art. 24 of the AOE. This entails that the NCCR Evolving Language does not conduct any research with animals that incurs on animals more than short-term mild pain, harm, or impairment of general well-being. The NCCR Evolving Language furthermore treats death as a serious harm which is only to be inflicted upon animals if necessary to prevent even greater harm.

The principle of beneficence demands that the animals who are involved in research should draw benefit from it (Van Patter and Blattner 2020). «Benefits can be direct (or immediate), such as positive experiences while participating, or indirect (or long-term), for instance, through improved livelihood opportunities as a result of research outcomes» (Van Patter and Blattner 2020). In the case of wild animals in particular, indirect benefits can include effective contributions to habitat conservation and improved living conditions. At the same time, wild animals may have welfare interests that differ from those of domesticated animals, and those interests should be considered under the beneficence principle (Soulsbury et al. 2020).

Finally, the principle of non-coercion states that whenever possible, animals should not be coerced to cooperate. This principle is designed to resemble requirements of informed consent in research involving human beings. To ensure non-coercion, animals should be presented with the option to retreat from interaction at any point (Van Patter and Blattner 2020; Ferdowsian et al. 2020). While animals cannot literally consent or dissent on their own, steps should be taken to represent their interests by proxy (Van Patter and Blattner 2020; Ferdowsian et al. 2020). Hence, the TTF Ethics advises that researchers involve representatives of animal welfare, such as universities' appointed animal welfare officers, at all stages of research, including the design and conduct of experiments. During conduct, specifically, there should always be the opportunity for unannounced spot checks by the animal welfare officers.

The NCCR Evolving Language endorses these principles while recognizing that their implementation can pose difficulties. As in the case of principle (ii), the TTF Ethics advises that an arbitration body consider tough cases individually.

iv. Scientific rigour and openness

«The NCCR Evolving Language commits to high standards of scientific rigour in its work with animals. It distributes its contributions to the scientific community widely and transparently.»

Without reliable results, animal experimentation fails to produce social benefit. In particular, translation from animal models to humans often fails due to insufficiently rigorous design (Perrin 2014). Hence, researchers bear an ethical responsibility to ensure reliability through scientific rigour. One can think of «rigour» and «reproducibility» as two new «Rs» that should be added to the 3R framework (Aske and Waugh 2017). Another conceptualization exists in the «3Vs» (Würbel 2017): Researchers should account for construct validity (cV), internal validity (iV), and external validity (eV).

Equally important is it that research is distributed widely and transparently. Insufficiently detailed reporting about animal experimentation in particular hinders reproducibility (Kilkenny et al. 2010; Leung et al. 2018) and may obscure refinements in experiment design (Würbel 2007). Practical guides for transparent reporting exist in the ARRIVE guidelines (Kilkenny et al. 2010) and the Gold Standard Checklist for publications (Hooijmans et al. 2010). Although both sets of guidelines were originally intended to cover invasive biomedical research, researchers in the NCCR Evolving Language should take them into account and apply them as far as possible in their work. The NCCR Evolving Language further encourages open science practices (sharing data, methods, tools, workflows, publications), since they can help prevent unnecessary repetitions of the same procedures involving animals (Lauwereyns 2018). Researchers are encouraged to make public all results and procedures, including results from failed experiments, by advance registration on platforms such as the [Animal Study Registry](#) (Bert et al. 2019) or after completion.

v. Public communications

«The NCCR Evolving Language commits to transparent and realistic public communication about its research involving animals. It is mindful of its communication's impact on the perception and treatment of animals.»

Animals are affected by the public debate to which science communications contribute. Therefore, transparency is an animal ethics issue, besides being important for the trustworthiness of research involving animals (Yarborough 2014). Institutions that conduct animal research are however often perceived as secretive (Clemence and Leaman 2016). The NCCR Evolving Language attaches great importance to transparent public communication. It also aims to communicate realistically, minding the danger of promising too much in terms of actual and direct social benefit which can jeopardize the credibility of research (Grimm et al. 2017; Grimm and Eggel 2017). The TTF Ethics advises, to use the words of Grimm and Eggel (2017), that researchers focus on «highlighting the contributions of science as a necessary but insufficient means of practical benefit».

In general, «researchers have a responsibility to ensure that the way in which we represent animal participants benefits them» (Van Patter and Blattner 2020). In particular, perceived dissimilarity between humans and animals impacts people's treatment of animals, in a dynamic that resembles the dehumanization of human out-groups (Kasperbauer 2018). The NCCR Evolving Language contributes to the scientific understanding of differences and similarities between

humans and animals. It recognizes its responsibility to communicate carefully about differences between humans and animals.

vi. Political campaigning

«The NCCR Evolving Language does not campaign politically on issues not compatible with this charter.»

The boundaries within which scientific research takes place are established by society through legal, ethical, and political deliberation (Rollin 2017). The NCCR Evolving Language is conscious of the fact that animal experimentation is particularly contested in Switzerland (Crettaz von Roten 2012; for a timeline of events cf. Crettaz von Roten 2021). Notable developments in the years before the creation of the NCCR Evolving Language include a parliamentary motion to ban «severe» experimentation on primates, a popular initiative for basic rights for primates in Basel-Stadt, a national popular initiative to ban all animal experimentation, and a petition to the Federal Council to increase funding for alternatives to animal experimentation.

The NCCR Evolving Language is furthermore conscious of the danger of regulatory capture, by which private industries gain control over the crafting or implementation of legislation. This is a known problem in animal welfare regulation (McMullen 2016, 99). Scientific researchers must take care not to be turned into intermediaries of such regulatory capture (Abbott et al. 2017). The NCCR Evolving Language safeguards against political instrumentalization by not campaigning politically on issues not compatible with this charter.

Of course, as private citizens, all researchers in the NCCR Evolving Language are free to voice their political views. If researchers choose to contribute to a political campaign for an issue not compatible with this charter (e.g. in defense of animal experimentation above a severity degree of 1), the principle demands that they do not speak specifically for the NCCR Evolving Language.

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