

Eidgenössische Ethikkommission für die Gentechnik im ausserhumanen Bereich Commission fédérale d'éthique pour le génie génétique dans le domaine non humain Commissione federale d'ética per l'ingegneria genetica nel settore non umano Swiss Ethics Committee on Non-human Gene Technology

Statement on putting "the dignity of creation" into concrete terms as part of the planned revision of the Animal Protection Law

Starting point

On 17 May 1992 the population and cantons approved the new Constitutional Article 24novies¹, which protects humans and the environment from abuses of reproductive and gene technologies. In Paragraph 3 of this Constitutional Article, the government provides rules governing the handling of the genetic material of animals, plants and other organisms. It thereby respects the dignity of creation and the safety of humans and the environment, and protects the genetic diversity of animal and plant species.

As part of concretising the Constitutional term "dignity of creation", the Animal Protection Law will also be modified. The Federal Veterinary Office, which is responsible for this revision, has requested the ECNH to help in defining "the dignity of creation".

The Federal Ethics Committee on Non-human Gene Technology (ECNH) monitors and assesses the ethical aspects of the development and application of biotechnology and gene technology in the non-human sector. It issues Statements on relevant questions from an ethical point of view. It assesses the interests in question and evaluates the adherence to the principle of respecting the dignity of creation and the maintenance of the safety of people and the environment, the protection of the genetic diversity of animal and plant species and their sustainable use.

The ECNH advises the Federal Council and the secondary federal authorities in the preparation of regulations, guidelines and recommendations on non-human biotechnology and gene technology. It suggests ways of making concrete the principle of respecting the dignity of creation at the legislative level. The ECNH may also provide the Federal Council with suggestions for future legislation on its own initiative.

Procedure

In its Statement, the ECNH first defines its criteria for deciding when dignity has been injured. It suggests ways of defining damage to dignity systematically.

Next, the ECNH presents considerations of how such damage to dignity should be taken into account when evaluating the interests of exploitation versus animal welfare.

¹ Article 120 of the new Federal Constitution.

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1 The dignity of creation

1.1 The current Animal Protection Law and the Constitutional term "dignity of creation"

The ECNH assumes that the objective of the current Animal Protection Law is to <u>protect an</u> <u>individual animal</u> and not an animal species. For this reason the <u>dignity of the individual</u> <u>animal</u> should be discussed in the context of the Animal Protection Law.

The ECNH is unanimous in assuming that <u>all</u> life forms deserve respect for their own sake. The Constitution also demands respect for the dignity of <u>all</u> animals in Article 24novies. Consequently, the Animal Protection Law should also be applied <u>without limitation to all</u> <u>animals</u>, <u>defined in the zoological sense</u>. Limitations on validity that arise because of a deeper consideration of the practical implementation of this requirement, however, are not excluded.

1.2 Criteria for injury to the dignity of an animal; suggestios for a systematisation

The ECNH believes that the Constitutional term "dignity of creation" essentially covers the criteria given in the Animal Protection Law: <u>suffering</u>, <u>pain</u>, <u>fear</u> and <u>injury</u>, which are summarised under the term "<u>distress</u>".²

The ENCH moreover believes that the respect for the dignity of creation demanded by the Constitution provides more comprehensive protection for the animal. The ECNH presents below a proposal for the systematic evaluation of damage to dignity, which goes beyond the distress caused by suffering, pain, fear and injury:

- <u>Intervention in appearance</u> e.g. injection of pigments into fish
- <u>Humiliation</u> e.g. anthropomorphisation of animals or other forms of presentation that invite ridicule
- <u>Unjustifiable complete instrumentalisation</u> e.g. control of the production of growth hormones through targeted feed additives

The ECNH is conscious that the ethical requirements of its suggestions present difficulties in terms of legal and practical implementation. These suggestions are however to be understood as a catalyst for thought in the light of the government's mandate to implement respect for the dignity of the animal within the Animal Protection Law.

 $^{^2}$ The great majority of the Committee takes the approach that animal distress according to particular criteria (pain, suffering, fear, injury, intervention in appearance, humiliation and unjustifiable complete instrumentalisation) represents an injury to dignity. Damage to dignity may also be justified by an evaluation of interests. Using this approach, the dignity of an animal is respected if the injury to dignity can be justified. – A minority opinion is that the injury to dignity is the result of an evaluation of interests.

2. Assessment of different interests in handling the dignity of creation

The ECNH is unanimously of the opinion that respecting the dignity of creation requires an <u>assessment</u> of the relative interests of human exploitation and animal protection.

2.1 The term "evaluation of interests"

In an evaluation of interests the different interests are <u>determined</u>, <u>evaluated</u> and <u>weighed up</u> <u>against one another</u>. The result of this assessment, which is performed using a rational methodology, provides a justification (or none) for damage to the dignity of an animal.

Existing <u>alternatives</u> that could prevent or reduce damage to the animal play a role in the assessment insofar as they influence the weighting of the interests.

2.2 Two-step assessment

The first step of assessment concerns the production of genetically modified animals.

The production of genetically modified animals is associated with the risk of producing animals with distress and further injuring their dignity. The damage initiated by a genetic modification cannot be predicted.³ The damage to an animal caused by a genetic modification can only be determined retrospectively.

The second step of the assessment relates to the breeding, keeping and use of animals.

Since the distress or further harm to animals produced using gene technology can only be determined retrospectively, in the second step the assessment should be deepened and extended. The Assessment should be deepened because of the newly available data on breeding, keeping and use. The possibility of extending the Assessment for breeding, keeping and use to include other criteria should also be examined.

2.3 Evaluation of interests taking different areas of use into account

An evaluation of interests in the production of genetically modified animals weighs up the human interests against the interests of the animal in not being damaged. The ECNH is of the opinion that the interests to be evaluated should be weighted differently, or may even be of a different nature, according to the intended use.⁴ The assessment of the production or of breeding, keeping and use should take into account the different use interests.

³ Thus it is usually unclear, in a genetic intervention, whether, how many and with what consequence genes or gene constructs are incorporated into the genome of an animals and in particular, what impacts the intervention will have on the coming generations.

 $^{^4}$ In the assessment, the interests in producing a genetically modified domestic animal can – as long as they are not fundamentally of another nature – obviously not be weighted equally to the interests in producing a genetically modified experimental animal for the production of medications.

The ECNH differentiates between the following areas of use:

Domestic animals and animals for leisure or sport

Working and farm animals

- Performance increase for economic reasons
- Performance increase for therapeutic reasons
- Provision of food and other goods
 - only luxury goods
 - excepting luxury goods
- For medical purposes (provision of medications, vaccines and sera, donation of organs and tissues)

Experimental animals

- For basic research
- For applied research

Other subdivisions and differentiation of areas of use and human objectives are also conceivable. The ECNH sees its suggestion as a request to the government to take into account the different interests and their different weighting in the production or breeding, keeping and use, according to the area in which the animal will be used.

3 Evaluation of interests in the production of genetically modified animals

Production of genetically modified domestic animals and animals for leisure or sport

Interests that must be considered when assessing the production of genetically modified domestic animals and animals for leisure or sport:

Human interests in genetically modified domestic animals and animals for leisure or sport:

- Economic interests
- Aesthetic interests

Animal interests/ ethical interests to be considered:

- No distress (pain, suffering, fear or injury)
- No additional injury to dignity (humiliation, intervention in appearance, unjustifiable instrumentalisation)
- No excessive consumption of animals (waste animals in production)

Evaluation of interests by the ECNH

Little weight is given to human interests in the production of genetically modified Domestic animals and animals for leisure or sport, in comparison to the interests of animals. Furthermore, the human goals can be achieved using traditional breeding methods. For these reasons the Committee is unanimously in favour of a general <u>prohibition</u> on the production of genetically modified domestic animals and animals for leisure or sport.

Production of genetically modified working and farm animals

Production of genetically modified working animals, whose performance has been increased purely for reasons of profit; increase in efficiency that is not absolutely necessary.

Human interests in the production of genetically modified working animals, whose increased performance serves only to increase profits:

• Purely economic interests

Animal interests/ ethical interests to be considered:

- No distress (pain, suffering, fear or injury)
- No additional injury to dignity (humiliation, intervention in appearance, unjustifiable instrumentalisation)
- No excessive consumption of animals (waste animals in production)

Evaluation of interests by the ECNH

The overwhelming majority of the Committee gives little weight to human interests in the production of genetically modified animals purely to increase profits, in comparison to the animal or ethical interests. In addition, the human goals can be achieved using traditional breeding methods. The ECNH is therefore in favour of a general <u>prohibition</u> of the production of genetically modified working animals for purely profit-oriented increase in performance.

Minority opinion:

Permitting the production of genetically modified working animals purely for an increase in economic performance should be decided using an evaluation of interests on a case by case basis.

Production of genetically modified working animals, whose performance has been enhanced for therapeutic or humanitarian purposes; guide dogs, rescue dogs, horses for therapeutic riding

Human interests in the production of genetically modified animals for therapeutic and humanitarian purposes:

- Human safety (safety of life and limb)
- Human health requirements
- Economic interests

Animal interests/ ethical interests to be considered:

- No distress (pain, suffering, fear or injury)
- No additional injury to dignity (humiliation, intervention in appearance, unjustifiable instrumentalisation)
- No excessive consumption of animals (waste animals in production)

Evaluation of interests by the ECNH

The overwhelming majority is in favour of allowing the production of genetically modified animals for therapeutic and humanitarian purposes, on condition that <u>assessments are made</u> on a case by case basis.

Minority opinion:

The production of genetically modified animals for therapeutic and humanitarian purposes should be generally prohibited.

Production of genetically modified farm animals for food and other goods:

Human interests in the production of genetically modified farm animals for food and other goods:

- Supply of food and other goods
- Access to luxury goods
- Economic interests
- Ecological interests

Animal interests/ ethical interests to be considered:

- No distress (pain, suffering, fear or injury)
- No additional injury to dignity (humiliation, intervention in appearance, unjustifiable instrumentalisation)
- No excessive consumption of animals (waste animals in production)

The Committee differentiates between the production of genetically modified animals to provide luxury goods and to provide food and other goods which are not luxury articles, where luxury is understood to mean a trivial human desire.

(a) Production of genetically modified animals to provide luxury goods alone:

Evaluation of interests by the ECNH

The Committee is unanimously against the production of genetically modified animals to provide luxury goods, and thus favours a general prohibition. Human interests in this purpose are not regarded as substantial enough in comparison with the interests of the animal.

(b) Production of genetically modified animals to provide food and other goods, not including luxury goods:

Evaluation of interests by the ECNH

The ECNH is unanimous that restraint should be exercised in the production of genetically modified farm animals to provide food and other goods (not including luxury goods). According to the weighting of human interests against the animal ethical interests, however, differing conclusions are drawn on the extent of the necessary limitations:

Half of the Committee fundamentally rejects the production of genetically modified animals for this purpose and at this time; half of these calls for an extended <u>moratorium</u> (20 years) and half for a <u>prohibition</u>.

The other half of the Committee is in favour of <u>assessing each case individually</u>: the production of genetically modified animals for this purpose should be permitted, but only if the following criteria are taken into account:

- the genetic modification reduces the ecological impacts of intensive animal keeping (factory farming), although
- the genetic adaptation of the animal to the conditions of production as the goal is unanimously rejected, if the animal's abilities are substantially limited even if it experiences no distress. The limitation of abilities, in the opinion of the great majority of the Committee, represents injury to dignity.

Production of genetically modified farm animals for medical purposes; to produce medication, to supply vaccines, sera, and substances for diagnostic purposes, as donors of tissues and organs (xenotransplantation)

Human interests in the production of genetically modified animals for medical purposes:

- The right to health (individual health)
- Quality of life
- Safety
- Economic interests
- Social interests
- Ecological interests

Animal interests/ animal ethical interests to be considered:

- No distress (pain, suffering, fear or injury)
- No additional injury to dignity (humiliation, intervention in appearance, unjustifiable instrumentalisation)
- No excessive consumption of animals (waste animals in production)

Evaluation of interests by the ECNH

The majority of the ECNH is of the opinion that the production of genetically modified animals for medical purposes should be <u>permitted in principle</u>, but only under certain <u>conditions</u>:

• the Committee agrees unanimously that no significant limitation of abilities to comply with the special keeping conditions (e.g. sterility) should be permitted.

Further conditions on which there is no consensus:

- half the Committee believes that production for medical purposes should be permitted, but only if the non-gene technology alternative is disproportionately disadvantageous <u>ecologically</u> and in terms of <u>safety</u>.
- a <u>minority</u> is of the opinion that production for medical purposes should also be permitted if the non-gene technology alternative is disproportionately disadvantageous <u>economically</u>.

Minority opinion:

the production of genetically modified animals for medical purposes should be <u>fundamen-</u> <u>tally prohibited</u>, except:

- when there is <u>no alternative</u>⁵
- when the production of the medical substance proves to be necessary for life.

There should be stringent requirements to determine the lack of alternatives and absolute necessity.

Production of genetically modified research animals

The ECNH is conscious of the fact that basic and applied research cannot be clearly separated. It believes, however, that this separation can be retained for the assessment, because the uncertainty surrounds the classification of research as basic. Applied research can always be identified as such.

⁵ For example, the production of a substance in cell cultures.

Production of genetically modified experimental animals for basic research:

Human interests in the production of genetically modified experimental animals for basic research:

- Acquisition of knowledge
- Right to health, life
- Quality of life
- Safety
- Ecological interests⁶
- Economic interests

Animal interests/ ethical interests to be considered:

- No distress (pain, suffering, fear or injury)
- No additional injury to dignity (humiliation, intervention in appearance, unjustifiable instrumentalisation)
- No excessive consumption of animals

Evaluation of interests by the ECNH

The Committee is unanimous that the production of genetically modified experimental animals for basic research should be permitted <u>on a case by case basis</u>, but only if <u>at least</u> the following conditions are fulfilled:

- Innovation
- Number of experimental animals is not excessive
- No distress above severity level 2^7
- No genetic modification of apes
- Stringent criteria for lack of alternative

Production of genetically modified animals for application-related research: applied medical research, drug development

Human interests in the production of genetically modified experimental animals for applied research:

- The right to health (individual health)
- Quality of life
- Safety
- Economic interests
- Social interests

⁶ The production of genetically modified experimental animals takes place in contained systems under laboratory conditions. The consideration of ecological interests is consequently limited to these rooms. Ecological interests in the broad sense become important for field trials.

⁷ According to the laws currently in force, distress at severity level 3 is permitted in basic research provided a licence has been obtained.

Animal interests/ ethical interests to be considered:

- No distress (pain, suffering, fear or injury)
- No additional injury to dignity (appearance, humiliation, unjustifiable instrumentalisation)
- No excessive consumption of animals

Evaluation of interests by the ECNH

The Committee is unanimous that the production of genetically modified experimental animals for basic research should be permitted <u>on a case by case basis</u>, but only if <u>at least</u> the following conditions are fulfilled:

- Innovation
- Number of experimental animals is not excessive
- No genetic modification of apes
- Stringent criteria for lack of alternative

Minority opinion

As with basic research, distress above severity level 2 should also be prohibited for applied research.

4 Evaluation of interests for the <u>breeding</u>, use and keeping of animals

Deepening and extending the assessment

The Evaluation of interests for breeding, use and keeping consists of examining and extending the assessment already performed for the production of genetically modified animals, <u>using the data now available.</u>

For field trials the following <u>additional</u> aspects should also be considered in the assessment:

- <u>Safety of humans and the environment</u>
- <u>Protection of biodiversity</u>

Equality of genetically modified and non-GM animals

It is not just gene technological production that may cause harm to an animal. Animals bred in the traditional way or produced using non-gene technological methods, may be exposed to distress or otherwise suffer injury to their dignity. The ECNH is therefore unanimously of the opinion that genetically modified animals and those bred traditionally must have equality in terms of breeding, keeping and use. As a consequence of this equality, the evaluation of interests for breeding, keeping and use should be extended to animals produced by nongene technological methods.

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