

Animal-Human Embryonic Combinations: An Ethical Discussion

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UK legislative situation:

- *Human Fertilisation and Embryology Act (1990)*
- *Animal (Scientific Procedures) Act (1986)*

Ethical Discussion

Extrinsic Concerns

- Risks of biological developmental problems**
- Risks of creating new diseases**
- Animal Welfare**

Intrinsic Concerns

- **Unnaturalness**
- **Human Dignity (not scientific)**

Working Example:

Human-nonhuman Chimeras



US National Academy of Sciences Questions:
(use of Human Embryonic (ES) stem cells in animals)

- Are human ES cells required or can cells from another species be used?
- Has sufficient animal research preceded the proposed work involving human ES cells?
- If human ES cells are transferred into an animal embryo would it give rise to a creature with ethically unacceptable characteristics?
- If visible human-like characteristics arise, have all those involved in the experiments been informed about this?

Guidelines for Human Embryonic Stem Cell Research, National Research Council, National Academy of sciences (2005), USA, p.41.

**National Academy of Sciences in the USA recommended:
(use of Human Embryonic (ES) stem cells in animals)**

- Research only be permissible after authorisation from an ethics committee.**
- No human ES cells should be introduced into nonhuman primate blastocysts.**
- No animal into which human ES cells have been introduced at any stage of development should be allowed to breed.**

Guidelines for Human Embryonic Stem Cell Research, National Research Council, National Academy of sciences (2005), USA, p.82

Ethical Importance of Different Body Parts

- Neurological Cells**
- Reproductive Cells**

Possible Moral Status dependent upon:

- **Cultural, ethical and world-view perspective.**
- **Nature of the entity being created. For example:**
 - **The specific nonhuman species used**
 - **The integration sites of the biological material used**
 - **The amount/proportion of biological material used**
 - **The nature of the biological material used (for ex: embryonic or fetal material)**
- **Stage of existence or development. For example:**
 - **Creation**
 - **Apparition of the primitive streak**
 - **40 days after creation**
 - **Viability outside the womb**
 - **Birth**
 - **Sometime after birth**

Consequences:

- No Moral Status
- 'Special' Moral Status
- Full Moral Status

**Combinations put into questions
concepts of:**

- human identity
- human dignity
- human rights

Societal Outcomes

Human-nonhuman embryonic combinations

Society can decide:

- Not to create these entities.**
- To create certain kinds of entities and kill them at a certain stage.**
- To create certain kinds of entities and allow them to develop to term.**

BioCentre Report on Human-Nonhuman Combinations

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