

The 3R principle: A reflection on its application in AAI

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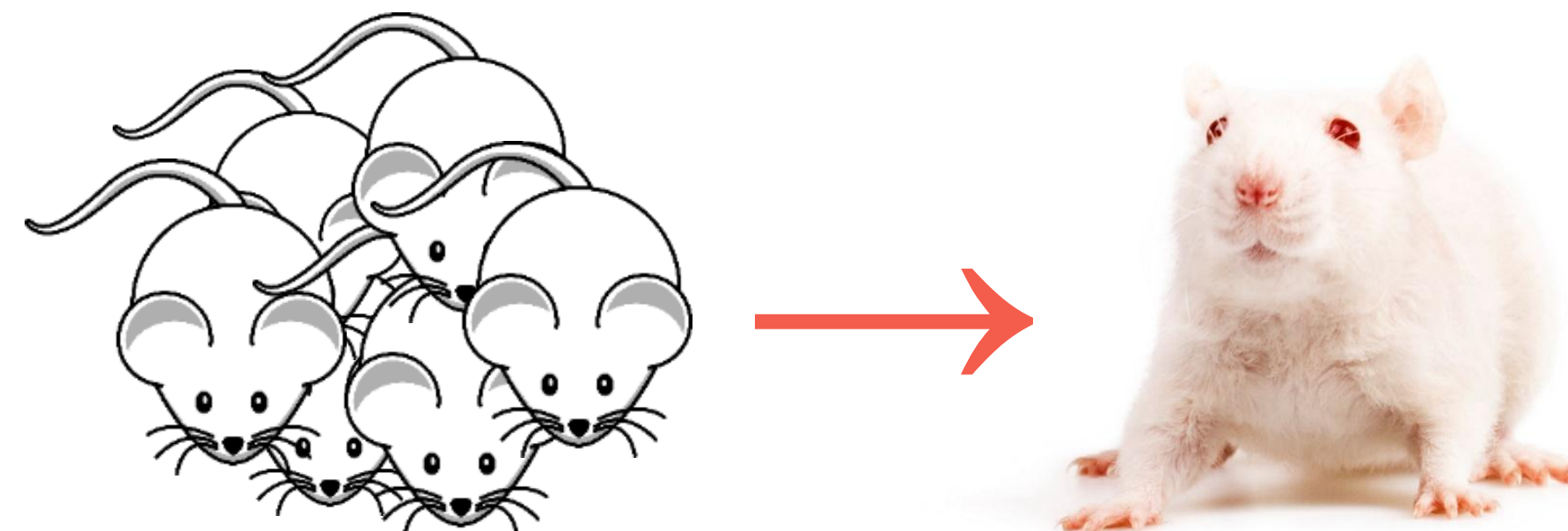
The 3R principle, introduced in 1959 by Russell & Burch, aims to provide ethical reference points for the deliberation and practice in the animal research environment

1 Replacement



The **substitution** of conscious living animals for **insentient material**

2 Reduction



The **reduction** in the number of animals used to obtain substantial and precise information

3 Refinement



To **reduce** the amount of stress imposed to the animals used to an absolute minimum

WE APPLY THE 3R PRINCIPLES ON AAI

Replacement should consider that

Absolute Replacement is incompatible with AAI.

Relative Replacement could be understood in terms of choosing the most appropriate species and the most appropriate individuals within the same species, on the basis of individual characteristics.

The re-education of abandoned animals could allow us to recruit other individuals, with the advantage of giving them a new, more enjoyable life. There is a need for further research on this matter.

Reduction could be based on

- ✓ Frequency of the sessions
- ✓ Duration of the sessions
- ✓ Number of participants
- ✓ Number of animals involved

Carefulness in management costs and resources, which are influenced by the factors listed above and affect the feasibility of the intervention.

The sustainability of AAI is at heart here: how can we balance our accounts and avoid overburdening the animals at the same time? Reduction in the costs must not lead to reduction in the quality of the intervention.

Refinement concerns

Environment: weather, housing, facilities (e.g. pavement, escape routes), logistics, equipment, transportation.

Animals: respect for life stages and behaviour, definition of specific sanitary protocols, stress assessment with non-invasive techniques.

Humans: know the patient/client and prepare him/her adequately, training in AAI (specific for each role), understanding of team dynamics, basic principles of bioethics, ethical project formulation, security procedures.

Are there benefits for the animals? How to assess them?

WE SUGGEST THE FOURTH R

4 Relationship

The **Relationship** between humans and animals is essential to AAI, as it implies **reciprocal benefits** for all the stakeholders in terms of health and well-being. Any form of anthropomorphism would be inappropriate. On the contrary, the concepts of **difference** and **asymmetry** are involved in this interspecific relation: this means personal and social enrichment for both humans and animals, but also entails **human responsibility** for the animals. Although animals naturally engage in a relationship with humans, we train and educate them for particular purposes, that is, a type of work we require them for.



CONCLUSIONS: This work has turned out to be interesting and useful for our research group in various ways. Firstly, it has shown that the 3R principle could, and perhaps should, be adopted in the context of AAI, since they represent a kind of work for the animals involved. Secondly, it highlighted some ethical implications of AAI, especially concerning the responsibility of the multidisciplinary team that takes care of human-animal relationships. Thirdly, it clarified the remarkable difference between the way animals are considered in the two fields of animal research and AAI, thus recalling the new role animals play in today's society.

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