

# Do Socially Assistive Robots Compromise our Moral Autonomy?

*Andreas Huber, Lara Lammer and Markus Vincze*

## Idea

- Socially Assistive Robots use social mechanisms to foster the emotional attachment of their owners.
- From a bioethical perspective such mechanisms can have a serious impact on the moral autonomy of a person.
- Our research project investigates this ethical conflict using empirical long-term field trials.

## Social Attachment & Product Acceptance

One of the driving forces behind current research and development of socially assistive robots (SARs) is the upcoming demographic change in many Western countries (FP7). To overcome acceptance problems that older users may have, contemporary research focuses on psychological mechanisms to develop robot companions.

We believe that this design approach mistakes social mechanisms to trigger emotional attachment for a kind of extended usability. However, usability is related with the adaption of objects to the needs of persons, while sociability describes the capability of interacting well with other persons. This means that emotional attachment raised by social mechanisms cannot be equated with acceptance by usability.



## References:

- EU's FP7 objective ICT-2009.7.1. ICT & Aging: service robotics for aging well.
- T. L. Beauchamp, J. F. Childress. Principles of Biomedical Ethics, 6th Edition. Oxford: Oxford University Press, 2008. p. 417.
- L. Lammer, A. Huber, A. Weiss, M. Vincze: "Mutual-Care: Creating a feeling of reciprocity for a care robot for older adults", submitted to International Conference on Human-Robot-Interaction (HRI), 2014.

## Social Attachment & Moral Autonomy

Following the well-established bioethical system of Principlism (Beauchamp & Childress) the use of such social mechanisms in robot products stands in conflict with the basic moral principle of the autonomy of the person which is grounded on:

- Substantial knowledge: usually provided using the professional practice standards.
- Substantial freedom: usually affected by such aspects as persuasion, coercion, and manipulation.

SARs using strategies confusing emotional attachment with product acceptance stand in conflict with both of these moral principles. The end-users lack substantial knowledge about the social mechanisms establishing an attachment, something which is usually experienced between persons and not towards objects.

Substantial freedom is compromised due to the effect of these social mechanisms. The end-user may experience difficulties to escape the unconscious working social mechanisms and to decide against the robot.

## Ethical Long-Term Field Trials

We propose an evaluation framework in our project HOBbit (Lammer et al.) to explore the ethical dimension of personal autonomy in long-term field trials with a SAR in the private homes of older adults. Our research focuses on how the user evaluates the robot before, at the end and weeks after the long-term trials including:

- Anthropomorphization: Does the user perceives the robot as a person-like being?
- Theory of Mind: Does the user perceive the robot as intentional, feeling or empathic?
- Attachment: Does the user miss the robot weeks after the trial like a friend?