



# LOVE JOY + AUTISM ROBOTS: A METAREVIEW AND PROVOCATYPE



## INTERVENTION EXAMPLE:



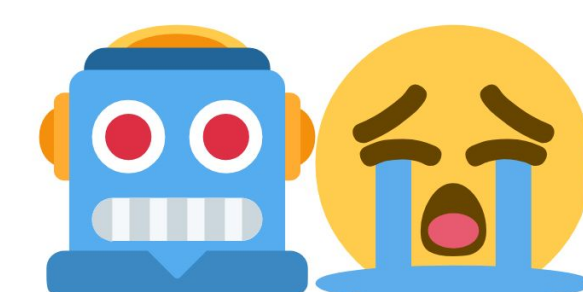
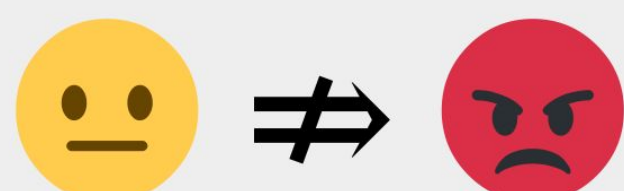
### EYE CONTACT TRAINING

- The most common robot intervention
- Uncomfortable to painful for many
- Among Interventions, eye contact is ranked *second-to-last* by Autistic people.
- Known negative health impacts of such *camouflaging* means it is not consistent with the *beneficence & nonmaleficence* principles required for most Human Subjects Research (HSR) approval.

### COMMON SIGNS OF NSD

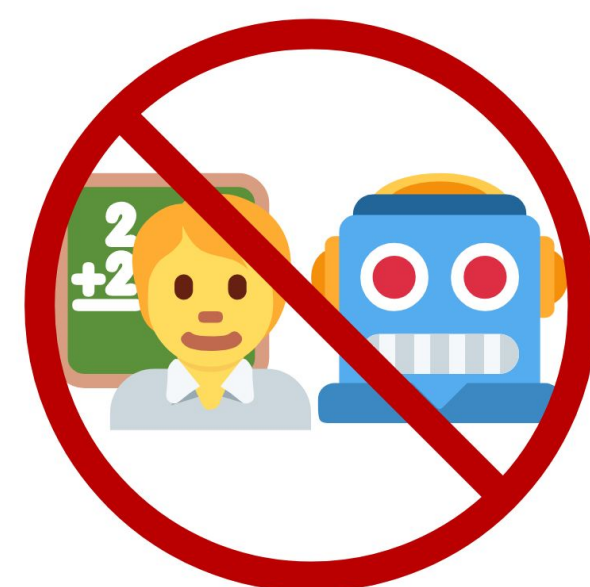
The portion of neurotypicals (cognitively able-bodied) who suffer from NSD are characterized by deficits in & difficulties with:

- Understanding direct communication, with a tendency to invent implied content when it is not present
- Sustaining specific topics of interest
- Communicating with sufficient detail
- Adhesion to their moral principles
- Ability to speak up in unjust social and workplace situations
- Social interactions with neurodivergent people
- Avoiding negative assumptions and judgments about harmlessly divergent people and behaviors
- Rigid conformity to social norms
- Recognizing neutral neurodivergent faces, voices, and descriptions; with a tendency towards confident misinterpretations as anger, sarcasm, or condescension
- Respecting people they perceive as lower in a social hierarchy and developing a theory of their minds
- Restricted, repetitive need for small talk (e.g. the weather)



## 1. Current Autism robot research tends to:

- Risk harming Autistic people**
- Lack measures of harmful impacts
- Use harmful deficit language
- Rely on outdated concepts
- Lack rigor

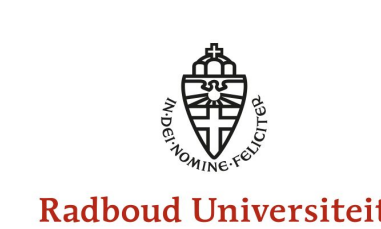


## 2. Interventions are Autistic people's second-to-lowest research priority, yet they dominate Autism robot research.



## 3. We create a *provocatype*, a creative design provocation, for a robot to treat the deficits in those who suffer from "Neurotypical Spectrum Disorder (NSD)"— but conclude that the risk of harm is too high and decide to end the project accordingly.

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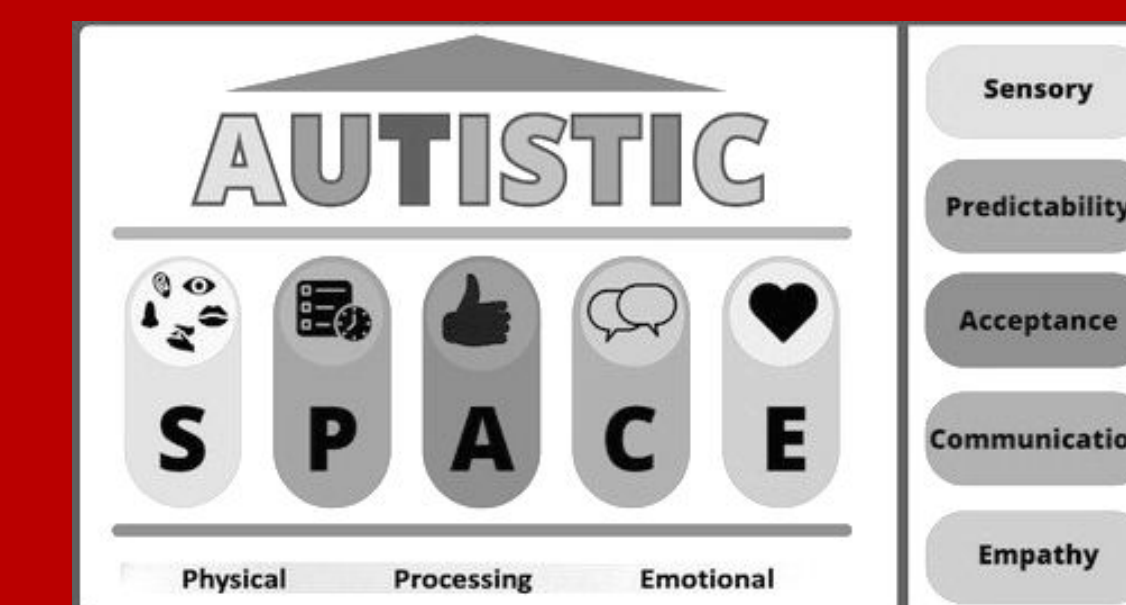


## FOUR TOP RESEARCH PRIORITIES OF AUTISTIC PEOPLE

- Mental health and well-being
- Identifying or diagnosing Autistic people, plus post-diagnosis support
- Services and support across the lifespan, including social care and healthcare
- Knowledge and attitudes towards Autistic people and how we view and communicate about Autism (Cage et. al. 2022)

## RECOMMENDATIONS

- Refocus on Autistic-led research, priorities, and resources
- Use inclusive language
- Address Individual Autistic Environmental Needs
- The AUTISTIC SPACE framework can guide safer research environments (Doherty et. al. 2023)



## LINK FOR MORE INFO + PAPER



<https://is.gd/autismrobots>