

# Design Anthropomorphism



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# Anthropomorphism

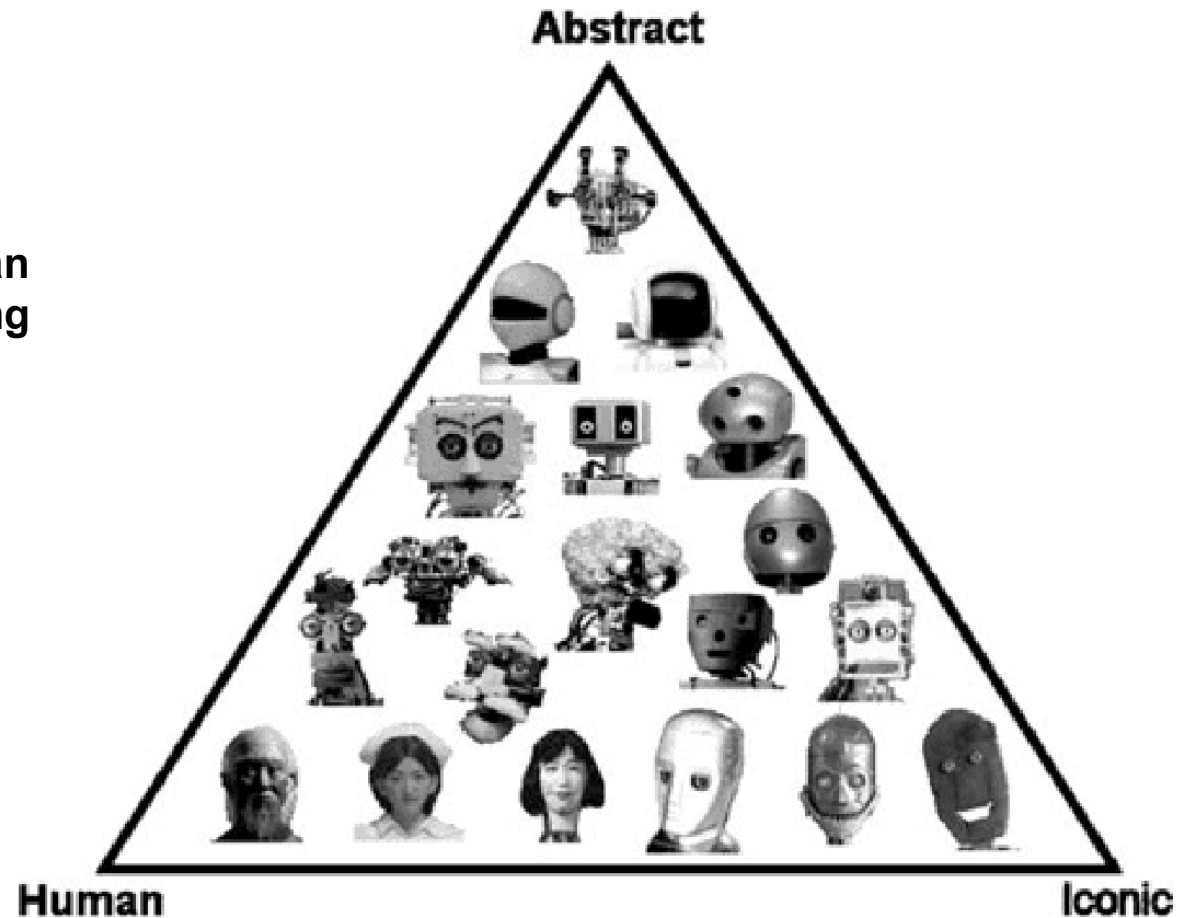
The tendency of attributing human cognitive and emotional states to inanimate objects, machines and animals with a view to rationalising their actions.

It affects the interpretation of actions, agency and trust.



# Anthropomorphism: cues

**A few key features are sufficient to stimulate the human anthropomorphising tendency.**

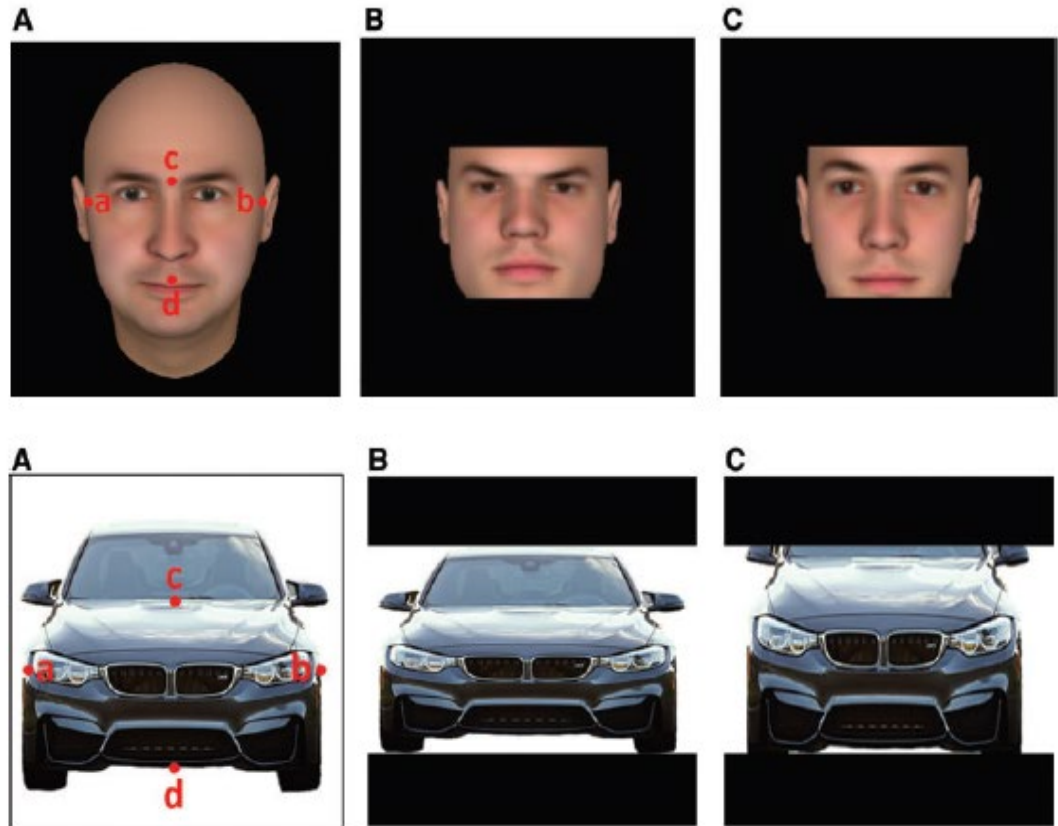


# Anthropomorphism: shape

Artefact shape is usually perceived as if it were human.

For example with both humans and artefacts a higher face ratio (ratio of face width to face height) is associated with greater perceived dominance.

Maeng, A. and Aggarwal, P. 2018, Facing dominance: anthropomorphism and the effect of product face ratio on consumer preference, *Journal of Consumer Research*, Vol. 44, No. 5, pp.1104-1122..

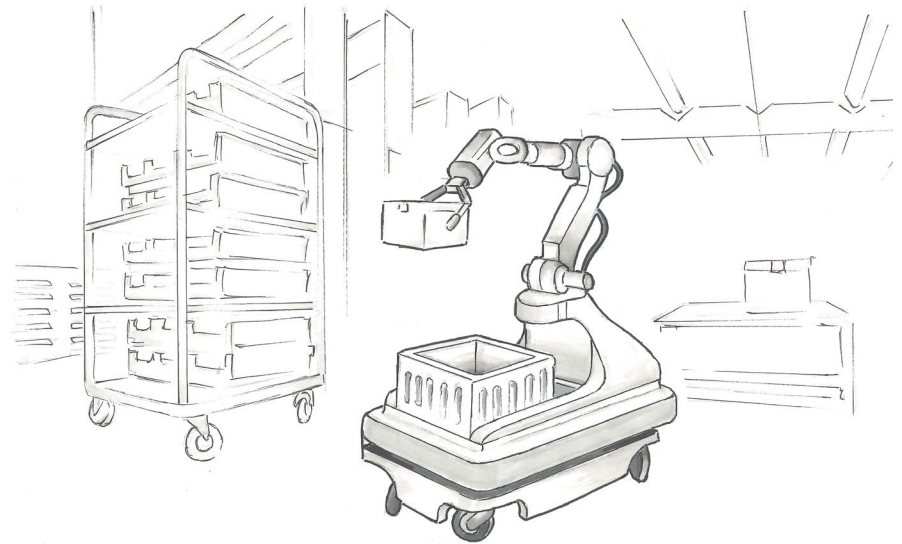


# Anthropomorphism: movement

**Living creatures move continuously due to physiological needs such as blood circulation and sensory needs such as visual scanning of the environment.**

**Movement, as opposed to no movement, is thus a major stimulator of the human anthropomorphising tendency.**

**The exact timing and sequence of the movements leads to associations with specific machines, animals or humans.**





## Anthropomorphism: voice

**Human-like voice strongly stimulates the anthropomorphising tendency.**

**For example, people are much more likely to judge statements as having originated from a human when they are voiced as opposed to expressed as written text.**



## **Anthropomorphism: name**

**Human-like names strongly stimulate the anthropomorphising tendency.**

**For example, the employees of a company which develops medicine delivery robots observed hospital staff being friendlier towards robots that had been given human names.**

**“Oh, Betsy made a mistake!” versus “This stupid machine doesn’t work!”**



# Anthropomorphism: gender

**Contoured body shapes stimulate female associations while squared body shapes stimulate male associations.**

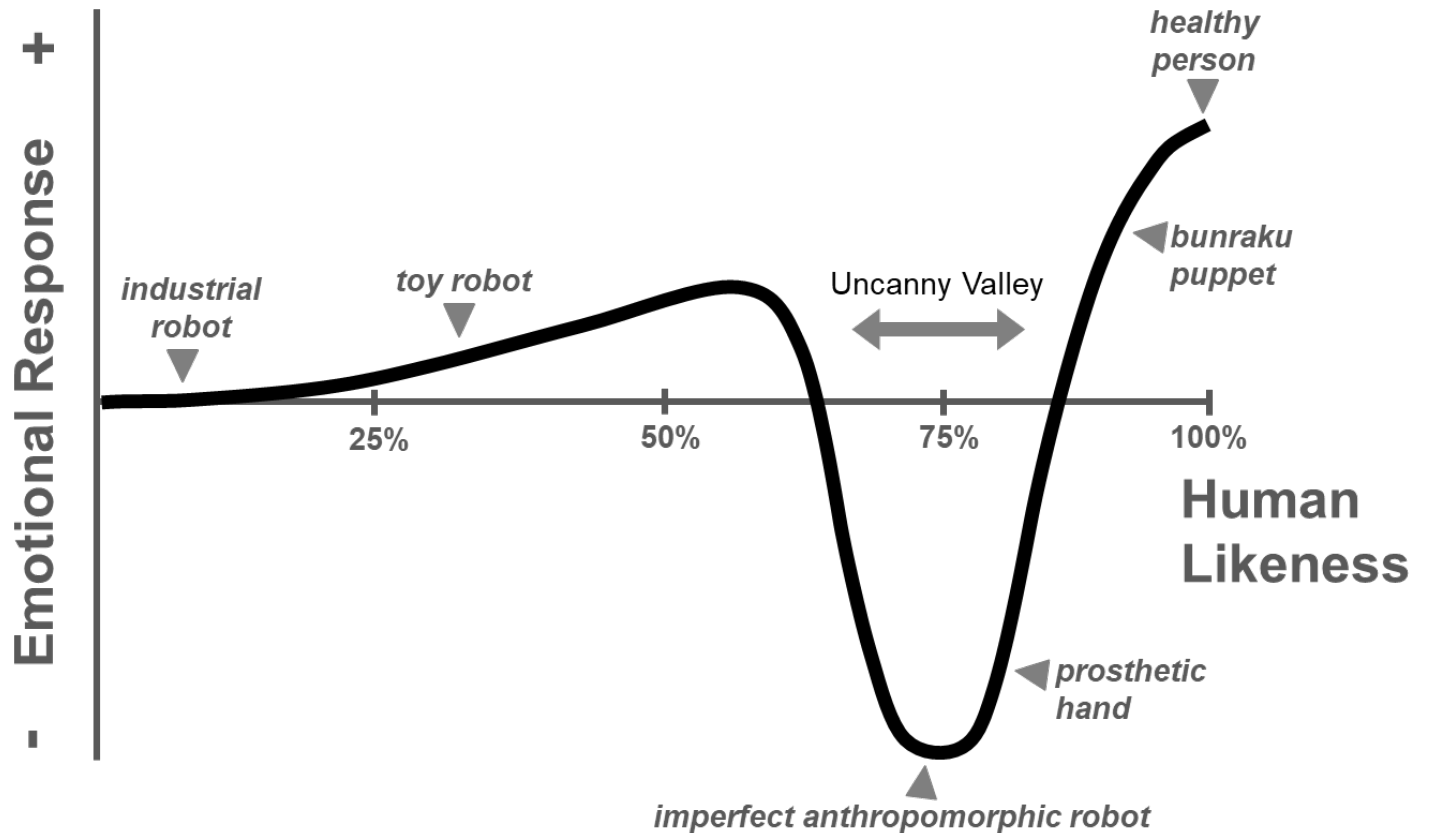
**Contoured body shapes are judged more appropriate for activities traditionally performed by women.**

**Squared body shapes are judged more appropriate for activities traditionally performed by men.**

**Size, shape, colour, movement, voice, speech rate, name and other characteristics can lead to gendering.**







## Anthropomorphism: uncanny valley

As the appearance of a robot is made more human-like the people's emotional responses become more positive and empathetic. Until a point is reached beyond which they react negatively to the robot due to its imperfect mimicking of humans. Further realism then eventually reaches a point at which the robot becomes indistinguishable from an actual human, restoring positive responses and empathy.

# Thank you.

