

Sciutti et al. 2018 IEEE Technology

and Society Magazine

without manuals

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n conjunction with what is often called the industry

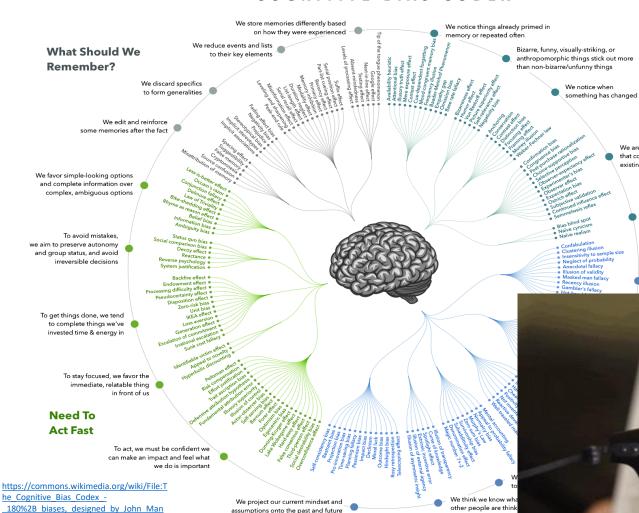
4.0, the new machine age, or the rise of the robots,
the authors of this paper have each experienced the
following phenomenon. At public events and roundLable discussions, among our circles of friends, or
during interviews with the media, we are asked on a
outprisingly regular basis. "How must humen'd
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Martina Mara, Vincenzo Tagliasco, and Giulio Sandini

ETECHNOLOGY AND SOCIETY MAGAZINE / MARCH 2018

COGNITIVE BIAS CODEX



Humans do not perceive the world as it is but rather perception is heavily shaped by perceptual and cognitive biases

Confability all united confability consumple size transported for probability American fallacy fillusion of validity flusion of validity flusion for validity flusion flusion for validity flusion flusi

Too Much

We notice flaws in others

more easily than than we notice flaws in ourselves

We are drawn to details

existing beliefs

Information

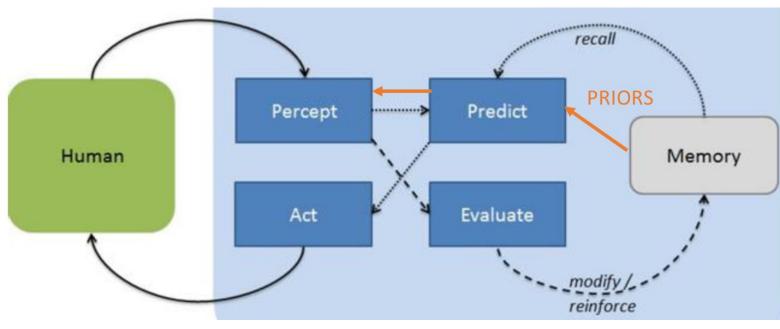
Shared Perception

DESIGNHACKS.CO · CATEGORIZATION BY BUSTER BENSON · ALGORITHMIC DESIGN BY JOHN MANOOGIAN III (JM3) · DATA BY WI

oogian III (jm3).png

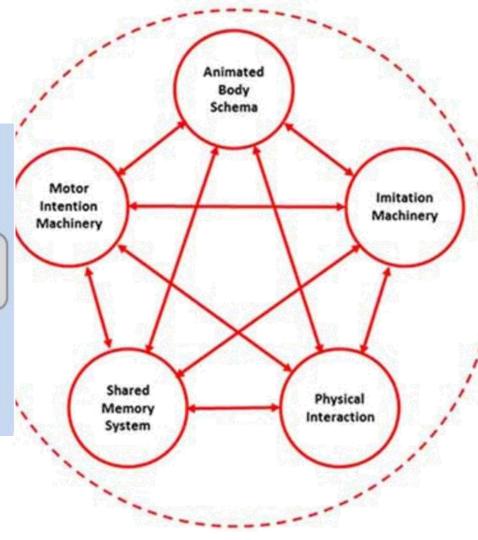
https://www.whisperproject.eu/

Architectures

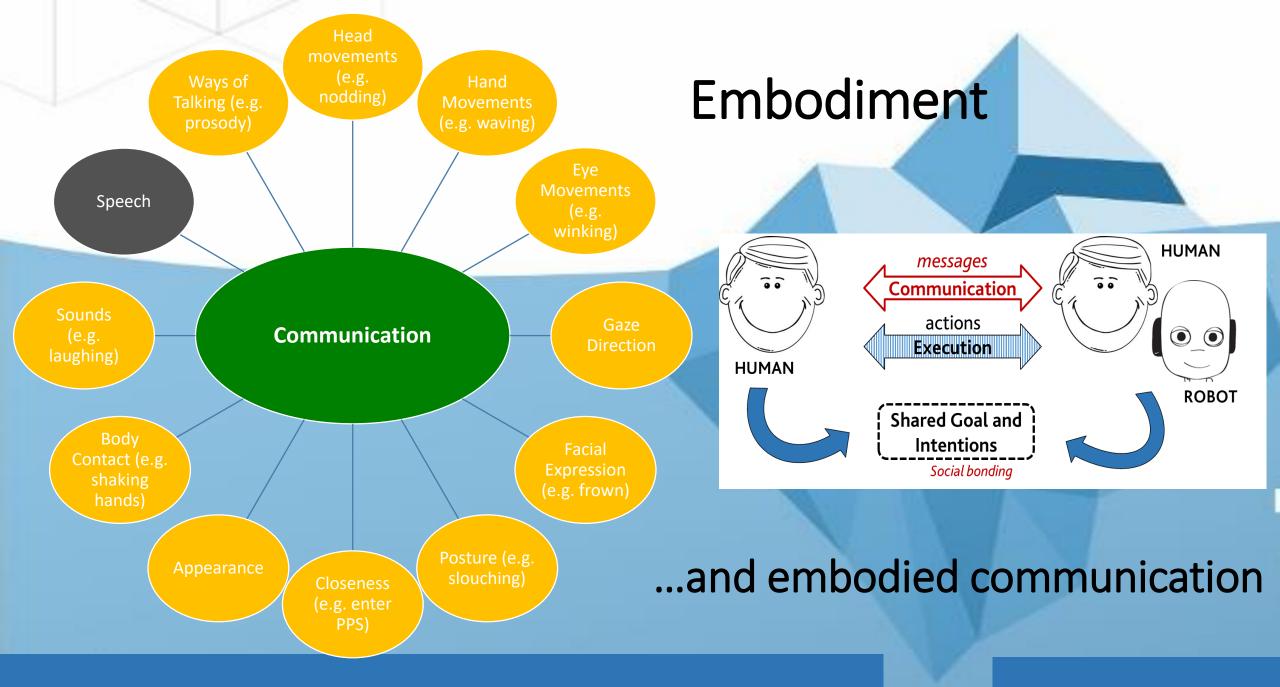


Modified from:

Tanevska A., Rea F., Sandini G. & Sciutti A. 2017, 'Towards an Affective Cognitive Architecture for Human-Robot Interaction for the iCub Robot', *1st Workshop on "Behavior, Emotion and Representation: Building Blocks of Interaction"*, Bielefeld, Germany, October 17, 2017



Sandini, G., Mohan, V., Sciutti, A. & Morasso, P. (2018). Social cognition for human-robot symbiosis - challenges and building blocks. *Frontiers in Neurobotics*, DOI: 10.3389/fnbot.2018.00034



Development





The state at each instant during development depends of the previous history: the "planking".

Learn to "understand" others' actions

Learn the consequences of our own actions

Learn to control our own body

Time

Need to discover the magic sequence, since reverse engineering doesn't work...













Syllabus for HCI

- Shared Perception
- Cognitive Architecture
- Embodiment

- Development
- Transdisciplinarity

