

# Organisational

Multimodal Interaction

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*15 July 2010*

# Overview

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- ❖ People follow gaze and gestures,
- ❖ Establish joint attention,
- ❖ Assign intentions, propositions to visually attended objects,
- ❖ Are influenced by appearance and / or behaviour,
- ❖ Integrate / show interference between modalities.

# Reading

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- \* B. Mutlu et al. (2006). A storytelling robot: Modeling and evaluation of human-like gaze behavior. HUMANOIDS'06
- \* F. Hegel et al. (2008). Theory of Mind (ToM) on robots: A functional neuroimaging study. HRI'08
- \* V. Groom et al. (2009). I am my robot: The impact of robot-building and robot form on operators. HRI'09
- \* C. Yu et al. (2010). Investigating multimodal real-time patterns for joint attention in an HRI word learning task. HRI'10

# Task

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- ❖ 15-minute presentation
  - ❖ Summary of paper (~ 10 min)
  - ❖ Outline issues for discussion (~ 5 min)
- ❖ Send us slides day before!

# Discussion

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- ❖ Functions of gaze, directing attention, gestures, appearance / motion for communication
  - ❖ Structural organisation
  - ❖ Information relevance
  - ❖ Encoding additional information
  - ❖ Triggering 'Like-me' hypothesis

# Discussion

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- ❖ Are these functions realised and helpful in HRI?
- ❖ Can phenomena like joint attention appear in HRI?
  - ❖ Limitations vs. necessary features?