Appraisal in Human-Robot Collaboration

Mahni Shayganfar, Charles Rich, Candace L. Sidner
Worcester Polytechnic Institute
Comoputer Science Department
100 Institute Road
Worcester, Massachusetts 01609
mshayganfar | rich | sidner @wpi.edu

Abstract

Don't know yet!

Introduction

- SharedPlans theory.
- Appraisal theory and social context.
- The necessity for identifying underlying processes of the collaboration.

Example Scenario

Two short interactions of the robot and the astronaut (to be used throughout the paper).

Affective Motivational Collaboration Theory

General Theory Here and the figure with highlighted appraisal.

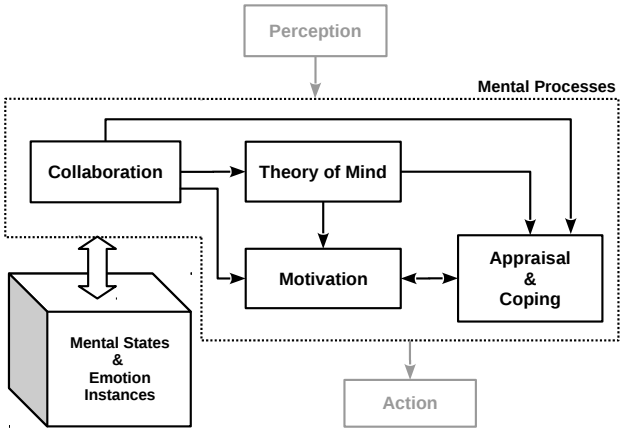


Figure 1: Computational framework based on Affective Motivational Collaboration Theory (arrows indicate primary influences between mechanisms).

Mental States

General description of mental states.

Belief: Our description and the definition of attributes.

Motive: Our description and the definition of attributes.

Intention: Our description and the definition of attributes.

Goal: Our description and the definition of attributes.

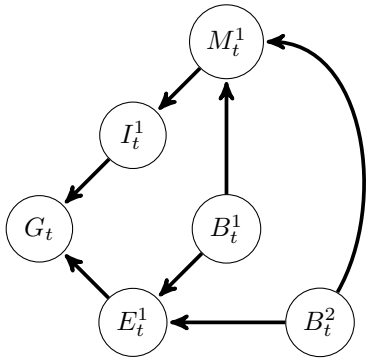
Emotion Instance: Our description and one or two examples.

Appraisal Process

Short paragraph to describe appraisal process.

Mental Graph

A graph illustration of mental state and a clear short and desciptive walkthrough example.



Appraisal Processes

A short paragraph to describe what variable we have chosen and why.

Relevance

Algorithm + Description + Example

Desirability

Algorithm + Description + Example

Expectedness

Algorithm + Description + Example

Controllability

Algorithm + Description + Example

Conclusion

Discussion about the application of the appraisal process in different mechanisms in our computational theory including Motivation mechanism.