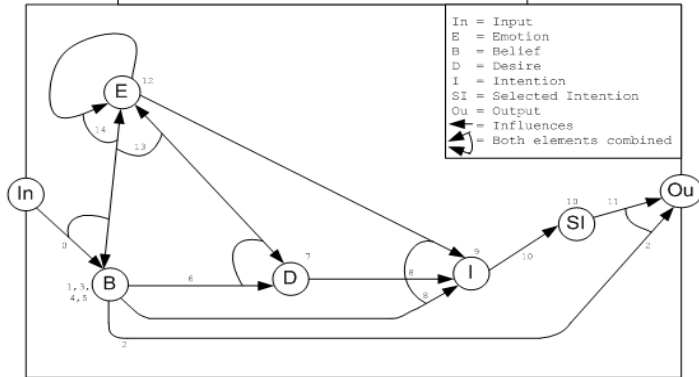


Introduction:

Goal: Virtual agents behave and reason more human-like
 Approach: New decision making model with emotions and trust
 Inspiration: From rational (Aristotle) to emotional (post-Darwin)

General BDI Model with Emotion and Trust

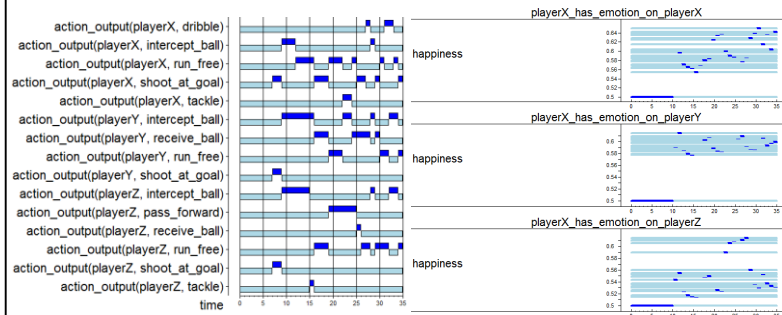


Conceptual Model

Based on BDI model
 Emotions have great influence on other mental states
 Model based on psychological theories
 New assumption on trust:
 Capabilities (importance & performance) -> trust

LeadsTo Implementation

Remark: Fixed scenarios
 Result: Actions performed on the left
 Emotional states on the right
 Conclusion: Emotions change after actions



RoboCup Implementation

Remark: Huge amount of uncertainties
 A lot of interaction between players
 Result: Significantly different actions per 'field position'
 Significant difference positive and negative emotional team wrt performing actions
 Conclusion: Apparent dynamic mental states
 Emotions contribute to 'choosing' actions



Conclusions

Concept first successfully formalized in LeadsTo
 Successfully implemented in RoboCup Soccer simulation
 Emotions are changed based on events
 Emotions contribute to decision making