

# An affective virtual agent for natural human-agent interaction

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In earlier studies [1], aesthetics of the design and moral fiber of a virtual character partially determined user involvement with it. We used these empirical results to model agents that in their turn would build up affect for their users much the same way as humans do for agents [2].

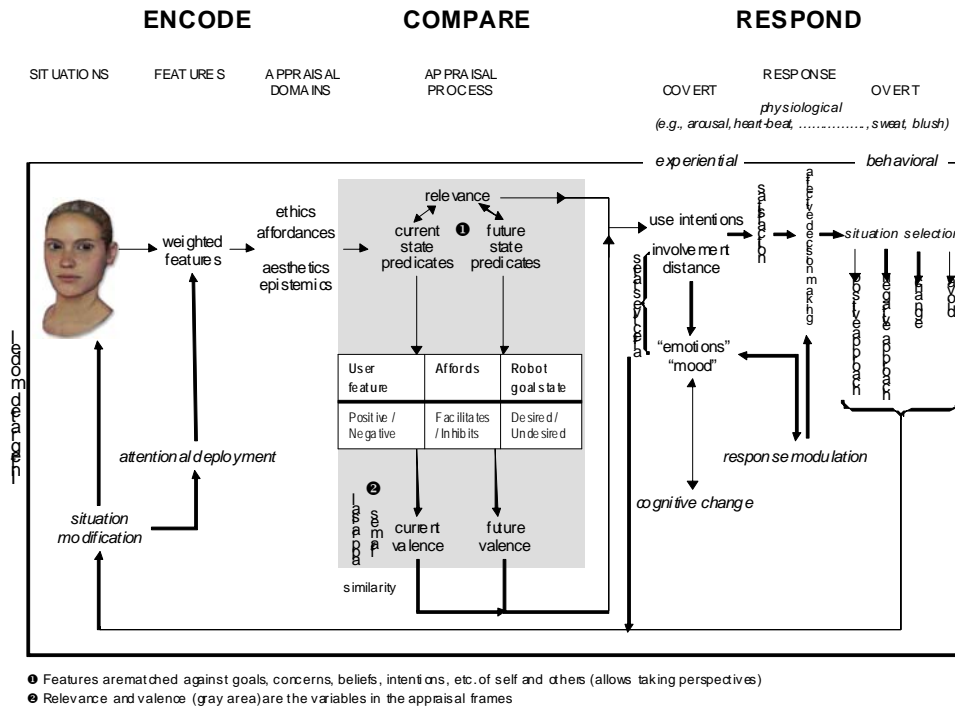


Figure 1: The affect model used by the agent

Through simulations, we tested these models for internal consistency and were successful in establishing the relationships among the factors as suggested by the earlier user studies [3]. We confronted our agent system with real users to check whether users recognize that our agents function in similar ways as humans do.

Through a structured questionnaire, users informed us that they recognized that our agents evaluated the user's aesthetics and moral stance while building up a level of involvement with the user and a degree of willingness to interact with the user again [4].

In future research, we plan to focus on more factors, such as affordances and realism, compare the performance of several emotion models with each other and a Wizard of Oz condition of human-human interaction, which allows for making stronger claims to the behavioral fidelity of an agent's affective response mechanisms.

## References

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