Emotive Agents

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Computers don't have feelings

Because:
- No heart, no brains, no guts
- Only a cold machine

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However, we'll give them emotions

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How?

Why?

How? Labels

You decide of its emotions

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- My agent will be upset if it fails its negociation.
- My agent will be happy if it gets the auction.

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You decide of its emotions

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- My agent will be happy if it gets the auction.
- My agent will look for other trade partners if it's upset.
- My agent will increase its exigences if it's happy.

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Easy to implement, but rather selective.

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How? Labels

What if you want more variations ?

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What if you want more variations ?

- My agent will be totally upset if ...
- My agent will be upset enough if ...
- My agent will be angry if ...
- My agent will be revengeful if ...
- My agent will be hateful if ...

How? Labels

What if you want more variations ?

- My agent will be totally upset if ...
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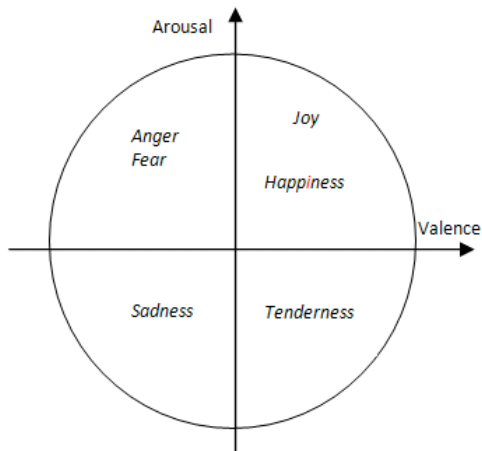Let's shift to continuous values.

How? Valence and arousal

Figure : Valence-arousal graph from [Kirke & Miranda, 2013]

How? Valence and arousal

- Current emotional state: coordinates of the valence-arousal state

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Necessity to give accurate and fixed values to every element...

How? Appraisal

How are emotions influenced?

- an event may produce emotions
- the same event occuring at different times may produce different emotions
- importance of current emotion state
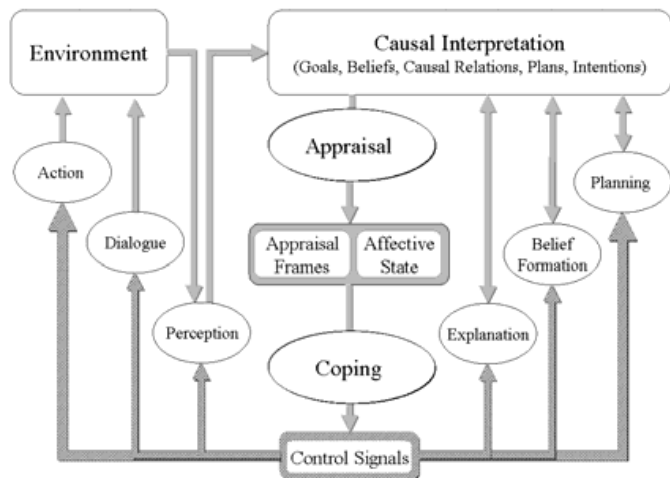
How? Appraisal

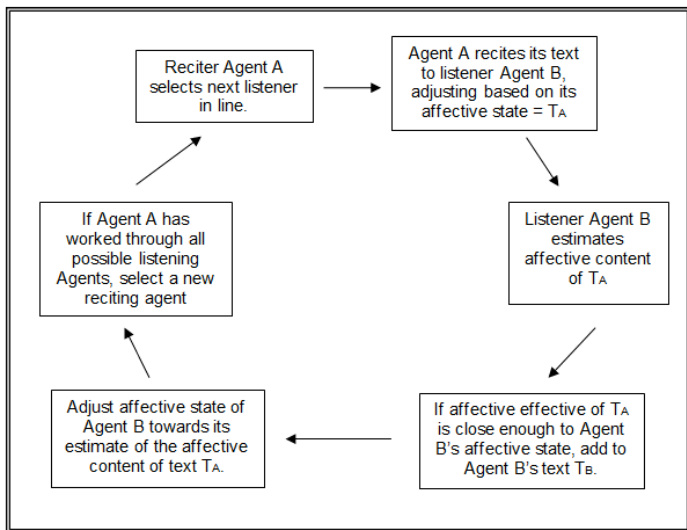Figure : Appraisal graph from [Gratch & Marsella, 2005]

Why? Poems

Figure : A cycle of writing [Kirke & Miranda, 2013]

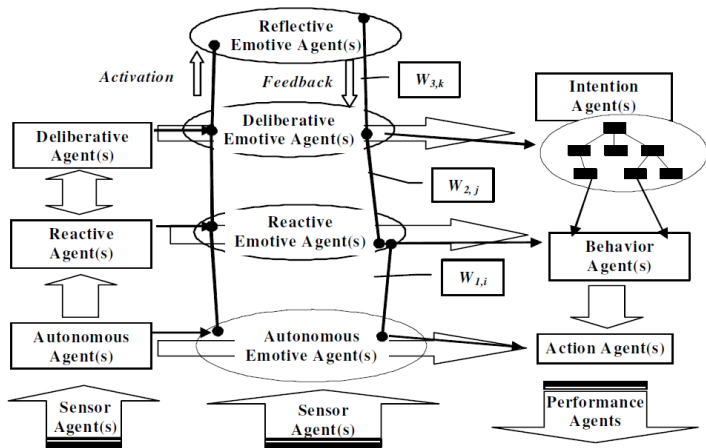# Why? More autonomous agents

Figure : A model of emotive agent [Davis & Lewis, 2003]

Conclusion

To give emotions to agents:

- is important when directly dealing with people

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- may improve the social aspects of MAS

Conclusion

To give emotions to agents:

- is important when directly dealing with people
- may improve the social aspects of MAS
- totally depends on the problem

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End of the slideshow

Thanks for your attention.
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