

Computable cognitive model based on social evidence and restricted by resources

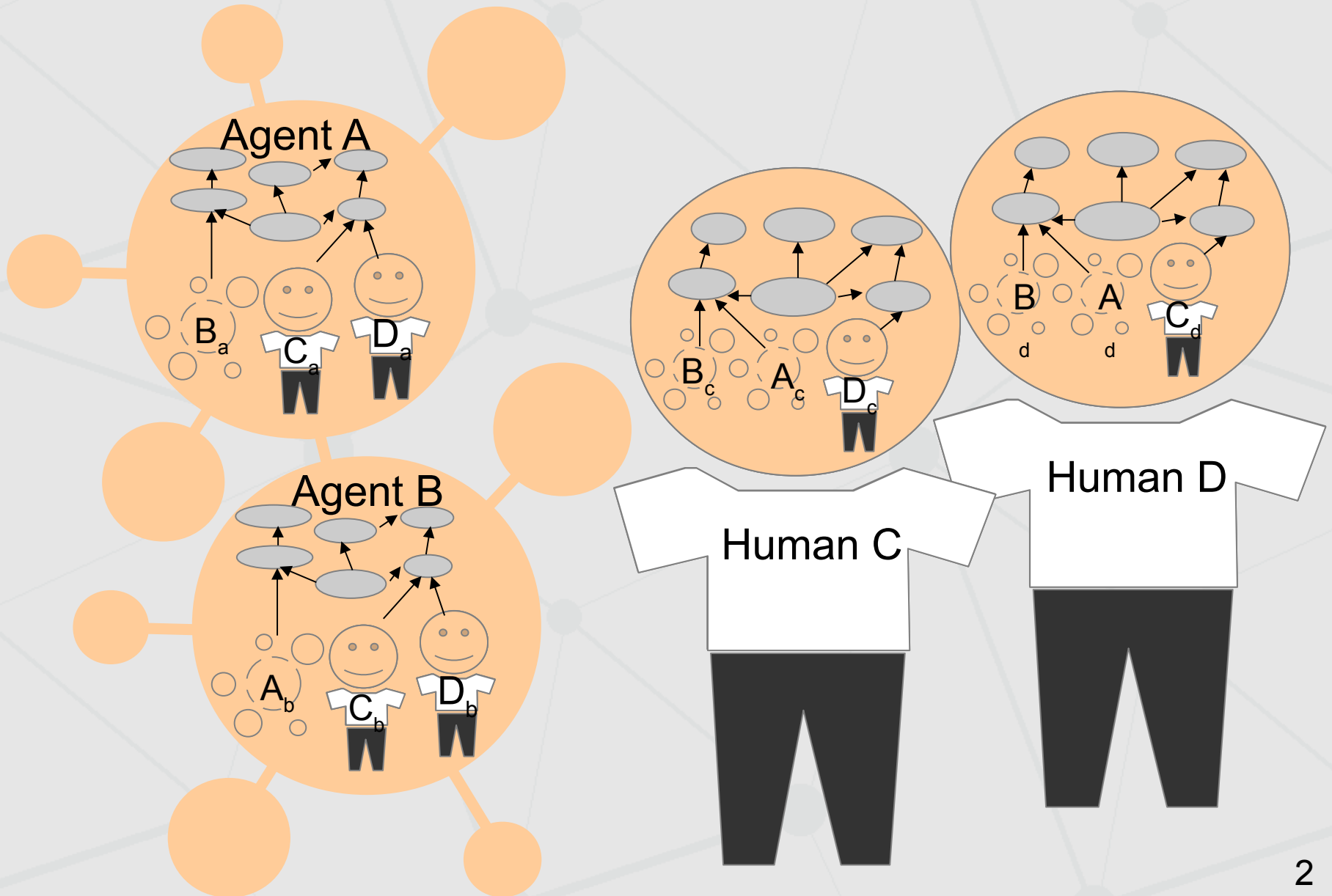
Applications for personalized search and social media in multi-agent environments

Anton Kolonin

Agents Group

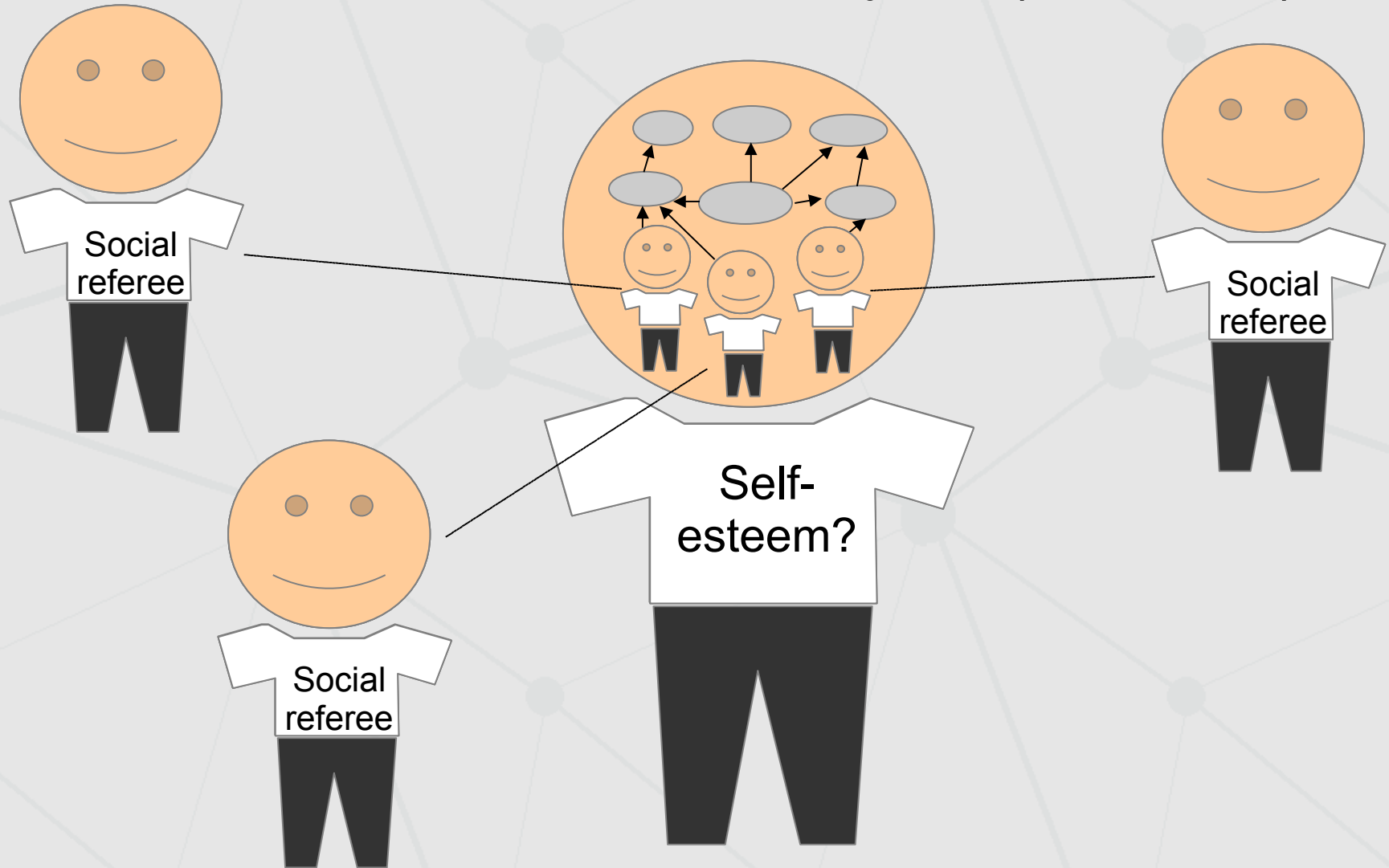
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Belief systems in social multi-agent environments



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Compassion-based artificial psyche (Webmind)

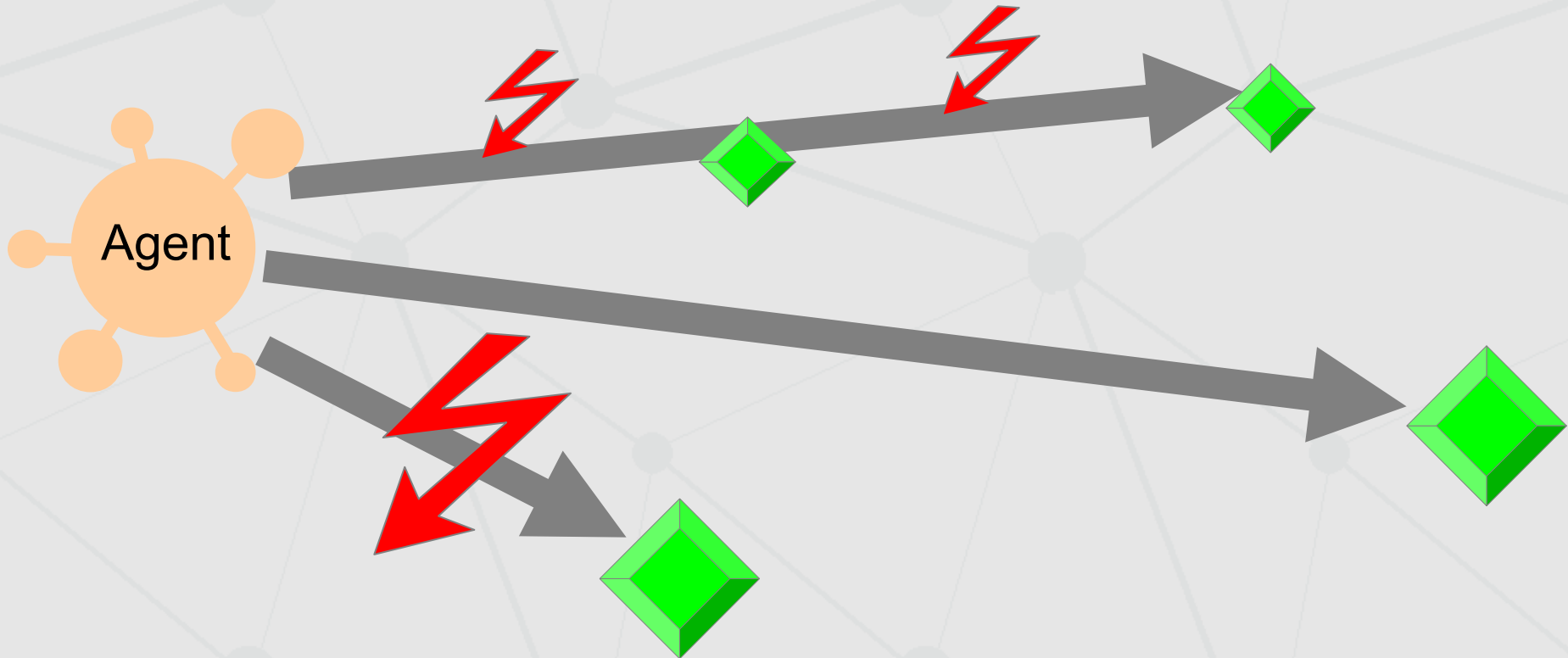


B.Goertzel, A.Kolonin, J.Pressing, C.Pennachin (2000)

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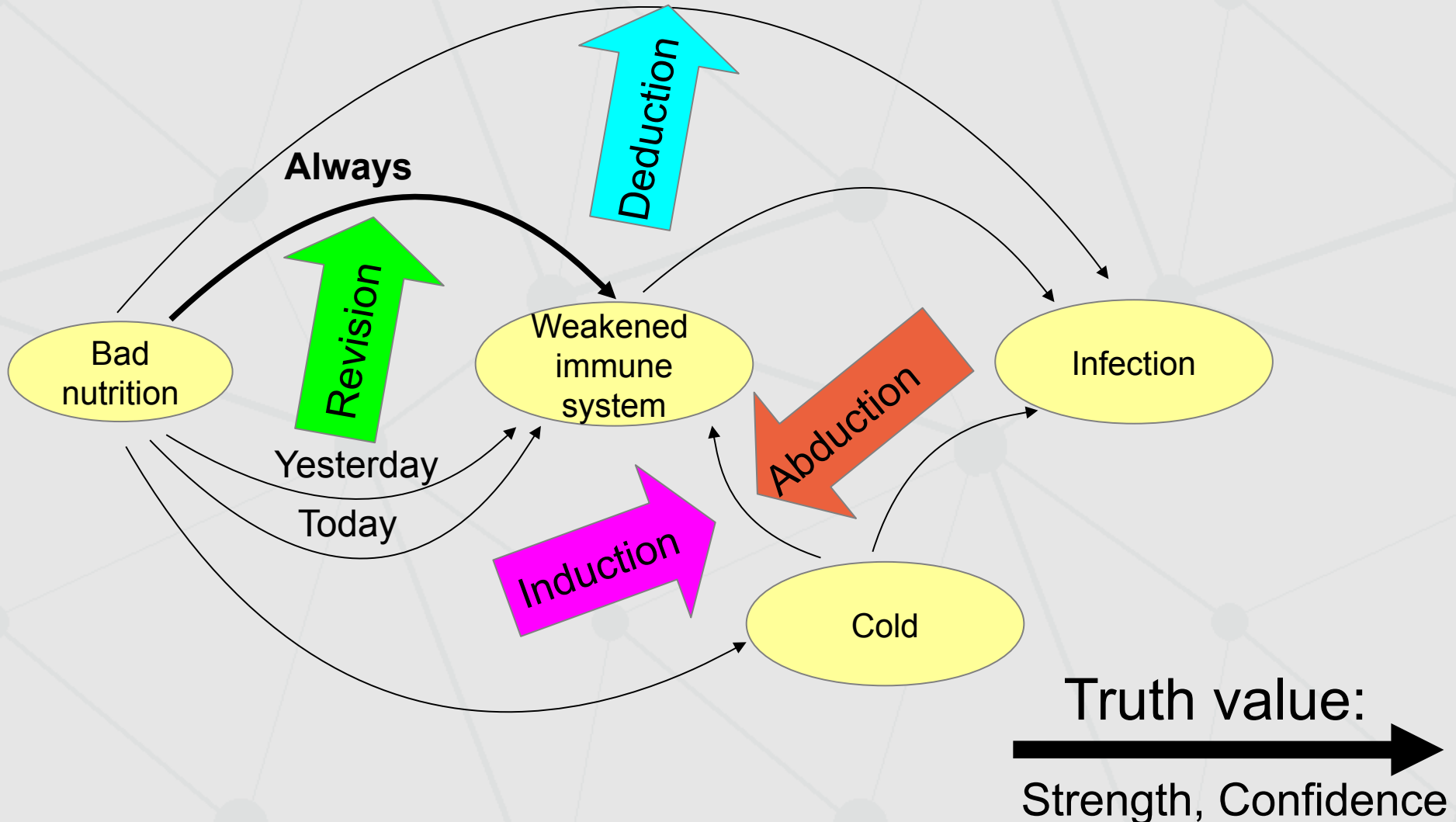
Working definition of intelligence:

Ability to reach complex goals in complex environments, using limited resources



B.Goertzel (1999)

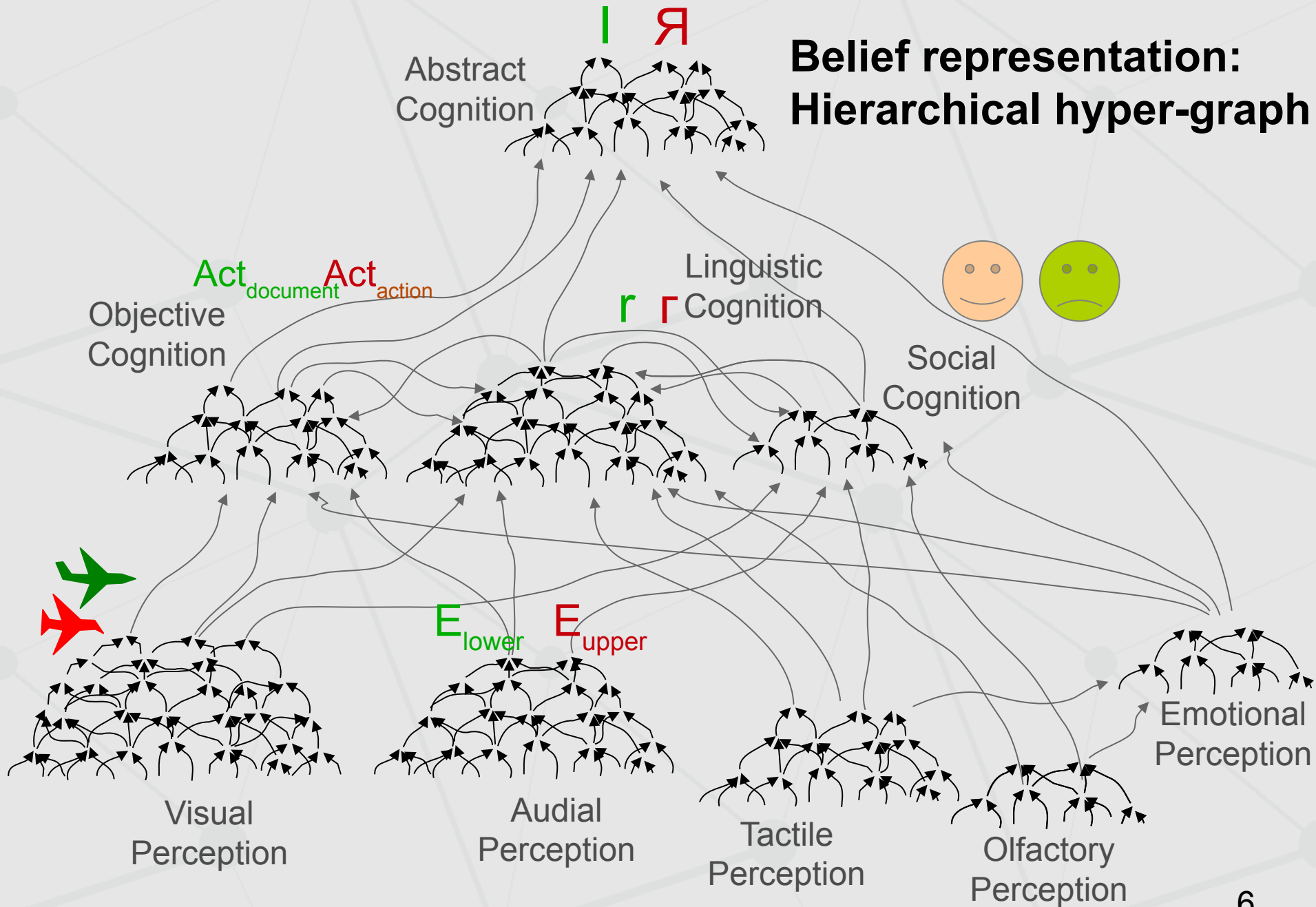
Non-Axiomatic Reasoning (NARS) Inference



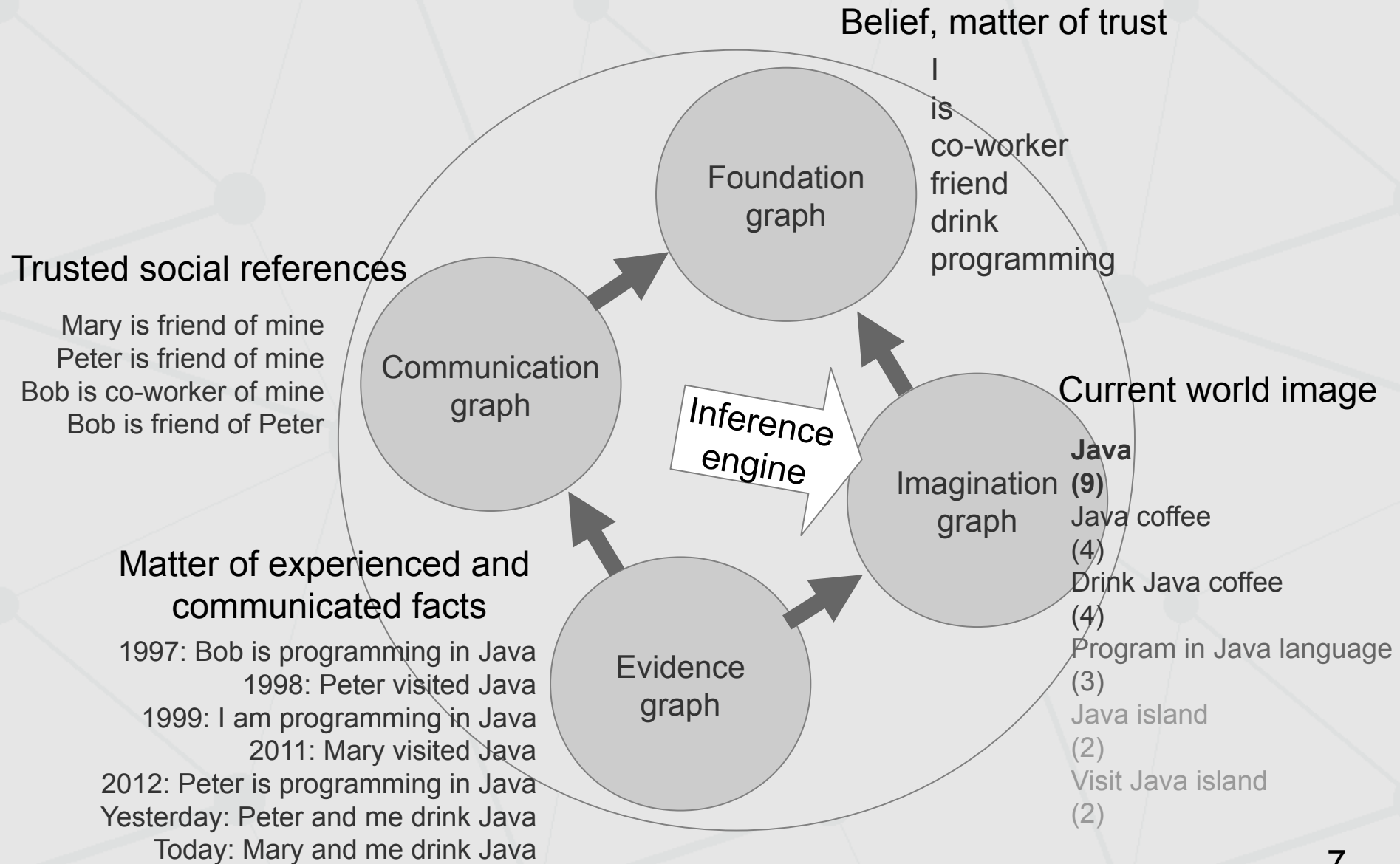
P.Wang (1993)

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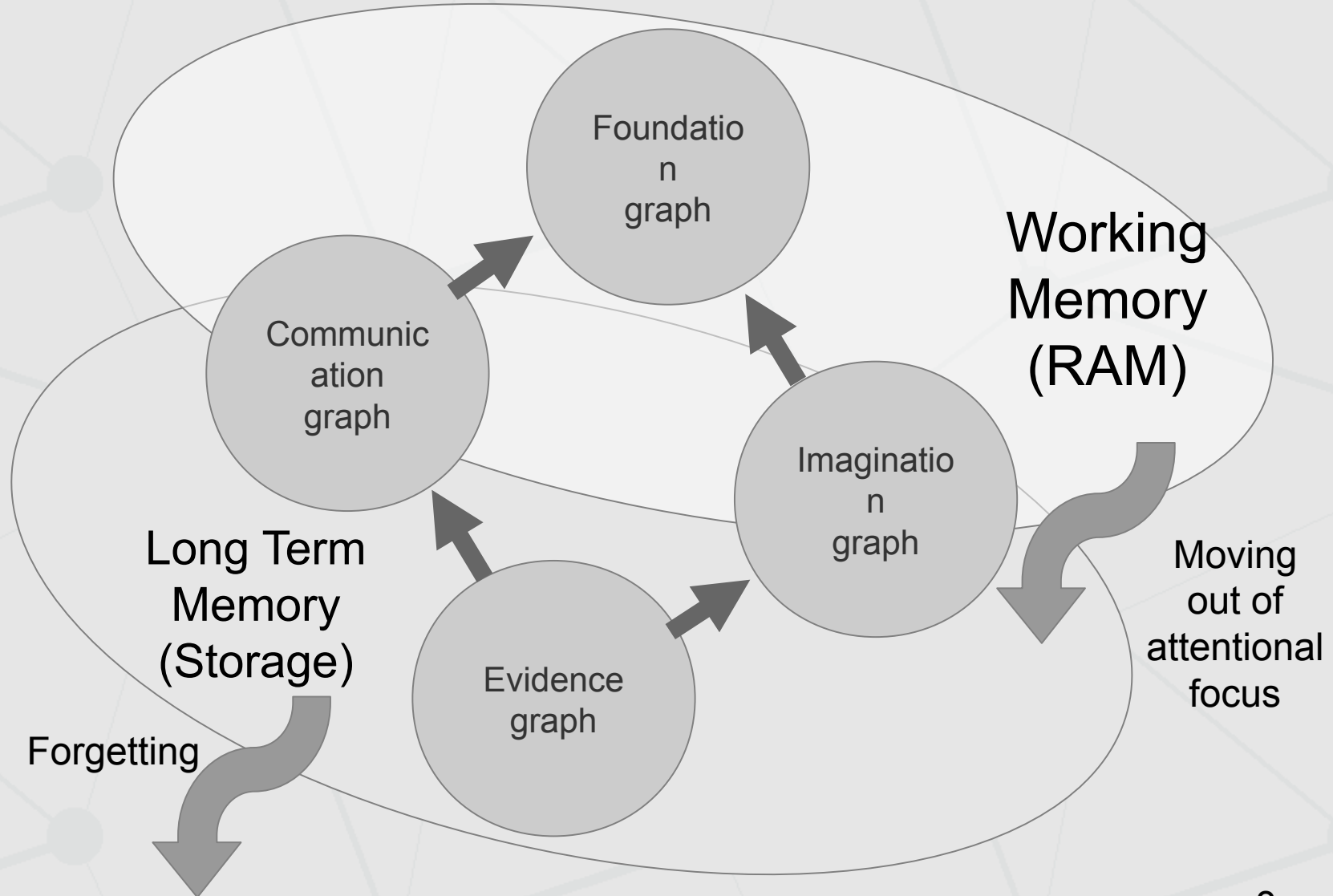
Belief representation: Hierarchical hyper-graph



Social evidence-based cognitive model

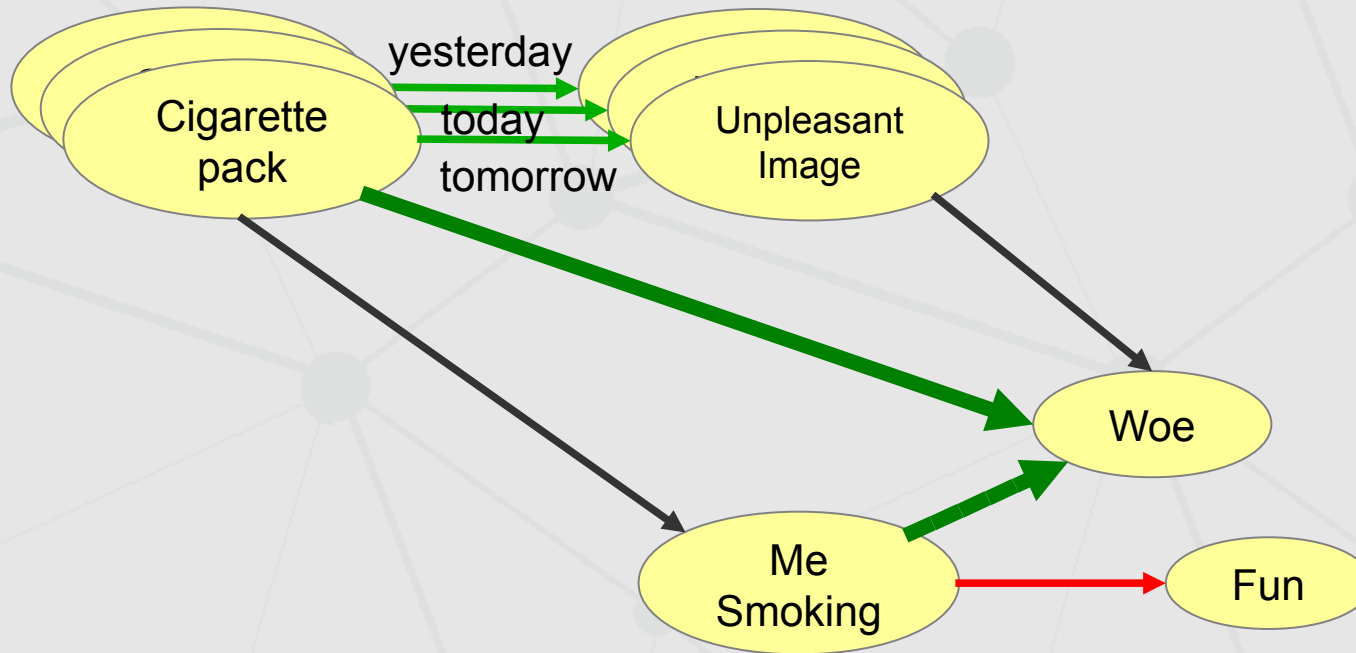


Applying resource constraints



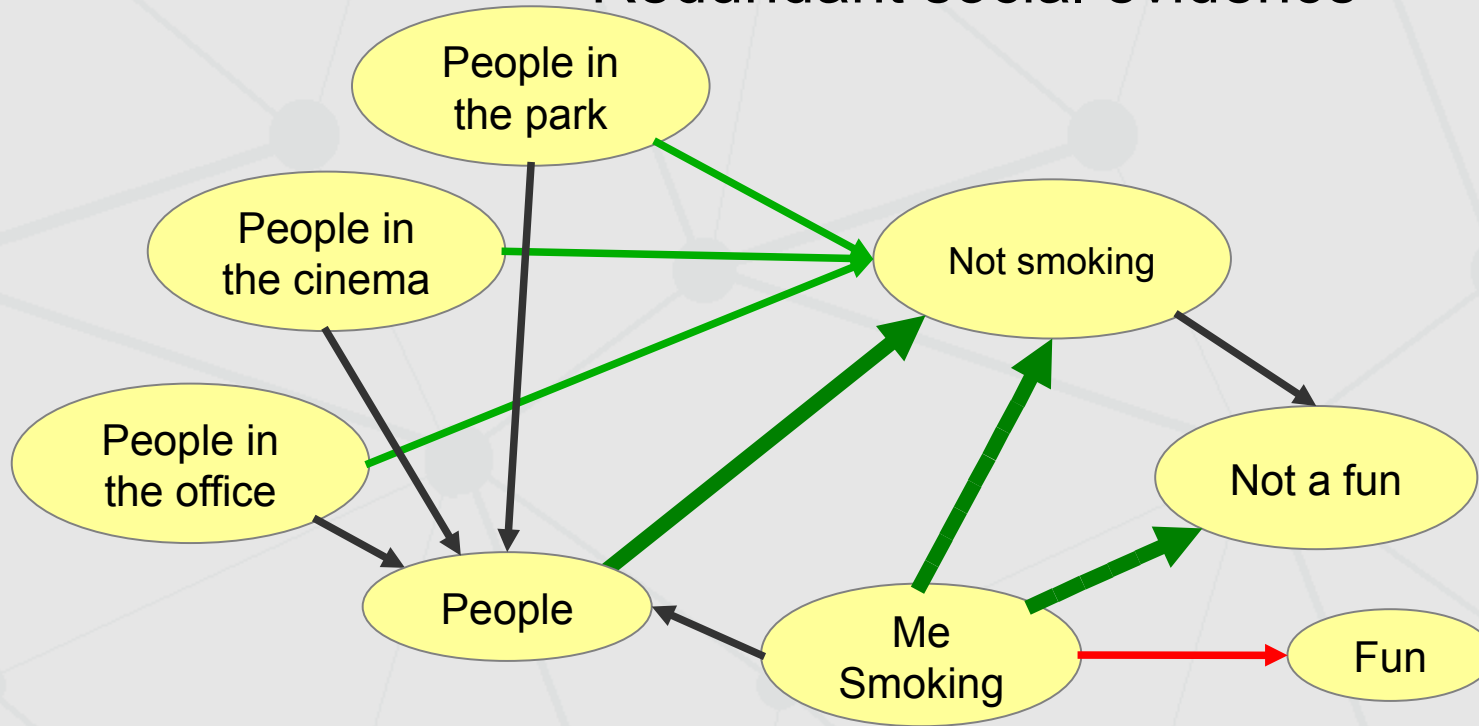
Testing the model: Belief change techniques

Redundant temporal evidence



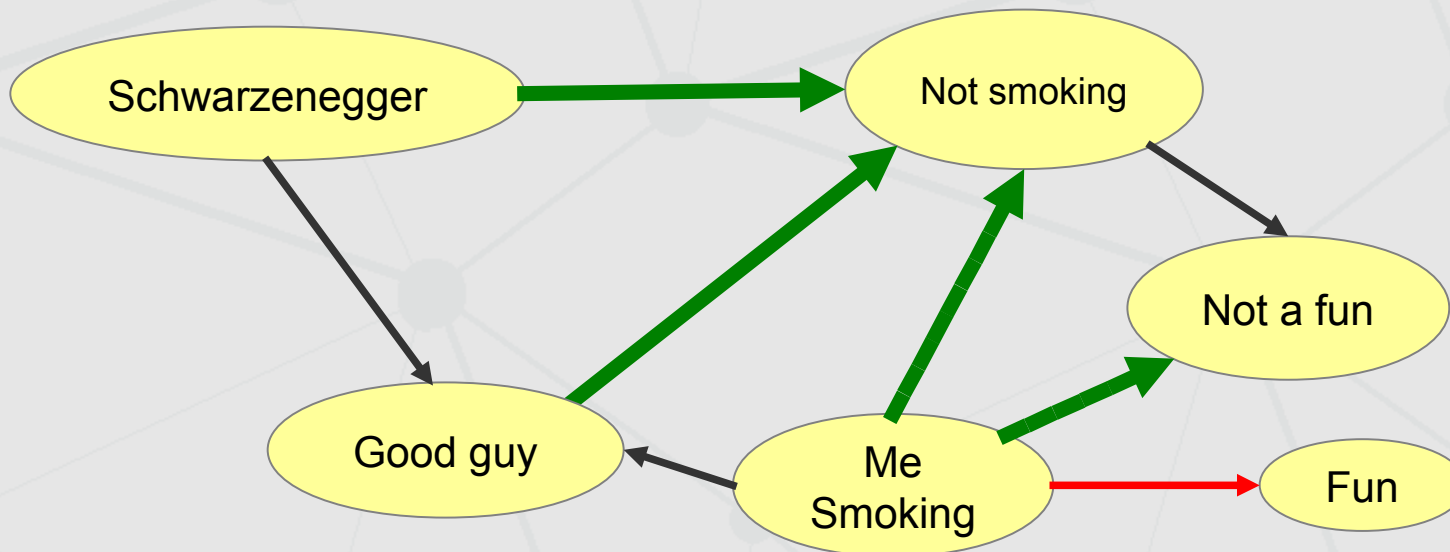
Testing the model: Belief change techniques

Redundant social evidence



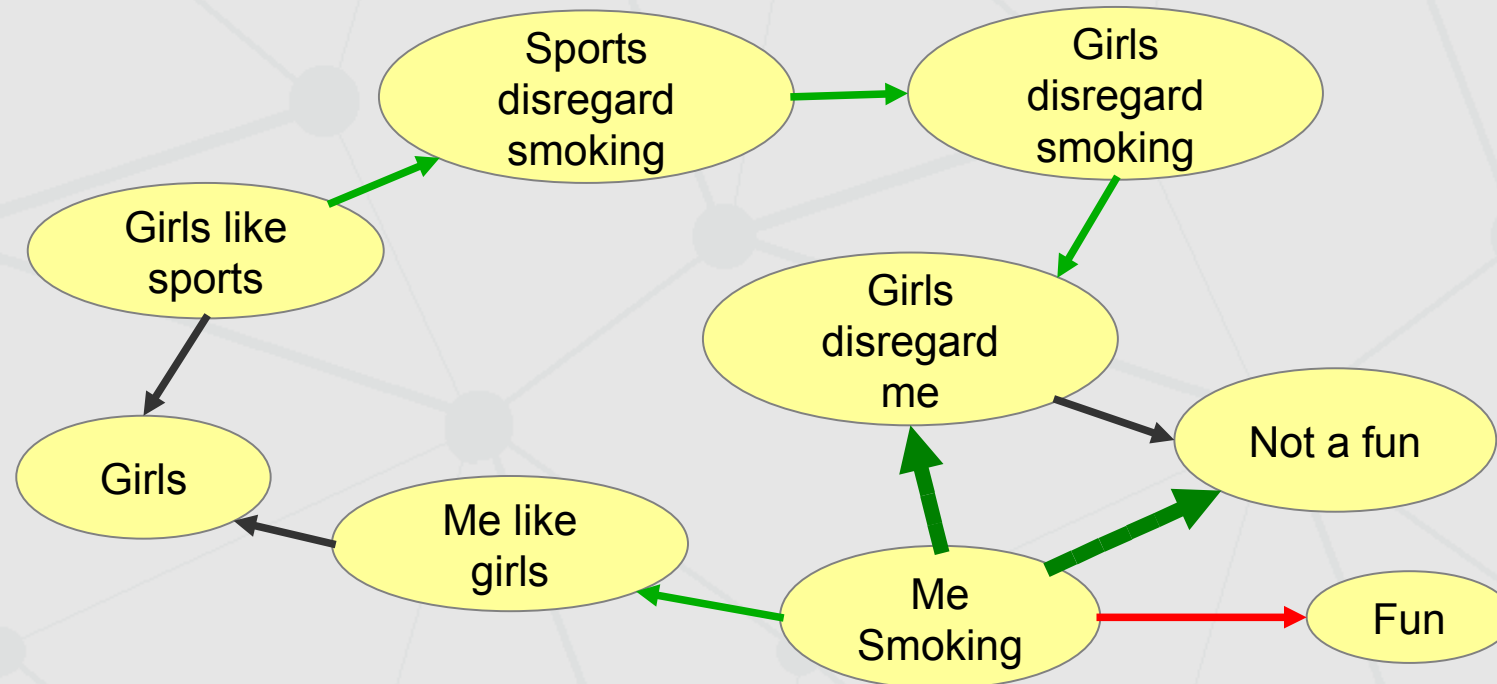
Testing the model: Belief change techniques

Highly valuable social evidence

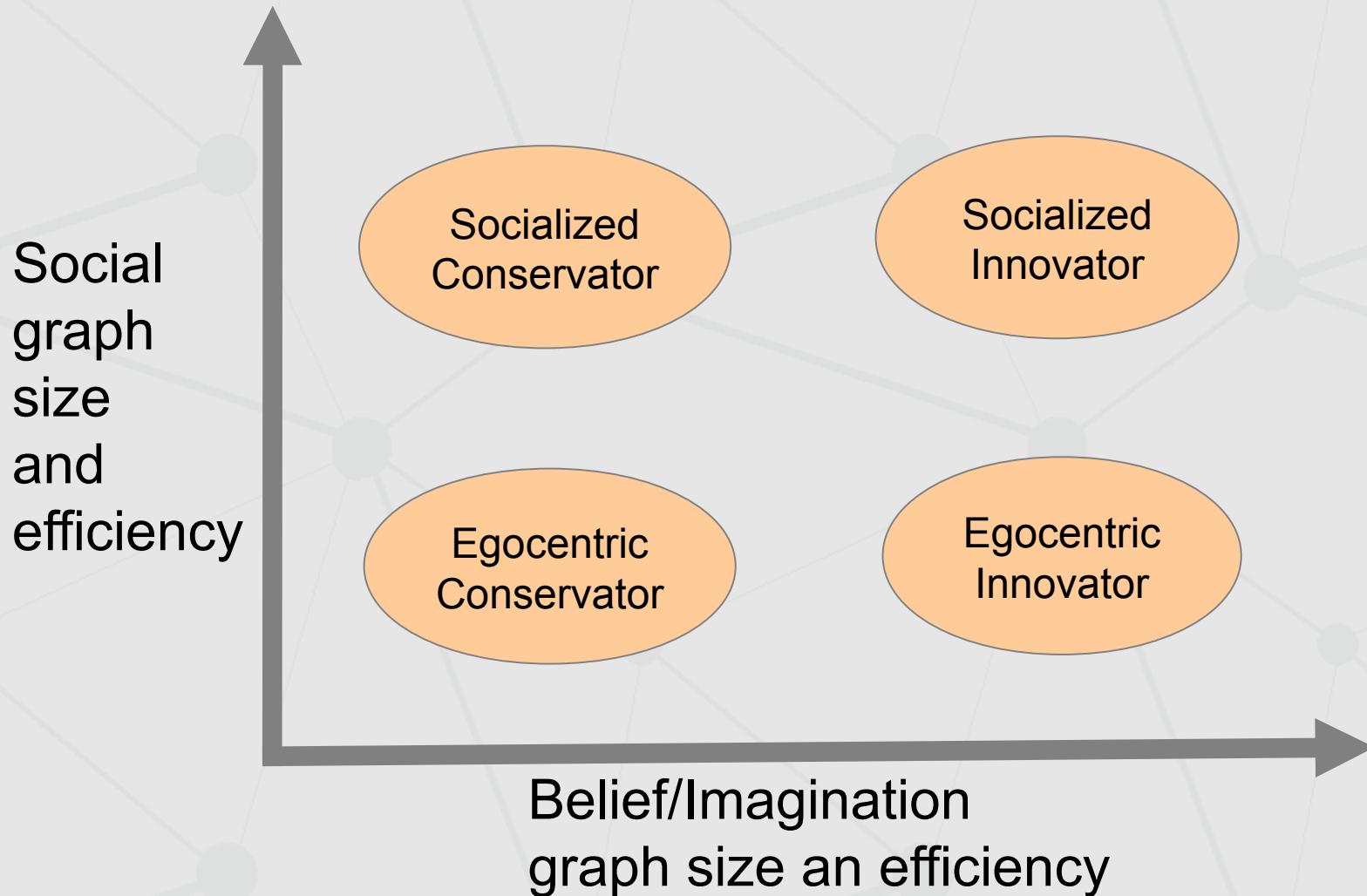


Testing the model: Belief change techniques

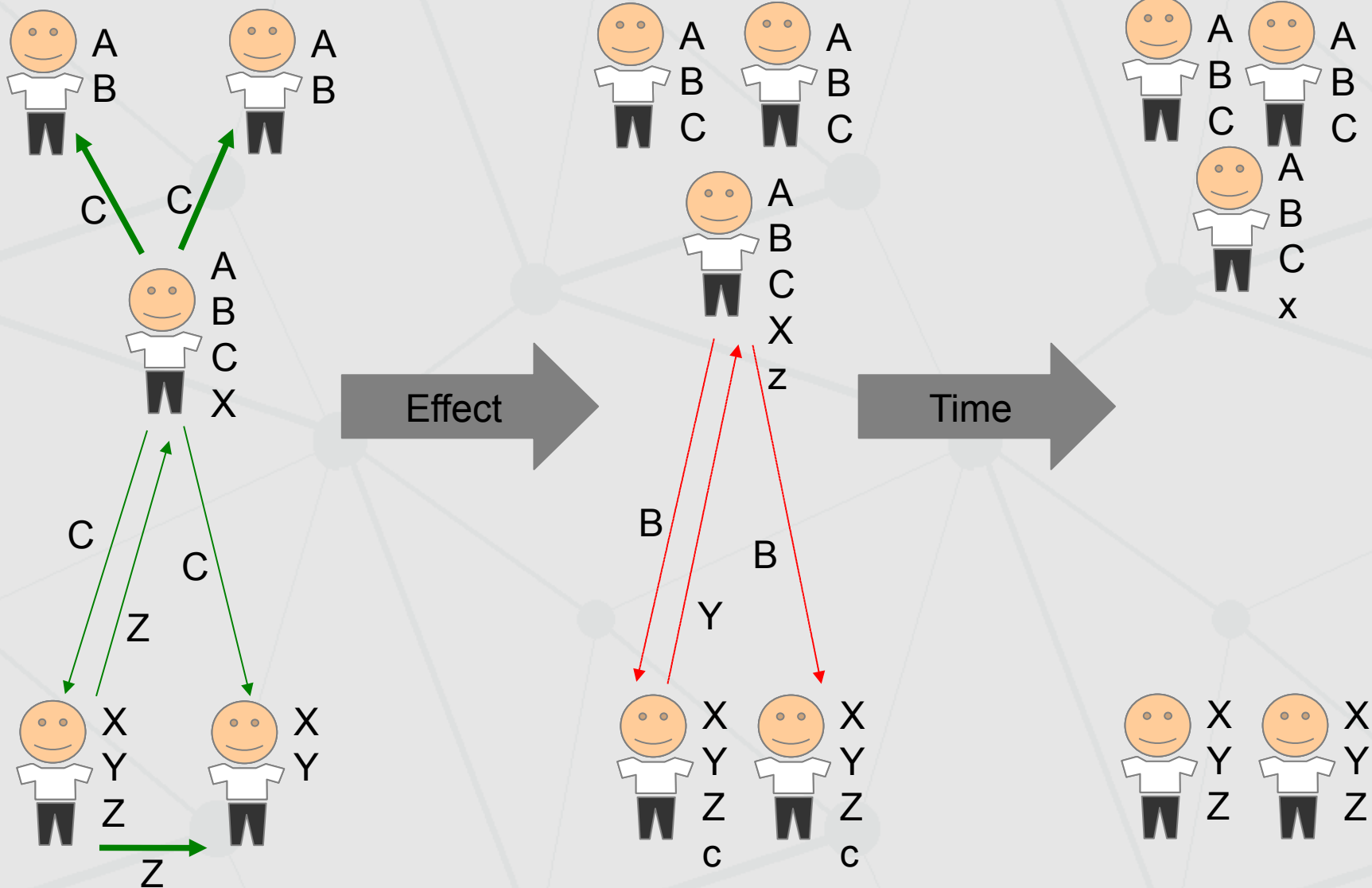
Implicit evidence injection



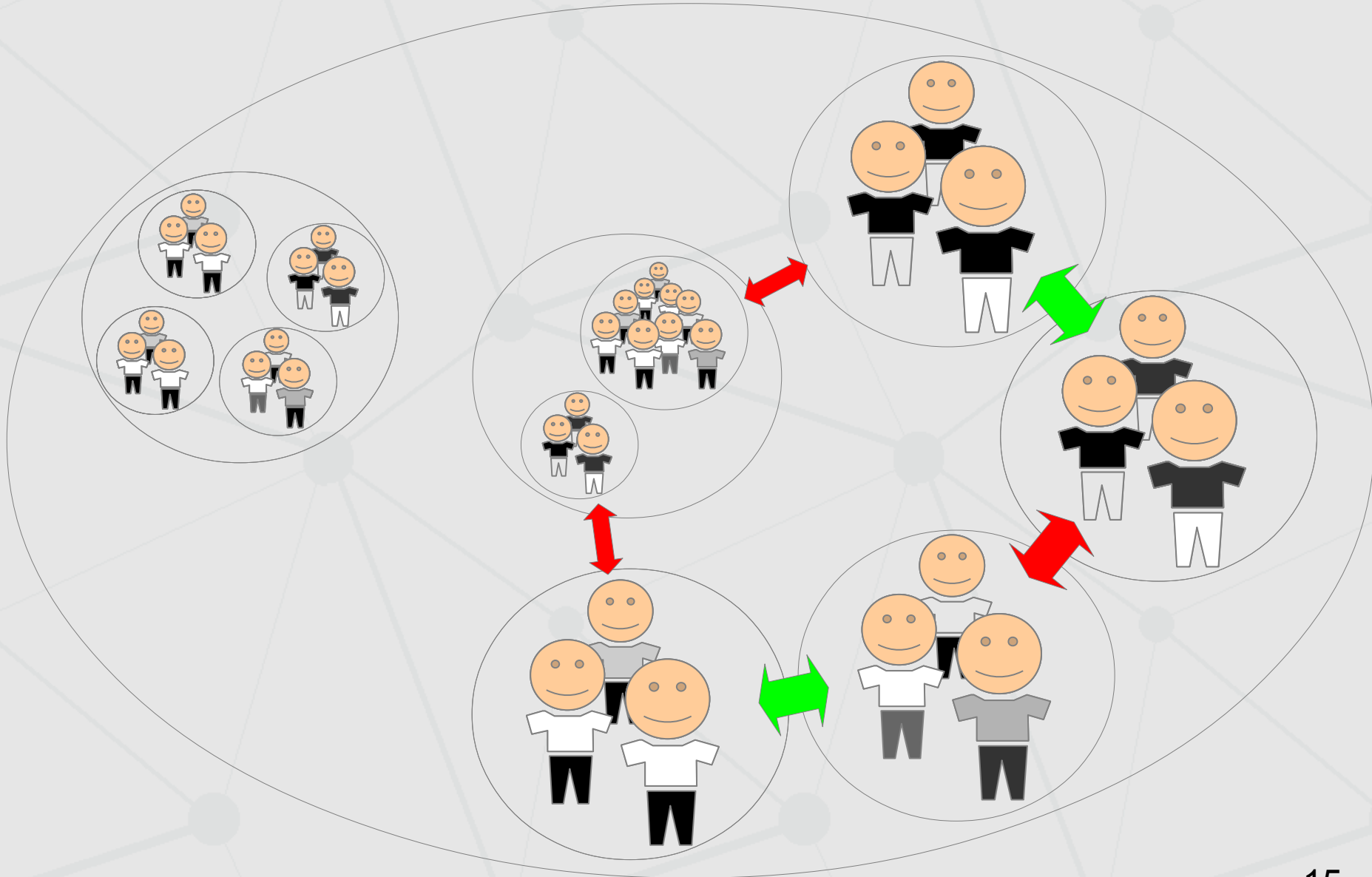
Model parameters: Psycho-cognitive types



Why needed? : Detecting social dynamics phenomena

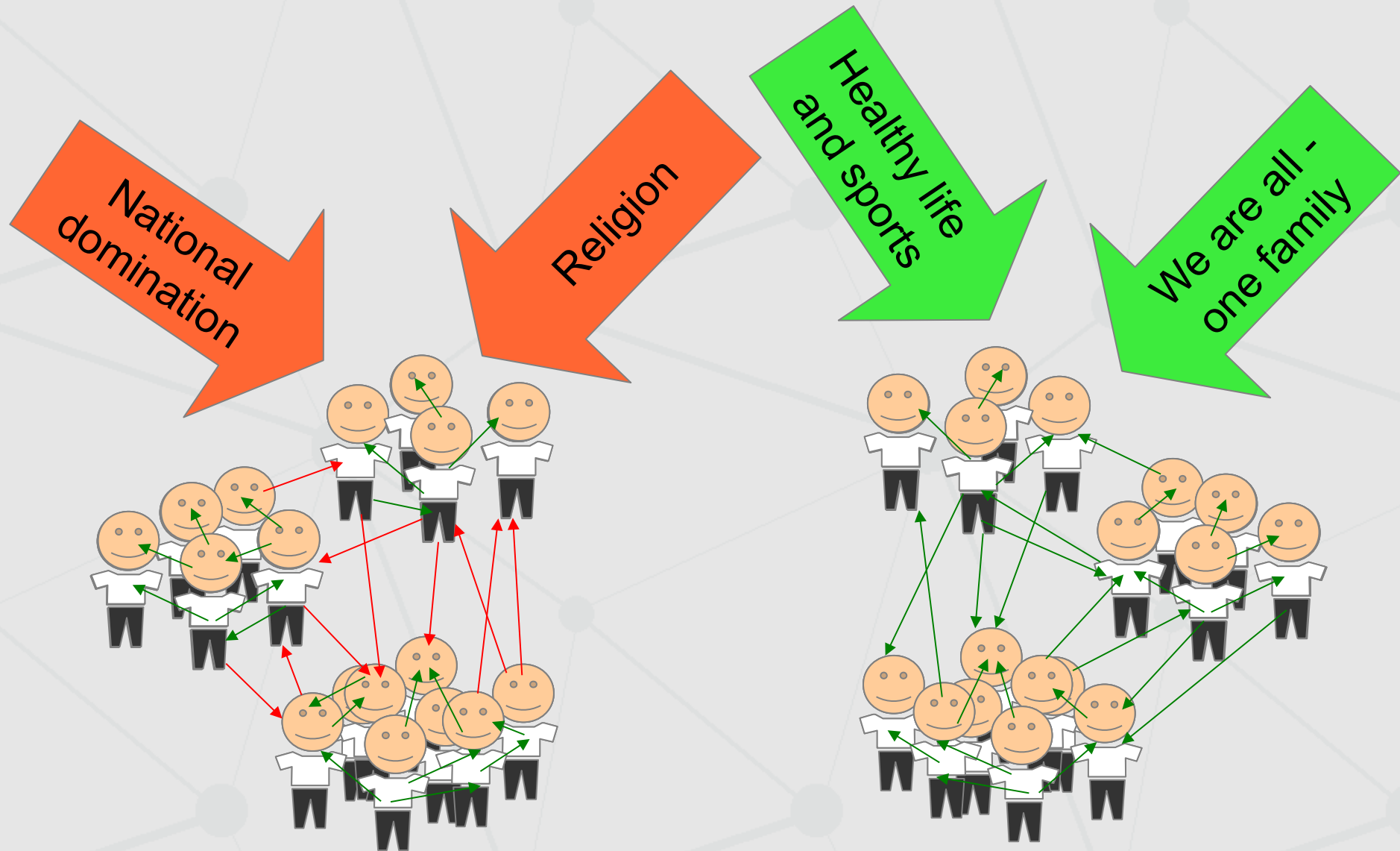


Why needed? : Predicting and managing social changes

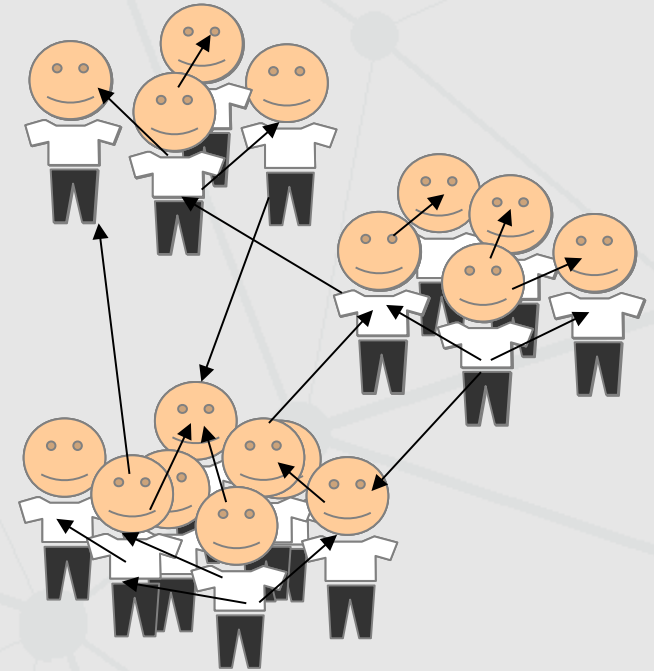
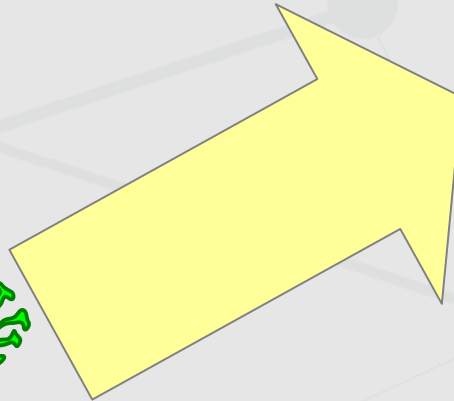
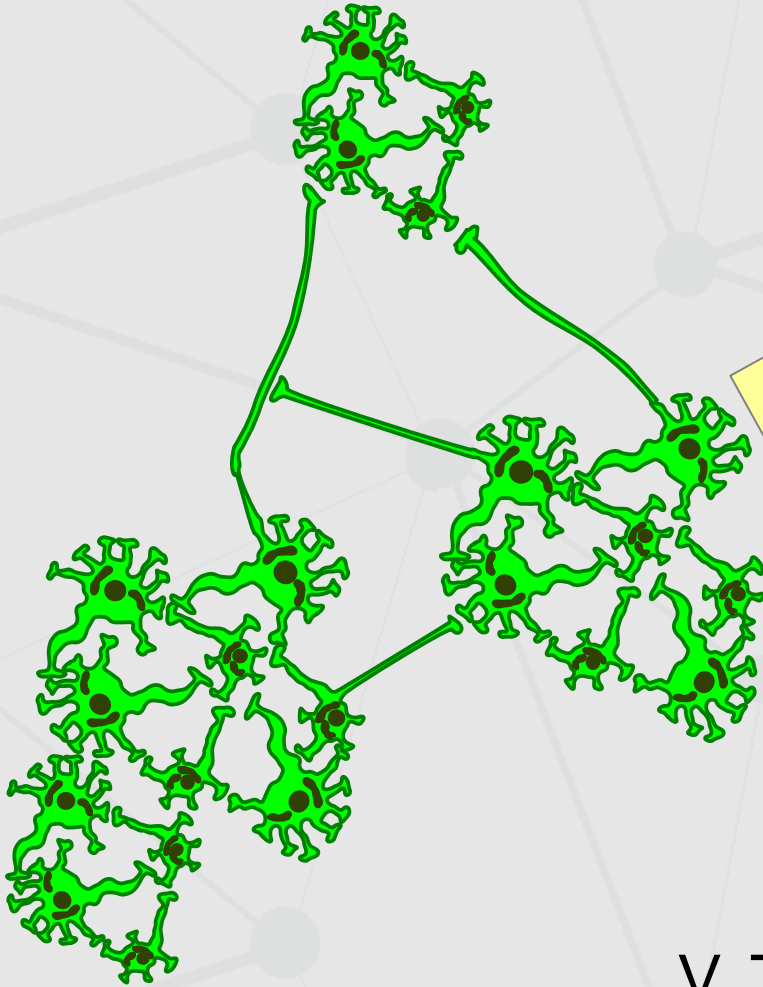


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Why needed? : Planning trends of social development



Managing complexity in meta-system transition phase

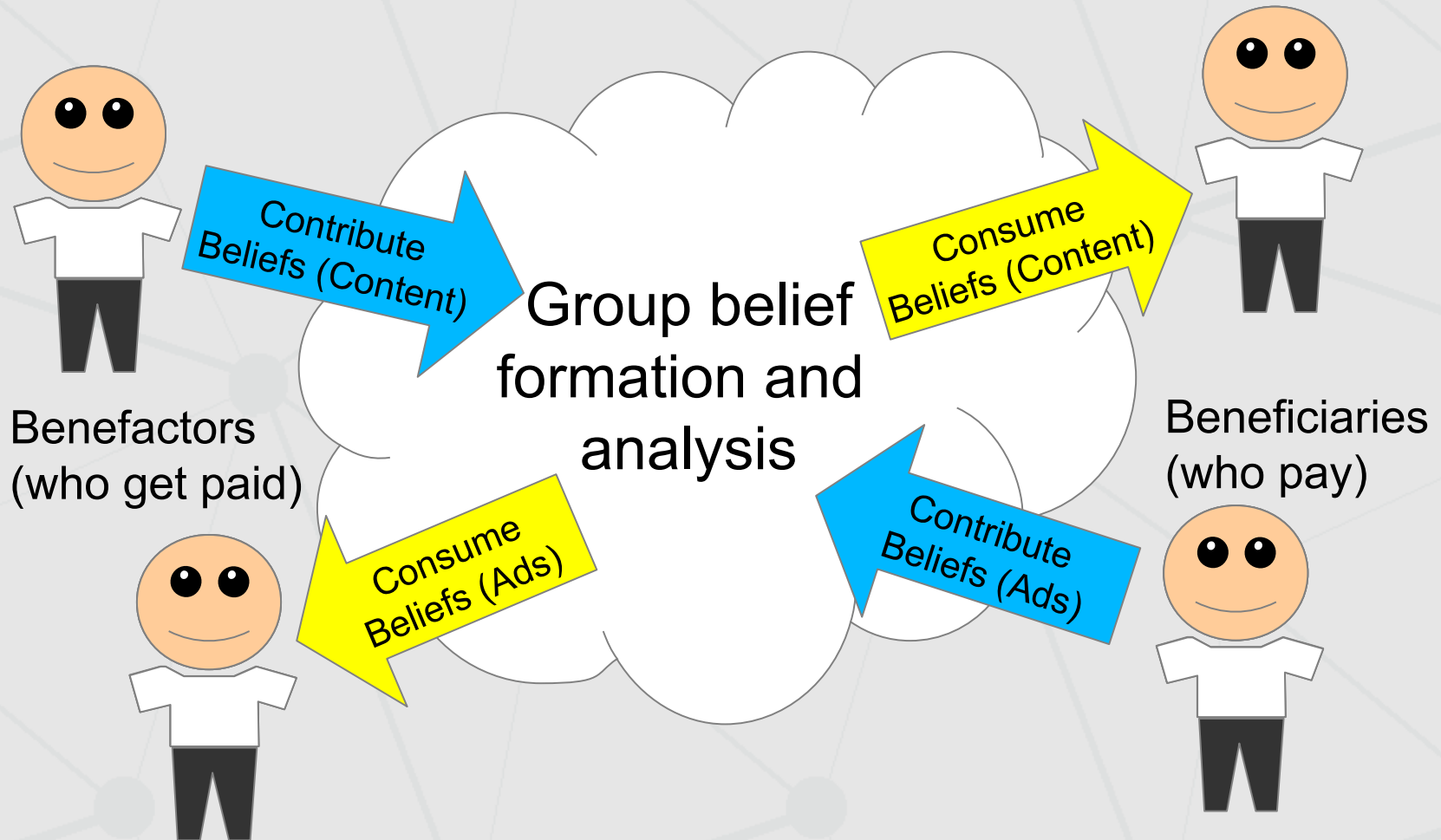


V. Turchin (1970)

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Project: Social cognitive system

Purpose: Real time evaluation of group belief system and collaborative opinion delivery in social environment



Thank you for attention!

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