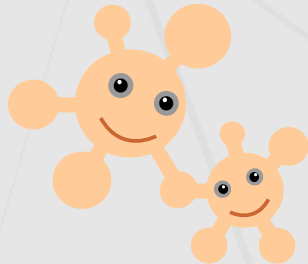


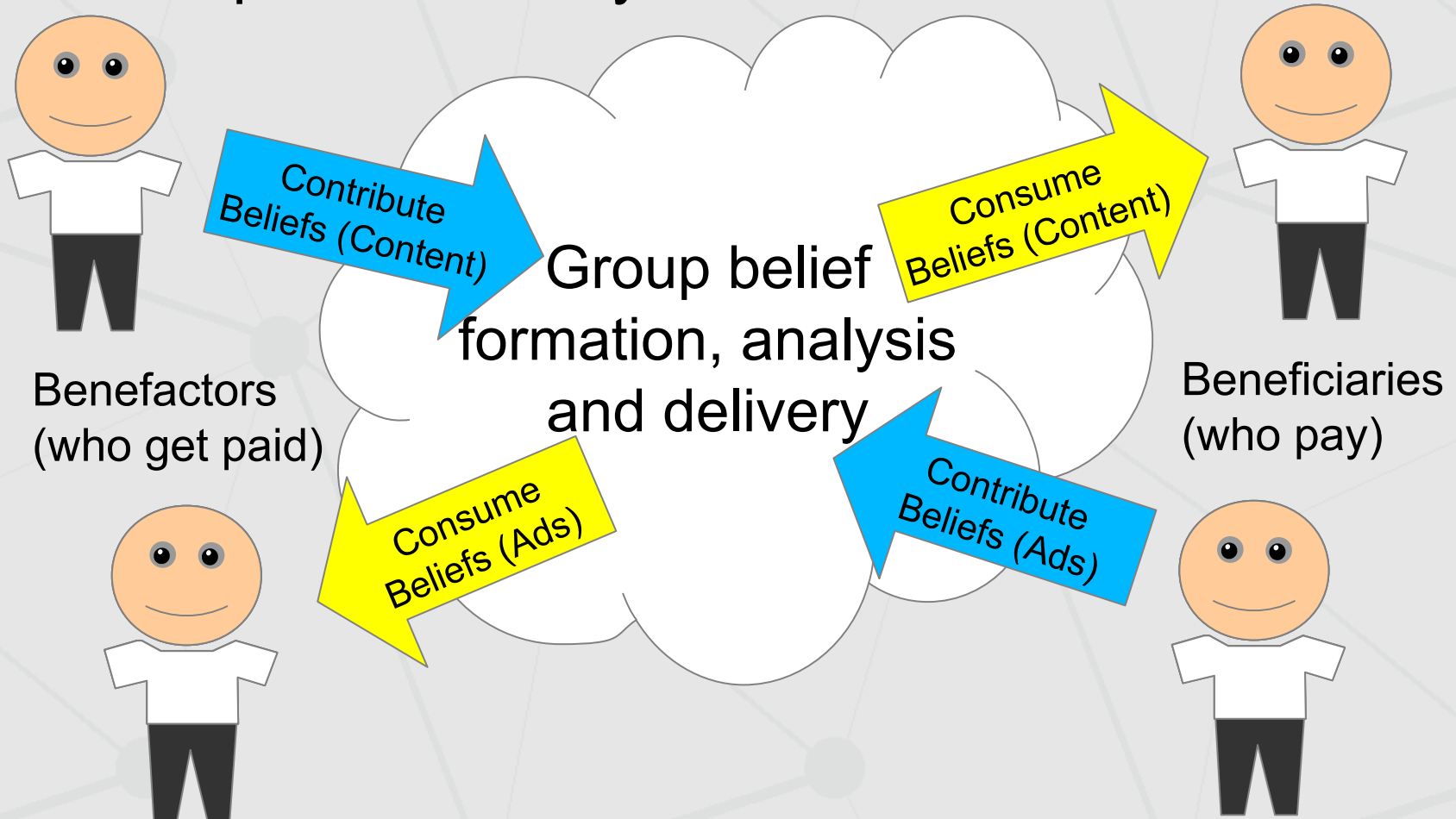
Distributed knowledge engineering and (social) evidence-based knowledge representation in multi-agent systems



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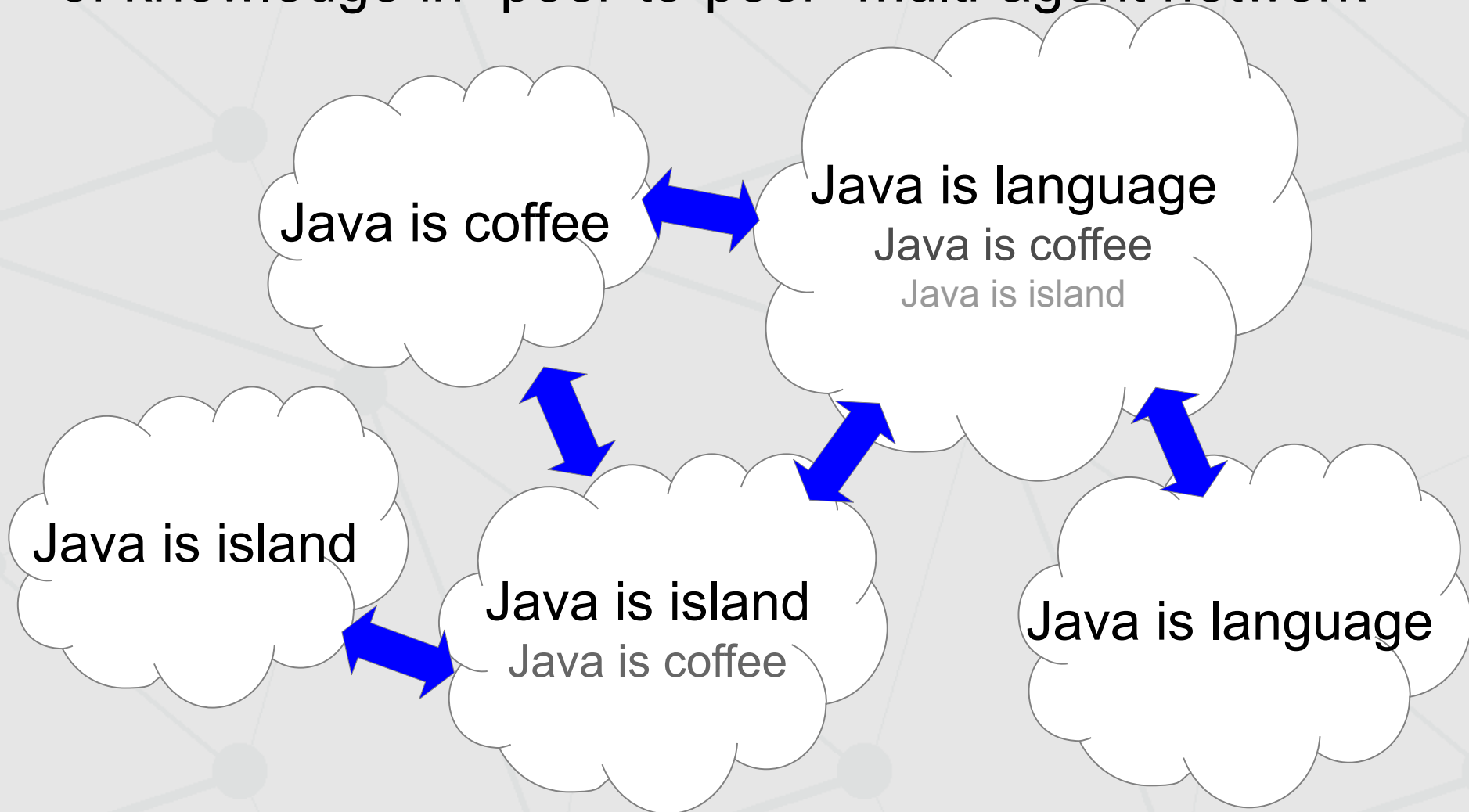
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Goal: Social intelligence platform for real-time evaluation of group belief system for collaborative decision making and opinion delivery in social environments



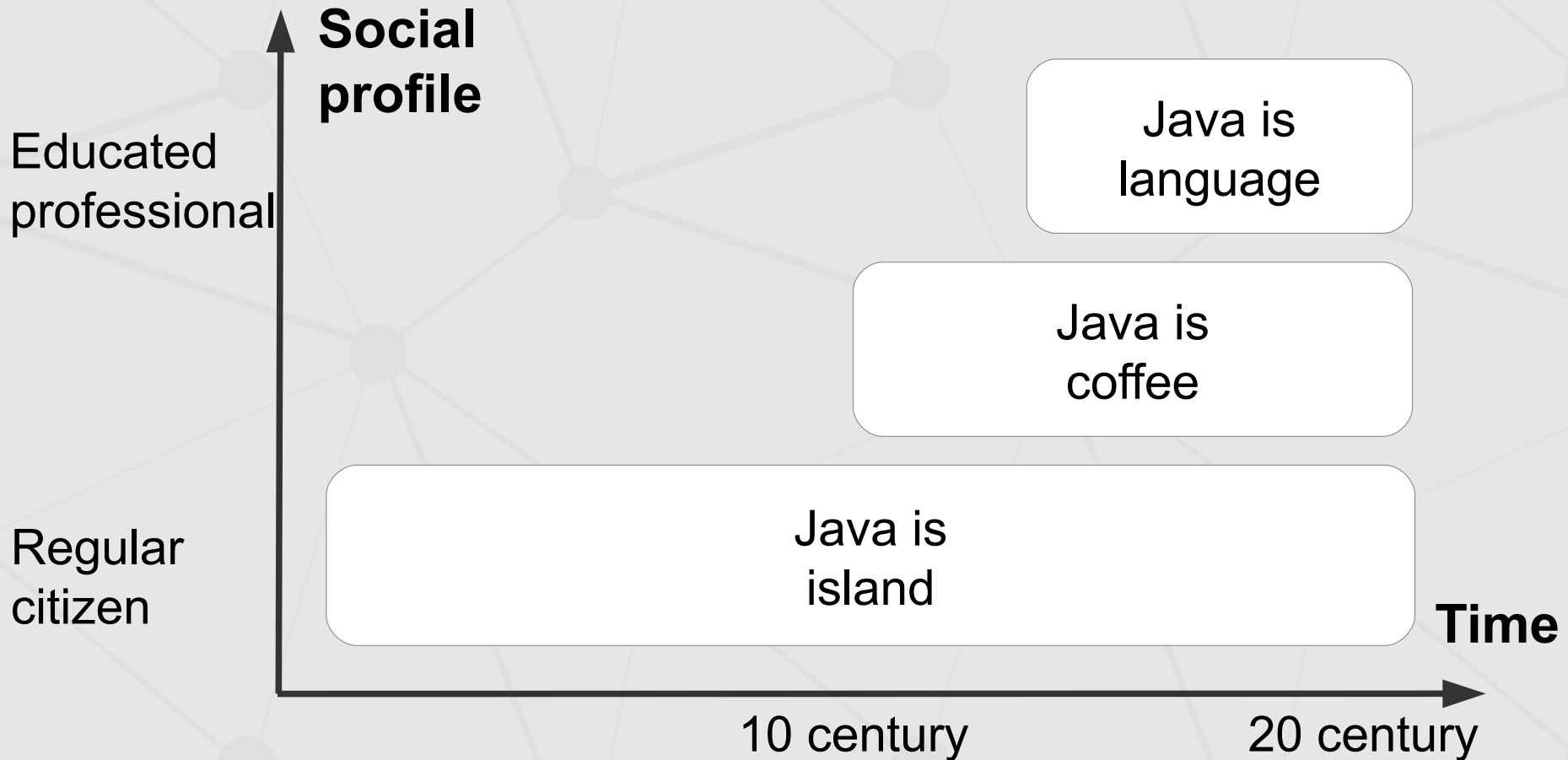
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Requirement 1: Distributed (decentralized) storage of knowledge in “peer-to-peer” multi-agent network



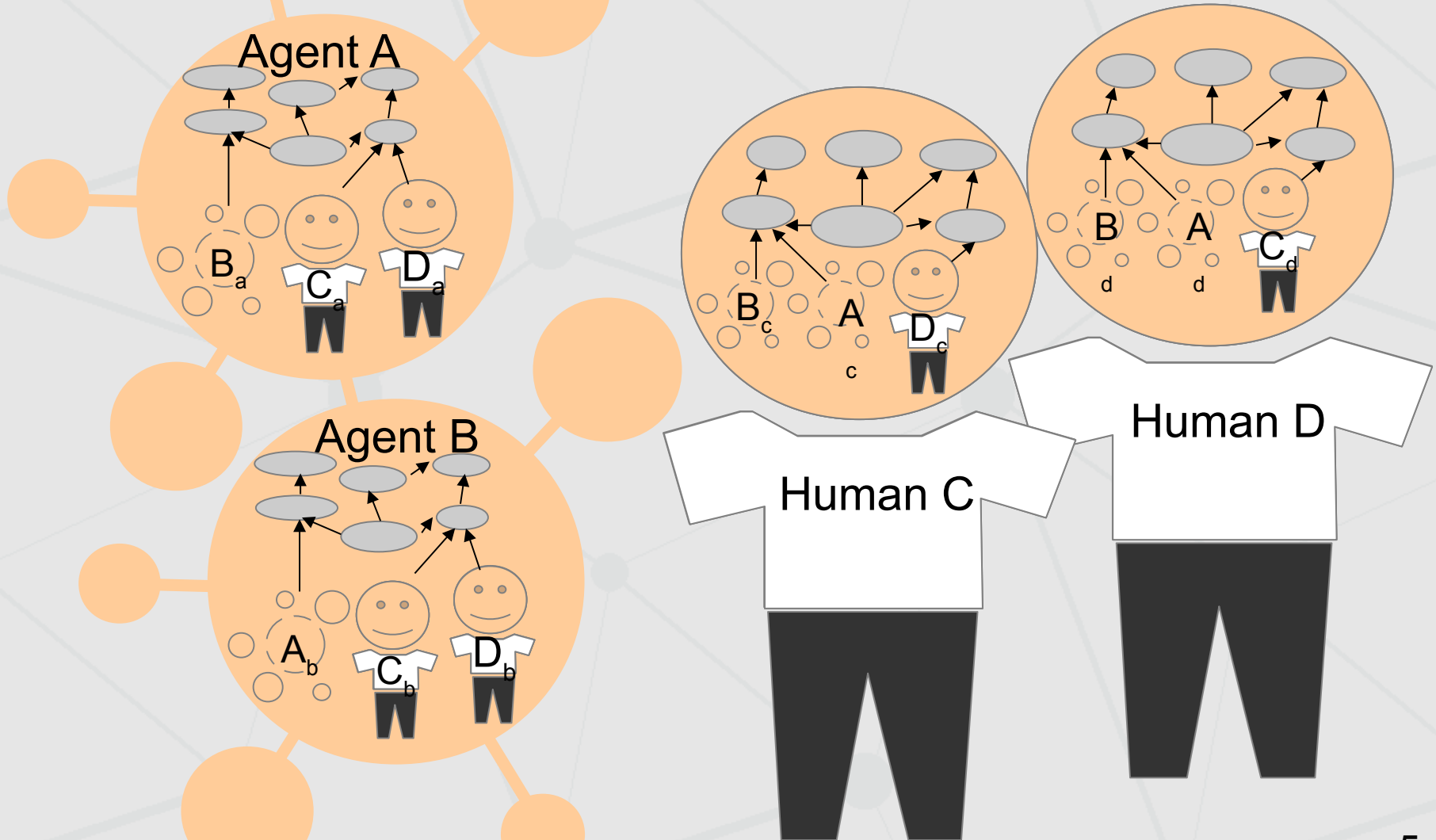
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Requirement 2: Dynamic evaluation of truth value based on social profiling and temporal scoping



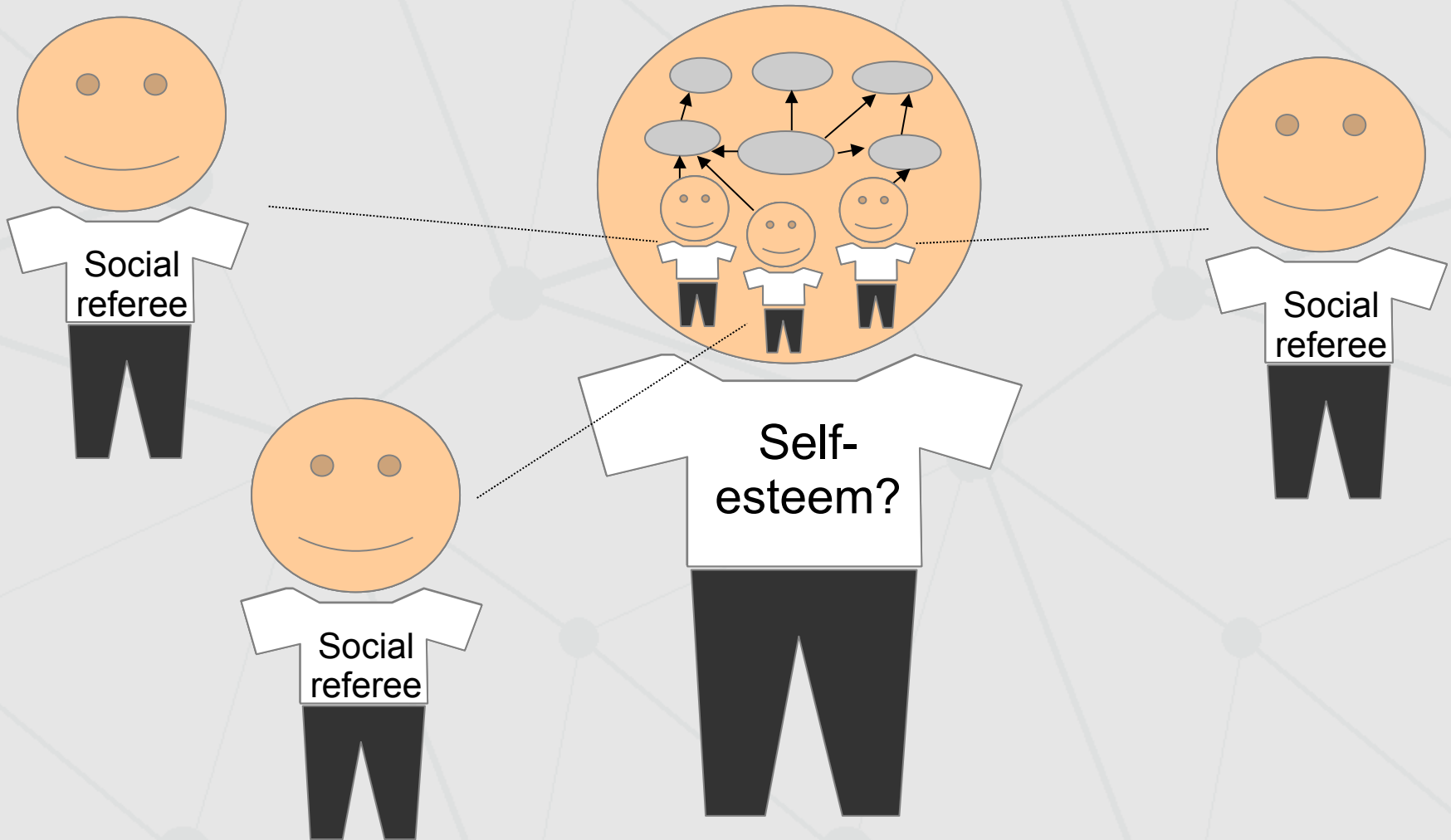
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Belief systems in social multi-agent environments



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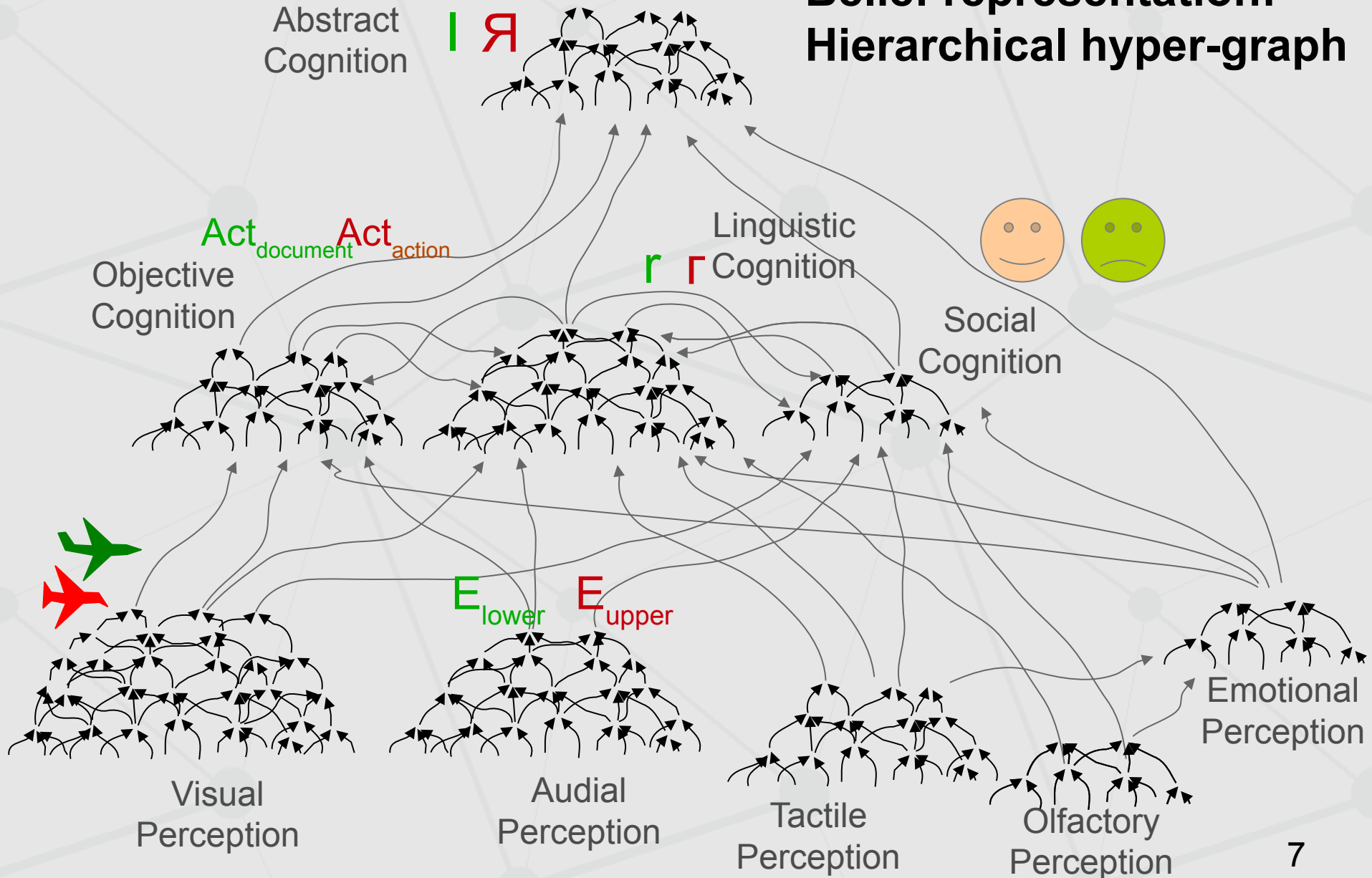
Compassion-based artificial psyche (Webmind)



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

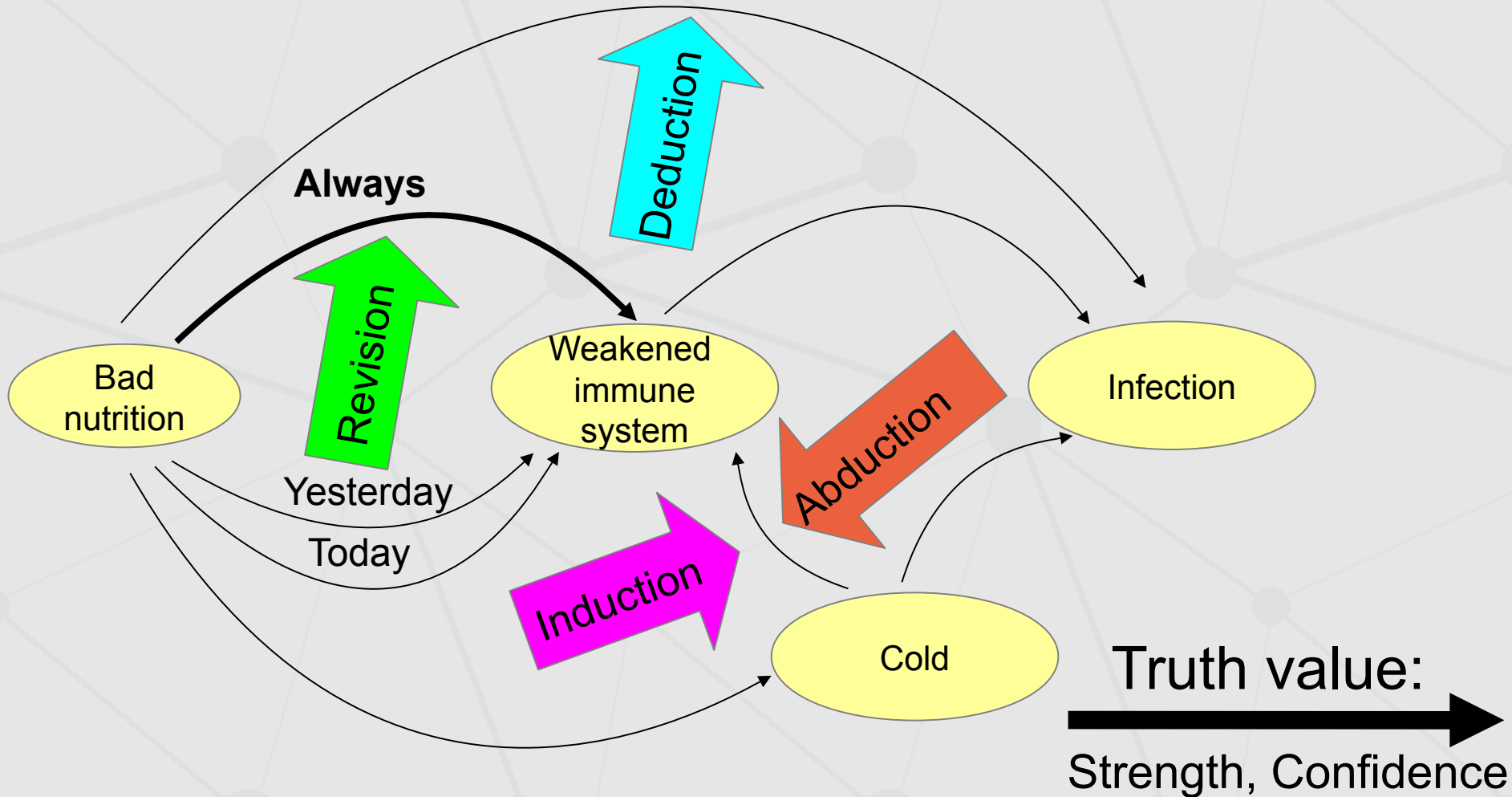
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Belief representation: Hierarchical hyper-graph



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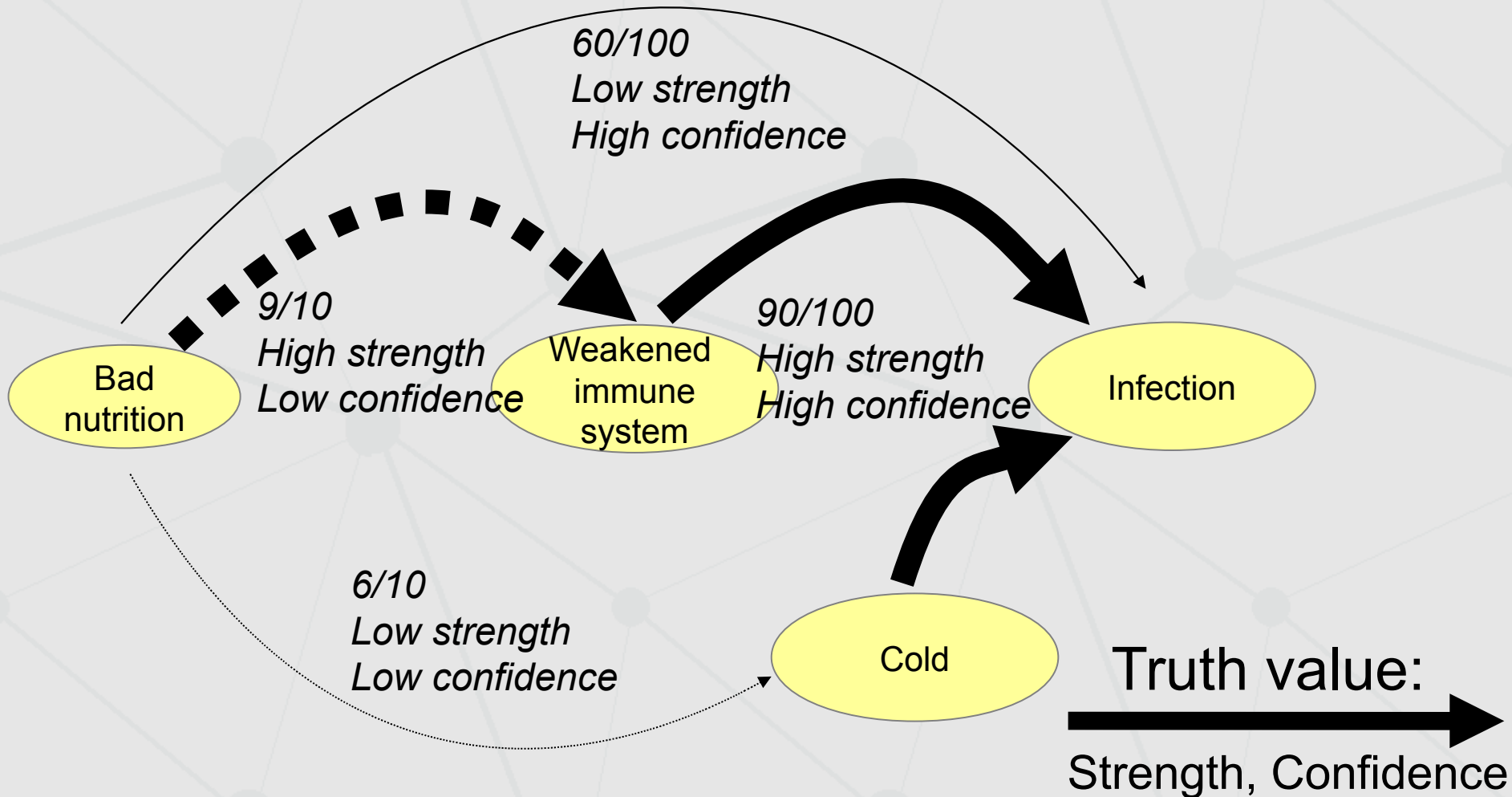
Fuzzy Logic: Non-Axiomatic Reasoning System (NARS)



P.Wang (1993,2000,2013)

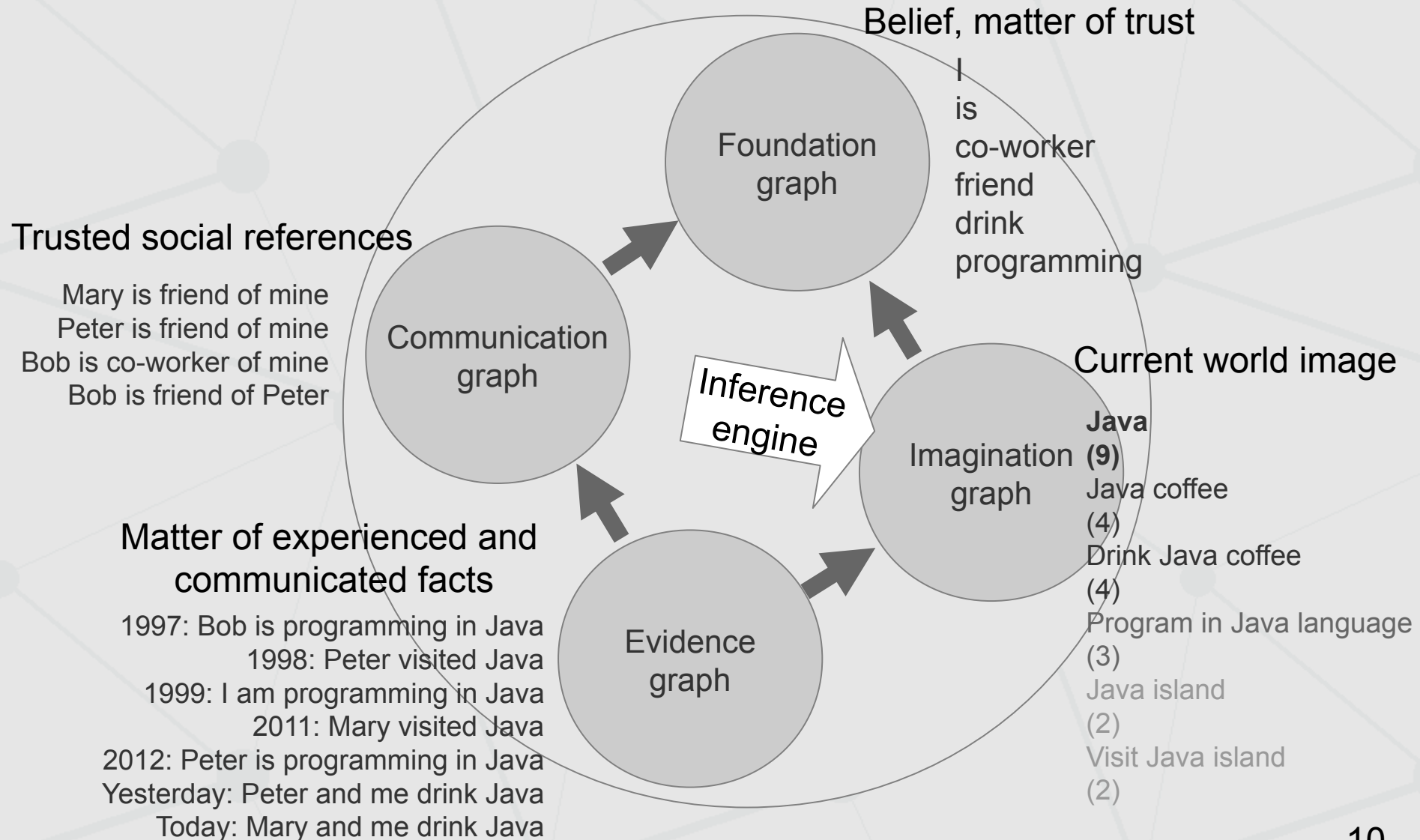
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Fuzzy Logic: Separating Strength and Confidence



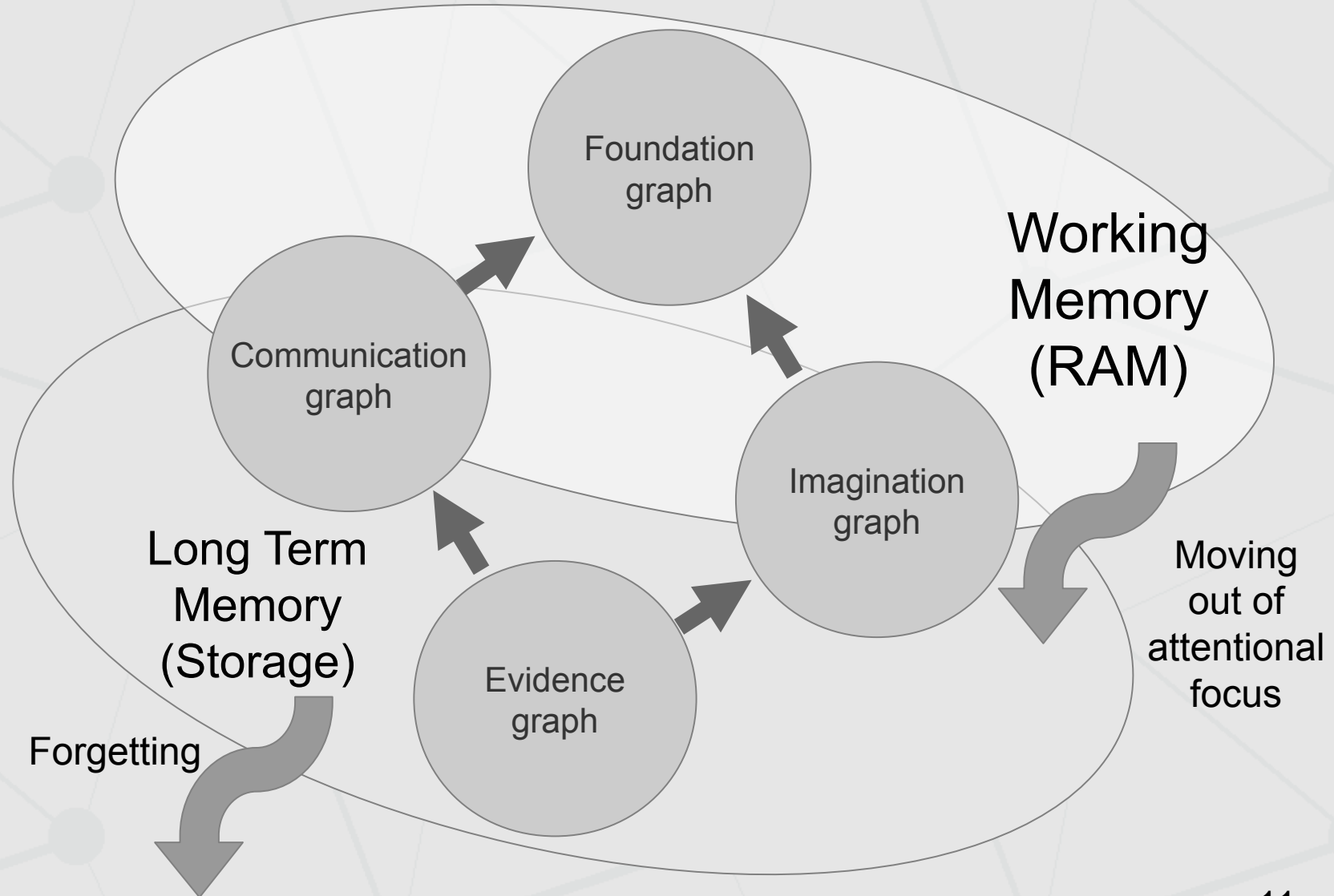
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Social evidence-based cognitive model



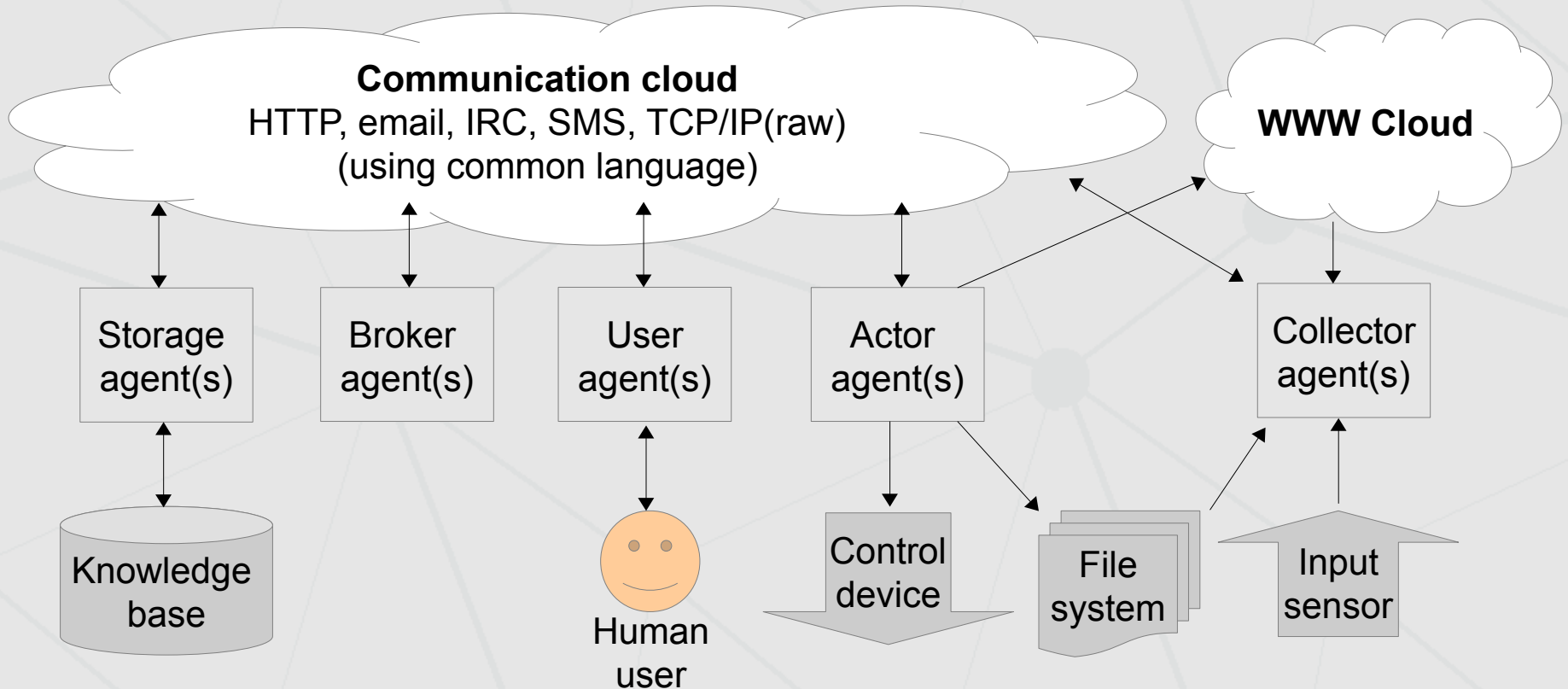
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Applying resource constraints to the model



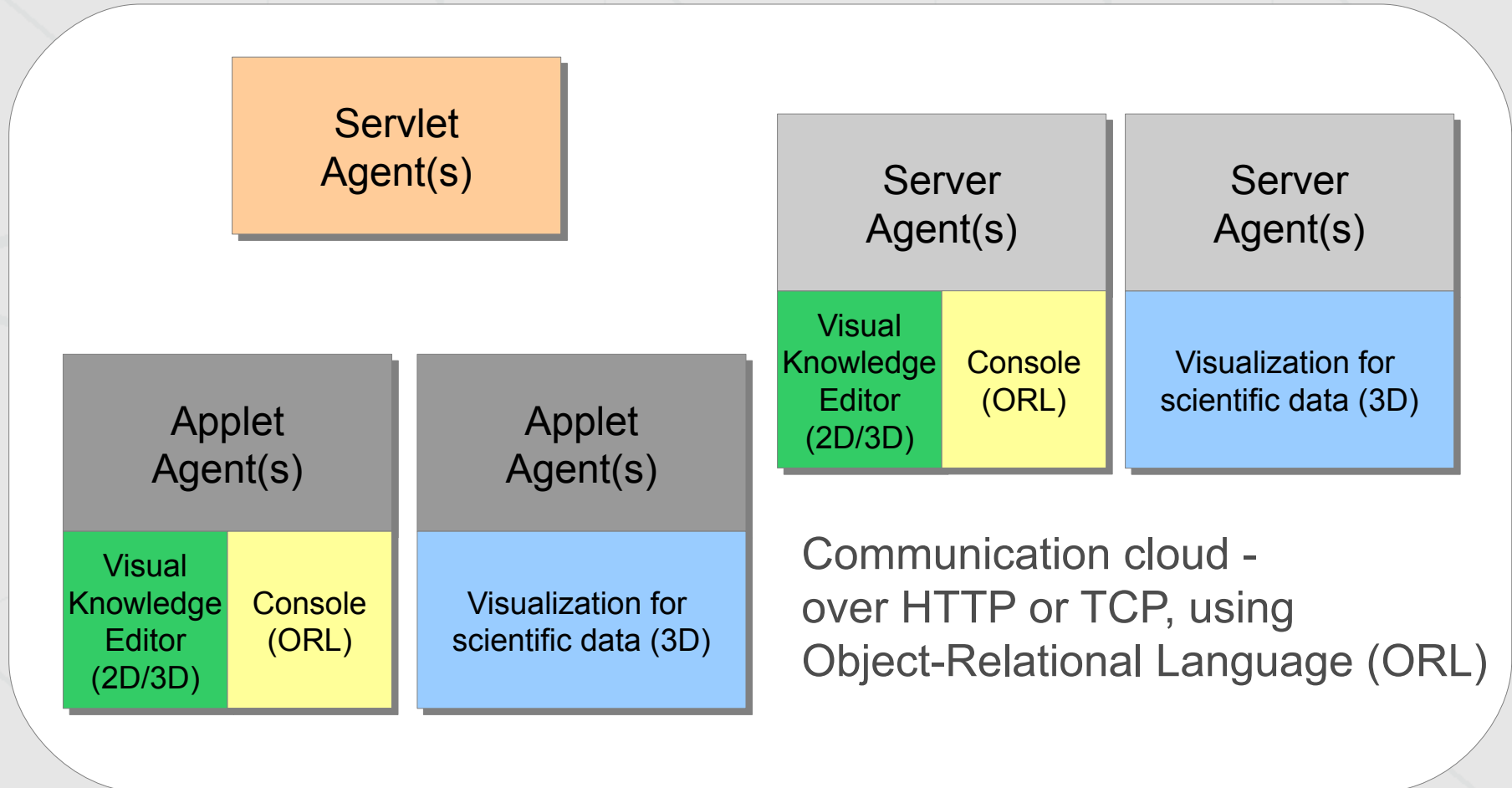
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Approaching distributed multi-agent architecture



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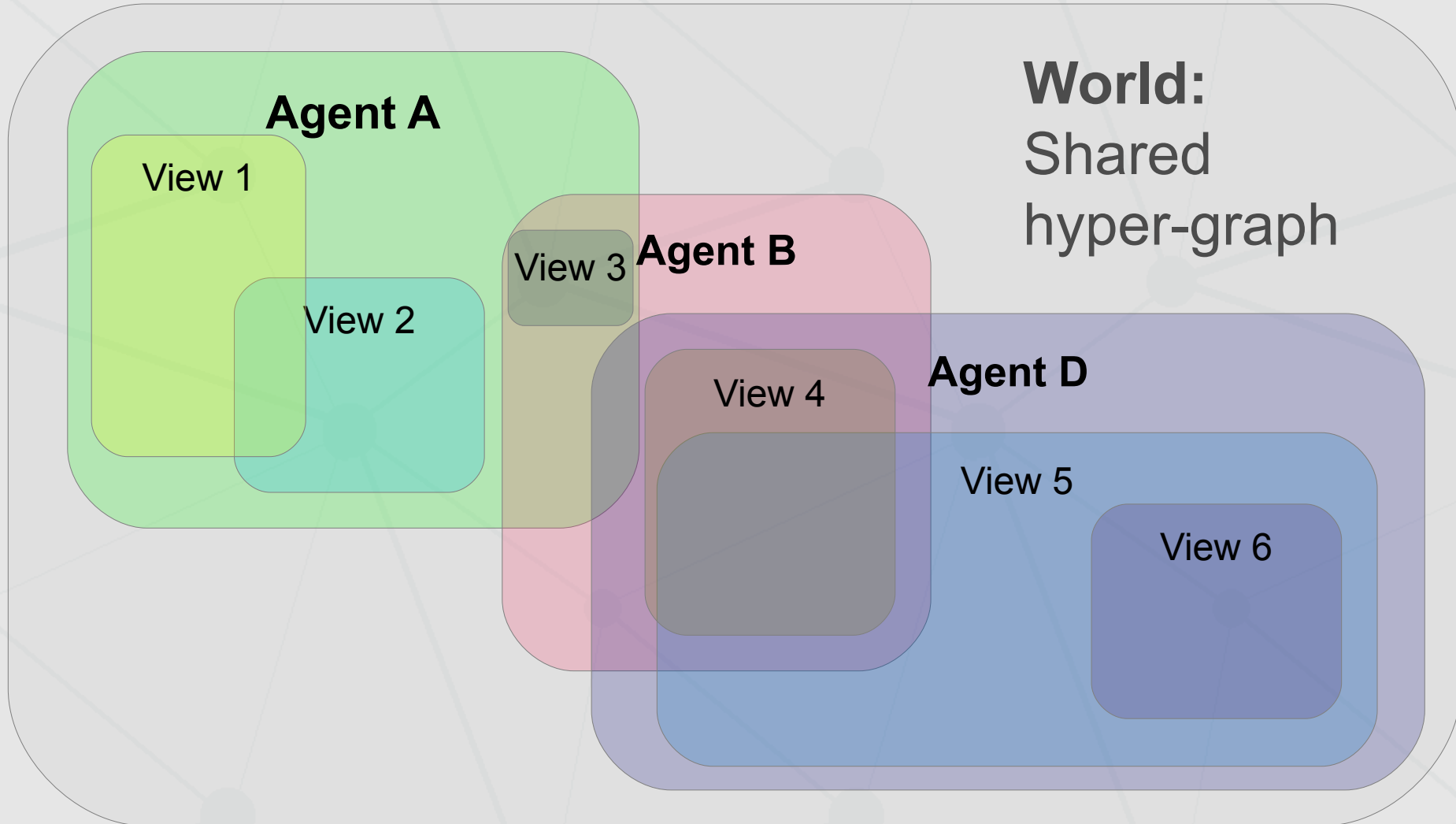
Webstructor: Types and functions of agents



Distributed multi-agent (peer-to-peer) architecture

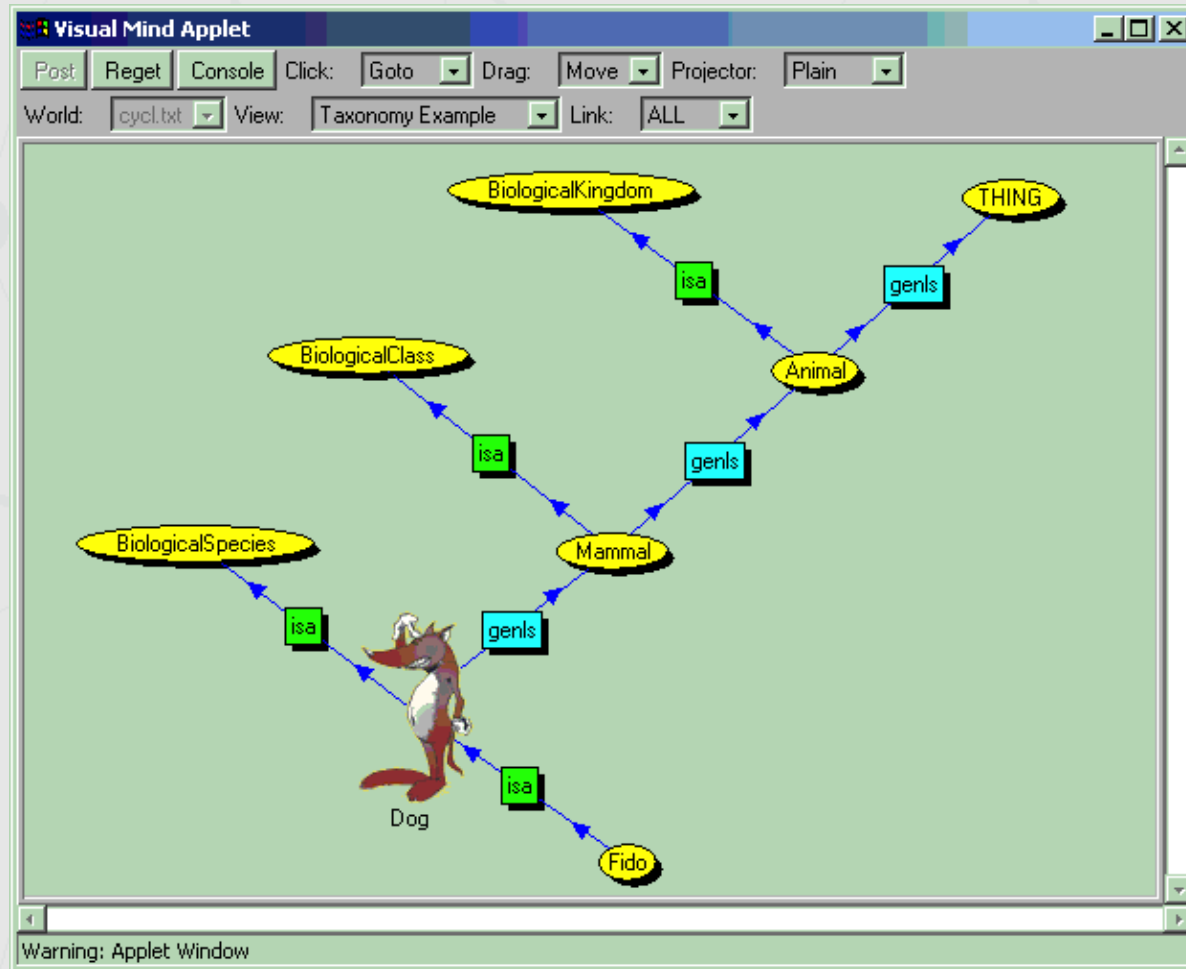
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Webstructor: Sharing “world” data visible in “views”



Distributed knowledge engineering and (social) evidence-based knowledge representation in multi-agent systems

Webstructor: Distributed visual knowledge editor - 2D

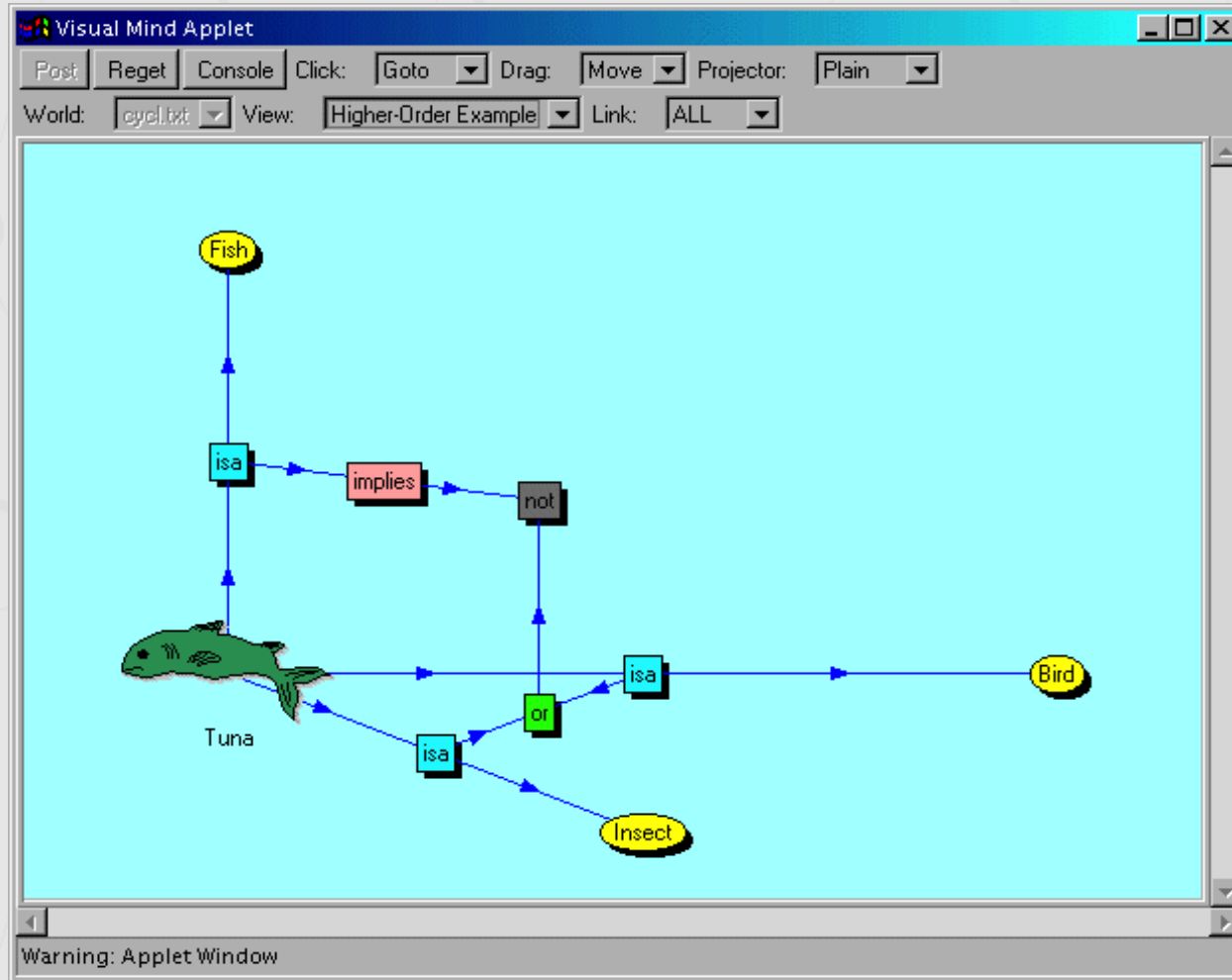


Part of “biological kingdom” of Cyc “upper ontology”

<http://webstructor.net>

Distributed knowledge engineering and (social) evidence-based knowledge representation in multi-agent systems

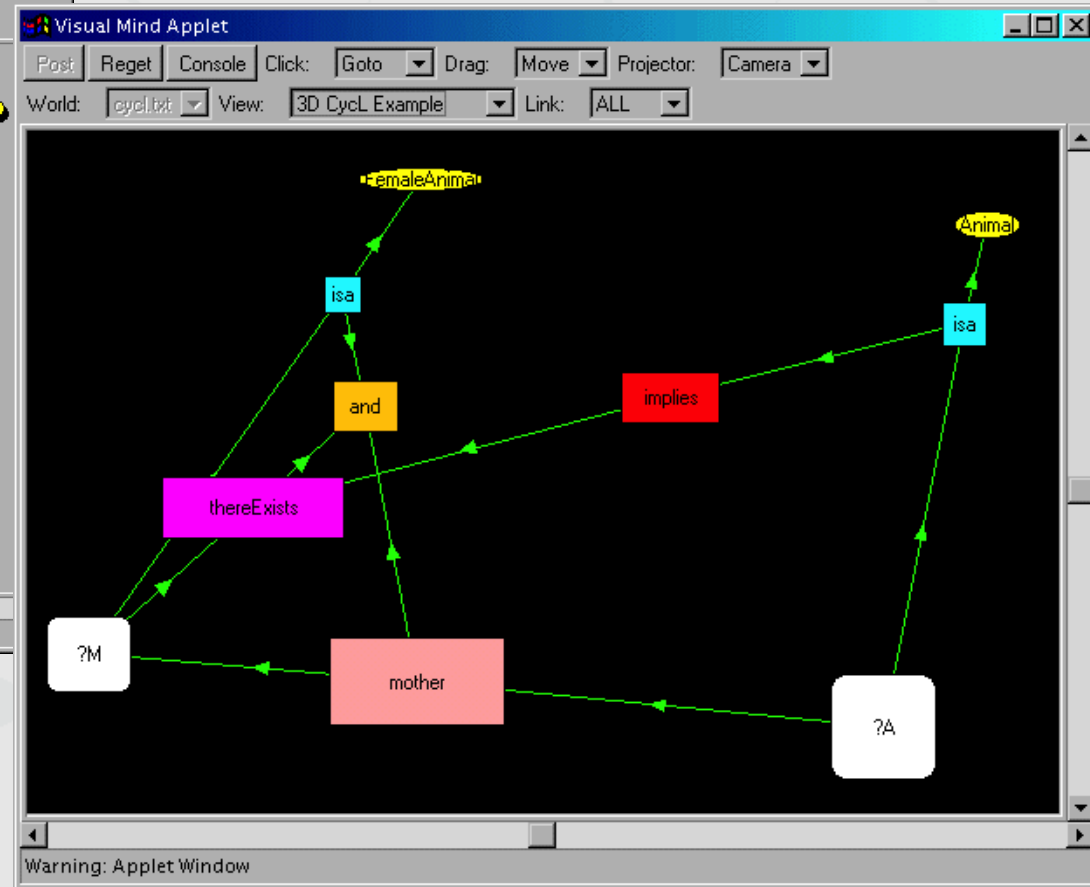
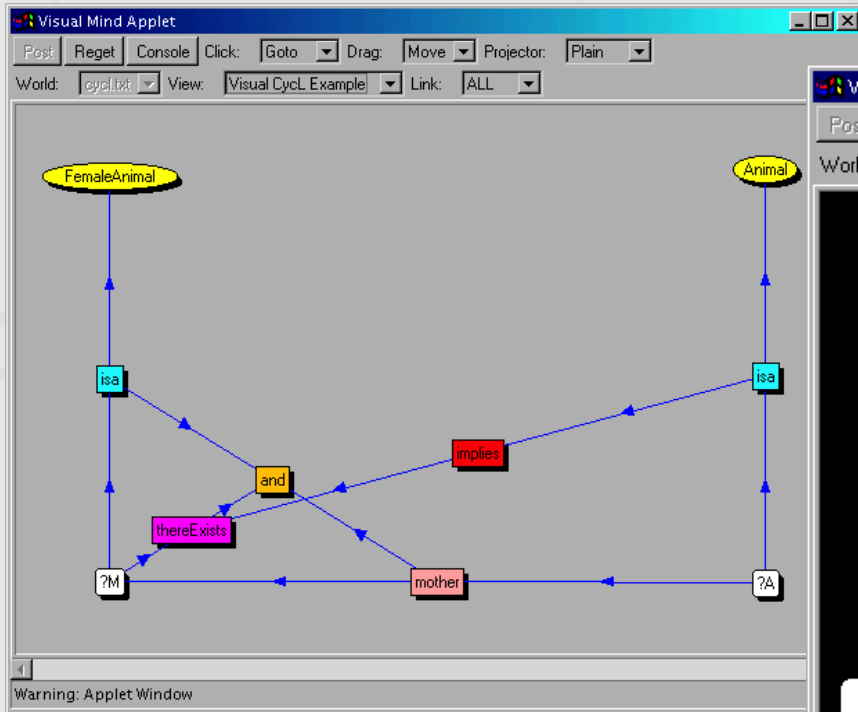
Webstructor: Distributed visual knowledge editor - 2D



Formula: "If tuna is a fish, it implies it is not an insect or a bird"

Distributed knowledge engineering and (social) evidence-based knowledge representation in multi-agent systems

Webstructor: Distributed visual knowledge editor - 3D



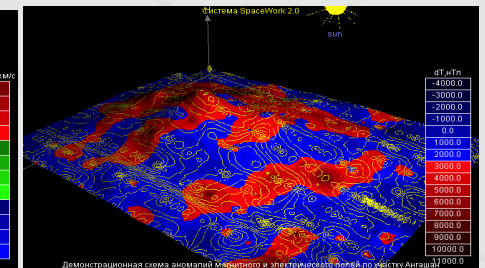
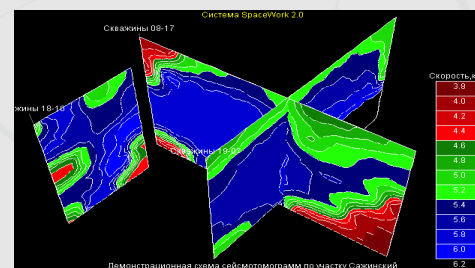
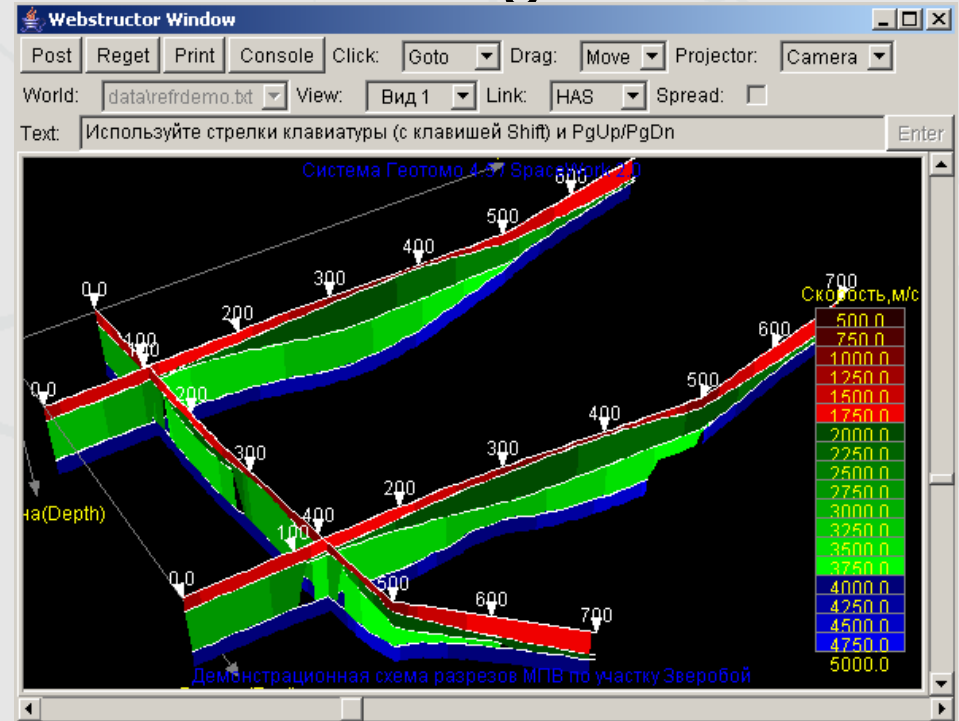
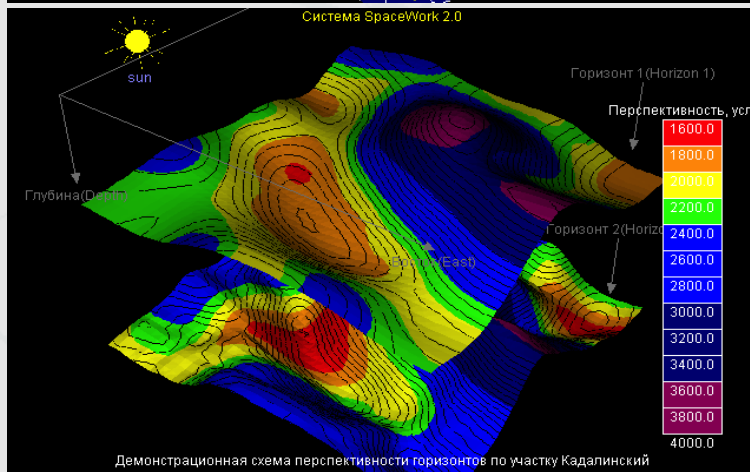
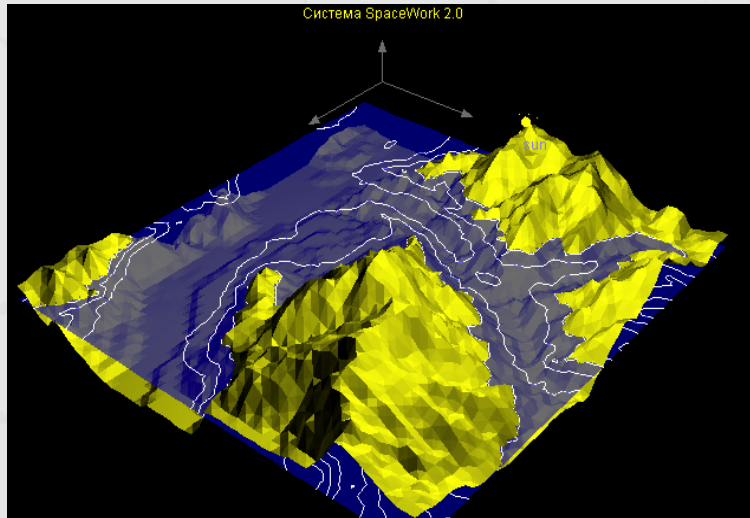
Cycl formula editor:

(implies (isa ?A Animal) (thereExists ?M (and (mother ?A ?M) (isa ?M FemaleAnimal))))

<http://webstructor.net>

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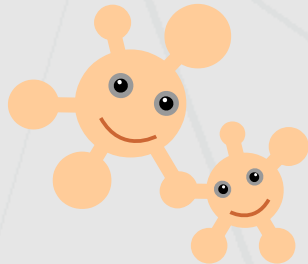
Webstructor: Distributed visual knowledge editor - 3D



Representing complex spatial data in hyper-space

Distributed knowledge engineering and (social) evidence-based knowledge representation in multi-agent systems

Thank you for attention!



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