

Inaugural Cultural Evolution Society Conference

Jena 2017, 13-15 September

**Designing filtering, collaboration, thinking,
and learning tools for the next 200 years**

Jorn Bettin & Xaver Wiesmann
S23M

Technology

All human artefacts are technology. But beware of anybody who uses this term.

*Like “maturity” and “reality” and “progress”, the word “technology” has an agenda for your behaviour: usually what is being referred to as **“technology” is something that somebody wants you to submit to.***

*“Technology” often implicitly refers to something you are expected to turn over to “the guys who understand it.” **This is actually almost always a political move.***

Somebody wants you to give certain things to them to design and decide.

Perhaps you should, but perhaps not.

– Ted Nelson,
Pioneer of information technology,
philosopher, and sociologist.
He coined the terms hypertext
and hypermedia in 1963.



Society

All human communication is social. But beware of anybody who uses this term.

*Like “maturity” and “reality” and “progress”, the word “social” has an agenda for your behaviour: usually what is being referred to as **“social” is something that somebody wants you to submit to.***

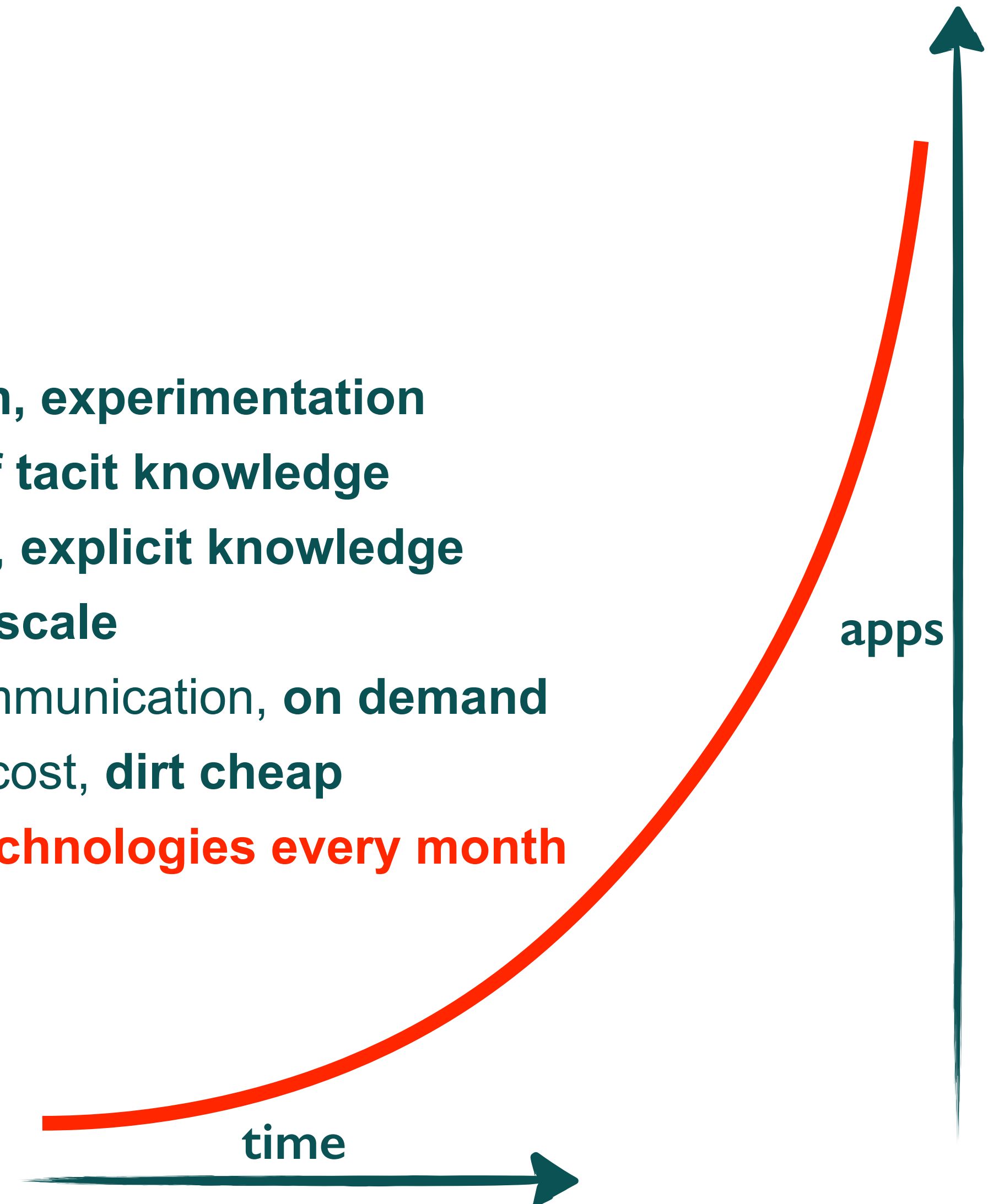
*“Social” often implicitly refers to something you are expected to turn over to “the guys who understand it.” **This is actually almost always a political move.** Somebody wants you to give certain behavioural rules to them to design and decide. Perhaps you should, but perhaps not.*

– Jorn Bettin,
Pioneer of autistic collaboration,
philosopher, and alien anthropologist.
He coined the terms *big junk data*
and *validation via instantiation* in 2008.



Exponential change in communication

- 
- 1,800,000 years: Cumulative cultural transmission, **teaching, imitation, experimentation**
 - 200,000 years : Spoken human languages — local **communication of tacit knowledge**
 - 5,400 years : Written human languages — communication across time, **explicit knowledge**
 - 600 years : Printing press — 1-to-many communication across space, **scale**
 - 180 years : Electrical telegraph & telephone — global peer-to-peer communication, **on demand**
 - 15 years : Internet — global 1-to-many communication, zero marginal cost, **dirt cheap**
 - **Now : Internet of things – machine-to-machine communication, new technologies every month**
- 



End of story! Designing tools for the next 200 years

Time to stop confusing innovation with entertaining stories. Time for creating a **visual language** and **interaction style** that is better than English or any other linear language:

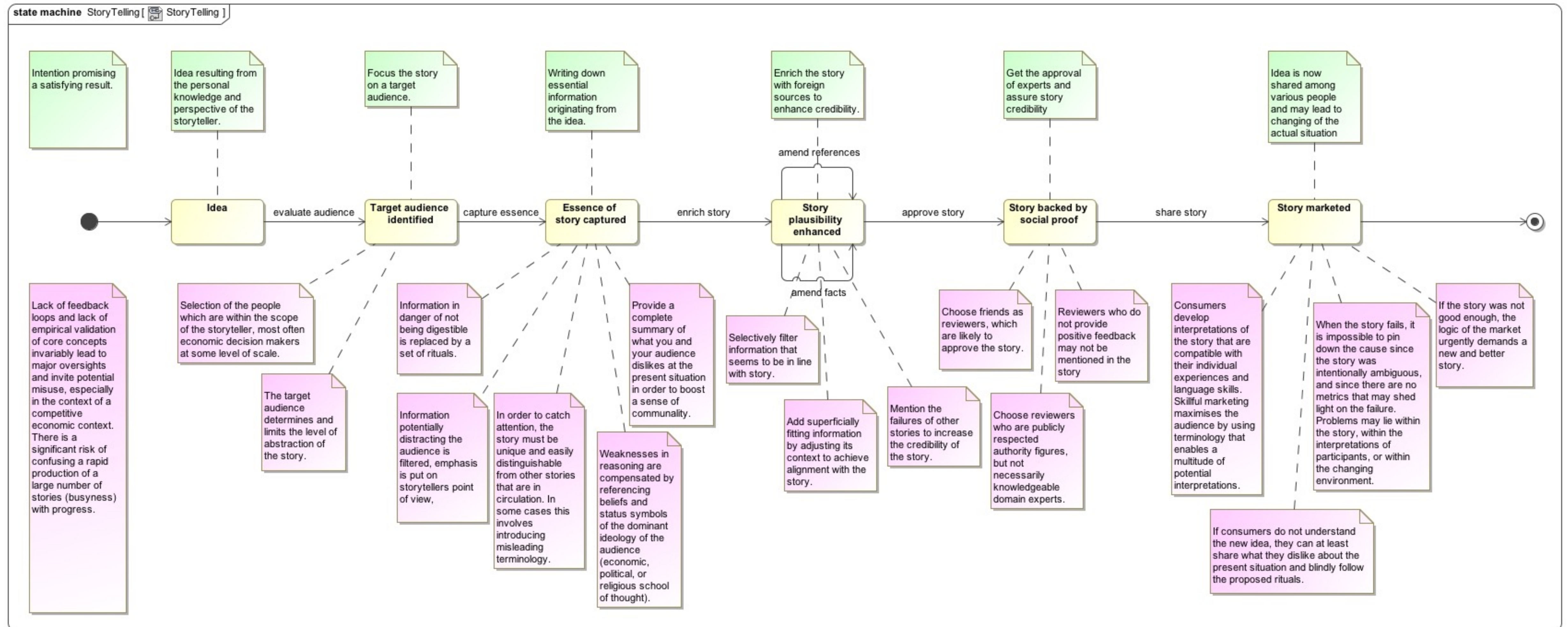
1. for validating and representing **knowledge**
 - in a way that is intuitive and easily understandable for humans
 - in a way that is easy for processing by software tools
2. for validating and representing **knowledge flows**
 - between individual agents/teams/organisations/communities
 - in a way that facilitates collaborative validation of knowledge and beliefs
 - as a substrate for interdisciplinary innovation and the creation of context specific variants
3. for filtering, validating, and representing **economic flows**
 - supports domain specific accounting of all kinds of knowledge flows
 - using *Culture, Engineering, Maintenance, Energy, and Transportation* as the basic sectors for modelling economic value cycles
 - with explicit tools that assist with the detection of deception



1. <https://ciic.s23m.com/2017/04/25/designing-filtering-collaboration-thinking-and-learning-tools-for-the-next-200-years/>
2. <https://ciic.s23m.com/2017/08/30/addiction-and-story-withdrawal/>
3. <http://s23m.com/about/index.html> – **Contact jorn.bettin@s23m.com for related PhD research opportunities**

The story of marketing

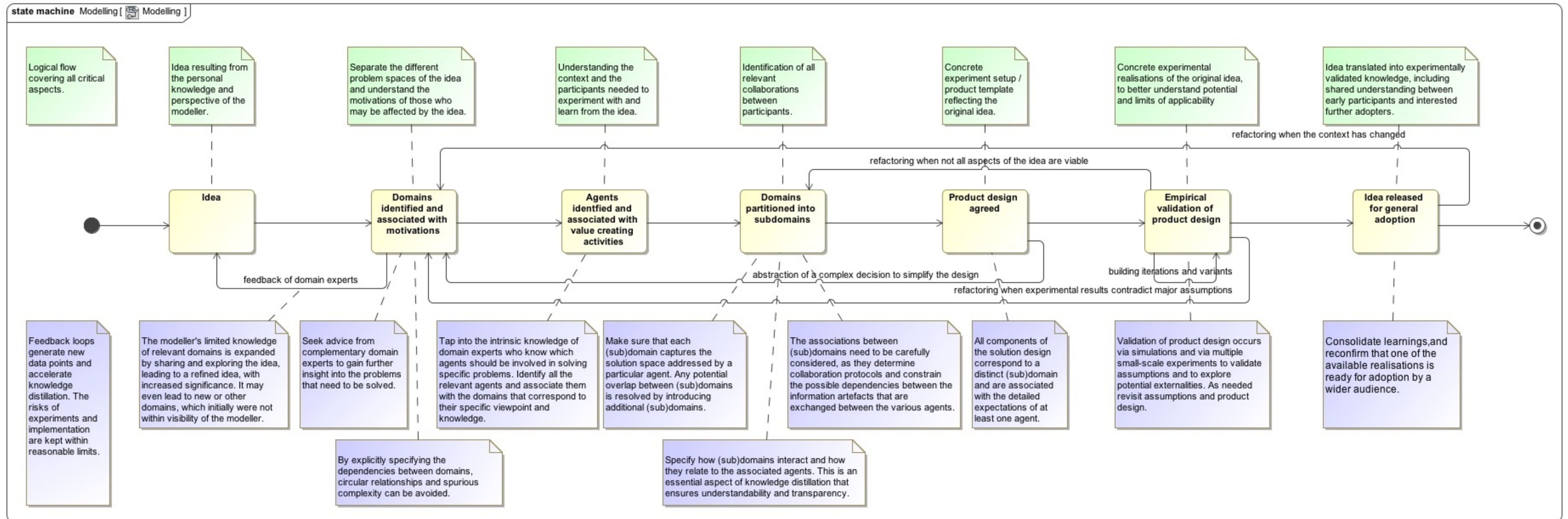
conformance to social hierarchies and wilful ignorance of Conway's law



Example: <https://www.theguardian.com/science/2017/sep/01/paolo-macchiarini-scientist-surgeon-rise-and-fall>

The art and science of modelling

appreciating the value of learning and fully embracing Conway's law

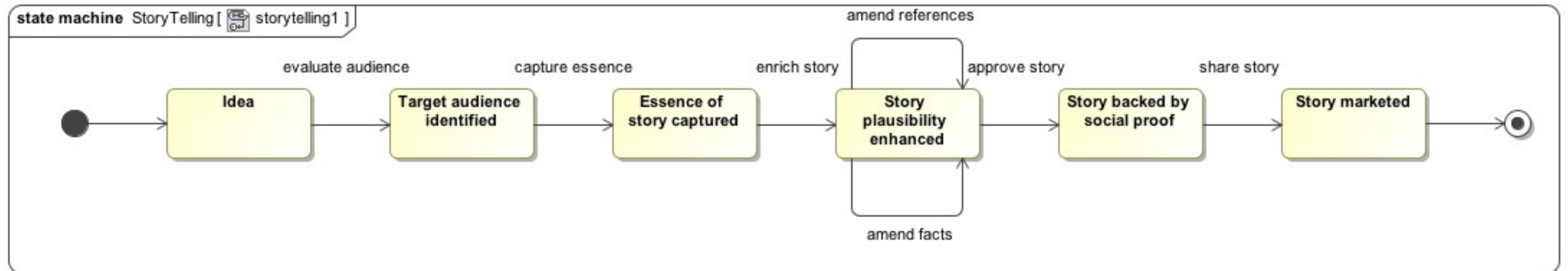


Examples: <http://s23m.com/case-studies/index.html> , <http://www.splc.net/fame.html> , <http://www.dsmforum.org/cases.html>

The life of a story

a few days to many centuries

a few hours to years



a few hours to days

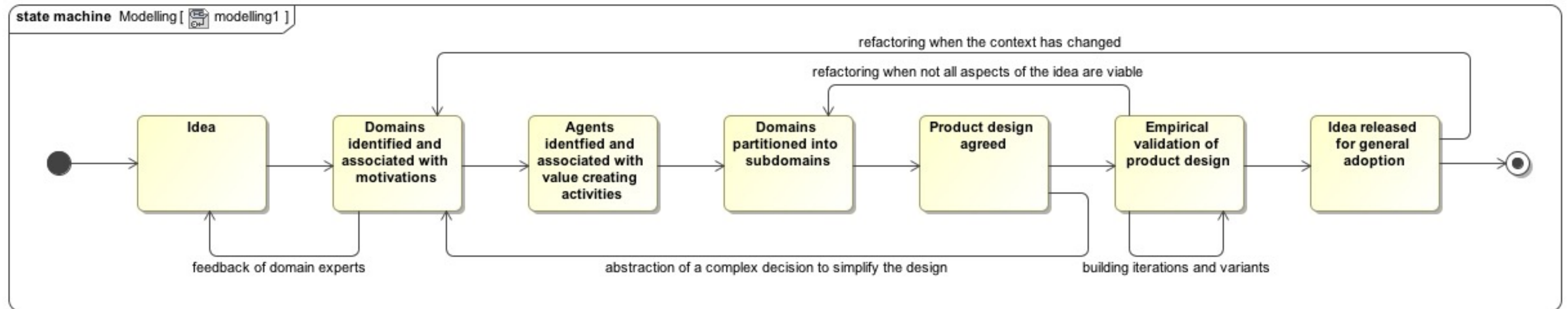
a few days to many centuries

The life of a model

a few days to years

a few days to weeks

a few minutes to days

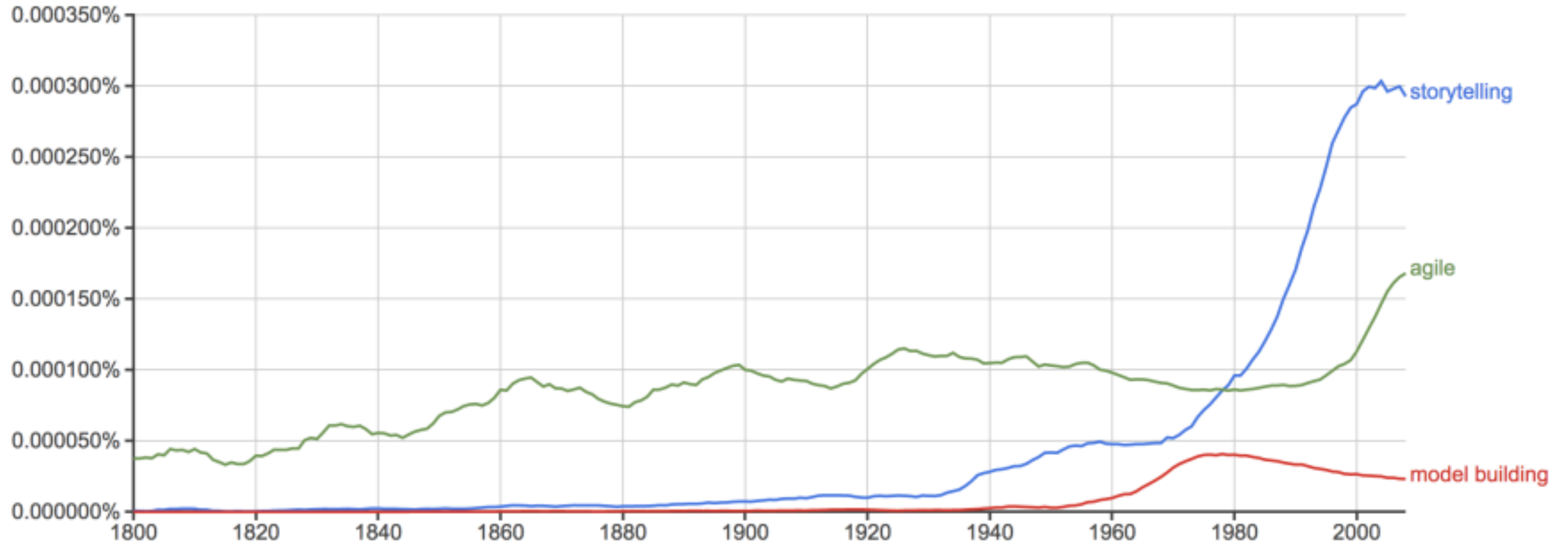


a few hours to days

a few hours to days

a few hours to years

Are you a model builder or a story teller?



<https://jornbettin.com/2017/08/22/are-you-a-model-builder-or-a-story-teller/>

Psychological tendencies of storytellers and modellers

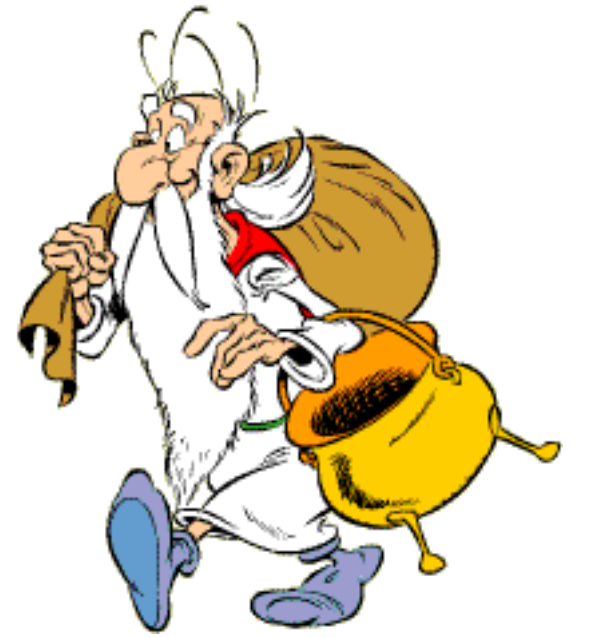


Storytellers tend to

- Strive to be popular
- Love to persuade
- Thrive on public approval
- Fear competition from others
- Have the courage to lie
- Be professional “warriors” (some)

Modellers tend to

- Be curious
- Love to learn
- Thrive on knowledge
- Fear not understanding enough
- Have the courage to experiment
- Be professional “worriers” (most)



Society is disordered – The pathology paradigm



Life Goal

Common Occupations

social conformance

employees

knowledge

1. Neurotypical Disorder **90%** (roughly)

scientists & engineers

action

2. Autism Spectrum Disorder(s) **1.5%** (1 in 68)

entrepreneurs

art

3. Attention Deficit and Hyperactivity Disorder **5%** (1 in 20)

artists

4. Bipolar Disorder **2.5%** (1 in 40)

power

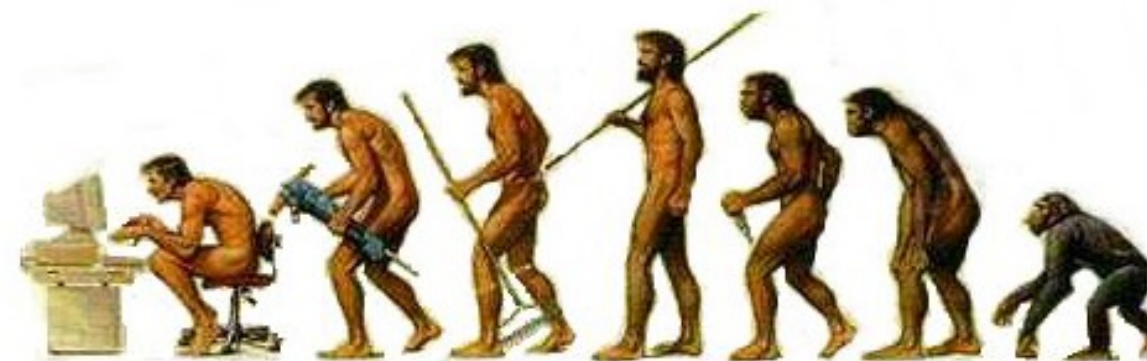
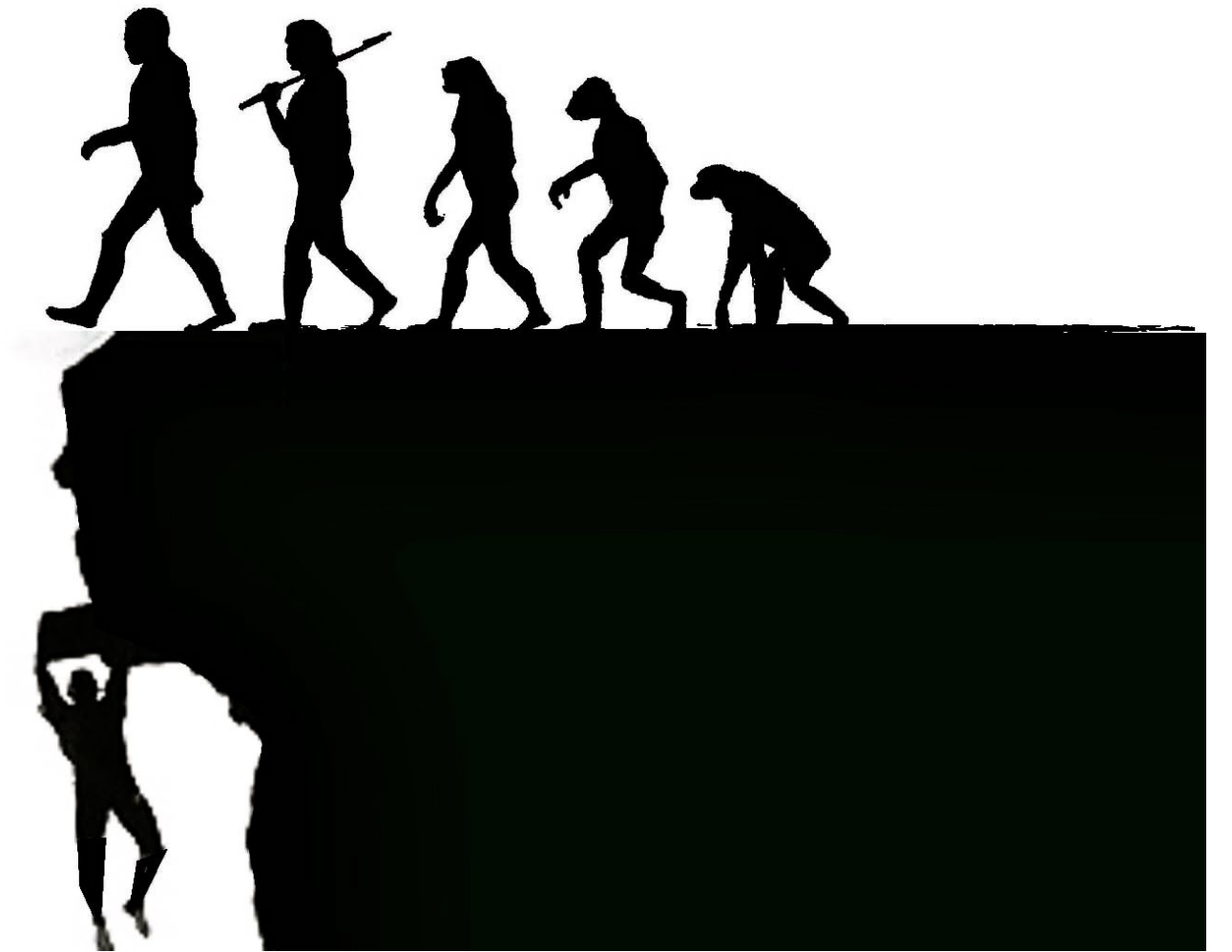
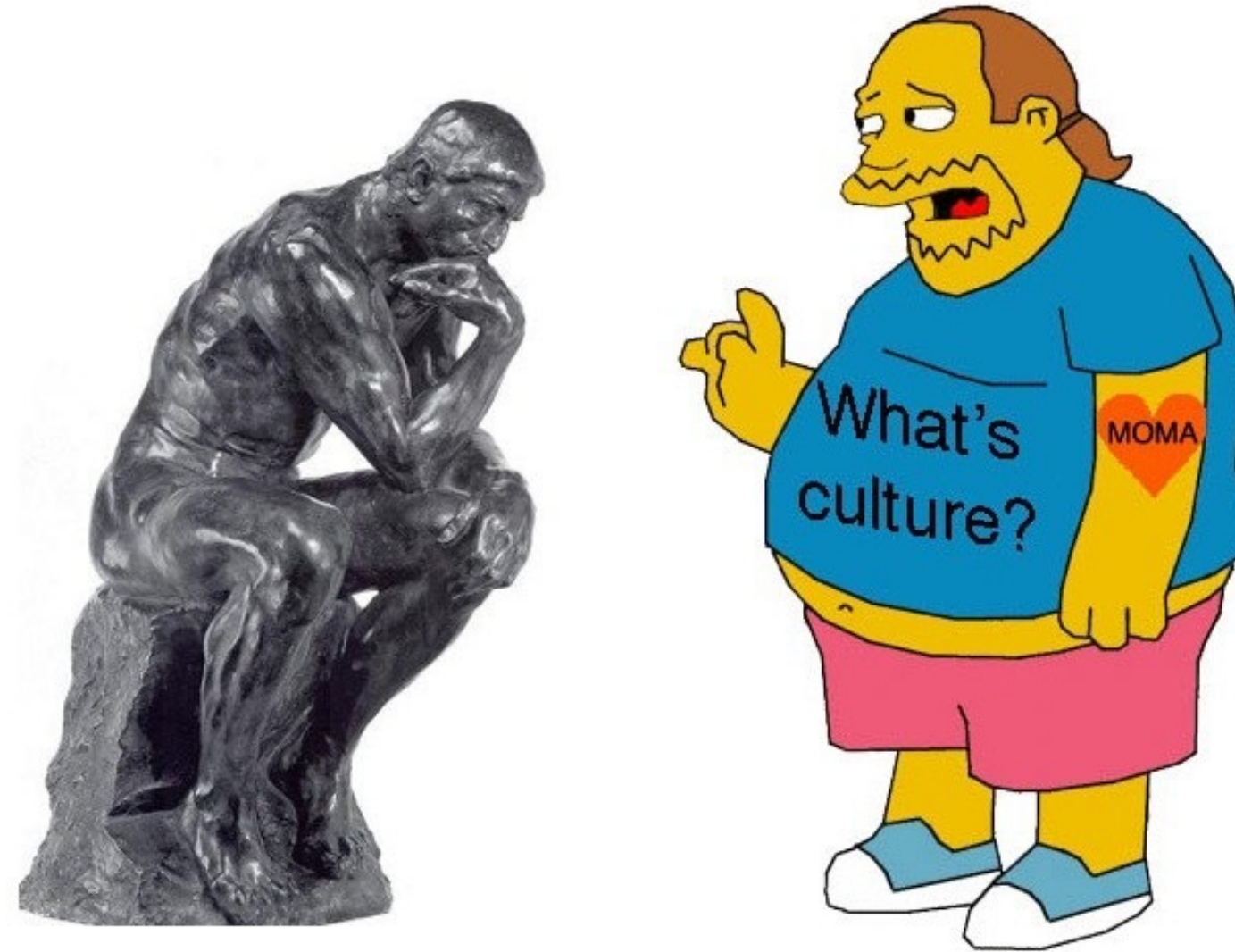
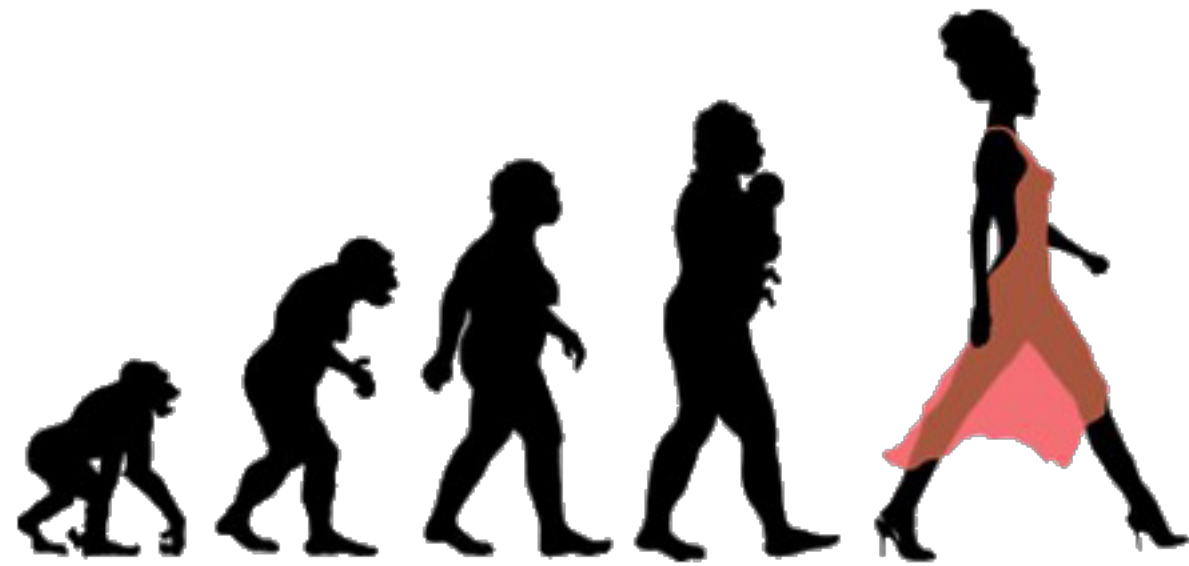
5. Psychopathic Disorder(s) **1%** (1 in 100)

executives & politicians

creativity = knowledge + art + action

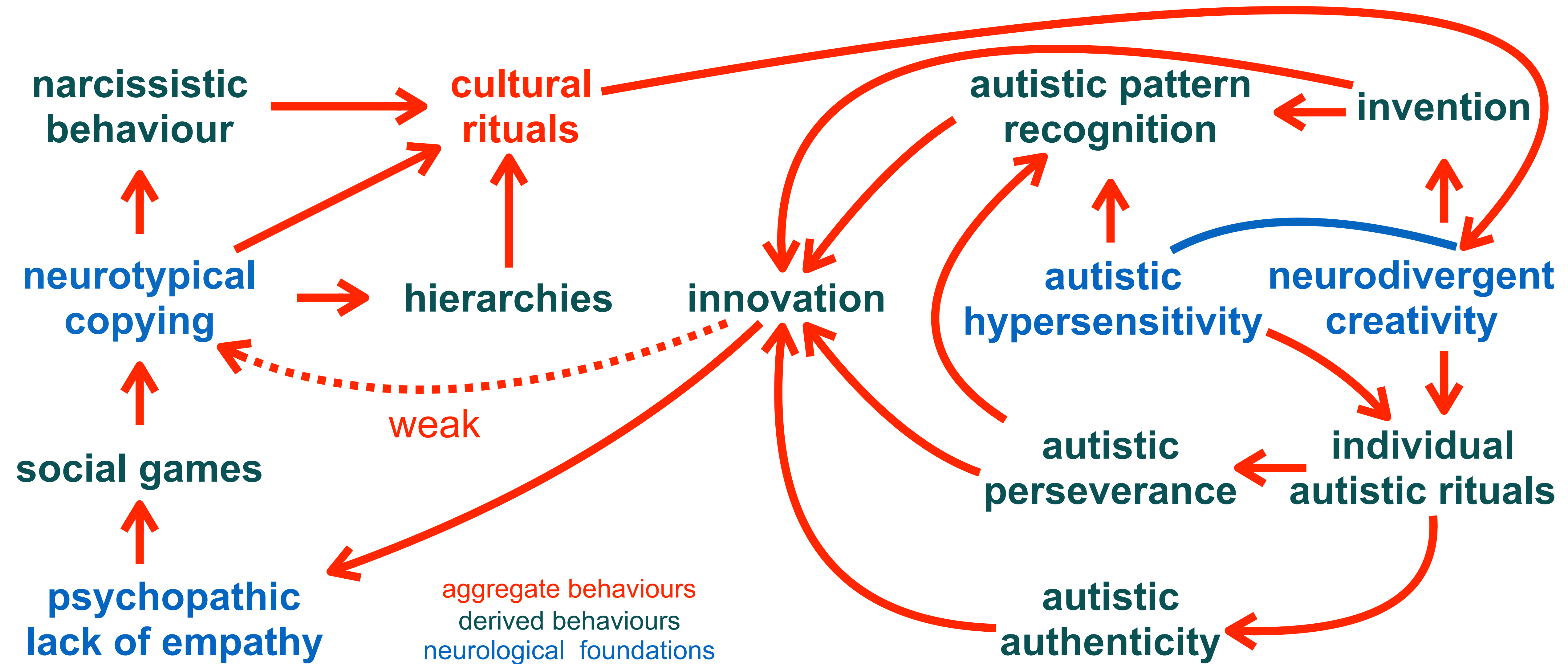
Neurodiversity – The core of creativity: <https://ciic.s23m.com/2017/01/26/ciic-off-melbourne/>

2 million years of gene culture co-evolution



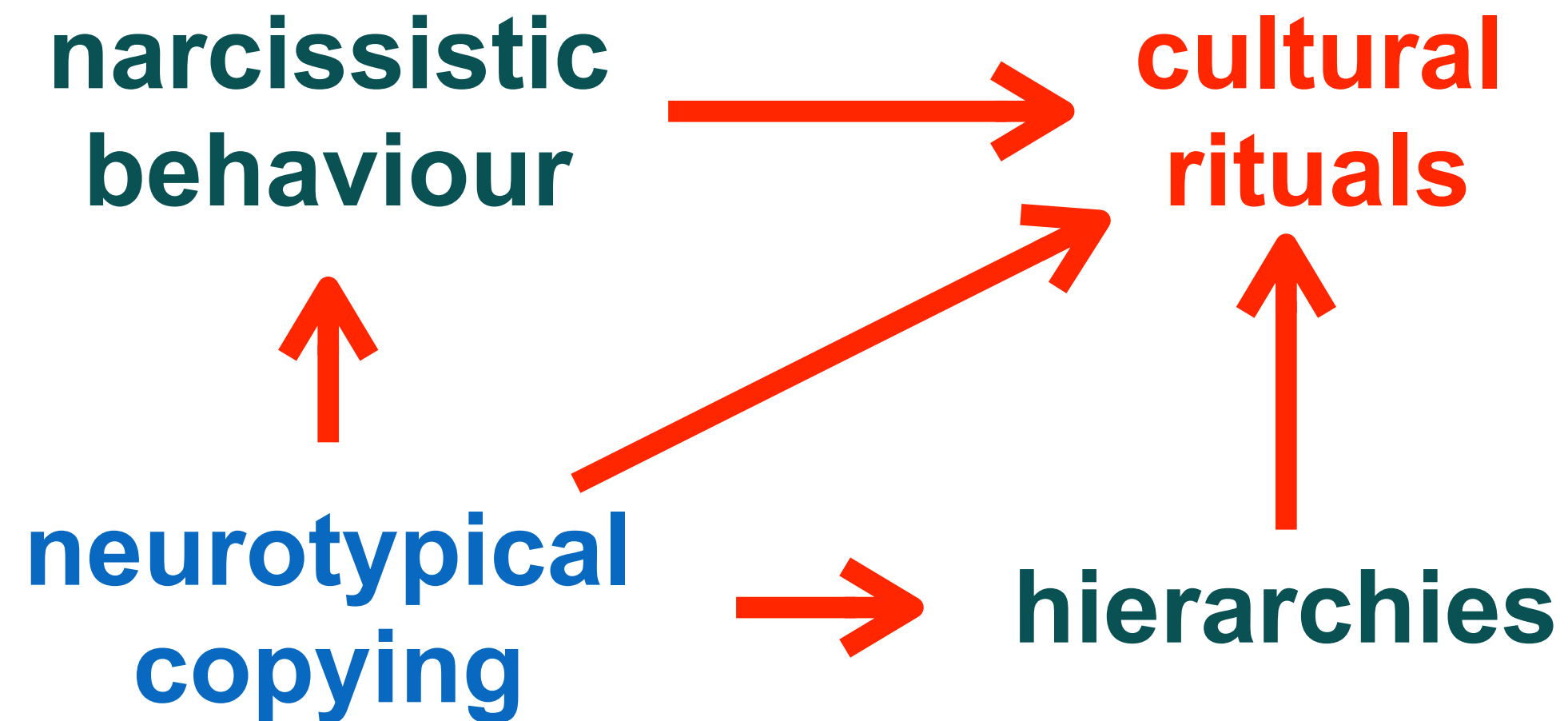
After 2,000,000 years: **Welcome to planet Xerox!**

The system of cultural rituals = social behaviour



Popularity = The economy of **likes** (Douglas Rushkoff)

https://youtu.be/6_nIDro0Uec

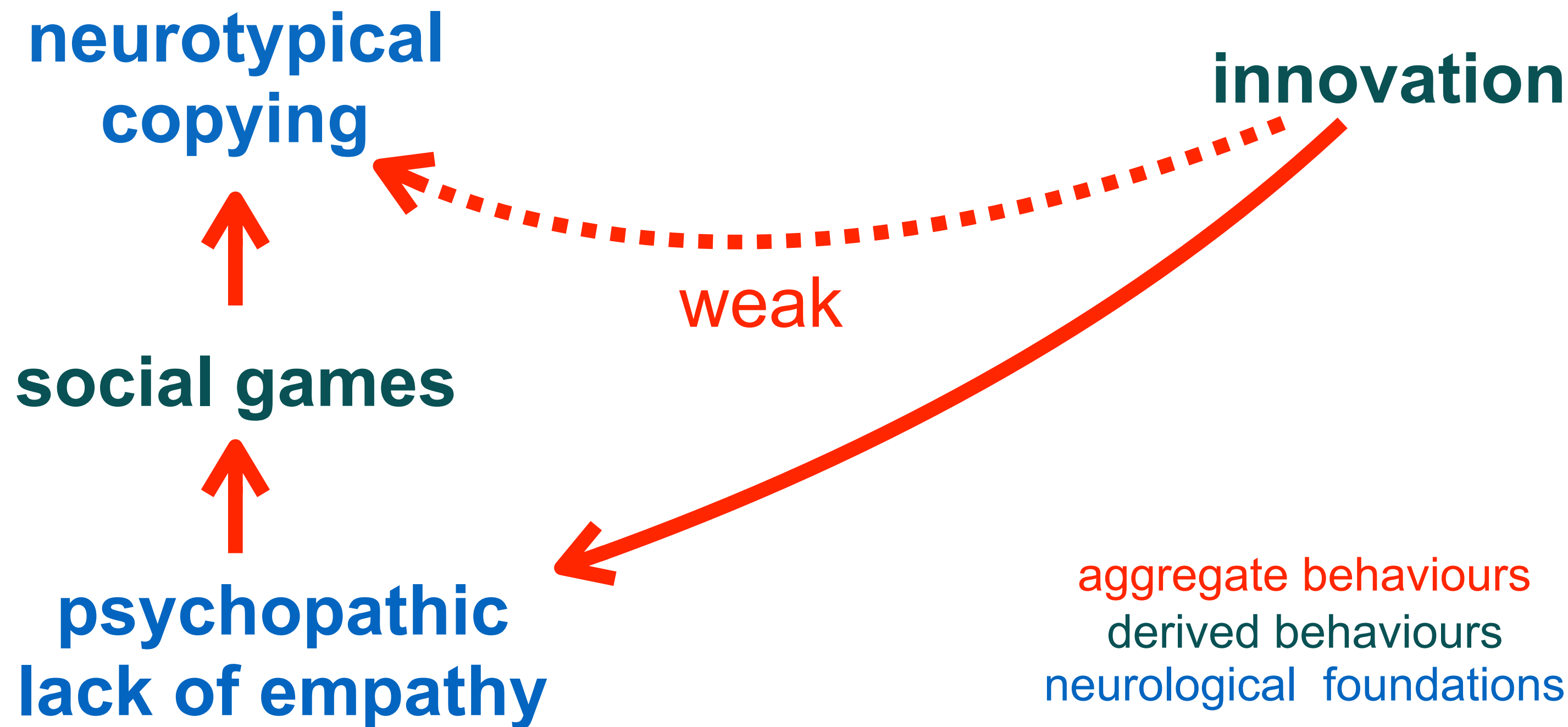


Advanced levels of perspective-taking can even increase competitiveness between individuals (adding 'fuel to the fire'), where it becomes 'do unto others as you think they will try to do unto you'.

<http://www.tandfonline.com/doi/full/10.1080/1751696X.2016.1244949>

aggregate behaviours
derived behaviours
neurological foundations

“Gamification” of society



- Paul Babiak and Robert Hare, *Snakes in suits: When psychopaths go to work*, 2006
- Susan Long, *The perverse organisation and its deadly sins*, 2008
- Susan Long, *Socioanalytic methods – Discovering the hidden in organisations and social systems*, 2013
- The Milgram experiment <https://www.youtube.com/watch?v=8g1MJeHYIE0>
- The Stanford prison experiment <https://www.youtube.com/watch?v=sZwfNs1pqG0>
- The Asch conformity experiment <https://www.youtube.com/watch?v=TYIh4MkcfJA>

psychopathic traits are common in the upper echelons of the corporate world, with a prevalence of between 3% and 21%

Nathan Brooks, http://www.psychology.org.au/news/media_releases/13September2016/Brooks, 2016



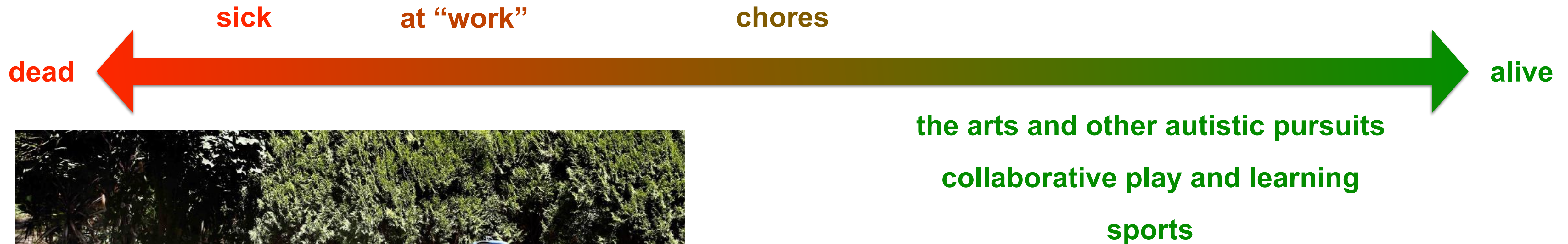
We have perverted the definition of intelligent behaviour
ability to deceive others = “intelligent behaviour”

George Soros developed the theory of reflexivity based on the ideas of Karl Popper. Reflexivity posited that **market values are often driven by the fallible ideas of participants**, not only by the economic fundamentals of the situation. Reflexive feedback loops are created where **ideas influence events and events influence ideas**. Soros further argued that **this leads to markets having procyclical "virtuous or vicious" cycles of boom and bust**, in contrast to the equilibrium predictions of more standard neoclassical economics."

<http://www.tandfonline.com/doi/abs/10.1080/1350178X.2013.859415>

How about a better definition?

Intelligent behaviour : finding a niche in the living world

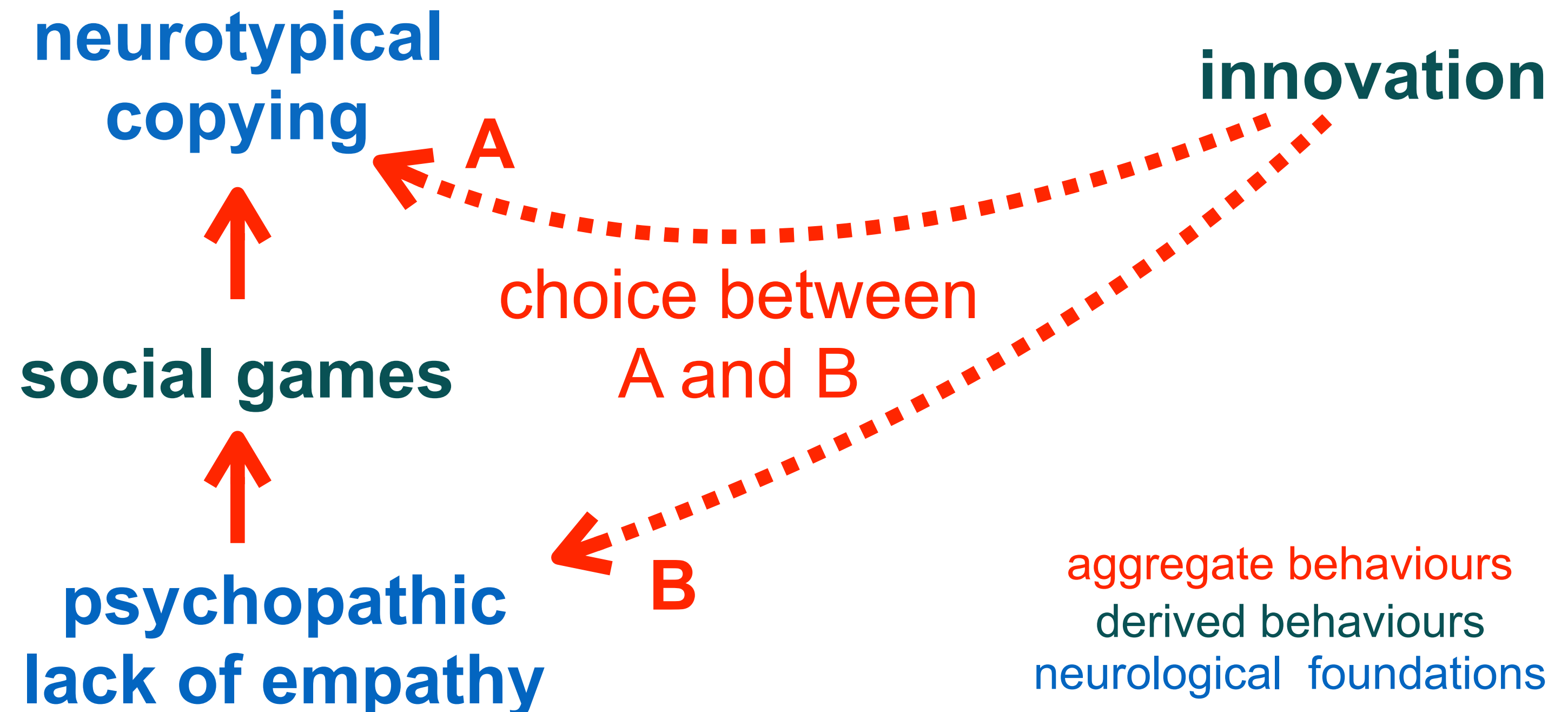
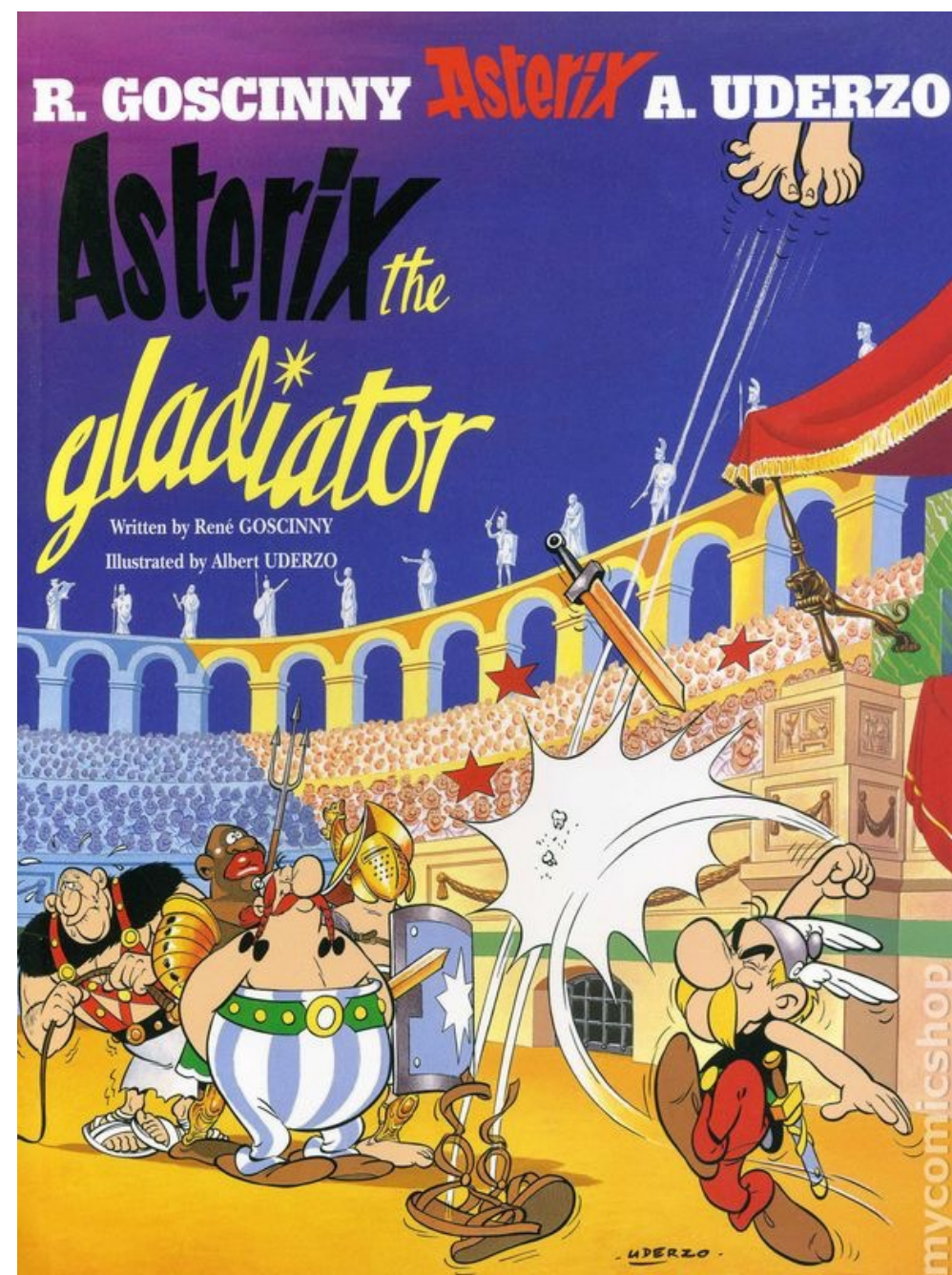


In a world of zero marginal cost the economics of scarcity directly lead to an abundance of waste.
Competing to produce and consume more and more stuff **has become a liability.**
Collaborating to produce less and less waste **is becoming the imperative.**
Time to relearn very old wisdom and **constrain any attempts to gain power over others.**
Samuel Bowles, Herbert Gintis, *A Cooperative Species: Human Reciprocity and Its Evolution*, 2011

The reason for hope and despair is one and the same

Typical humans are highly programmable ... mostly via social games
... and sometimes via scientific evidence and personal experience

The balance may shift if the social games become too costly! **80% disengaged at work** etc.

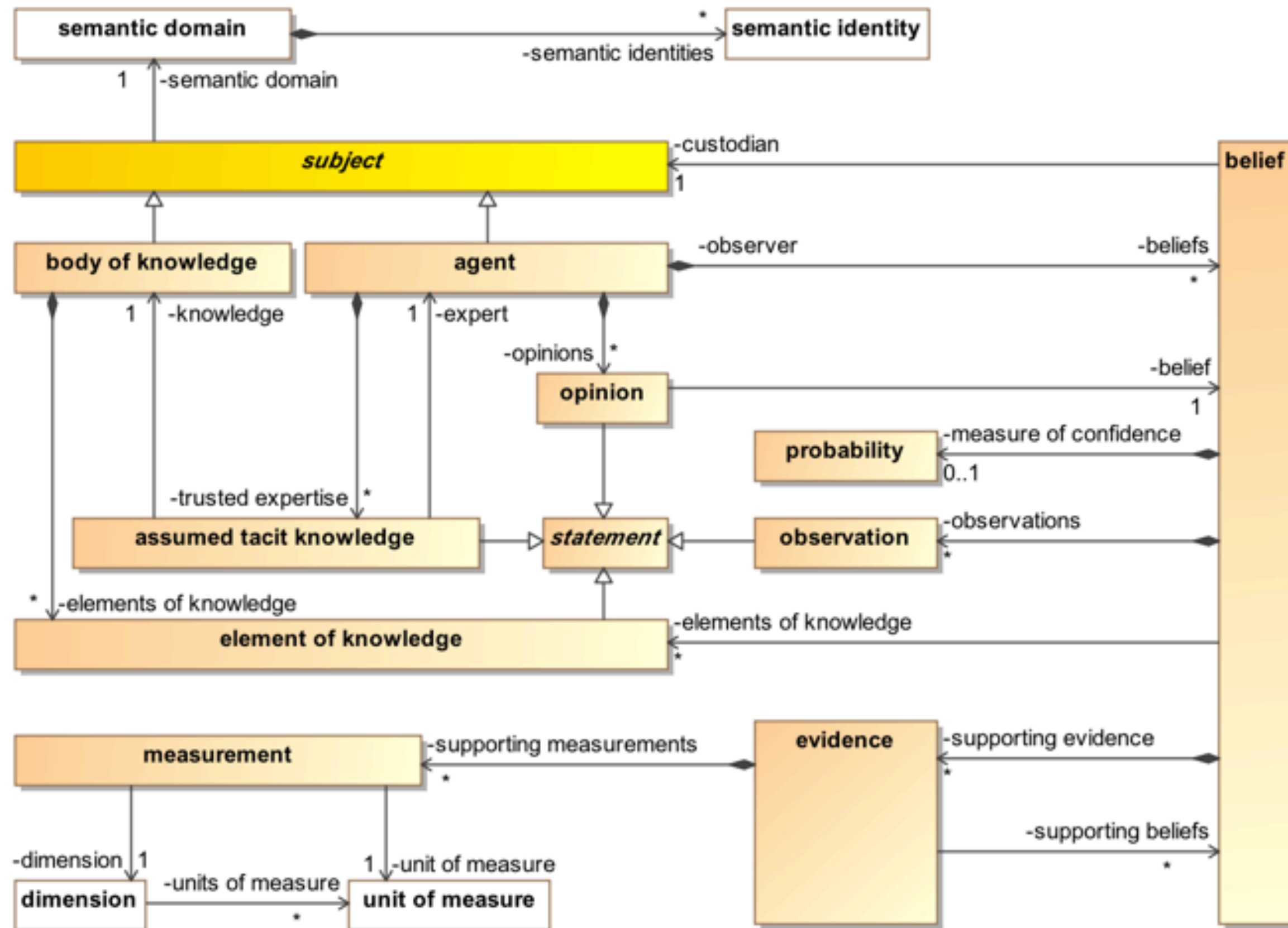


A < B : Social games (power hierarchies) prevent learning; **history repeats**

A > B : Learning from history at all levels of scale

Trusted collaboration

Formalising the essence of dynamic trust



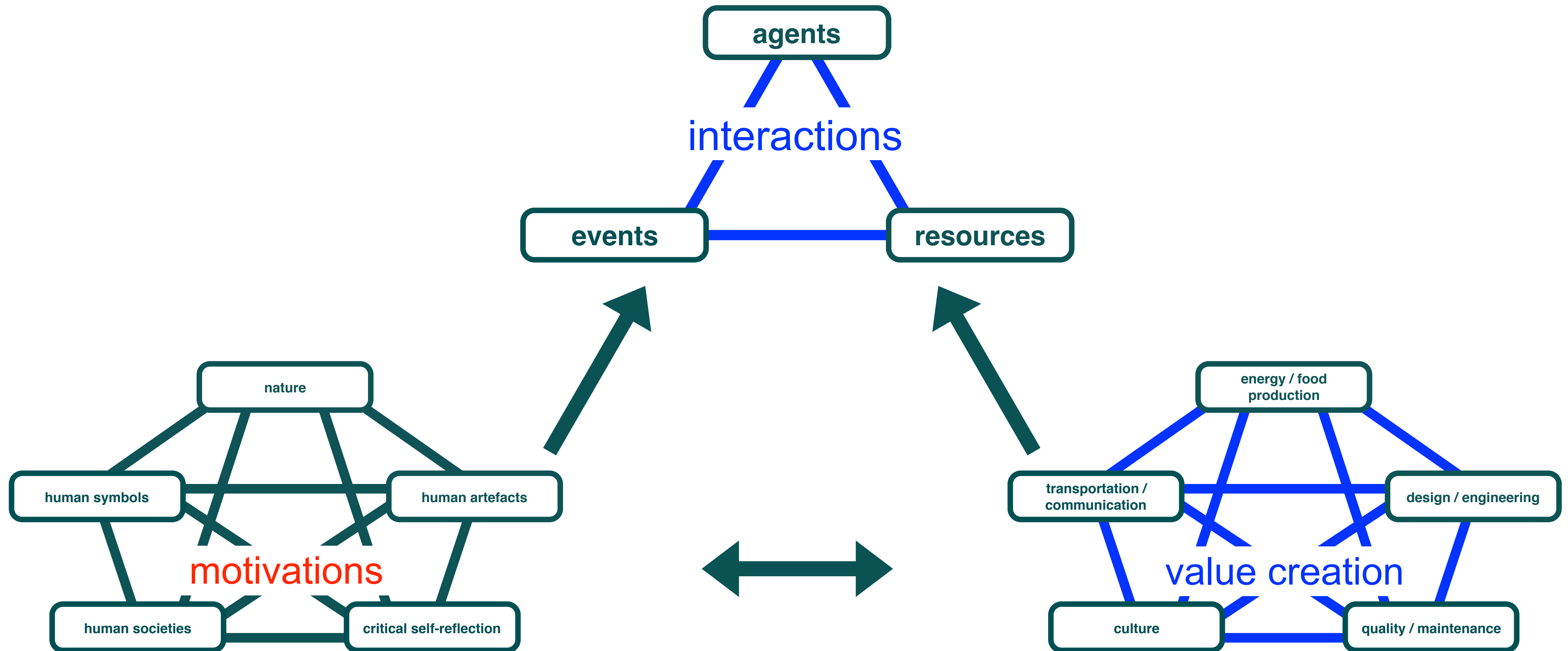
Trust is a meta-belief that allows propagation and installation of beliefs in a network of agents.

Trust between two agents develops through an ongoing process of maintaining shared understanding, and it correlates with the intensity and duration of maintaining shared understanding.



1. **Intentional** trust – assurance that shared data will only be used for the intended purposes.
2. **Systemic** trust – involves inherent/static qualities of data-handling systems.
3. **Dynamic** trust – the development and destruction of trust over time, and the propagation of trust within social networks.

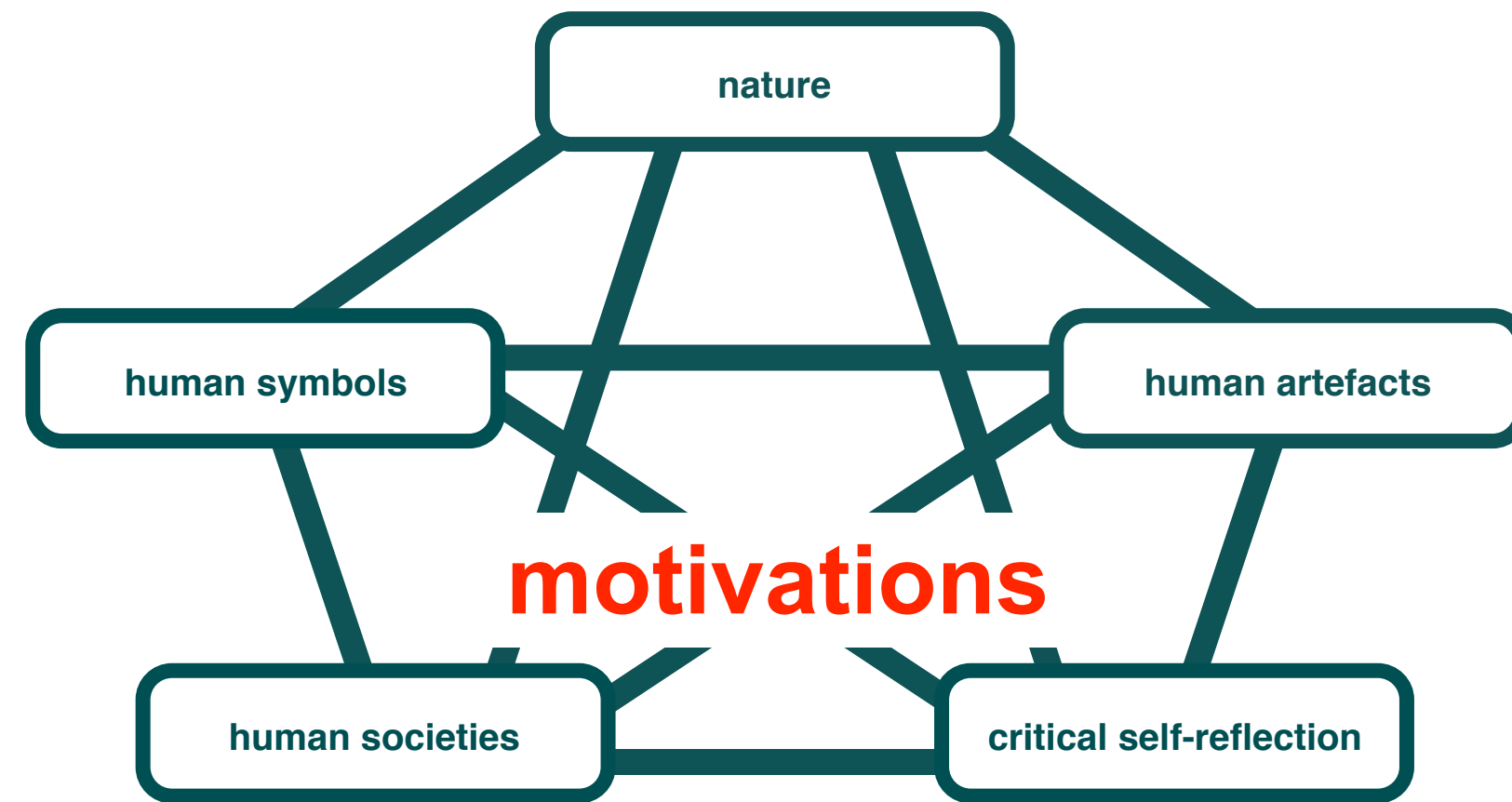
A modelling language for social and organisational behaviour



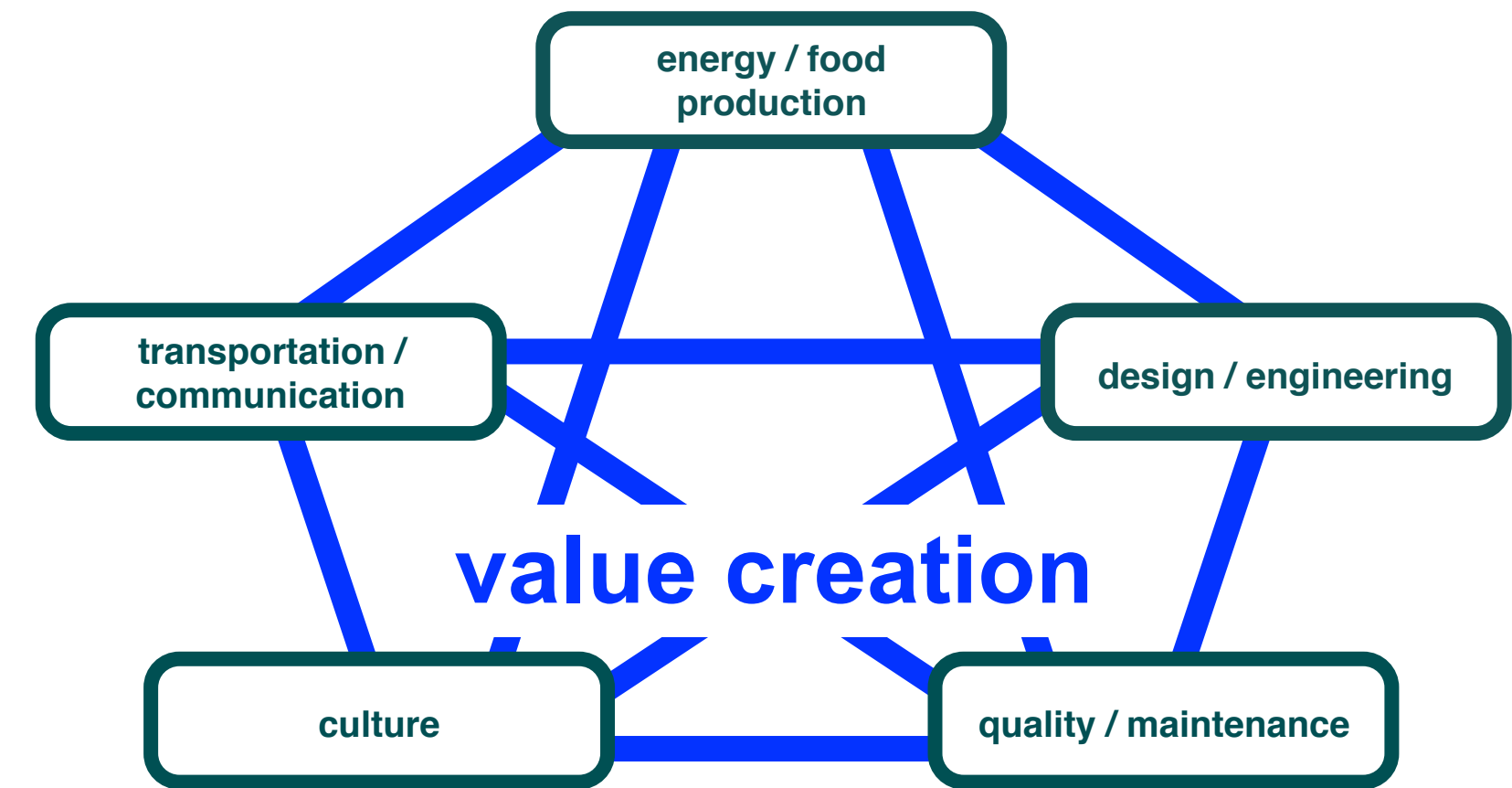
MODA + MODE thinking tools for interdisciplinary research, design, and engineering:
<https://coininco.files.wordpress.com/2017/08/moda-and-mode-lenses-and-principles.pdf>



Conference on Interdisciplinary Innovation and Collaboration



play
learn
observe
question
innovate



Scientists

Engineers

Entrepreneurs

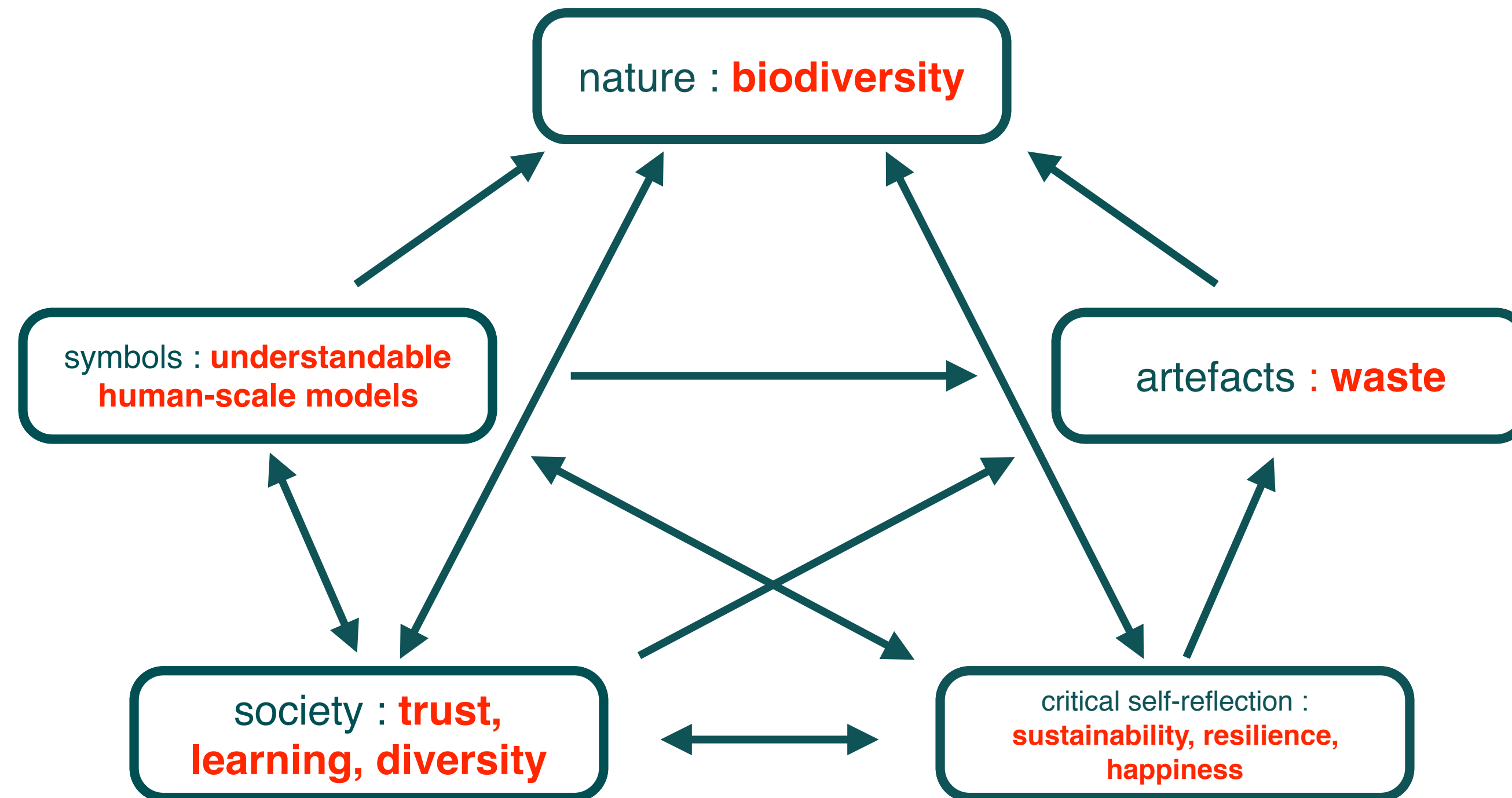
Artists & Mathematicians

<https://ciic.s23m.com/about/>

Collaboration for Life

The S23M semantic lens

we are in the business of strengthening / weakening specific feedback loops



A particular client may only be interested in one or a few of these feedback loops. Clients still engage with us via the old economy of simplistic and corruptible money, but in our logistic lens we don't need monetary metrics to measure the value we create. The objective of **economic growth** gives way to an objective of **social and biological diversity**.

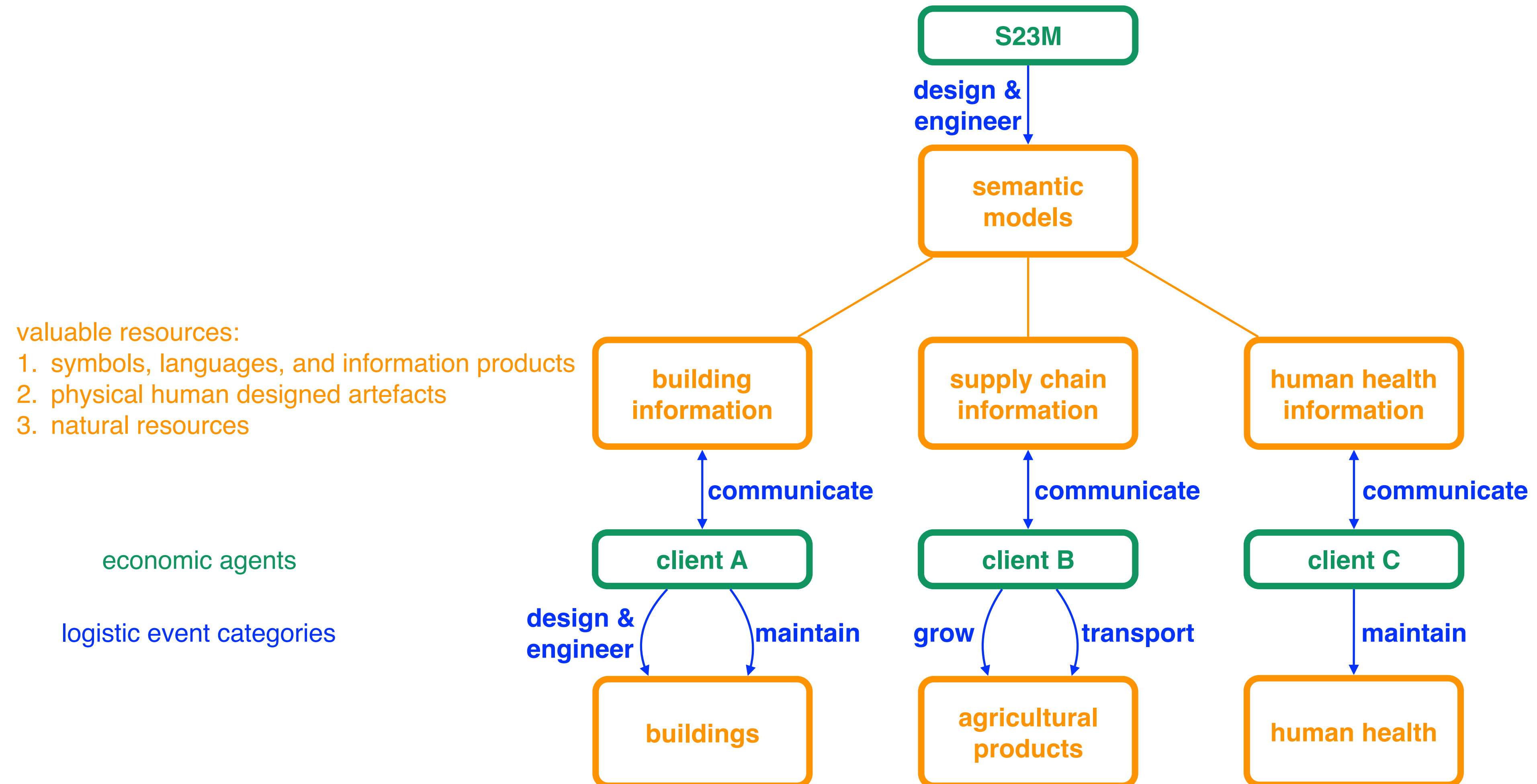
The **semantic lens** explains **why** S23M exists

Critical self-reflection : regarding all other elements of the semantic lens (in no particular order) towards **sustainability**, **resilience**, and **happiness**

- A. *Symbols* : Co-creating **organisations and systems which are understandable** by future generations of humans and software tools
- B. *Nature* : Maximising **biodiversity**
- C. *Artefacts* : Minimising human generated **waste**
- D. *Society* : Creating **a more human and neurodiversity friendly environment**
 - 1. Generating more **trust** – less surprising misunderstandings, more collaborative risk taking, less exploitation, more mutual aid
 - 2. Generating more **learning** – more open knowledge sharing, less indirect language, less hierarchical control, deeper understanding
 - 3. Generating more **diversity** – more appreciation of difference, less coercion, more curiosity

👉 clear guidance on what to measure in the logistic lens

The S23M logistic lens (*external perspective*)



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Appendix

Coordination of living systems and cultural construction across scales

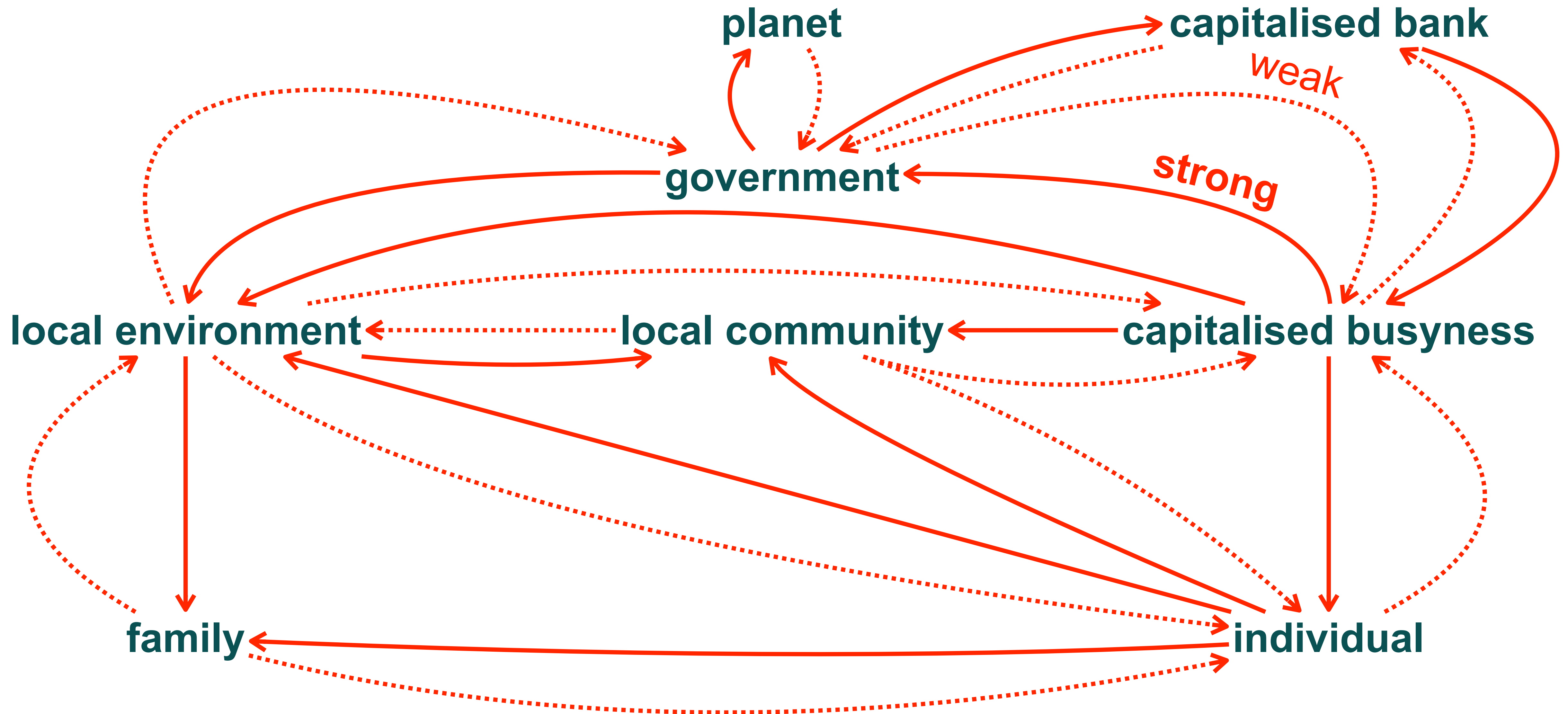
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Coordination across levels of scale

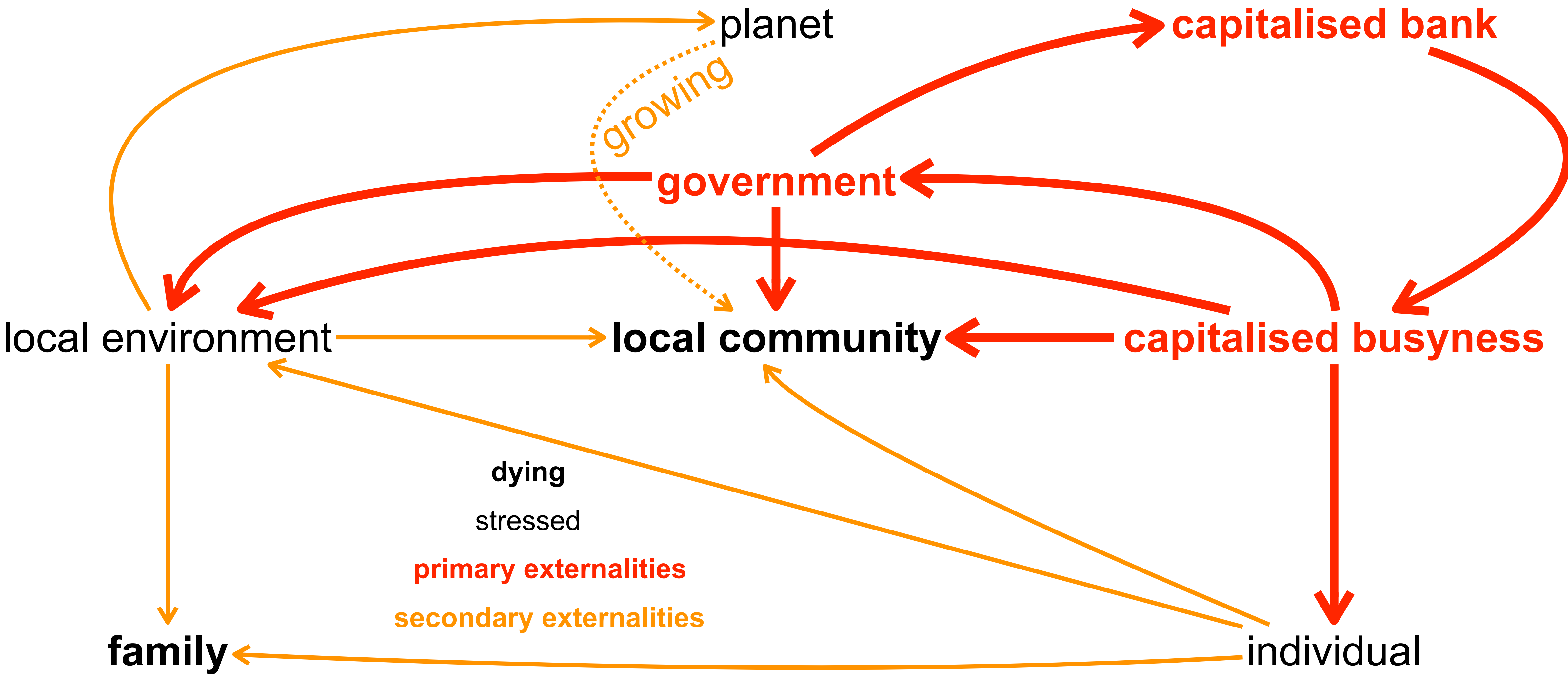
Definitions of living systems and cultural constructions from large to small:

1. **Planet** – Biodiversity and level of resilience of the planetary ecosystem
2. **Capitalised banks** – Coordination of social games based on capital growth and financial markets
3. **Capitalised busyness** – Coordination of human activities and resource use based on capital growth & financial markets
4. **Government** – Coordination of human activities and state of the environment at a macro / regional level
5. **Local community** – Coordination of human activities and resource use at a local level
6. **Local environment** – State of the environment at a local level
7. **Family** – Coordination of human activities and resource use between kin
8. **Individual** – Individual activities and resource use

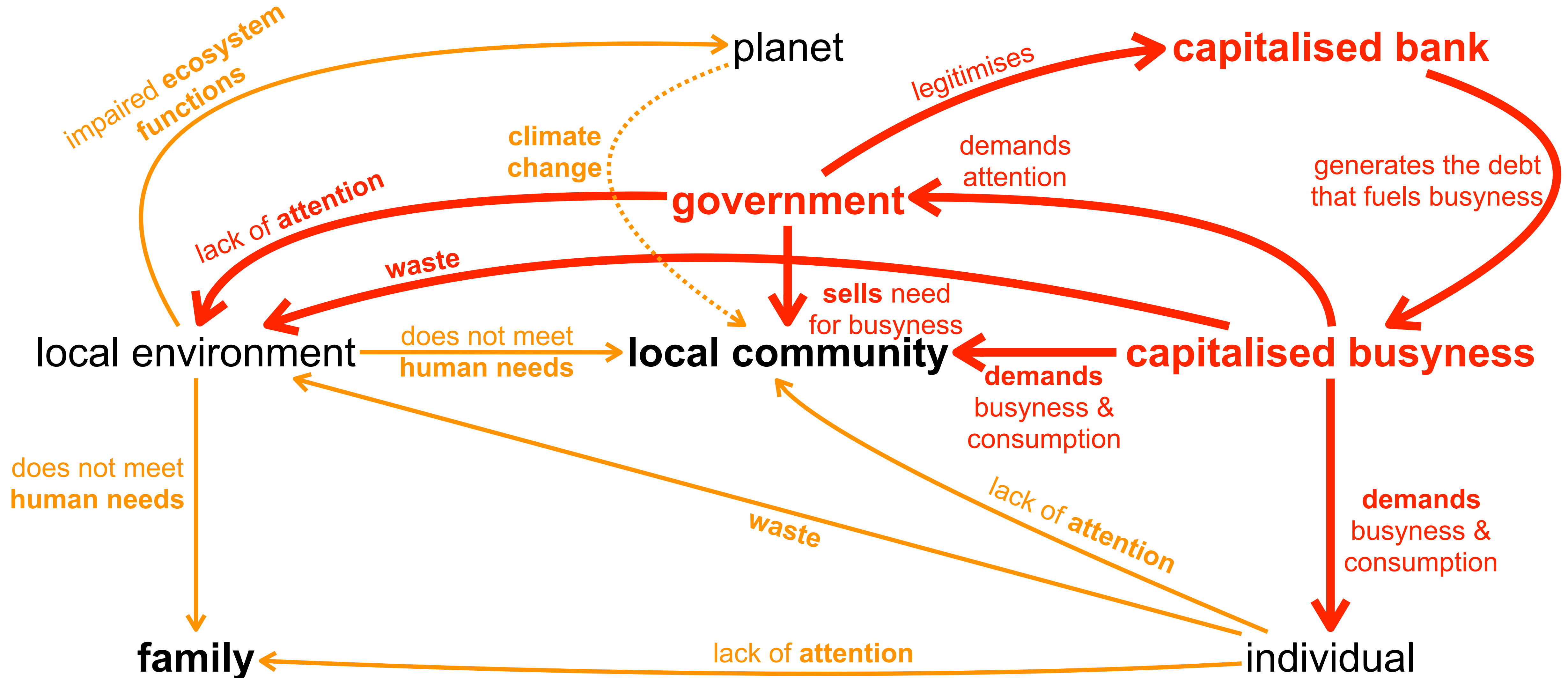
Negative feedback loops across scales



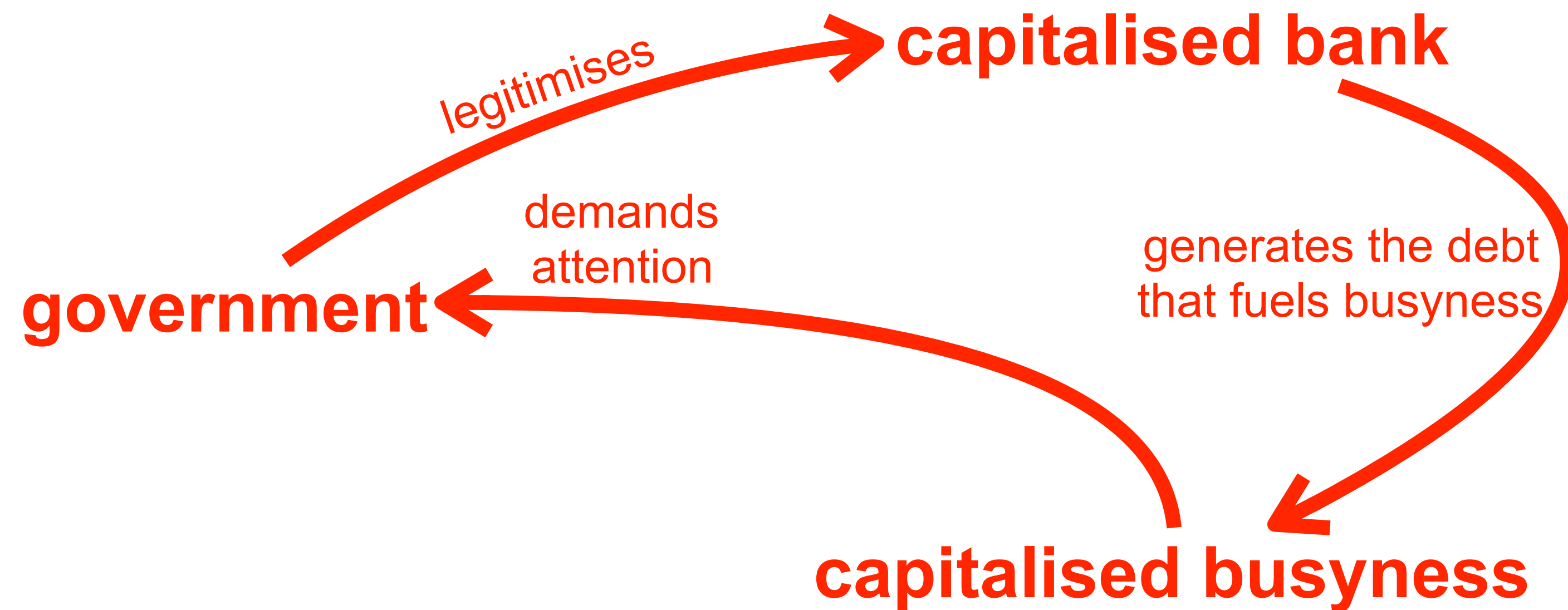
Human created organisations are **the source of externalities**



Measuring externalities



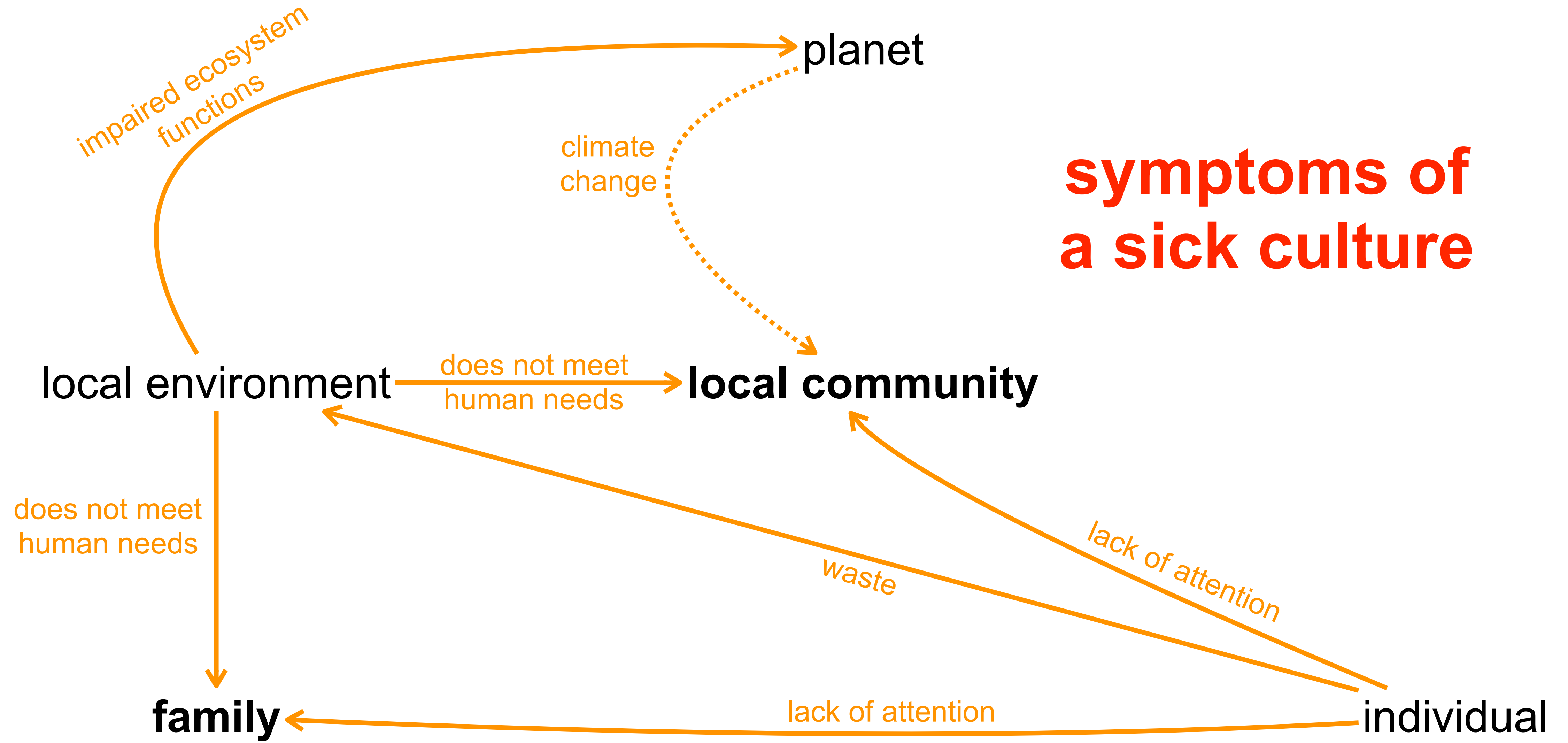
The “economy” constructed by contemporary culture



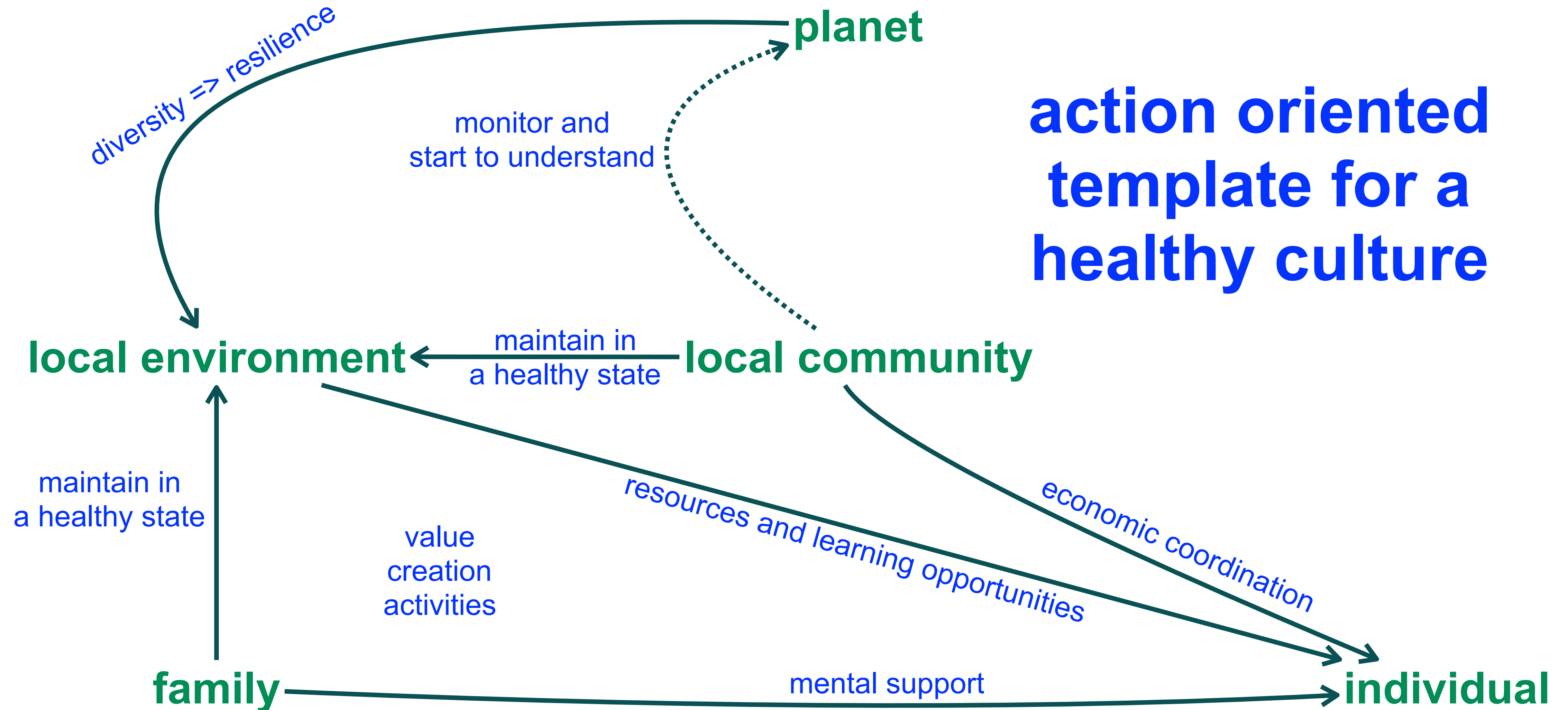
Our attention is on activities and metrics that distract us from human and environmental needs

“Human life” constructed in contemporary culture

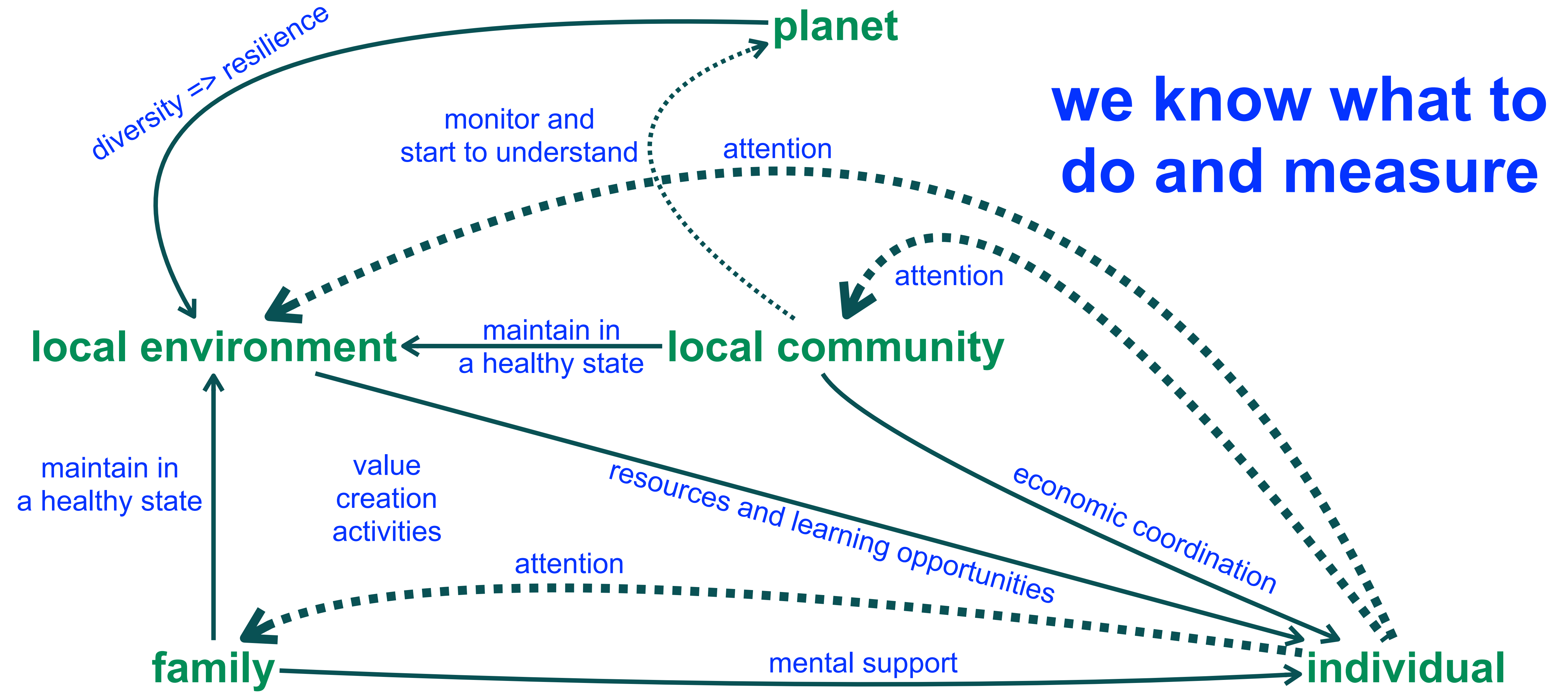
**symptoms of
a sick culture**



Biological and genetic template of human life



Individual contributions to the creation of learning systems



Better economics/household management = **Shift in attention**

From **sick busyness**

- The convenience of **money**
- The availability of **debt** and material **consumption**
- The spectacle of **competitive social games**
- The **distractions** of digital technology



To **appreciation of the value of life**

- The **local community** and all forms of **human diversity**
- The **local environment** and **biodiversity**
- The **family** and **human needs**
- The **capabilities and limits of the planet**

Thank you!

Jorn Bettin

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*Nothing beats capturing the knowledge flow
of leading domain experts to co-create
organisations & systems that are
understandable by future generations of
humans & software tools.*

