The concept of the global citizen –
a possible third step in becoming truly human/e

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Contents

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1 Global challenges (1/2)

Thriving/surviving of our species is at stake. Seen from a complex systems view, **global challenges** arise from
– human-human,
– human-nature and
– human-technology **societal relationships not functional anymore**.

The evolution of humanity faces what is called here the **Great Bifurcation**:

– Global challenges might **inflict extinction**.
– At the same time, global challenges **can be mastered through a transformation into** what is called here **a Global Sustainable Information Society**.

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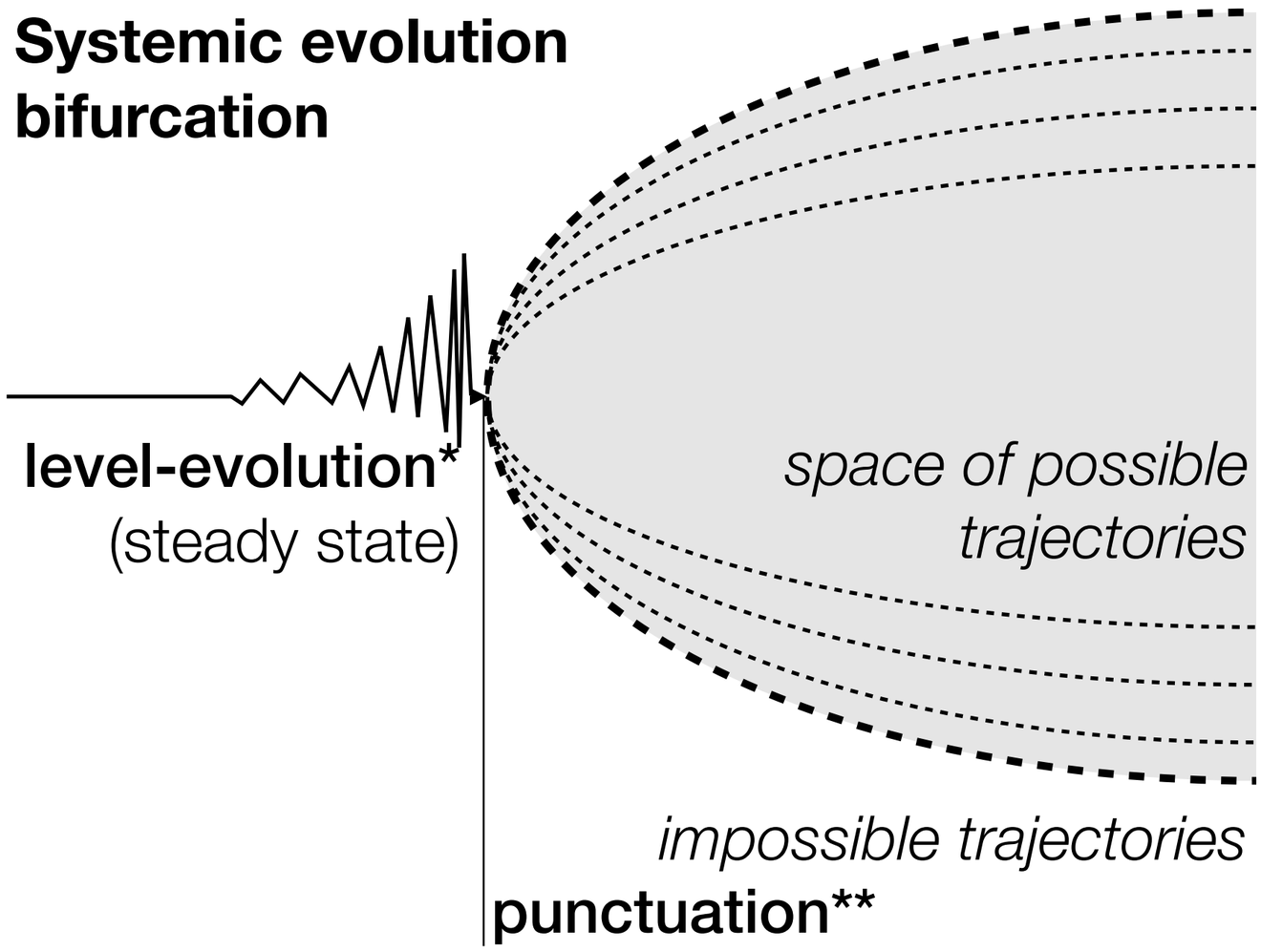
1 Global challenges (2/2)

Systemic evolution
bifurcation



mega-evolution*
(rise of complexity:
breakthrough to a path
on a higher level)

devolution
impossible trajectories (decline of complexity:
system breakdown)

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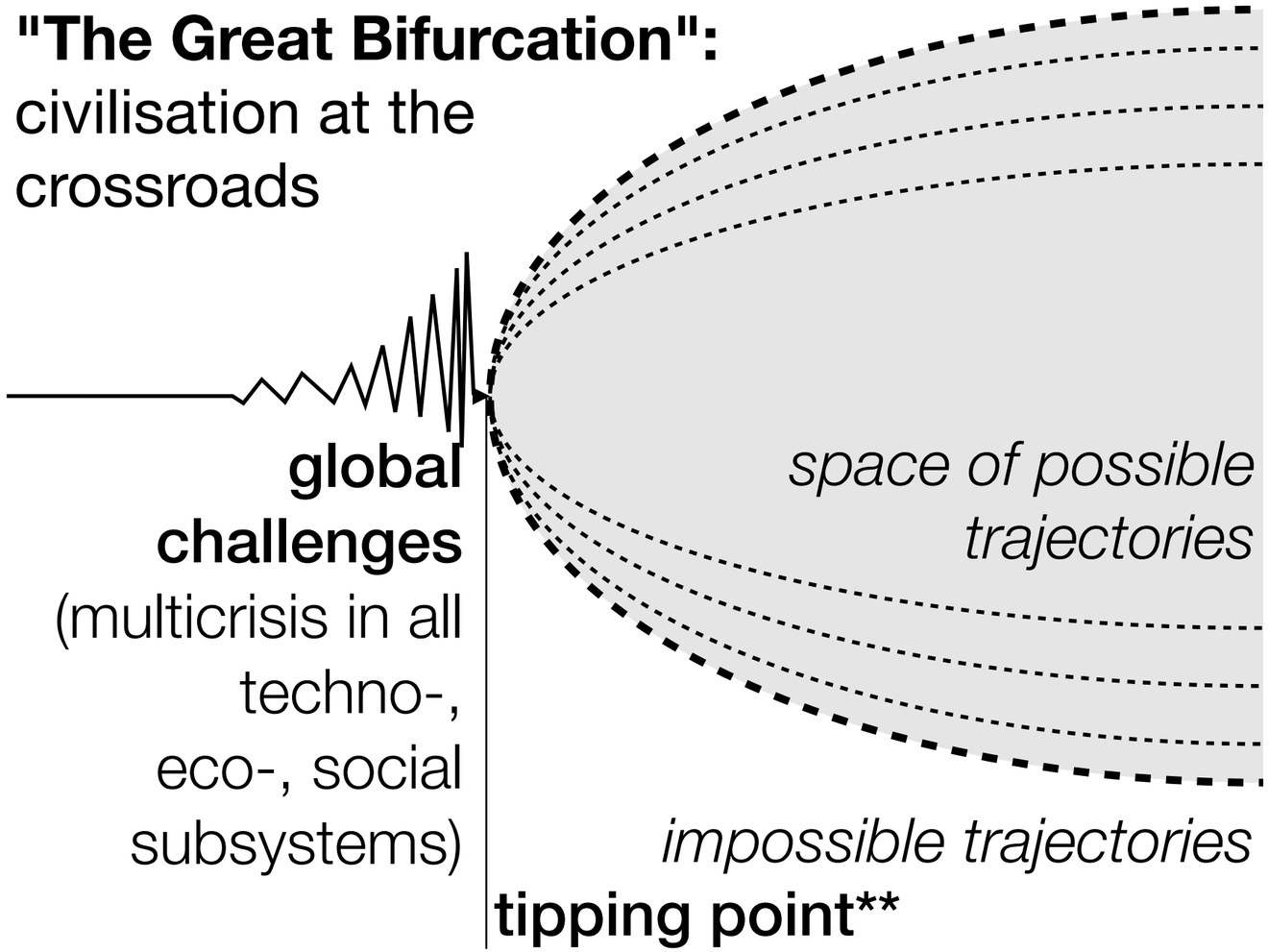
* Klaus Haefner, Erhard Oeser; ** Stephen J. Gould

1 Global challenges (2/2)

"The Great Bifurcation":
civilisation at the crossroads



global challenges
(multicrisis in all techno-, eco-, social subsystems)

tipping point**

mega-evolution*:
integration of differentiated, interdependent social systems into a single meta-/suprasystem – the **Global Sustainable Information Society**

devolution:
disintegration and **falling apart of civilisation**

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* Klaus Haefner, Erhard Oeser; ** Ervin László

1.1 Self-organisation (1/2)

Emergentist systemism*:

Everything in the universe is
– either a **self-organising system**
– or **part** of its architecture
– or **moment** of its agency.

Any such system has an **overshoot of features over any of its elements**, which makes it **emergent**. By emergence the new comes into being.

Emergence is the driver of evolution.

The future is open.

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* Mario A. Bunge

1.1 Self-organisation (2/2)

- Holarchies
- Stability
- Collective intelligence

1.1.1 Holarchies* (1/2)

Systems
– are made up of **less-complex systems as elements**
– and are, in turn, **elements of suprasystems**.
Thus they are **holons*** building **holarchies***: systems are nested.
A holarchy is the **scaffold of complexity**.

Holarchies are the **product of evolution** towards higher complexity. Growing together in a holon continues evolution. To build up another level is common moment of evolution. This process is called **metasystem transition****.

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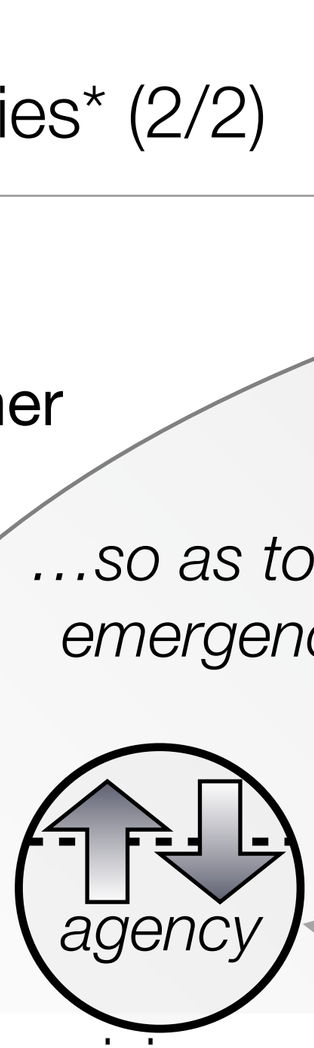
* Arthur Koestler;
** Francis Heylighen et al.

1.1.1 Holarchies* (2/2)

Metasystem transition:**
growing together for continuing evolution

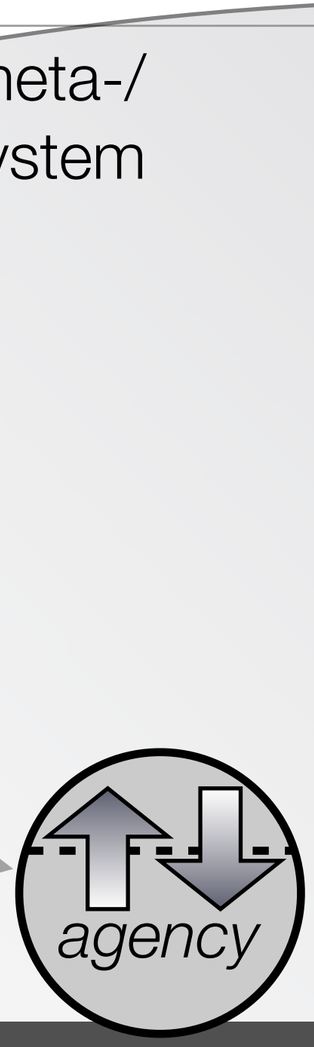
…a meta-/ suprasystem

…so as to tip the emergence of…



self-organising system n (proto-element)

co-act (network)



self-organising system n+1 (proto-element)

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* Arthur Koestler;
** Francis Heylighen et al.

1.1.2 Stability (1/2)

Any system is an organisation that provides **synergy** to its elements.
In synergy, the elements can reach goals they would not be able to reach without the system.
(Systems we observe today have been stabilising themselves as long as they could provide synergy.*)

Organisational relations mediate the synergy effects.
They are set to realise **unity through diversity****: in order to achieve synergy **the system induces its diverse elements to unite** through downward causation in a never-ending process.
Any system needs to balance unity and diversity to become and stay stable. Otherwise it is not a system anymore:
– **unity as little as necessary**, **diversity as much as possible** (subsidiarity);
– unity without diversity is **uniformity** (featuring a mechanistic entity), diversity without unity is like a **pluriverse** of parallel universes (featuring a heap of unrelated entities).
Any system needs to **contain dysfunctions**.

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* Peter Corning; ** Ludwig von Bertalanffy

1.1.2 Stability (2/2)

Reorganisation:
shaping of the whole for unity-through-diversity*

macro-level

micro-level

…organi-sational relations (structure)*…

…so as to tip the emergence of…

*…that – through constraints** – enable** synergy*** effects for…*

agency

element n

…co-acting…
(network)

agency

element n+1

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* Ludwig von Bertalanffy;
** Anthony Giddens; *** Peter Corning

1.1.3 Collective intelligence (1/3)

Intelligence is here the capacity of a system to **succeed in the achievement of goals** that emerge in the course of its self-organisation.
The basic goal is maintenance of the system.

Every (supra)system's intelligence is then **collective intelligence**: it emerges above, and supersedes, the level of the elemental intelligences (on which collective intelligence is based).

1.1.3 Collective intelligence (2/3)

Intelligence is maintained and raised by the generation of appropriate information. Appropriate information guides the successful pursuit of goals.

Information is here the process, or the product, of establishing emergent order when systems
– **cognise** the (exterior or interior) systemic **environment**,
– **communicate** with **co-systems**, or
– **co-operate** for a **suprasystem**.

By generating information, systems and elements can **catch up with the complexity** represented by the exterior or interior environment (Law of Requisite Variety*). This information is called here **requisite information**. Requisite information safeguards the functioning of the system.

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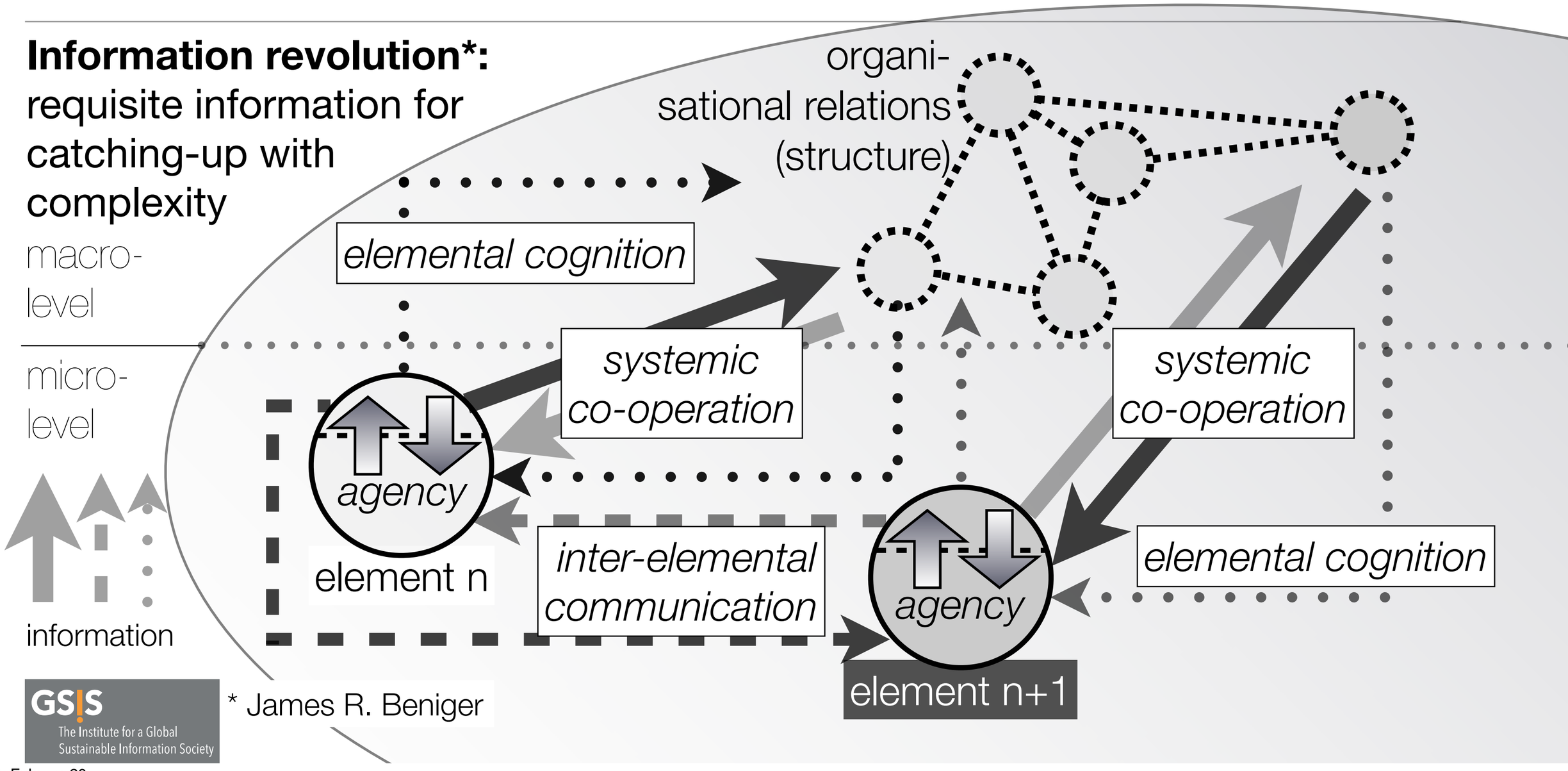
* W. Ross Ashby

1.1.3 Collective intelligence (3/3)

Information revolution*:
requisite information for catching-up with complexity



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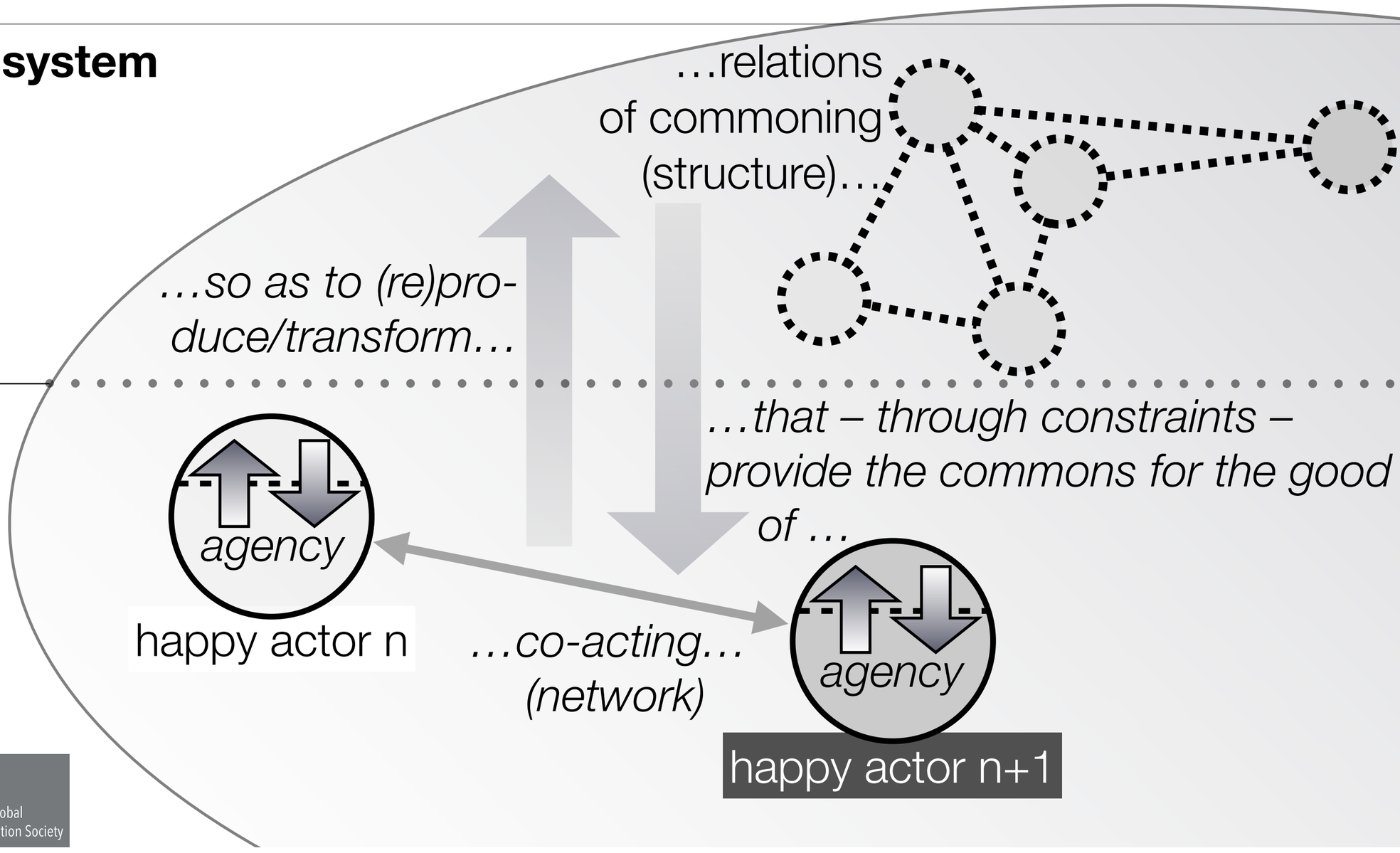
* James R. Beniger

1.2 Social self-organisation in the age of global challenges

- Social systems
- Virtuous vs. vicious circles
- In the age of global challenges

1.2.1 Social systems

Social system



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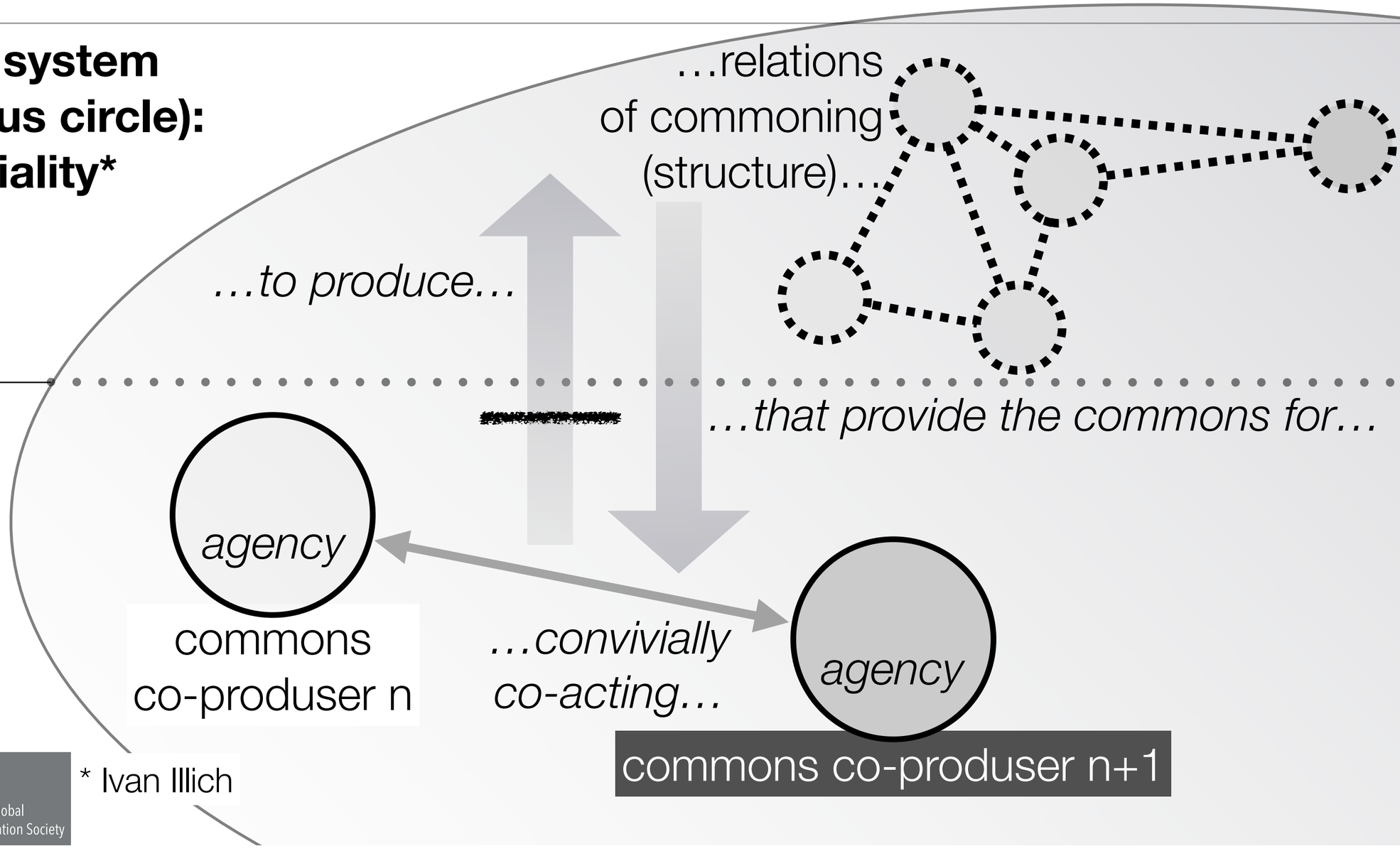
1.2.2 Virtuous vs. vicious circles

Social system (virtuous circle): conviviality*



* Ivan Illich

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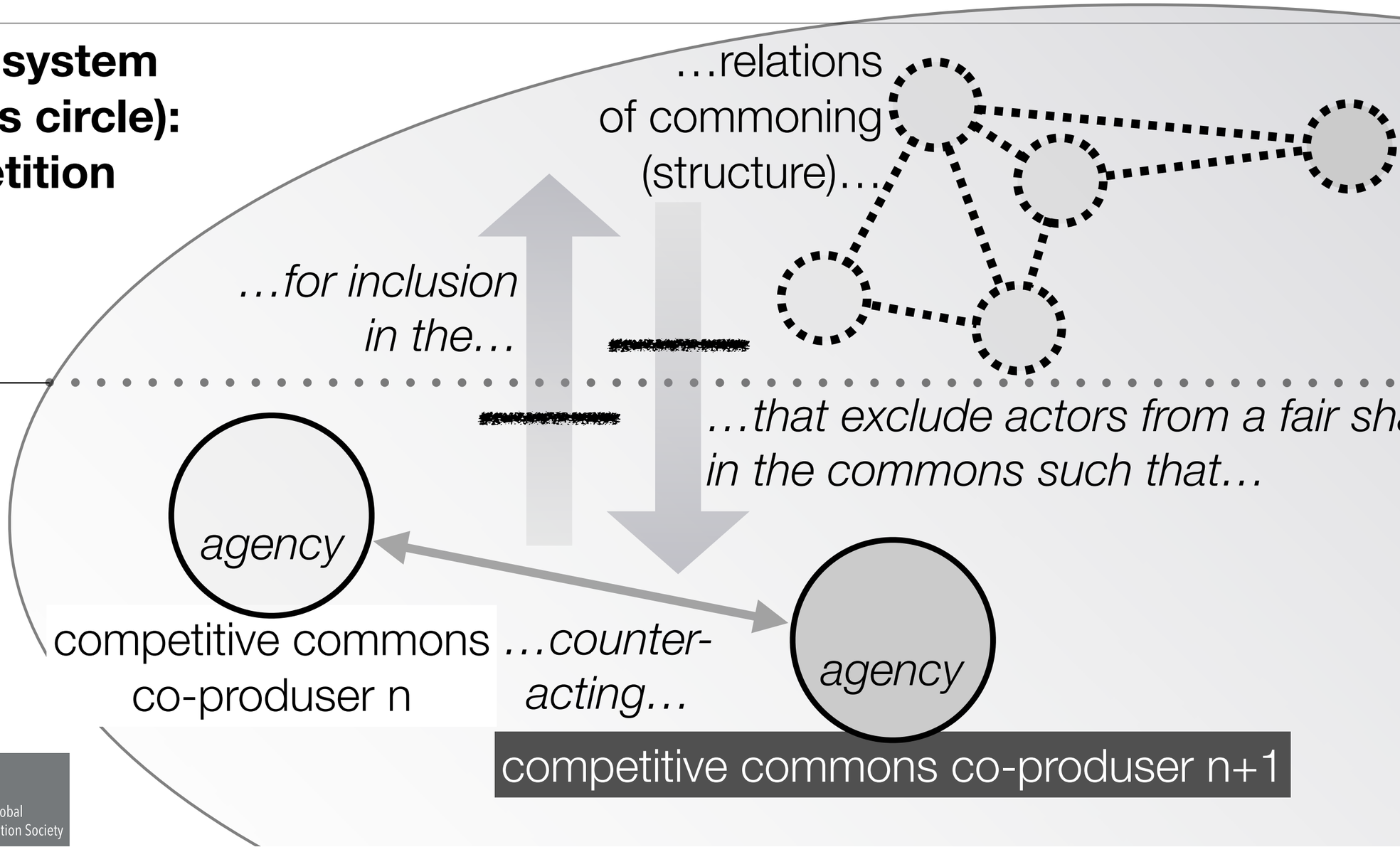
1.2.2 Virtuous vs. vicious circles

Social system (vicious circle): competition



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1.2.3 In the age of global challenges

Nascent Global Sustainable Information Society (virtual circle)

…possible **global** commoning relations…

macro-level

micro-level

…which inhibits the realisation of…

*…that would provide **sustainable** conditions for survival and good life of…*

agency

humanity part n (failing requisite **information**)

…counter-acting…

agency

humanity part n+1 (failing requisite **information**)

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1.2.3.1 A new meaning of globality

	evolution of complex systems	**social evolution at the Great Bifurcation**
holarchies: growing together for continuing evolution	when independent systems have become interdependent, level evolution can be punctuated* by a **metasystem transition**** onto the next level: a **holon***** can emerge, nesting the interdependent systems	**alter-globalisation**: social systems and their actors cannot thrive or survive unless, at a tipping point****, they **become nested in a superordinate world system – on the level of all humanity –** that allows to continue social evolution by **global governance**

* Stephen J. Gould; **Francis Heylighen et al.; *** Arthur Koestler; **** Ervin László

1.2.3.2 A new meaning of sustainability

	evolution of complex systems	**social evolution at the Great Bifurcation**
stability: shaping the whole for unity through diversity	when the new structure enters into operation, it can **(re)organise** the stability of the suprasystem and its elements through compliance of functions with **unity through diversity*** and containment of dysfunctions	**sustainabilisation as spreading conviviality****: the world system cannot be governed unless **global commoning is implemented** and sociogenic dysfunctions are kept below a threshold the transgression of which would discontinue social evolution

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* Ludwig von Bertalanffy; ** Ivan Illich

1.2.3.3 A new meaning of information(ality)

	evolution of complex systems	**social evolution at the Great Bifurcation**
collective intelligence: generating requisite information for catching up with complexity	when the suprasystem is undercomplex in the face of problems, collective intelligence constituted by its elements can trigger an **information revolution*** and create the **requisite information** for solving the problems	**generating informedness before and above informatisation****: global governance, global commoning cannot be achieved unless **global thinking** creates **requisite data, knowledge, and wisdom** for a good society containing sociogenic dysfunctions and continuing social evolution

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* James R. Beniger; **Simon Nora/Alain Minc

2 Anthropo(socio)genesis from a complex systems view (1/4)

- "Novacene" – a coming age of hyperintelligence*?
  Posthumans will not be made of flesh but be, completely, electronic. We will not know how they will call the age in which the humans passed away.

- Beginning of an Anthropocene**?
  Geologists are searching for an artifact that will give future evidence of humans having become a (disruptive) geological force.

- Noogenesis – the development of a Noosphere***?
  Humanity started from the outset – through work, science and technology – to create a sphere of reason and thought by which they have been impacting on the biosphere in a comparable way as the biosphere has been impacting on the geosphere.

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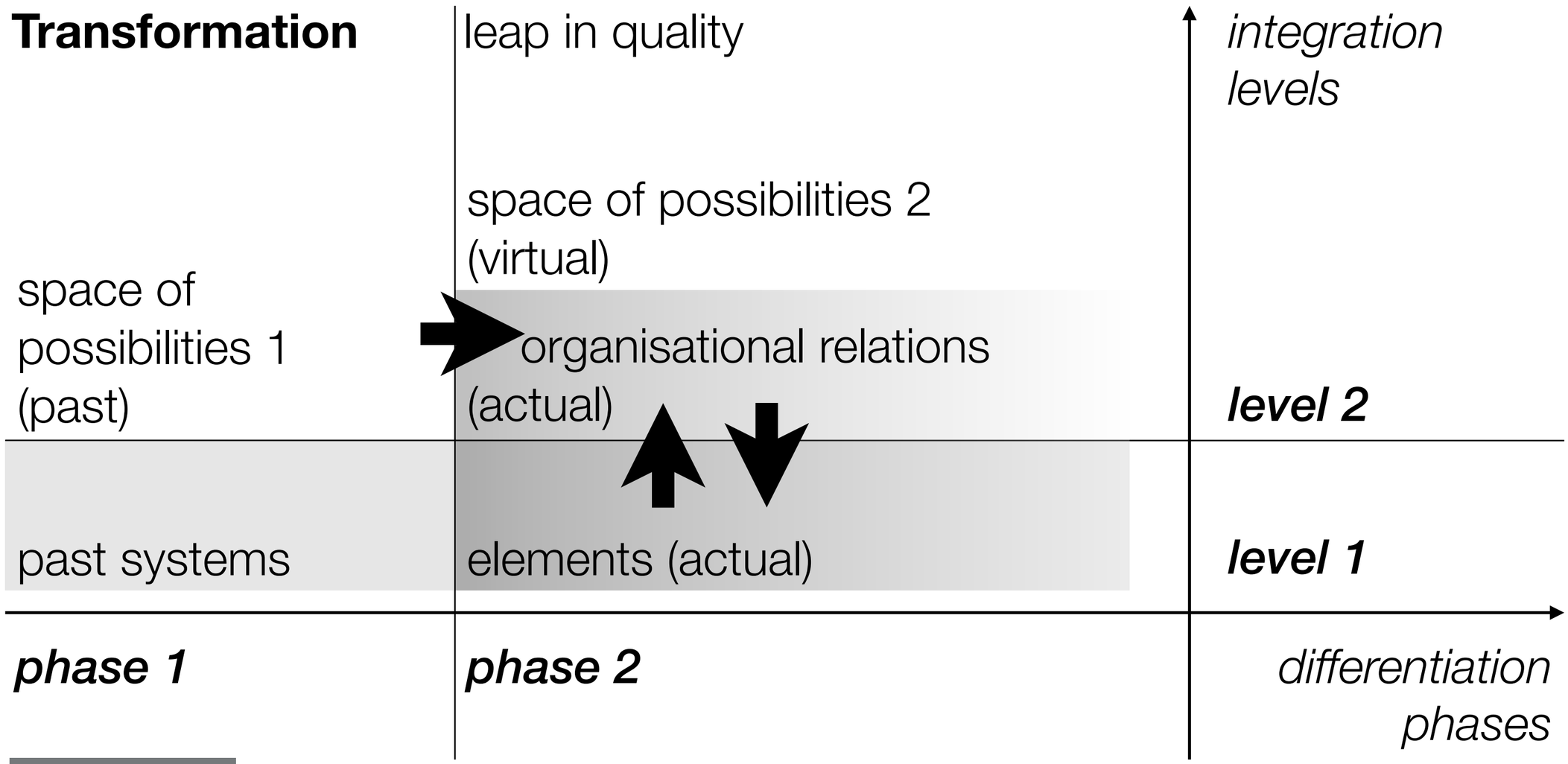
* James Lovelock; ** Paul Crutzen; *** Vladimir I. Vernadsky, Pierre Teilhard de Chardin et al.

2 Anthropo(socio)genesis from a complex systems view (2/4)

Leaps in quality emerge as **novel organisation**. Thus, change on the **top-most level** is decisive.

2 Anthropo(socio)genesis from a complex systems view (3/4)



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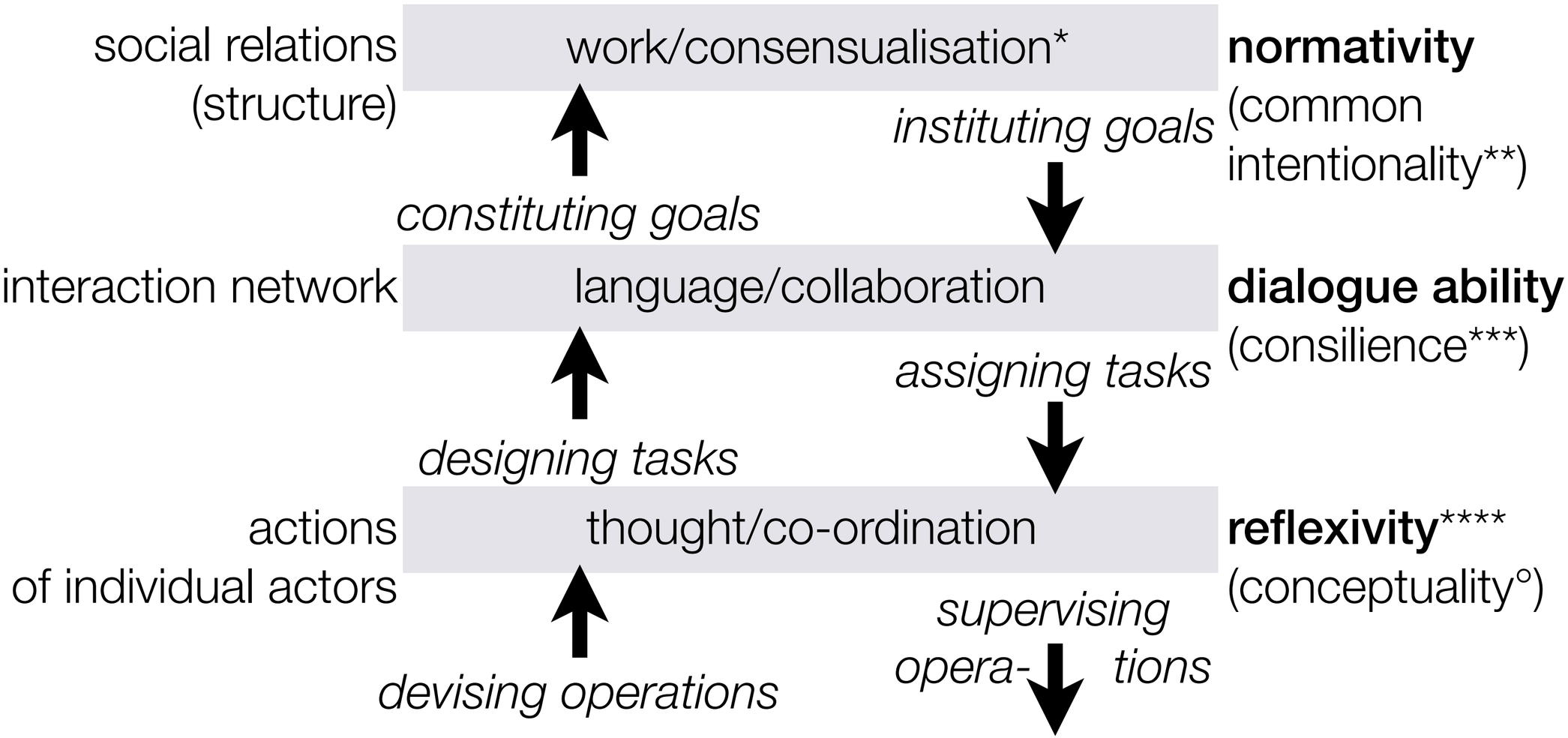
2 Anthropo(socio)genesis from a complex systems view (4/4)

- Social information levels
- Social information phases

2.1 Social information levels (1/2)

Work – language – thought: distinct human features

2.1 Social information levels (2/2)



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* Hermann Haken; ** Michael Tomasello; *** Edward O. Wilson; **** Margaret S. Archer; ° Robert K. Logan

2.2 Social information phases

- Shift in co-operation from individual to joint intentionality*
- Shift in co-operation from joint to collective intentionality*
- Shift in co-operation from collective to universally shared intentionality

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* Michael Tomasello

2.2.1 The first step in anthropo(socio)genesis (1/2)

Individual intentionality* as point of departure:

- **chimpanzees** of today as well as **common ancestors** of chimpanzees and humans maybe up to hominins (about 6 m yrs ago)
  - co-operation in foraging situational, driven by **self-interest**, rather competitive (once a group succeeded in achieving food, they eat without co-operation features)
  - **no need for** the taking in **consideration of common goals**
    – **no need for** thinking on **a level beyond the actual ego-centric perspective**

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* Michael Tomasello

2.2.1 The first step in anthropo(socio)genesis (2/2)

Joint intentionality*:

- **early humans**, hunter and gatherers (about 400.000 yrs ago)
- **dyadic** co-operation, driven by **"second-person morals"** (agreements for a common way of exploiting food sources of at least two partners)
  – acceleration of biotic evolution through insertion of "social" factors (co-operation partners were evaluated)
- **a need for acknowledging a common goal**, that is, understanding that the partner shares the goal, and that both are committed to act according to its achievement

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* Michael Tomasello

2.2.2 The second step in anthropo(socio)genesis

Collective intentionality*:

- **early humans** (about 150.000 to 100.000 yrs ago)

- **triadic** co-operation, driven by **"objective morals"** (the "generalised other"**)
  – social evolution has become dominating biotic evolution since

- **a need for group thinking**, that is, knowing that any person belonging to the same group culture can be expected to share same values and norms
  – by **constructing a meta-level** any group member can imagine the whole of the group, the roles taken, her own as well as others' replaceability

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* Michael Tomasello; ** George Herbert Mead

2.2.3 A possible third step in anthropo(socio)genesis (1/2)

After two leaps of quality in the becoming of humankind, **another leap is in reach**.

In order to catch up with the evolution of the world in reality, social information needs to **extend the scope** of
– co-operation,
– communication, and
– cognition
to the whole of humanity.

Information imperatives express requirements in a world in crisis.

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2.2.3 A possible third step in anthropo(socio)genesis (2/2)

Universally shared intentionality:

- **humans in the age of global challenges** (since about WW II)
- **"omniadic"** (all-encompassing) co-operation, driven by **concerns to cope with global challenges** (all mankind)
  – social evolution lags behind the complexity of its own achievements
- **a need for anticipating future social relations** that catch up with the complexity of global challenges

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3 The rise of global citizens

- Social information imperatives
- Global citizenship

3.1 Social information imperatives

	general anthropological setting		**imperatives for global citizenship**
	function	**feature**	
normative co-operative information	**consensual-isation*** (dedication**)	**common intention-ality***** (goal, point of departure, way)	**hyper-commonism!** (global consciousness, including conscience)
dialogical communicative information	**collaboration** (deliberation**)	**consilience******** (help-, truthfulness***, perspectivism°)	**all-inclusiveness!** (global conversability°°°)
reflexive cognitive information	**co-ordination** (discernment**)	**conceptuality** (generalisability°°)	**meta-reflexivity**!** (global concernedness)

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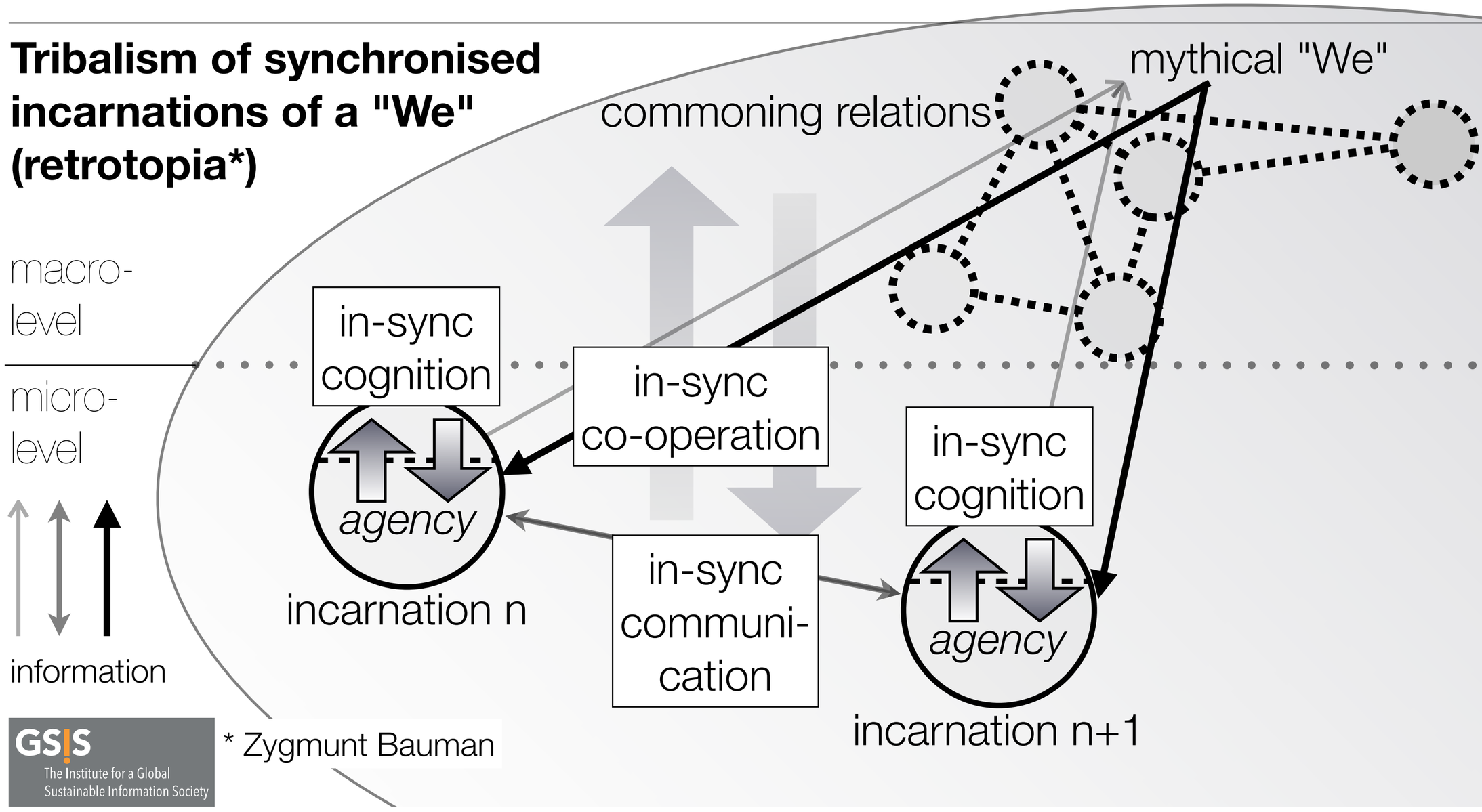
° Ludwig von Bertalanffy; °° Robert K. Logan; °°° Bernard C. E. Scott

3.2 Global citizenship

- Animal sociale
- Homo idioticus
- Homo sociale

3.2.1 Animal sociale

Tribalism of synchronised incarnations of a "We" (retrotopia*)



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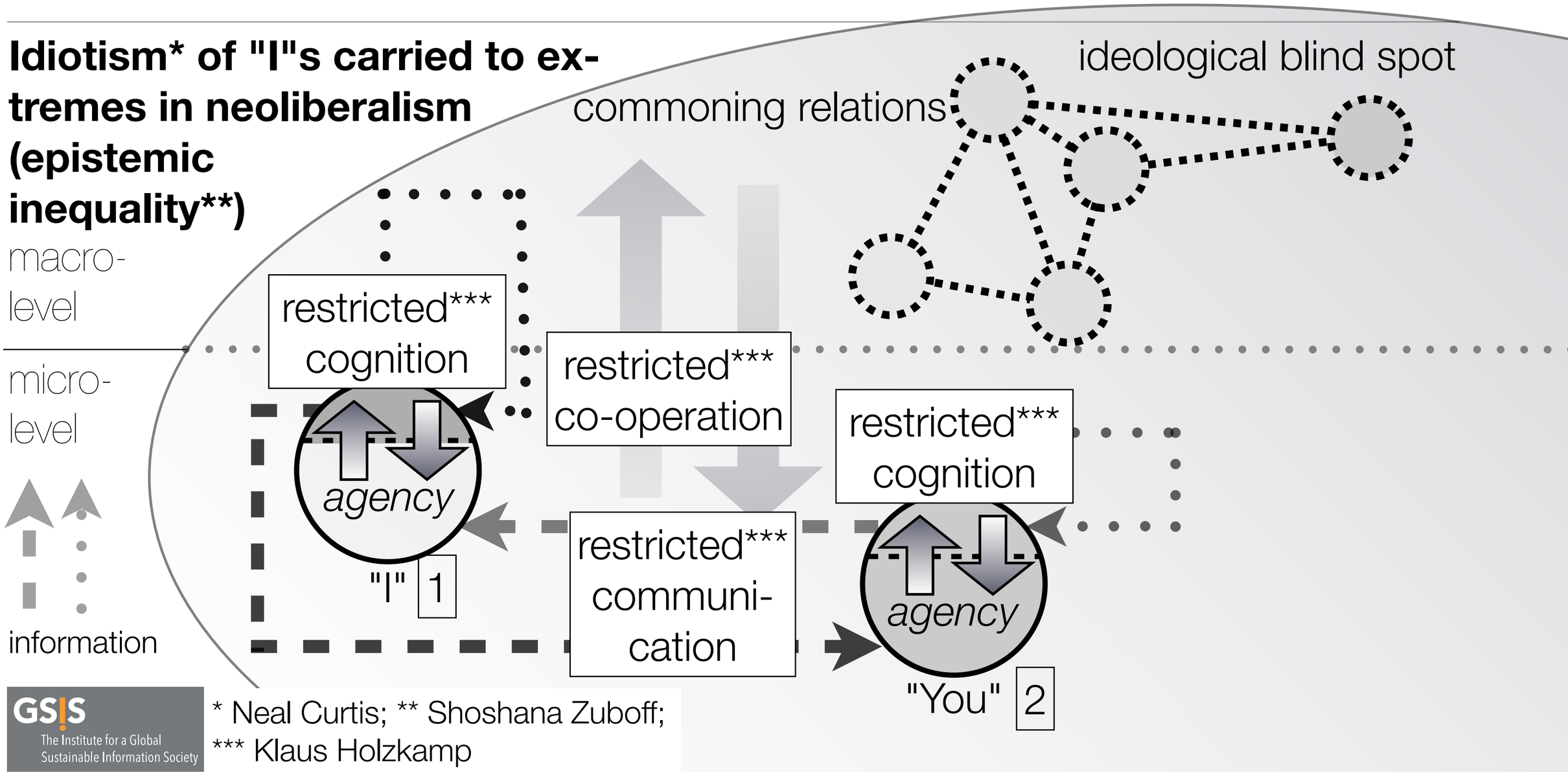
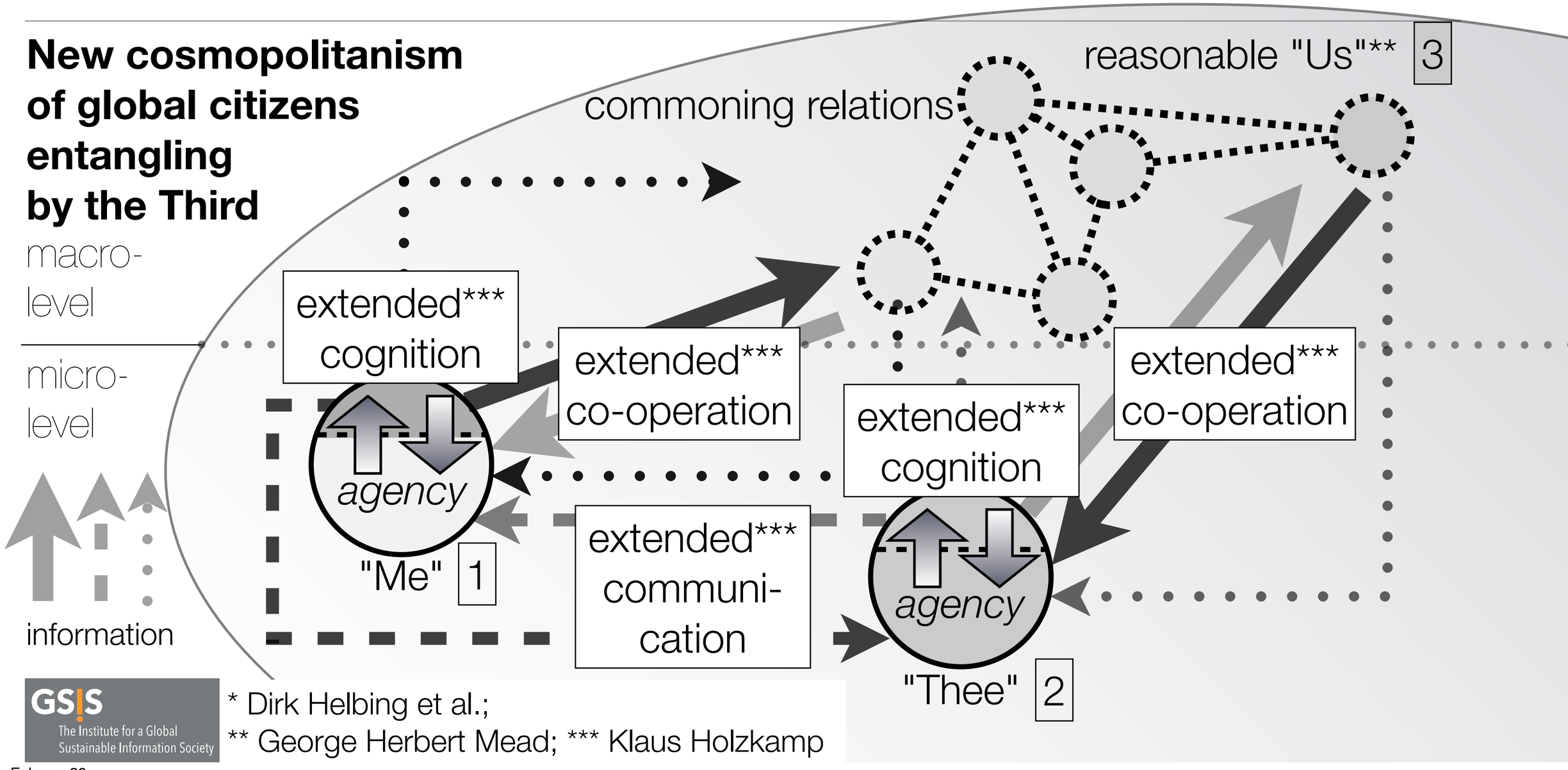
* Zygmunt Bauman

3.2.2 Homo idioticus



3.2.3 Homo socialis*

New cosmopolitanism of global citizens entangling by the Third



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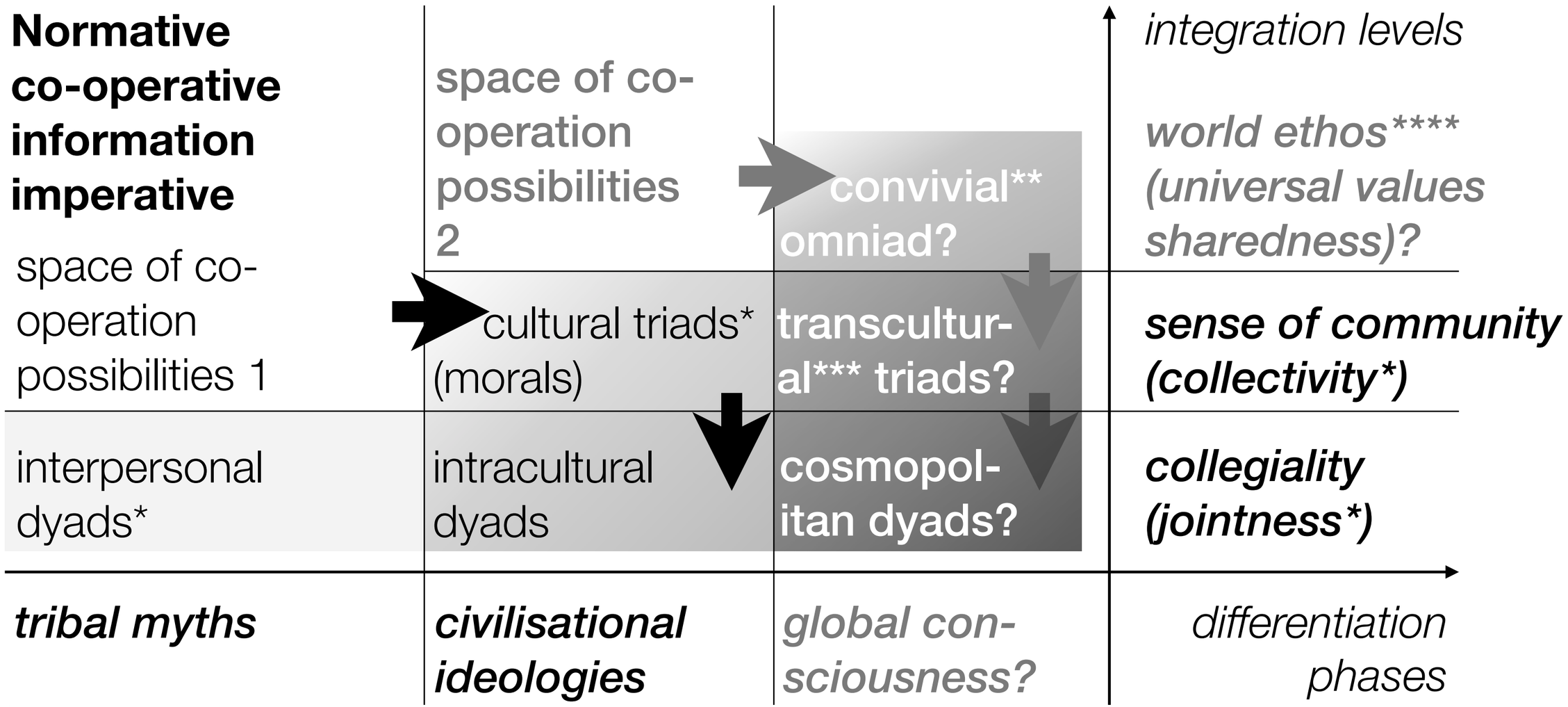
* Dirk Helbing et al.;
** George Herbert Mead; *** Klaus Holzkamp

3.2.3.1 Extended co-operation: Leap in normativity to hyper-commonism in a global public sphere?



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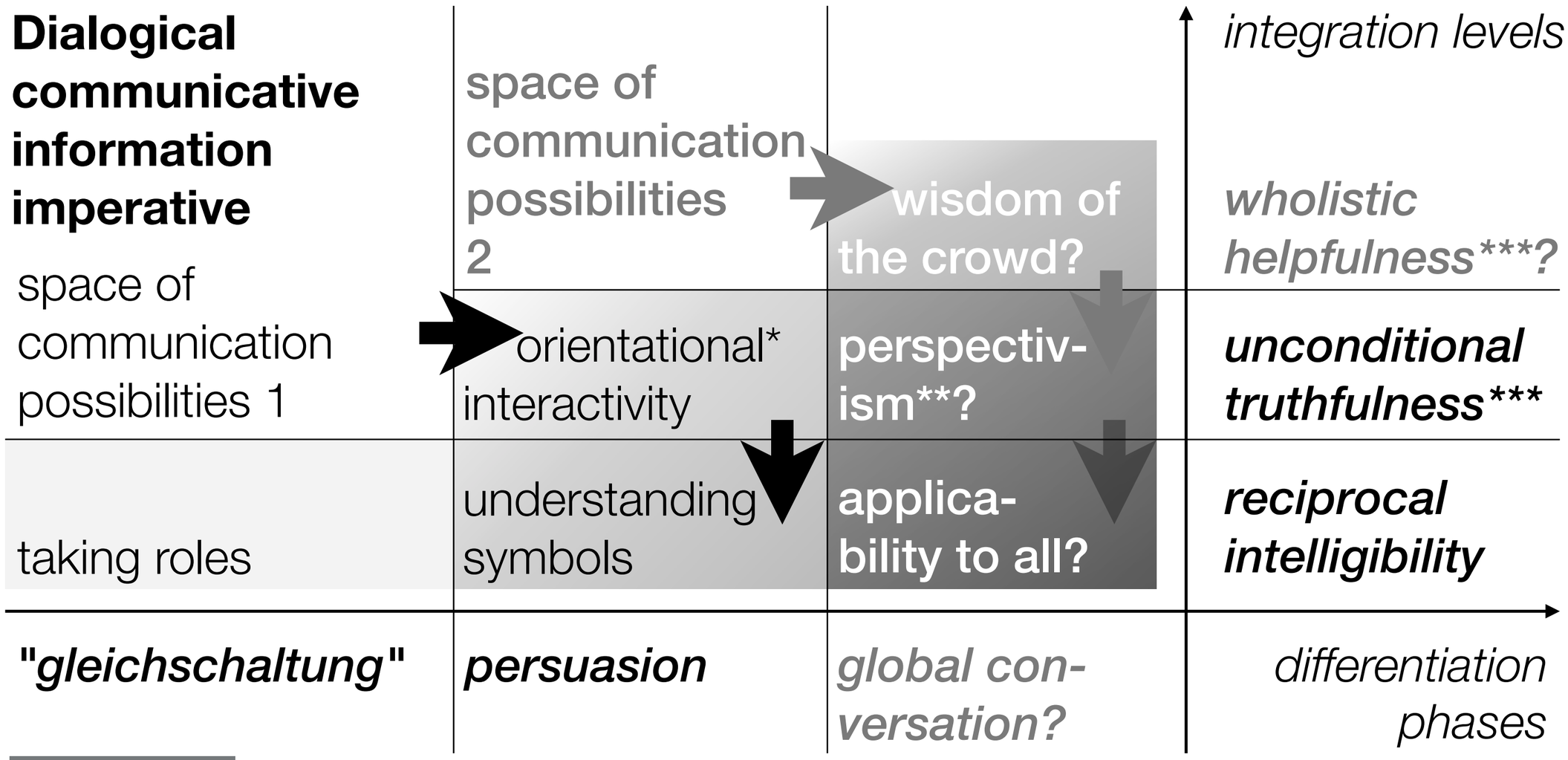
* Michael Tomasello; ** Ivan Illich; *** Wolfgang Welsch; **** Hans Küng

3.2.3.2 Extended communication:
Leap in dialogue ability to all-inclusiveness in global spaces?

Dialogical communicative information imperative



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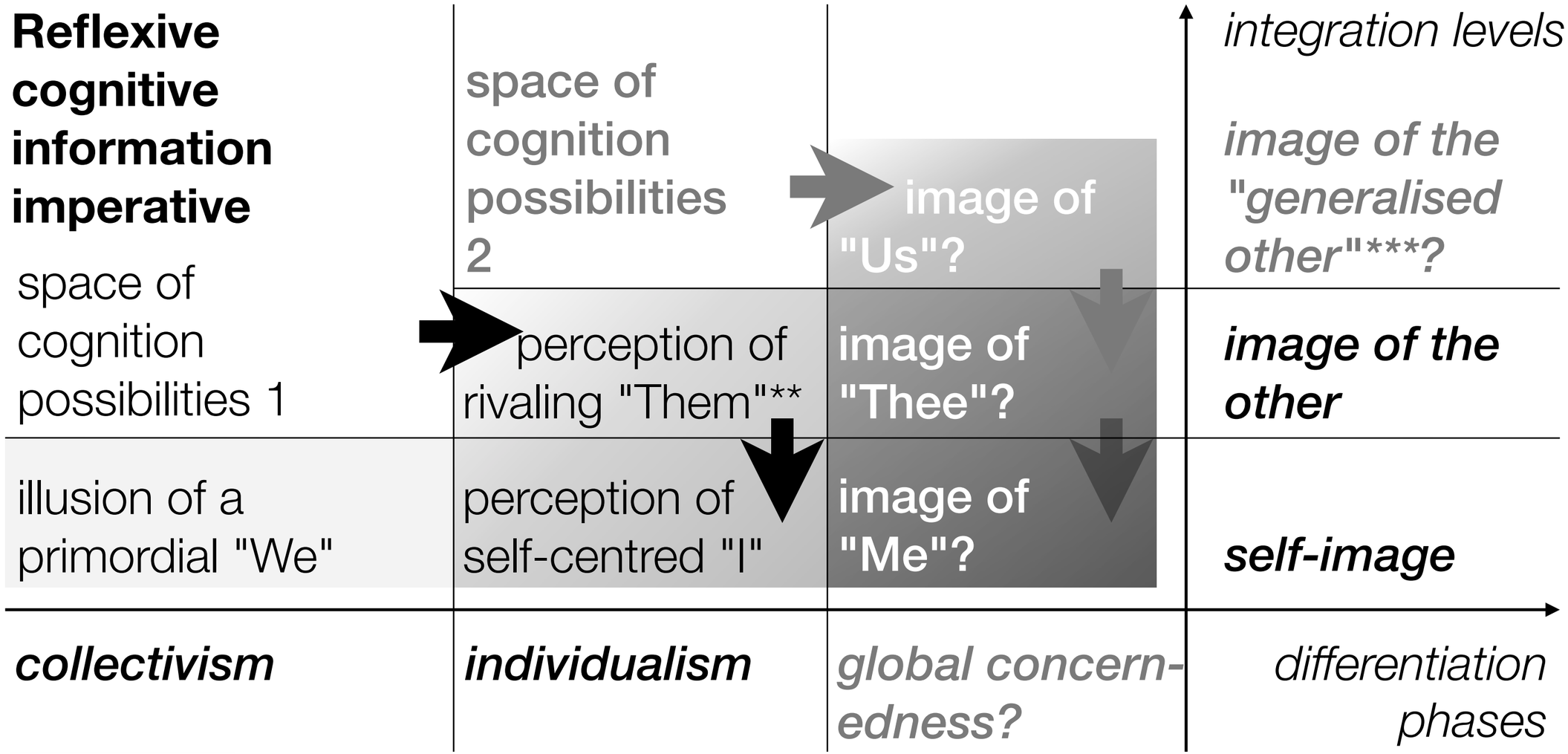
* Jürgen Mittelstraß; ** Ludwig von Bertalanffy; *** Michael Tomasello

3.2.3.3 Extended cognition:
Leap in reflexivity to meta-reflexivity* of global citizens? (1/5)



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* Margaret S. Archer; ** Chantal Mouffe; *** George Herbert Mead

3.2.3.3 Extended cognition: Leap in reflexivity to meta-reflexivity* of global citizens? (2/5)

- *Objective condition 1:* The **becoming of humans and humanity is not yet finished**. No trans- or posthumanism that focus on the individual are needed. **To cope with the global challenges** that put our civilised existence at stake **global citizens are needed**. If global citizens succeeded to cope with the challenges (and transformed our societies into a single Global Sustainable Information Society as meta-/suprasystem), humanity would accomplish the **third step to anthropo(socio)genesis**.

- *Objective condition 2:* The third step might be achieved by complying with the co-operative, communicative and cognitive **information imperatives**.

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* Margaret S. Archer

3.2.3.3 Extended cognition: Leap in reflexivity to meta-reflexivity* of global citizens? (3/5)

- *Subjective condition 1:* In order to understand the necessity of those imperatives, global citizens need to reflect on the establishment of a higher-order world system through **transnational relations that respect the social, ecological and technological commons on a planetary scale**. Such relations are **the Third global citizens need to design today**.

- *Subjective condition 2:* To be able to reflect on a Third, **systemic thinking** is needful **to master another step in our evolution**.

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* Margaret S. Archer

3.2.3.3 Extended cognition: Leap in reflexivity to meta-reflexivity* of global citizens? (4/5)

- *Feature of systemic thinking 1:* Systemic thinking needs to **focus on future social relations** that are not yet actualised. It needs to anticipate them ideationally on a new meta-level, it needs to anticipate the meta-/ suprasystem transition of the social systems. Thus, **the Third is a conjecture to be devised** in order to represent a solution to real-world problems.

- *Feature of systemic thinking 2:* Systemic thinking does not only need to anticipate what is desirable but needs to explore which desirable is also **possible** in the here and now. Only what is potential can be actualised. Thus, it **looks in the space of possibilities now for the foreshadowing of something that might become a future Third**.*

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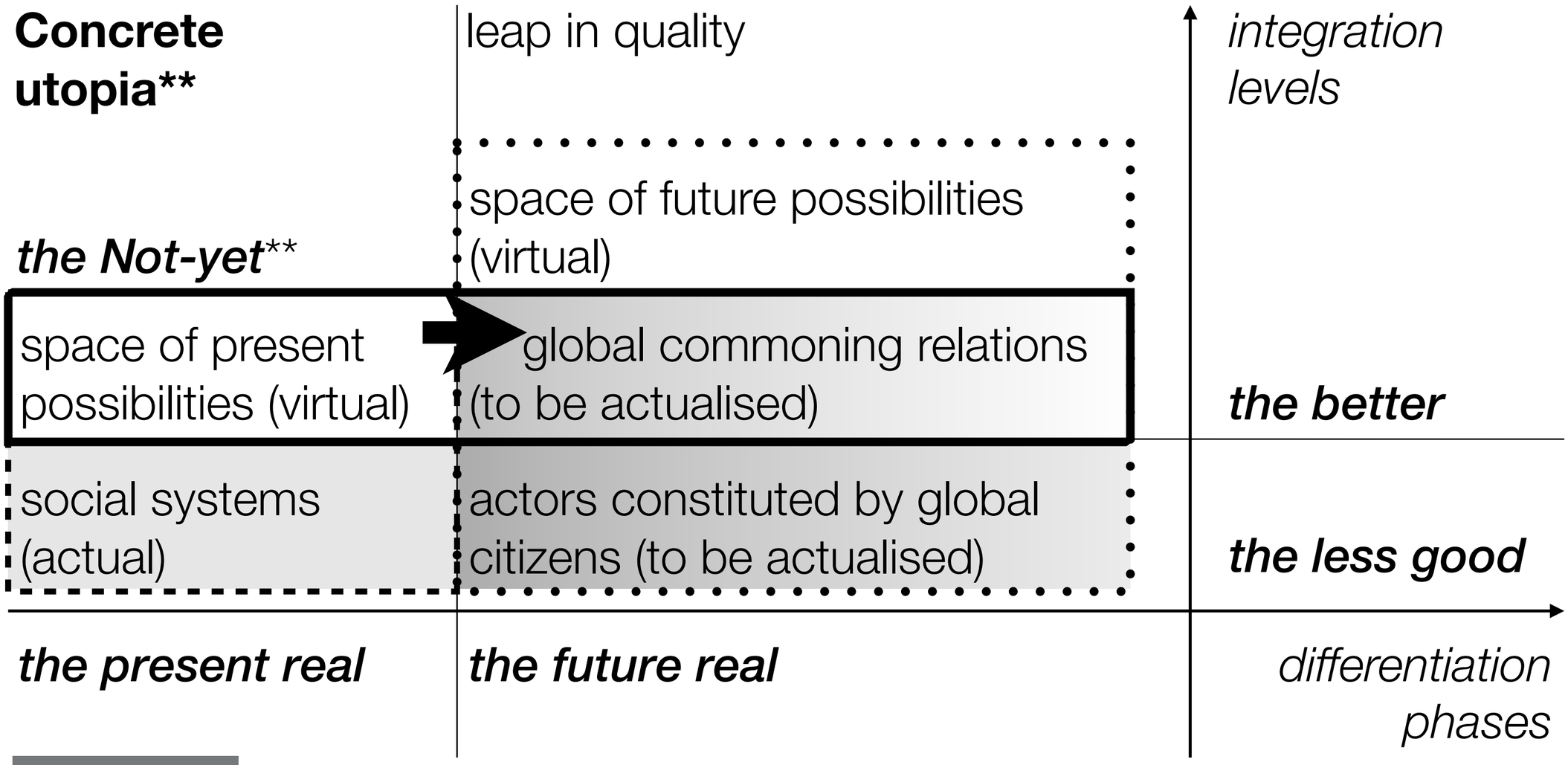
* Margaret S. Archer; ** Ernst Bloch

3.2.3.3 Extended cognition: Leap in reflexivity to meta-reflexivity* of global citizens? (5/5)



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* Margaret S. Archer; ** Ernst Bloch

Thank you!