Reflections on Computer Science, Society and Ethics 3
Ethics I:
Social self-organisation in times of global challenges

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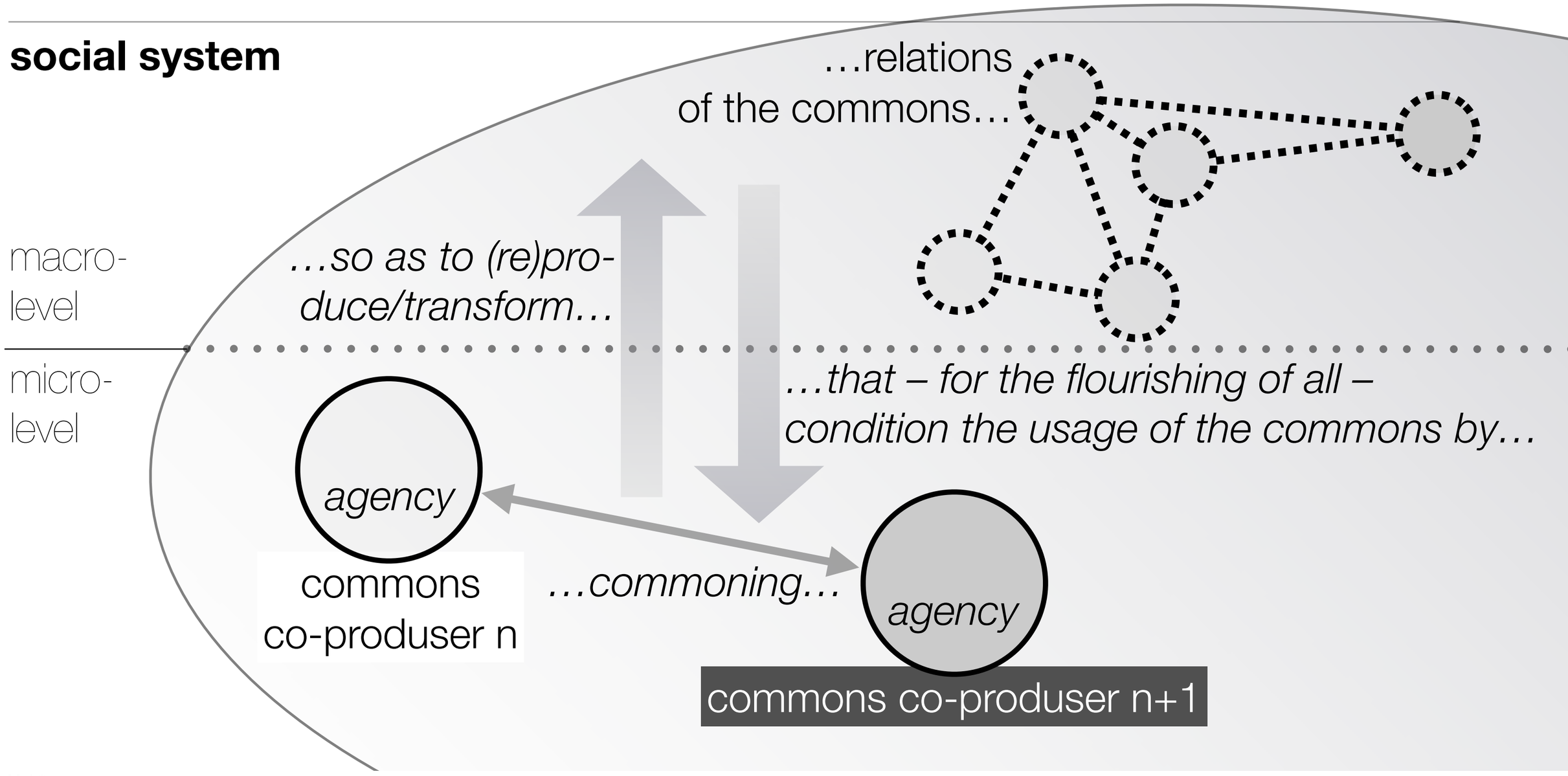
IMC Krems, 11 May 2021

Contents

1 Global challenges

1.1 The commons going dysfunctional



1.1.1 Co-operation (default type of social relations)

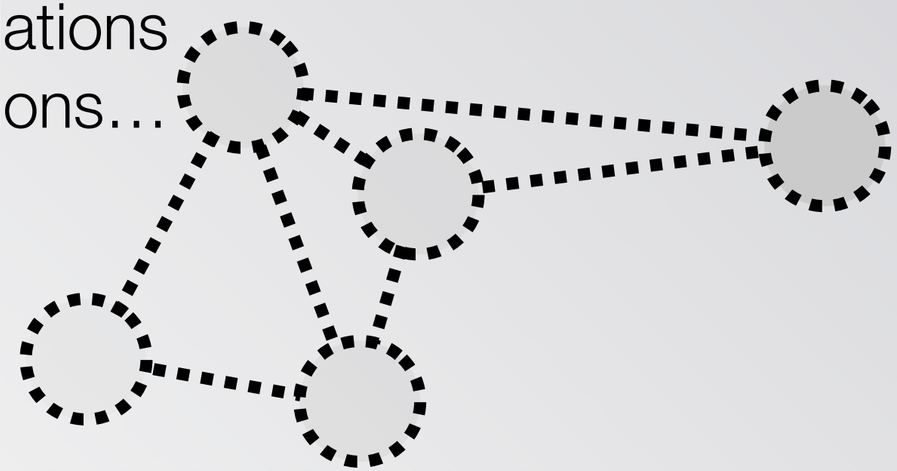
social system of co-operation: virtuous circle (spiralling up)

macro-level

micro-level

…so as to share in the production of…

…relations of the commons…



…the usage of which is shared by…

agency

commons co-produser n

…commoning…

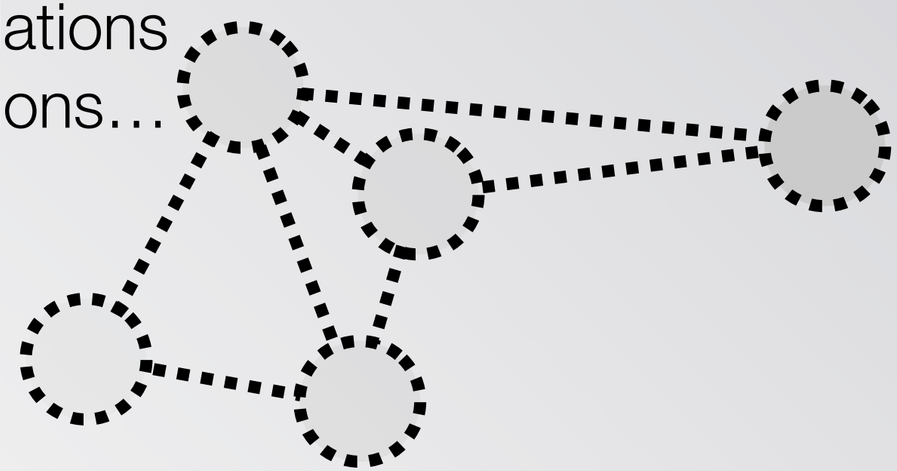
agency

commons co-produser n+1

1.1.2 Competition (dysfunctional type of social relations)

social system of competition: vicious circle (spiralling down)

…relations of enclosed commons…



macro-level

micro-level

…for inclusion in…

…that exclude actors from a fair share in the commons, thus igniting ever more…

agency

commons co-produser n

…competing…

agency

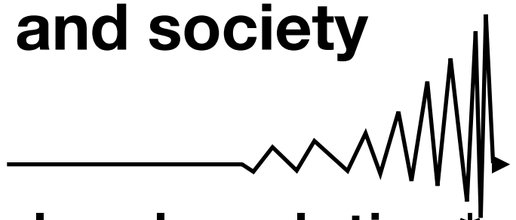
commons co-produser n+1

1.1.2 Competition (dysfunctional type of social relations)

History has shown a progressive enclosure of the commons that are the synergistic *raison d'être* of social systems. The expropriation of the common good on a planetary scale caused **global challenges** that might **inflict extinction** on the human species, since **soci(et)al relations**
– **among humans** (e.g., the imperial mode of living),
– **between humans and nature** (e.g., the climate change) and
– **between human and technology** (e.g., the atomic age)
are not functional anymore.

1.2 An evolutionary crisis in anthroposociogenesis (1/3)

bifurcations in the evolution of self-organising systems in nature and society

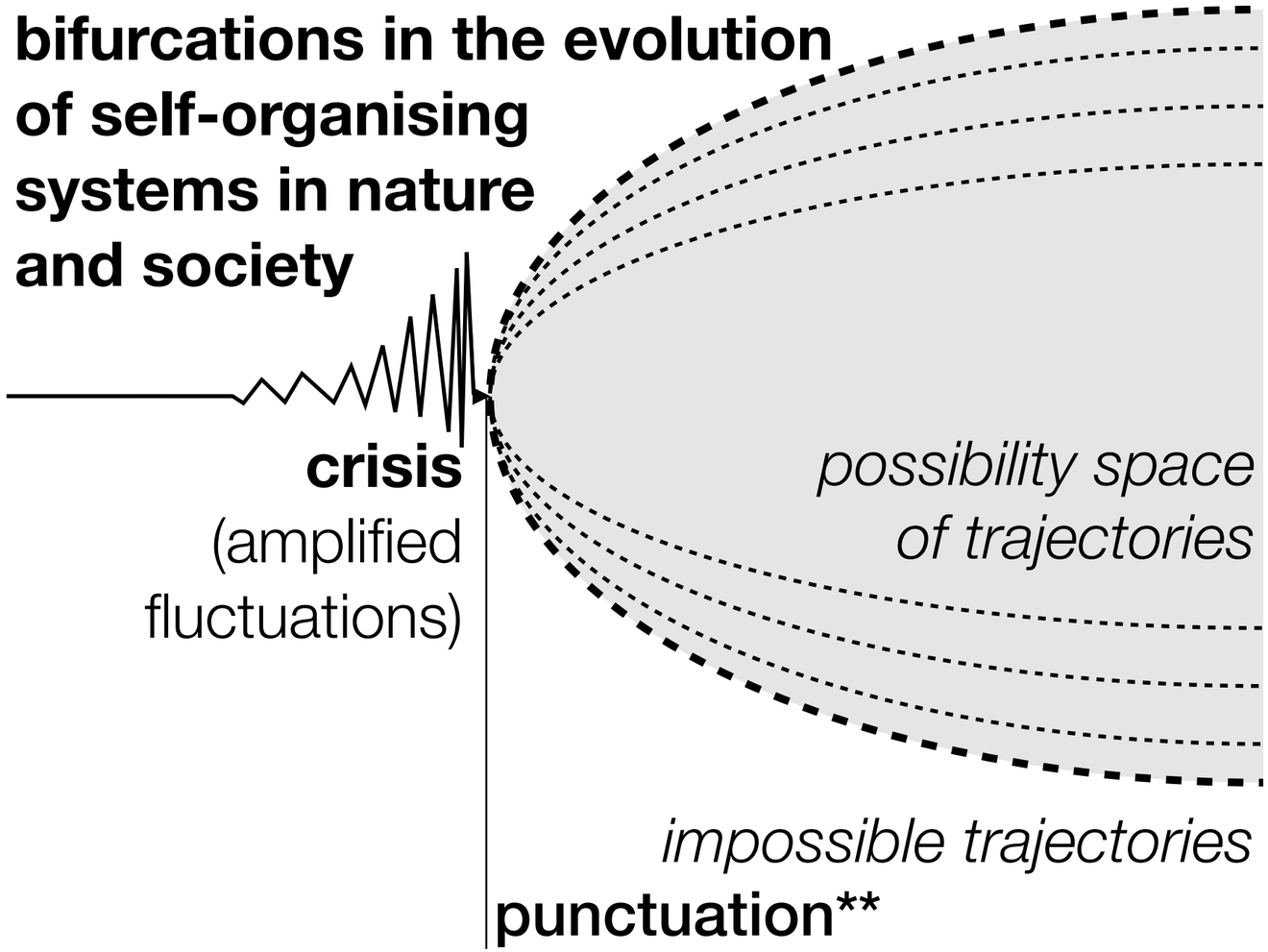


level evolution*

(stability)

* Klaus Haefner, Erhard Oeser

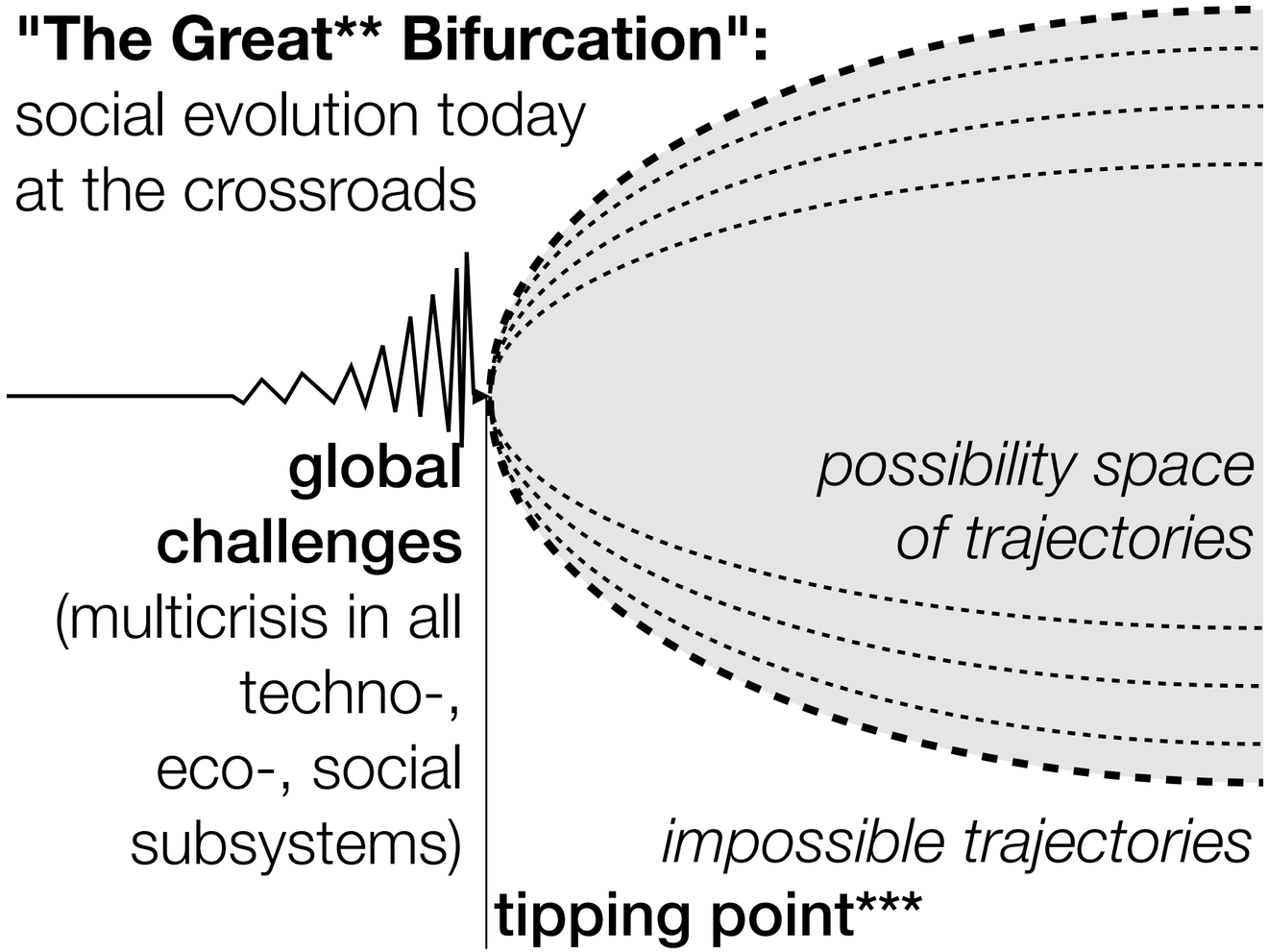
1.2 An evolutionary crisis in anthroposociogenesis (1/3)



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

1.2 An evolutionary crisis in anthroposociogenesis (1/3)

"The Great Bifurcation":**
social evolution today
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 – a **Global Sustainable Information Society**

devolution:
disintegration of any social system

* Klaus Haefner, Erhard Oeser; ** Karl Polanyi; *** Ervin László

1.2 An evolutionary crisis in anthroposociogenesis (2/3)

The evolution of humanity faces the tipping point of a **Great Bifurcation**:

– On the one hand, global challenges **put the thriving/surviving of our species at stake**.
– On the other hand, global challenges **can be mastered through a** techno-eco-social **transformation into a Global Sustainable Information Society**.
Accomplishment of the following properties:
– globality =def. meta-/suprasystem transition to a true world system
– sustainability =def. reorganisation to keep dysfunctions below a threshold the transgression of which would make the world system fall apart
– informationality =def. collective intelligence to generate requisite information for catching up with the complexity of the global challenges

1.2 An evolutionary crisis in anthroposociogenesis (3/3)

nascent Global Sustainable Information Society

macro-level

micro-level

…possible **global** relations of commons…

…which can trigger the realisation of…

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

agency

humanity part n

*…acting mindful of requisite **information**…*

agency

humanity part n+1

2 Anthroposociogenesis as noogenesis (1/2)

Ethics is the philosophical (scientific) or every-day **reflexion of morality**. It is a meta-level phenomenon, while morality is on the object-level.

Morality is a **property of social systems**. It is part of normativity and implies a reference to **goodness**.

Normativity is a **general property of social systems**. It regulates the behaviour of the actors through **norms, values and interests**, be they moral or not. Ethics can influence morality.

– How did normativity come about in the evolution of humanity? Which point in the evolution did humanity reach today?

2 Anthroposociogenesis as noogenesis (2/2)

Noogenesis:

According to Vladimir I. Vernadsky* in the 1930s, humans started from the outset – through work, science and technology – to create a planetary sphere of reason and thought – the **noosphere** – by which they have been shaping the **biosphere** to a similar extent as the biosphere had been shaping the **geosphere** in longer periods before. Thus, it was the destination of mankind to become a geological factor as described by the term "Anthropocene"** at the turn of the millennium.

The noosphere is home of normativity.

* Vladimir I. Vernadskij; ** Paul Crutzen, Eugene F. Stoermer

2 Anthroposociogenesis as noogenesis

Three steps in the evolution of normativity:

- 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

* Michael Tomasello

2.1 The first step accomplished (1/2)

Individual intentionality* as point of departure for normativity:

- **humans' last common ancestors** with other apes (about 6 m yrs ago), similar to contemporary chimpanzees

- **monadic** co-operation embedded in competition, driven by **self-interest** (fighting – with a partner – for dominance with a competitor; in capturing small prey, they use one another as tools to maximise their own gain)

- **no need for** the taking into **consideration of common goals** – **no need for** thinking on **a level beyond the actual ego-centric perspective**

* Michael Tomasello

2.1 The first step accomplished (2/2)

Joint intentionality* as first step to normativity:

- **early humans**, female and male hunters/gatherers (around 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 (social selection: partner choice evaluated for co-operation)
- **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 (sympathy and fairness against cheats and free riders)

* Michael Tomasello

2.2 The second step accomplished

Collective intentionality* as second step to higher normativity:

- **modern humans**, tribes (some 150.000 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' responsibility

* Michael Tomasello; ** George Herbert Mead

2.3 A possible third step envisioned

Universally shared intentionality as third step to still higher normativity:

- **humans in the age of global challenges** ("Anthropocene"*)
- **"omniadic"** (all-encompassing) co-operation, driven by **a principle of common humanity**** (internalisation of the world***, transnational politics)
  – 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 ("self-limitation"°)
  – by constructing the next meta-level of **global consciousness and global conscience** to prevent actions detrimental to the common good for all

* Paul Crutzen, Eugene F. Stoermer; ** Convivialist International; *** Tingyang Zhao; ° Ivan Illich

3 Conclusion

Another step to update normativity is necessary and possible. It would boost **hominisation** through **humanisation**.

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Reflections on Computer Science, Society and Ethics 3
Ethics II:
Normativity in times of global challenges

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Contents

1 Normativity as social systems property (1/2)

The structure of society **inheres objective functions**.
Any system has objective functions that need to be fulfilled to provide synergy effects. They are constraints and enablers for the elements.

Social systems' objective functions are set by the actors around the provision of the common good.
– Those functions need, on the one hand, to be served by the actors and are thus perceived by them as **duties** (while from the system's angle it is rights for the community of all)
– and allow, on the other hand, for the actualisation of a vast potential of future actions and are thus perceived as **rights** of the actors (and as duties for the community of all from the system's angle, respectively).

1 Normativity as social systems property (2/2)

A **norm** is a collective expectation that represents an **imperative to act** in a determinate way ("you ought to do X in circumstances Y").

A **value** is a collective attribution that represents the **meaningfulness** of an object ("Z is true", "Z is beautiful", "Z is good").

An **interest** is a propensity for an individual **intention that depends upon a collective entitlement** ("I intend to appropriate Z in a way that is my proper right or duty").

Norms, values, interests **motivate individual agency enactment with view on structural objective functions**. That's how behaviour is regulated.

1.1 The correspondence of rights and duties in society

	structure of society		**individual agency**	
	function	**objective**	**enactment**	**motivation**
social system of any kind	**self-production** (re-creation*, social morpho-genesis** and social morpho-stasis – transformation and reproduction)	**social cohesion** (justice, inclusive provision of the common good, conviviality, synergetic social relations – *unity as little as necessary*)	**self-invention** (self-trans-cendence as well as identity in any action)	**dignity** (self-worth, sense of self and togetherness, underpinned by consciousness and conscience – *diversity as much as possible*)

* Erich Jantsch; ** Walter Buckley, Margaret S. Archer

1.2 The correspondence of rights and duties in social, eco-social, and techno-(eco-)social systems

	structure of society		**individual agency**	
	function	**objective**	**enactment**	**motivation**
social system	**self-production** (re-creation)	**social cohesion** (justice)	**self-invention** (any action)	**dignity** (self-worth)
eco-social system	**self-mainten-ance**	**survivability** (life supportiveness)	**self-preservation** (any labour act)	**physical well-being** (natural integrity)
techno-(eco)-social system	**self-operation**	**efficiency, efficacy** (smoothness)	**self-actuation** (any activity)	**user experience** (tool literacy based usefulness)

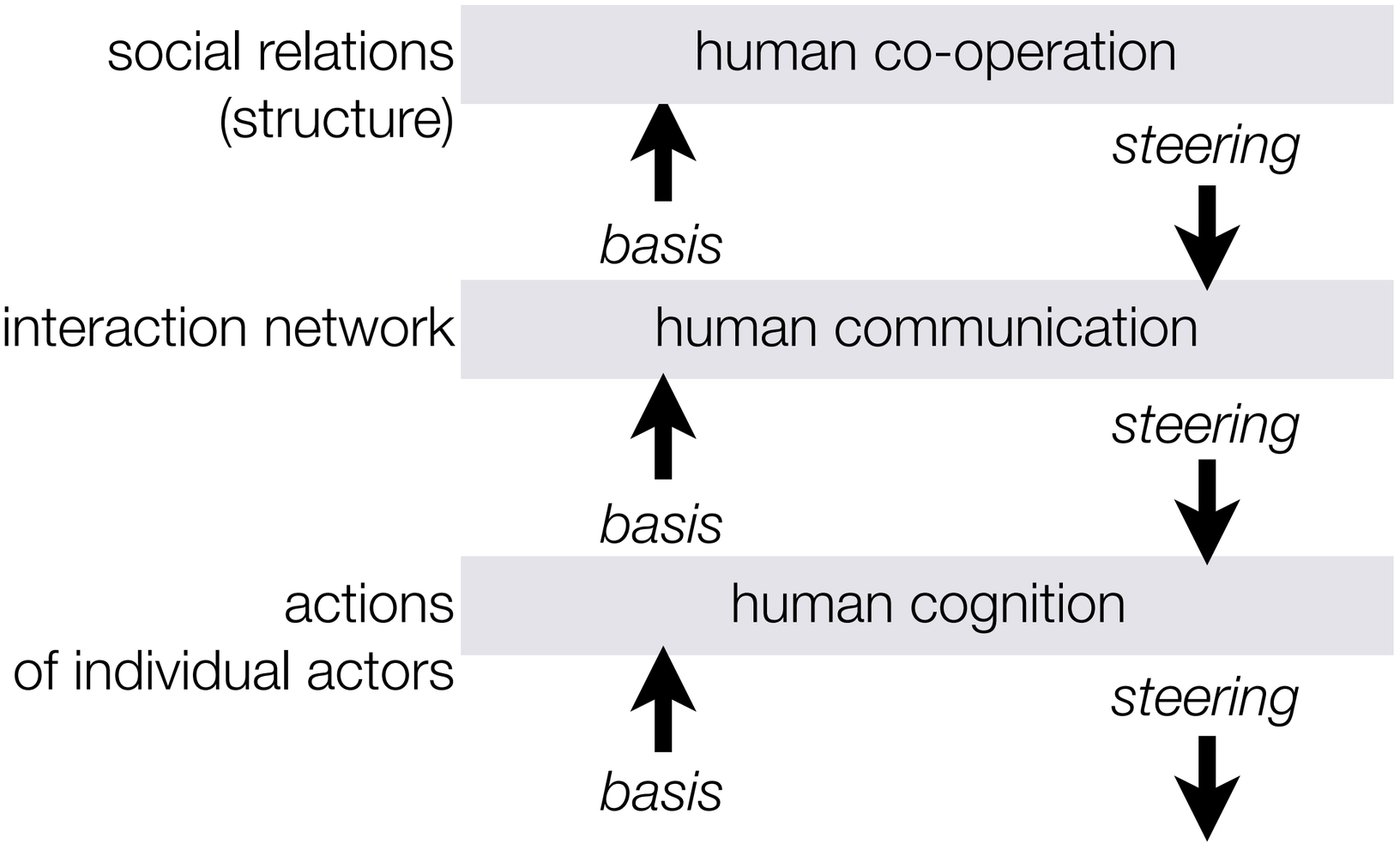
1.3 The correspondence of rights and duties in cultural, political and economic systems

	structure of society				**individual agency**			
	function		**objective**		**enactment**		**motivation**	
cultural system	**self-production** (re-creation)	self-creation	**social cohesion** (justice)	equ(al)ity	**self-invention** (any action)	self-fulfilment	**dignity** (self-worth)	recog-nition
political system		self-government		liberty, freedom		self-determination		empower-ment
economic system		self-sustenance		solidarity, subsidiarity		self-reliance		security, safety

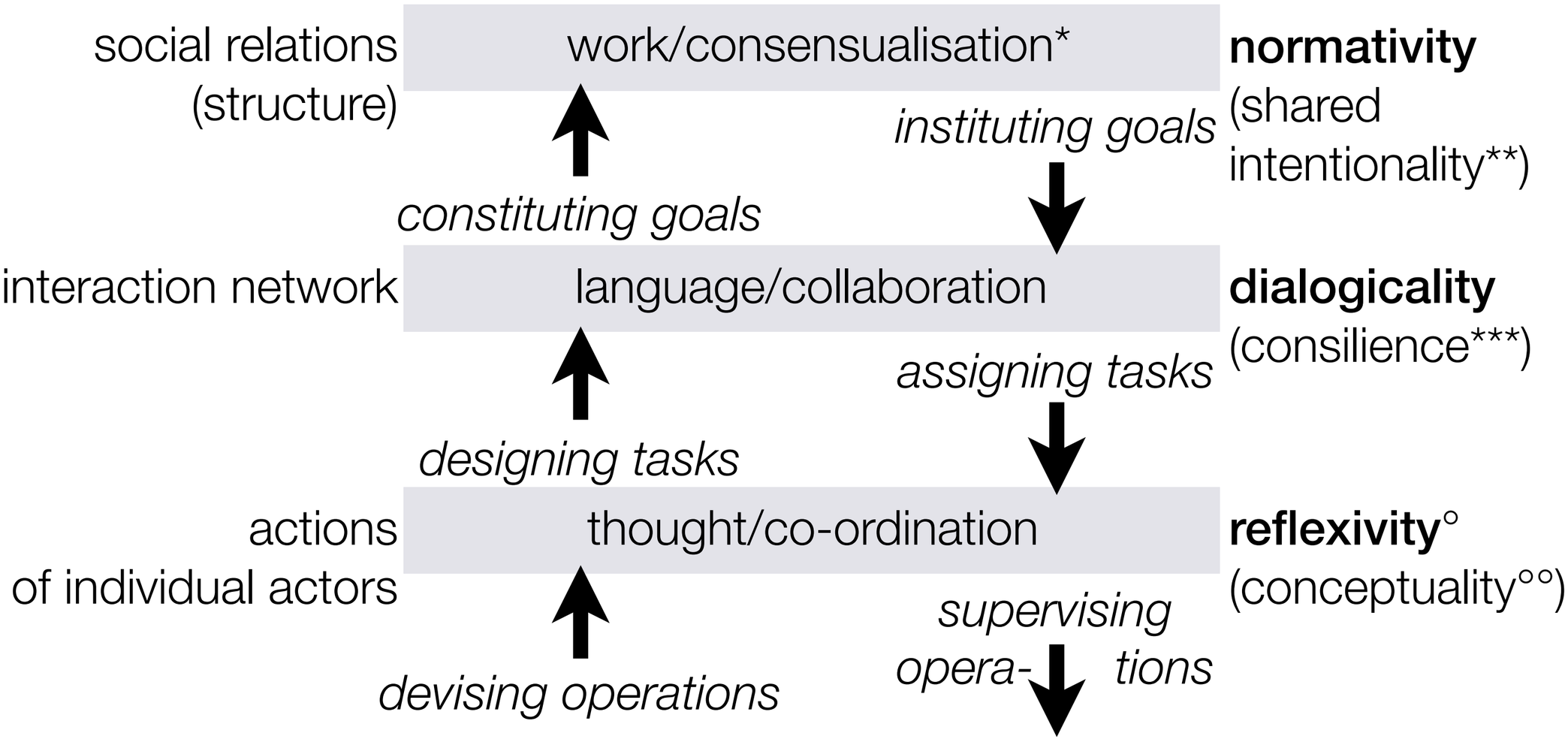
2 Imperatives for coping with the global challenges (1/2)

According to the Triple-C model, there are three changes possible and necessary to achieve a Global Sustainable Information Society
– on the level of the **social relations**,
– on the level of the **interaction network** and
– on the level of the **actions of individual actors**.

2 Imperatives for coping with the global challenges (2/2)

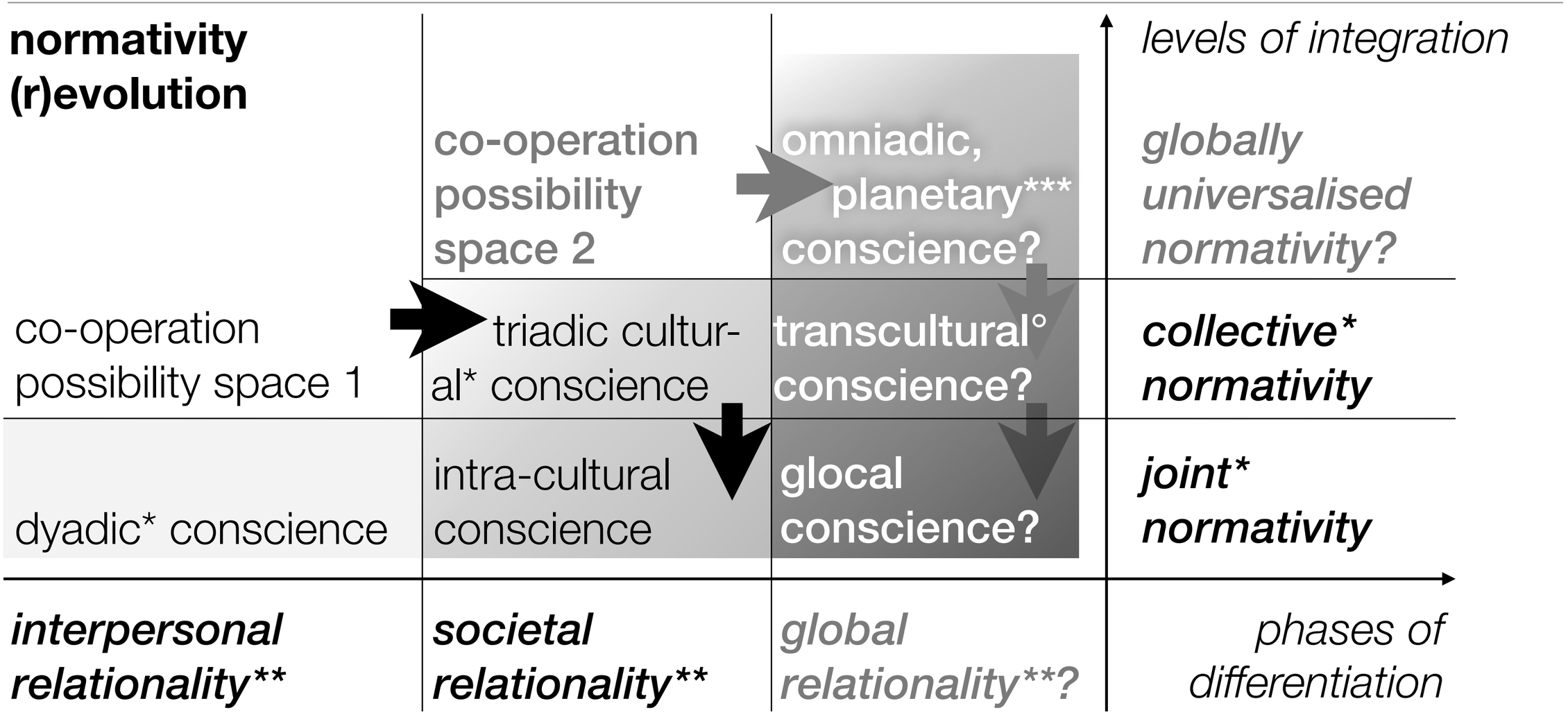


2 Imperatives for coping with the global challenges (2/2)



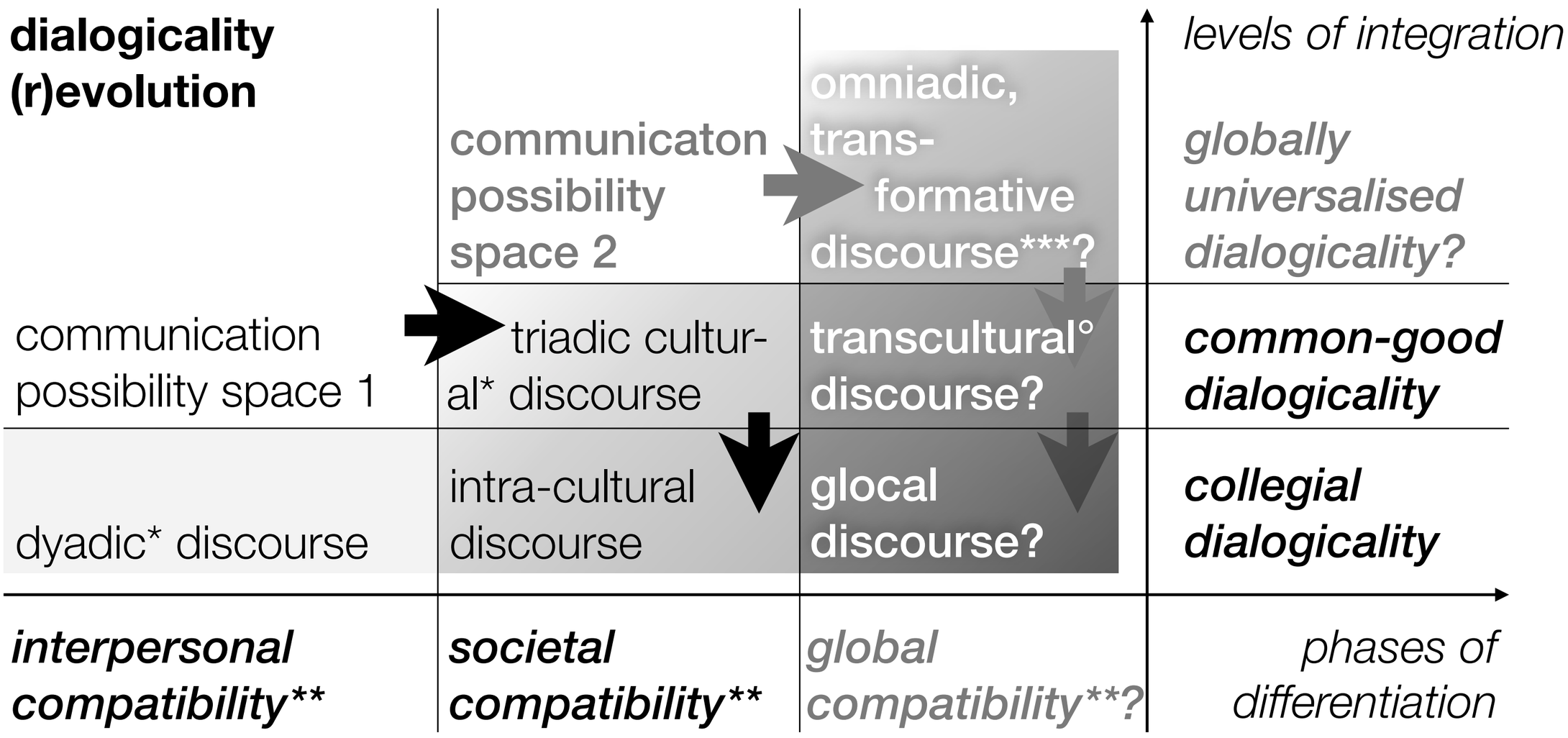
* Hermann Haken; ** Michael Tomasello; *** Edward O. Wilson; ° Margaret S. Archer; °° Robert K. Logan

2.1 The imperative of the universalised co-operative capability: a leap in normativity towards a conscience of world society?



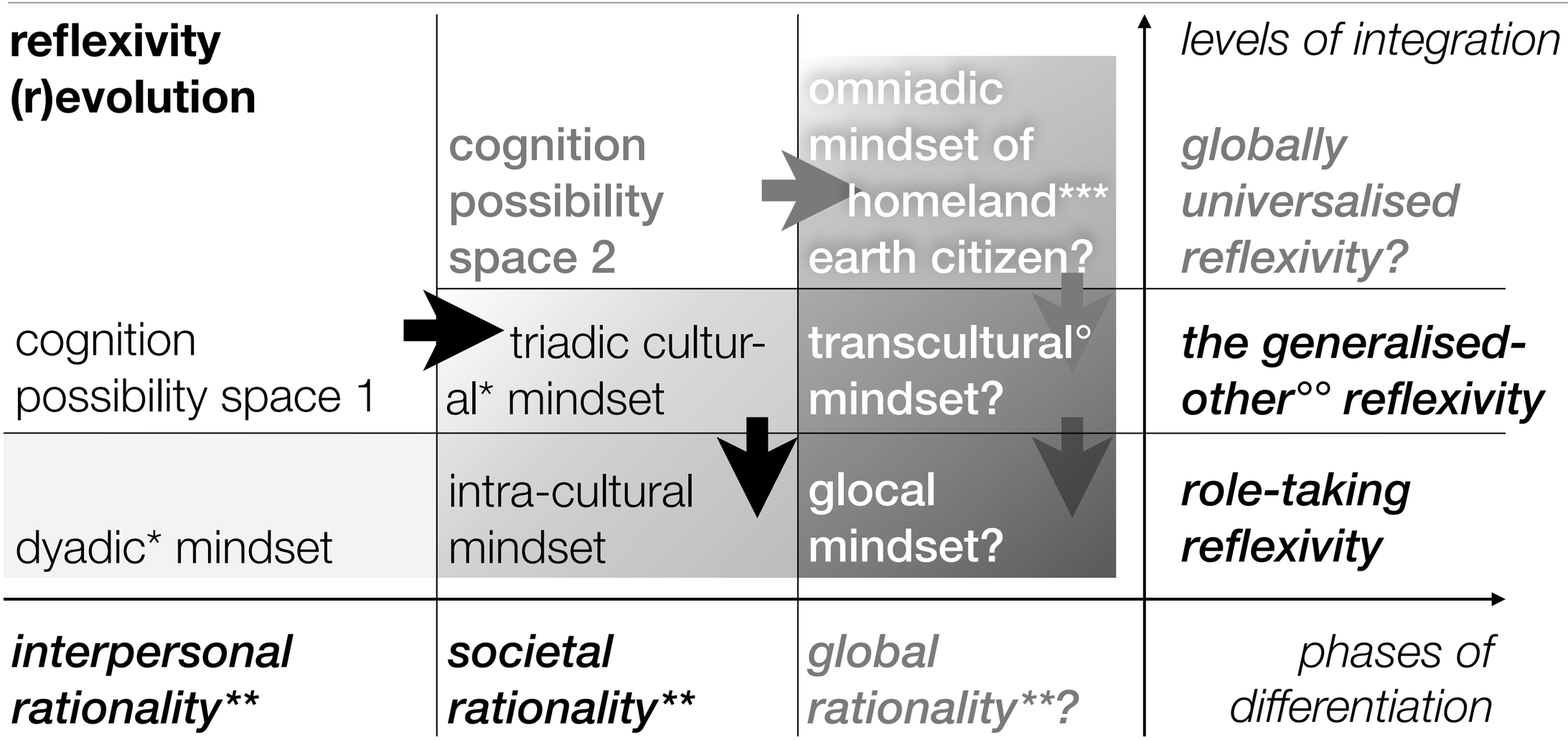
* Michael Tomasello; ** Tingyang Zhao; *** Michail Gorbatschow, Hans Küng, Convivialist International;
° Wolfgang Welsch

2.2 The imperative of the universalised communicative capability: a leap in dialogicality towards a discourse on the transformation?



* Michael Tomasello; ** Tingyang Zhao; *** Bernard C.E. Scott; ° Wolfgang Welsch

2.3 The imperative of the universalised cognitive capability: a leap in reflexivity towards a homeland earth citizen mindset?



* Michael Tomasello; ** Tingyang Zhao; *** Edgar Morin; ° Wolfgang Welsch; °° George Herbert Mead

3 Conclusion

The (r)evolution of normativity can provide the necessary generation of required information for the next step in noogenesis:

– required **wisdom** to let humanity emerge as a new subject of **co-operation** that is capacitated to execute **global governance**,
– required **knowledge** to capacitate **communication** to deliberate the techno-eco-social transformation in a **global dialogue**, and
– required **ways of thinking** to capacitate **cognition** to reflect the individual self-limitation of **global citizenship**.

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