Taking the perspective of the Third. A contribution to the origins of systems thinking

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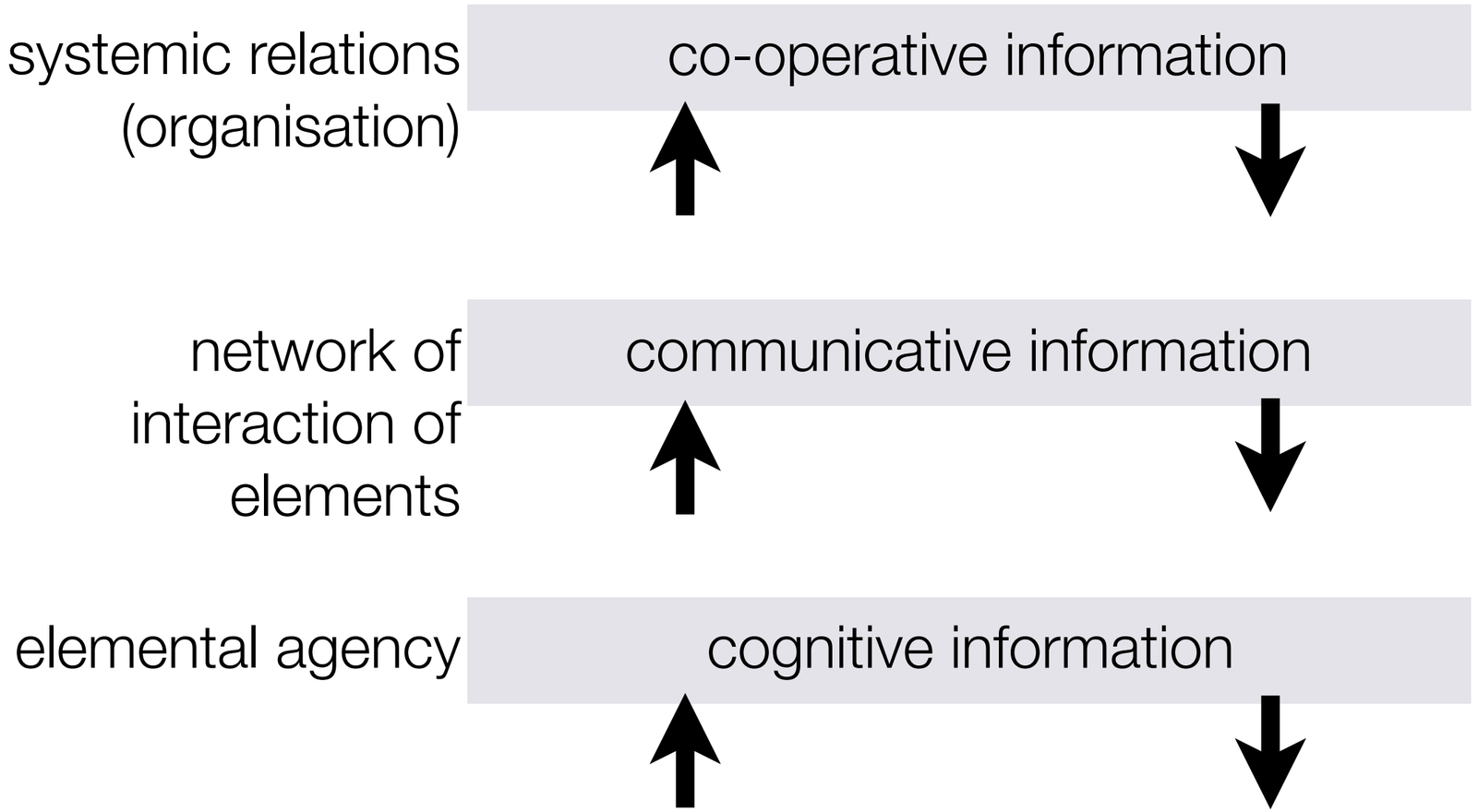
1 A complex systems view on social information: Triple-c



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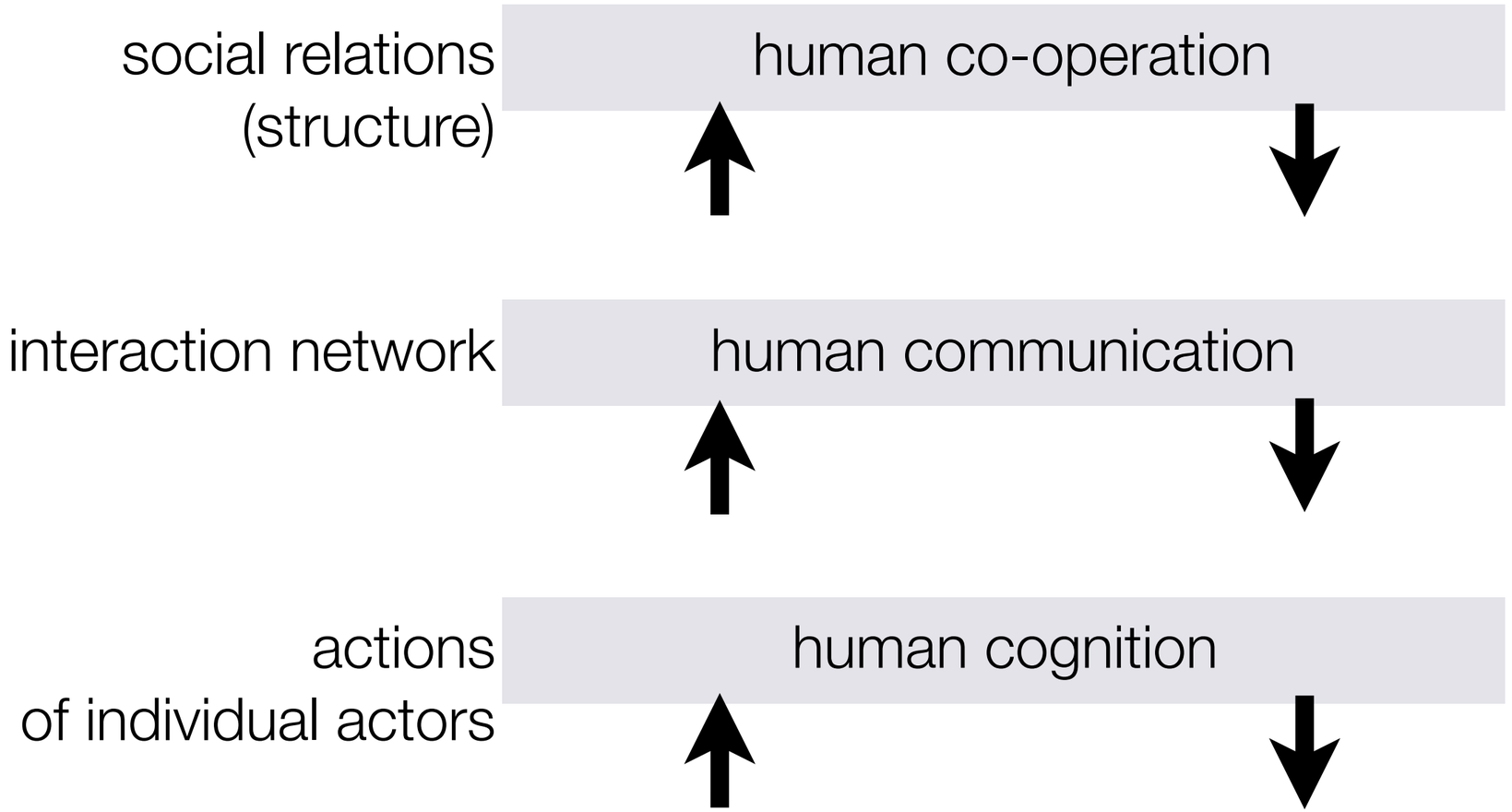

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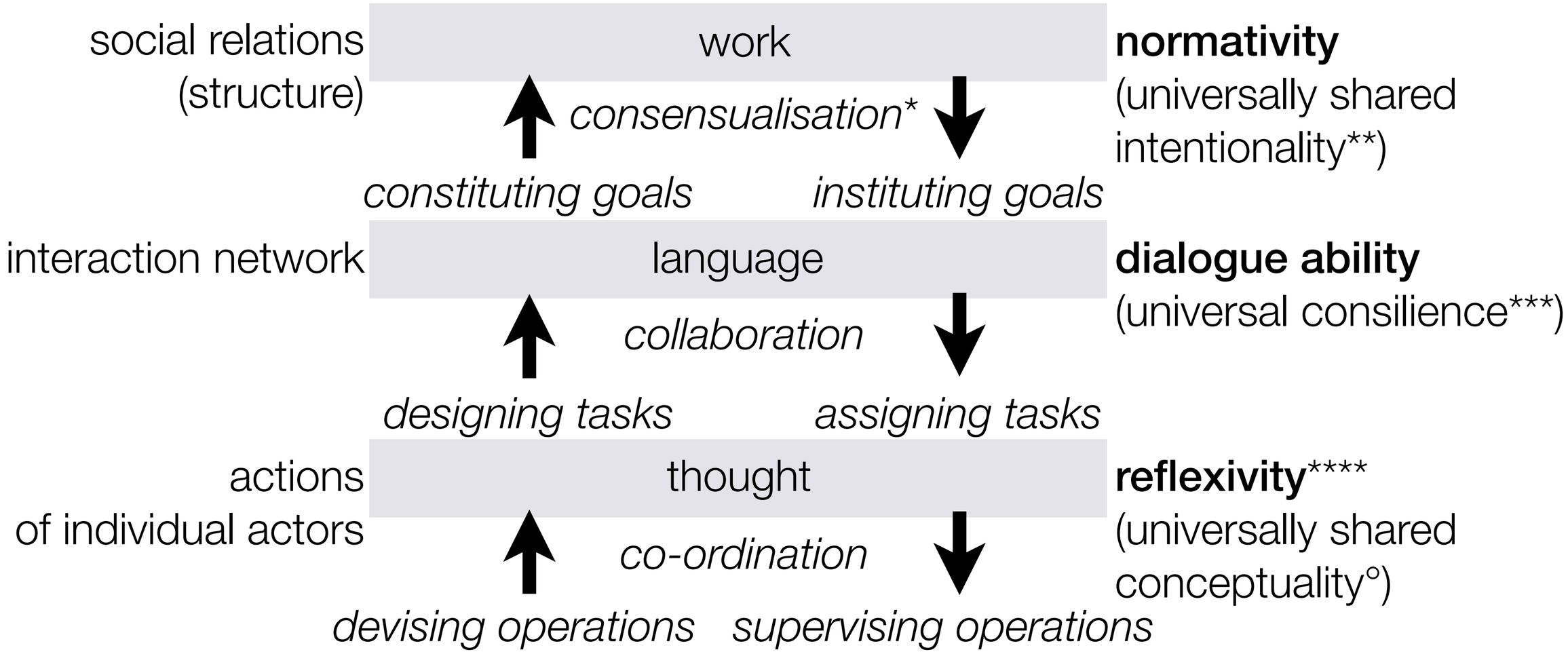

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* Hermann Haken, ** Michael Tomasello, *** Edward O. Wilson, **** Margaret S. Archer, ° Robert K. Logan

2 Two steps to anthropo(socio)genesis

- Shift in co-operation from individual to joint intentionality
- Shift in co-operation from joint to collective intentionality

2.1 The first step to anthropo(socio)genesis (1/2)

Individual intentionality*

- **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

2.1 The first step to anthropo(socio)genesis (2/2)

Joint intentionality – first step to anthropo(socio)genesis*

- **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)
  – acceleration of biotic evolution through insertion of "social" factors (co-operation partners were evaluated)

- **a need for acknowledging a common goal**, understanding that the partner shares the goal, and that both are committed to act according to its achievement

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2.2 The second step to anthropo(socio)genesis

Collective intentionality – second step to anthropo(socio)genesis*

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

- **triadic** co-operation, driven by **"objective morals"** (bigger groups)
  – 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
  – 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

* Michael Tomasello

2.3 Origins of systems thinking (1/4)

Assumptions:

- *Objective condition 1:* The emergence of **a new way of co-operation triggered the build-up of human/social systems**.

- *Objective condition 2:* The build-up of human/social systems is **hierarchical** in that social relations exist on a macro-level that constrain and enable the interaction of actors on a micro-level. Those **social relations are the Third** that mediates any action of the actors and any interaction.

2.3 Origins of systems thinking (2/4)

- *Subjective condition 1:* Actors are able to distance themselves from the system they are elements of. They can reflect on the social macro-level (morals and else) in order to understand the functioning of the social system (its maintenance and its change). They are able to reflect the build-up of social systems. They are able to **reflect on the social relations as a Third**. This is the origin of **social systems thinking**.

- *Subjective condition 2:* Actors can use their social systems thinking as **template for the understanding of the functioning of any other (non-social) part of the world**. The **organisational relations on which they reflect is the Third** in those systems. This is the origin of **systems thinking proper**.

2.3 Origins of systems thinking (3/4)

- *Feature of systems thinking 1:* Systems thinking needs to **reflect the emergent property of any system**, supervenient on the properties of its elements, and not reducible to the latter. Thus, it needs to model emergence in a way that the emergent property is **not derivable from premises that describe the properties of elements or their interaction**. It has to acknowledge a leap in explaining/understanding according to the leap from a lower to a higher level in reality. It does so by introducing a **meta-level** in thinking. The level below the meta-level is a necessary condition for the meta-level but not a sufficient one. In that way, the meta-level is itself emerging from the lower level. It is the ideational **Third** that has the task to reflect the Third in reality.

2.3 Origins of systems thinking (4/4)

- *Feature of systems thinking 2:* Systems thinking provides the basis for conceptuality. **Concepts*** are meta-level emergents. They emerge through **generalisations**. Any generalisation executes **a leap from a finite number** of phenomena **to the class of** all possible phenomena that are considered to belong to the same class of phenomena, which, as a rule, represents **an infinite number** of phenomena. The conclusion from the finite number to the infinite number is not a compelling one. (Only in case the class is set to a finite number, you can execute a complete induction, which, in fact, is a deductive conclusion, since the truth value is transferred from the sum of the single instances to the class.) Concepts are the ideal means for transporting the meaning of systems. They are ideational **Thirds**.

* Robert K. Logan

3 A possible third step to anthropo(socio)genesis

The evolution of systems thinking is not finished. It needs to catch up with the evolution of the world in reality. It 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.

- Shift in co-operation from collective to shared intentionality on a world-wide level

3 A possible third step to anthropo(socio)genesis

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

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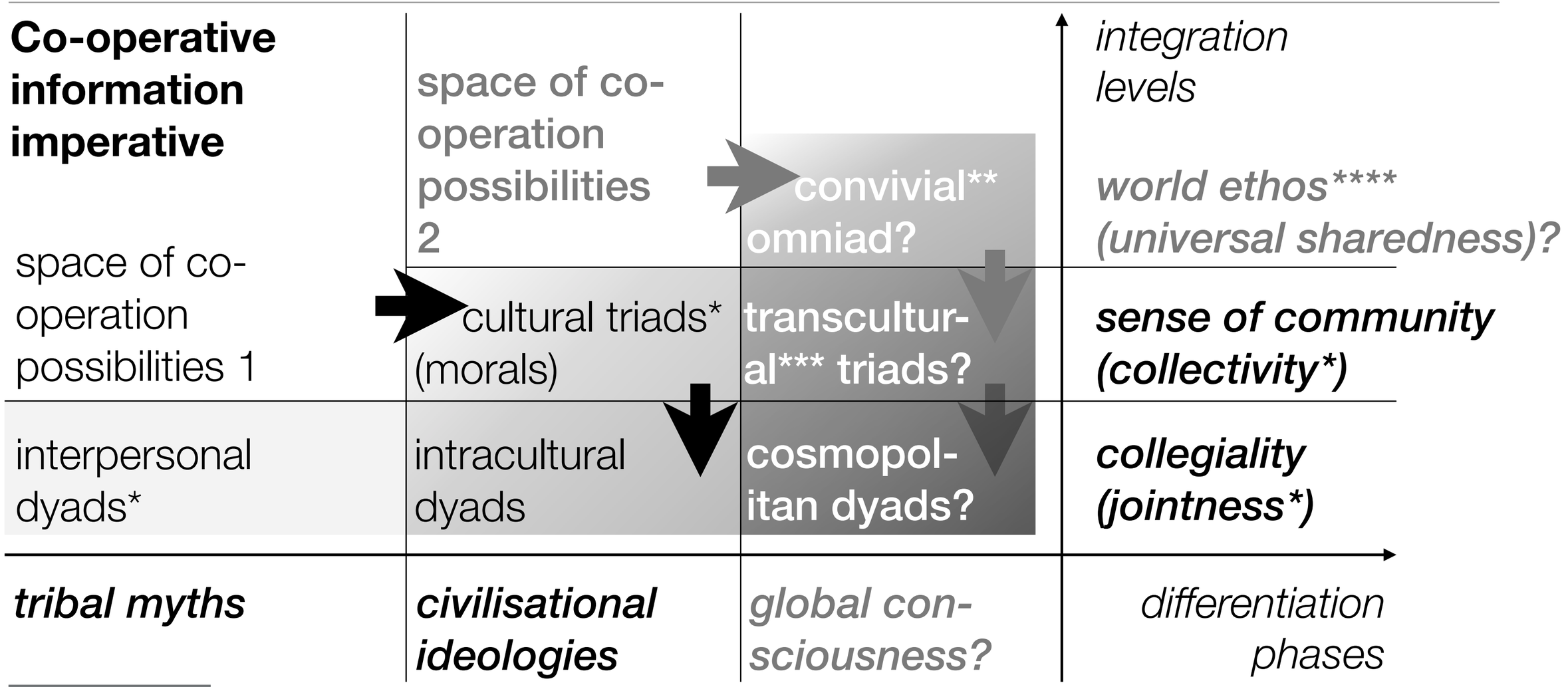
° Ludwig von Bertalanffy, °° Bernard C.E. Scott, °°° Robert K. Logan

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



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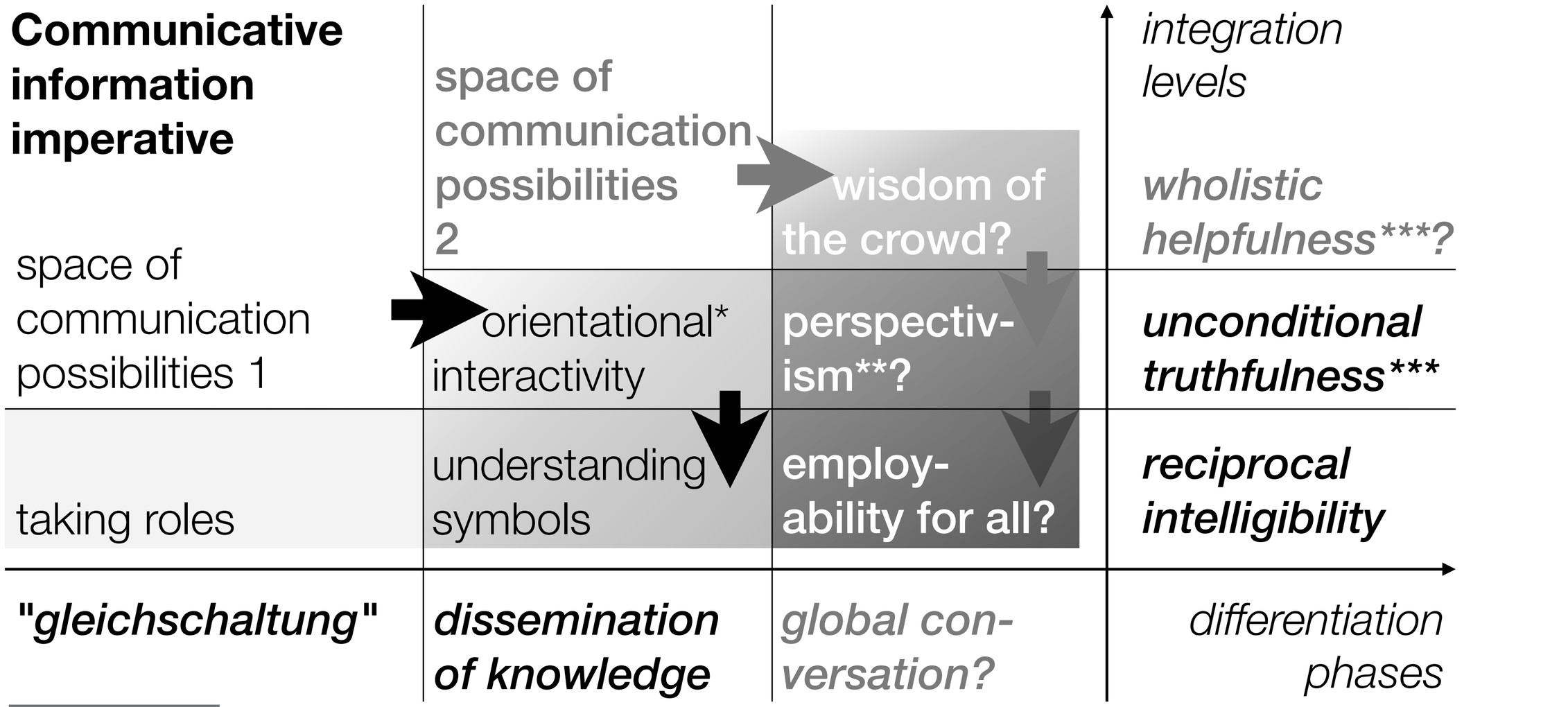
* Michael Tomasello, ** Ivan Illich, *** Wolfgang Welsch, **** Hans Küng

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



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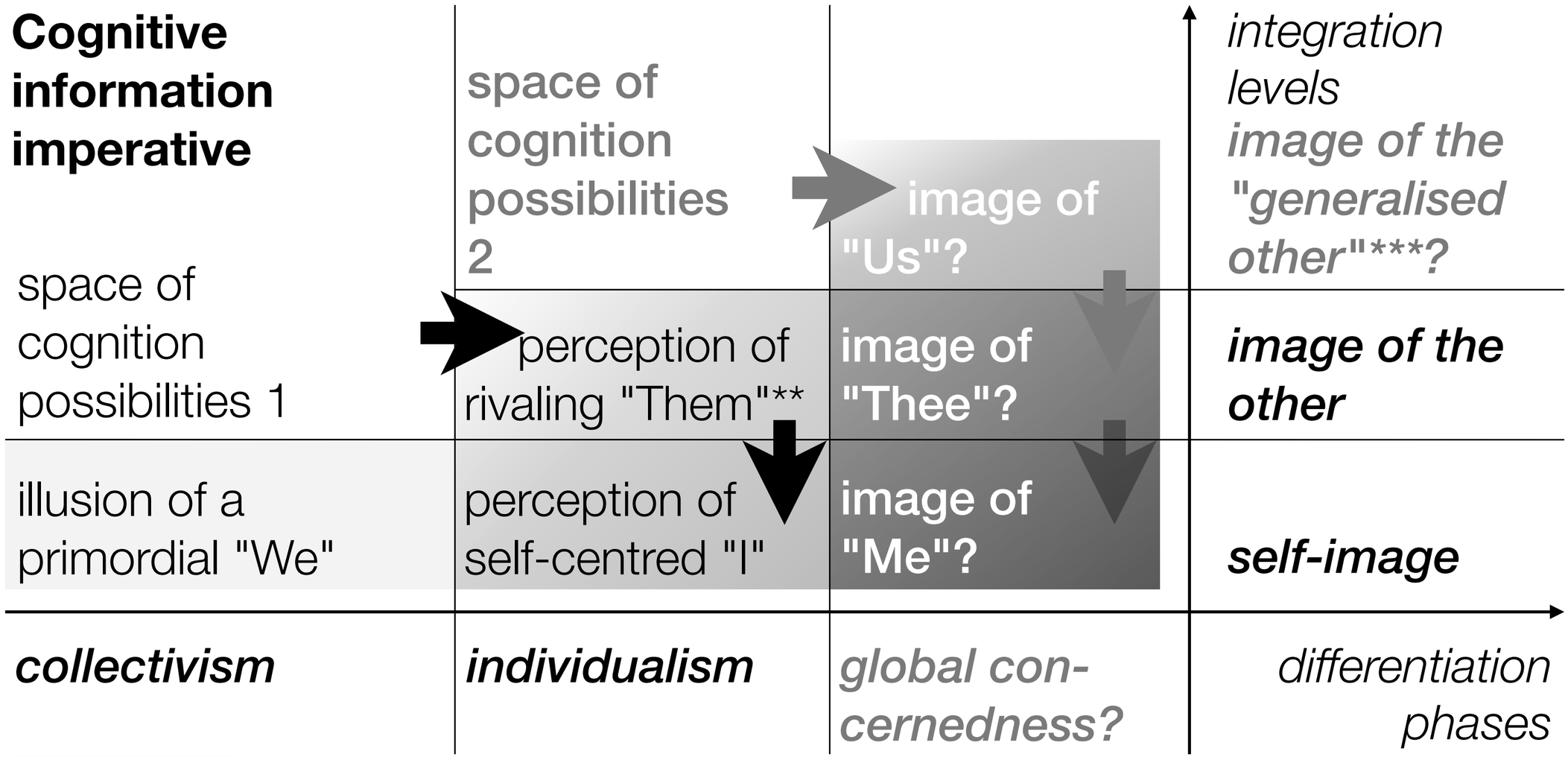
* Jürgen Mittelstraß, ** Ludwig von Bertalanffy, *** Michael Tomasello

3.3 Extended cognition:
Leap in reflexivity to meta-reflexivity* of global citizens?



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

3.4 An advancement of systems thinking (1/3)

Assumptions:

- *Objective condition 1:* The **becoming of humans and humanity is not yet finished**. We don't need trans- or posthumanism that focus on the individual. We **need to cope with the global challenges** that put our civilised existence at stake. If we succeeded to cope with them (and transformed our societies into a single Global Sustainable Information Society as meta-/suprasystem), we would accomplish the **third step to anthropo(socio)genesis**.

- *Objective condition 2:* By complying with the co-operative, communicative and cognitive **information imperatives**, we might be able to succeed.

3.4 An advancement of systems thinking (2/3)

- *Subjective condition 1:* In order to understand the necessity of those imperatives, we 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 we need to design today**.

- *Subjective condition 2:* Thus, **systems thinking**, from the beginning of early human actors a companion of our becoming, is needful again **to master another step in our evolution**.

3.4 An advancement of systems thinking (3/3)

- *Feature of systems thinking 1:* Systems thinking needs to **focus on future social relations** that are not yet actualised. It needs to anticipate them ideationally a 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 systems thinking 2:* Systems 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**.*

* Ernst Bloch

Thank you!

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