

Foundations of Dialectic

2020 IDM Dialectic Practicum

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Preconditions of 'Thinking'

- The way we think, whether we realize THAT we are thinking or not, is strongly grounded in how we perceive the world as a whole -- unconsciously with the *right*, and consciously with the *left*, brain hemisphere.
- Whether what we perceive as the 'real world' has for us 1, 2, 3 or more levels is of fundamental importance.
- What we know by know about human thinking tells us that we are strongly prejudiced toward a one-dimensional, *flat* world, a world of appearances, whether they are events, activities, or entities.
- We are about to learn that the world is in fact multidimensional, and that we need to distinguish three different levels each of which needs a different kind of thinking.
- This need reinforces the need for forms of thought (thought forms) that are able to "take on" three levels of reality.

The Real World (Ontology)

‘Reality is a potentially infinite totality of which
we know something but not how much.’
(Bhaskar, Dialectic: The Pulse of Freedom(

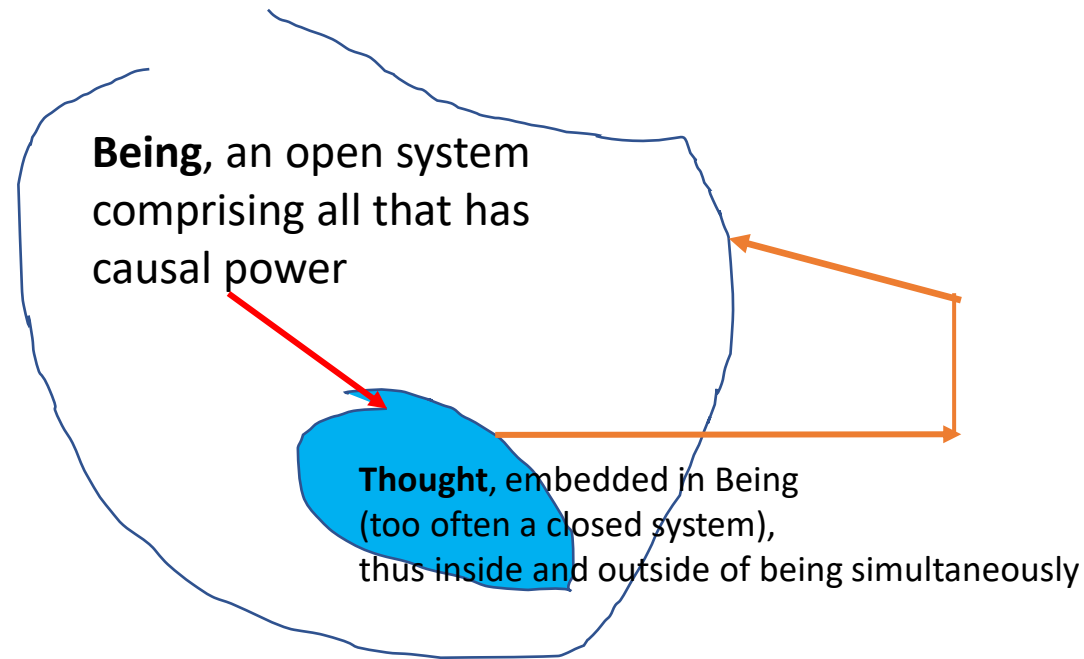
What this Practicum teaches

- In this Practicum, we anchor human understanding (epistemology) in ‘how the real world works’ (ontology) rather than in “thinking”. After all, as thinkers we are part of the real world.
- The natural world follows its own tendencies and necessities, relative to which human existence is contingent and derived. It is also too complex to get anywhere near its truth by approaching it from the vantage point of logical thinking alone.
- Above all, we cannot understand the social world if not as embedded in the natural world.
- Especially in logical thinking the world we perceive is FLAT since “a tree is a tree” ($A = A$) whereas in reality a tree is a multi-dimensional being that is part of a complex ecology based on which it is alive. By simply categorizing the tree logically, its uniqueness as a *concrete individual* is lost.
- Taking an “ontological”, rather than an “epistemological” stance, has huge benefits for how we fare in the world; it entails that the more we know about what is NOT the tree (i.e., is outside of, or in the past of the tree), such as its ecology, the deeper we will be able to grasp the tree.
- An ontological stance amounts to distinguishing the truth of things (alethic truth) from the truth of linguistic propositions and focusing attention on the former.
- **Refusing to accept the logical identity clause $A=A$ and the associated proposition that *non-A is false (as held by logical thinking)* is the basis of dialectical thinking for which every A is intrinsically associated with its shadow or ‘negativity’, which logically is non-A.**

Two Kinds of Dialectic: Ontological (real world) and Epistemological (thinking)

- It follows from this logically that we need to distinguish two kinds of dialectic: the *ontological* dialectic of **Four Moments** of Dialectic, which stems from Roy Bhaskar, and the *epistemological* dialectic of the Dialectical **Thought Form Framework** (DTF), which stems from studies in adult cognitive development (Basseches 1984; Laske 2008).
- In this Practicum, we see DTF as based on the *ontological* dialectic of Bhaskar's Four Moments (MELD), thus as an *epistemological* dialectic that is pre-conditioned on an ontological one.
- To elucidate this further is the purpose of this Introduction.
- As any epistemological dialectic, DTF is a set of thinking tools -- called *thought forms* (TFs) -- which we see as reflective approximations of, not as logical reductions of, the Four Moments of Dialectic.
- We can demonstrate that when dialectical TFs are reduced to logical concepts, the thinker drops out of Reality into lower levels of reality Bhaskar calls *Actuality* and *Irreality*; this is a consequence of committing the *epistemic fallacy* by which Reality is reduced to appearances and thoughts about them, which amounts to losing the 'alethic truth' of the thing "out there" that one is talking about.
- Of the seven moments of dialectic Bhaskar stipulates, in this Practicum we work with four; they are referred to as MELD (1M, 2E, 3L, 4D). We don't follow him into Moments 5 to 7, that is, into what he calls *MetaReality* (Moments 5-7).
- The reason: we don't believe that one can enter into MetaReality (a level of Being based on reflexivity and usually thought of as 'Transcendence') **without TFs**, at least not without creating equivalents of conceptual TFs that develop over the human lifespan.

Reality (Being) and Thought -- Ontology and Epistemology



Ontology

- Ontology is the science of 'what is', i.e., of Being as it "is" independently of human thinking about it.
- Since humans amount to a small, integral part of Being, and their ability to 'know' is enwrapped by Being, knowledge is both 'inside of' and 'outside of' Being – *inside* as an integral part and a special kind of it, and outside in the attempt to 'know' it an object of reflection (thus in a dialectical relationship to Being).
- By entering Ontology before Epistemology, we are become to avoid two fundamental *thought fallacies* (Bhaskar):
 - The *epistemic fallacy*, of interpreting insights about knowledge as insights into Being (which reduces Being to human understanding, i.e., to thought).
 - The *ontic fallacy*, of seeing knowledge as compulsively determined by Being (e.g., in the form of data, facts, or hypothesized ideas, which reduces human knowers to victims of their own world construction).

Why Root Dialectical Thinking in Ontology?

- Dialectical thinking, in contrast to logical thinking, has a long reputation for being the proper tool to approach complexity. (Remember Plato's Socrates?)
- Since the world is an open, not a closed, system, human logical thinking – which performs ultimate closures on the real world with surgical preciseness – must be *included but transcended*, which happens in dialectical thinking.
- As Goethe says: “We live in the midst of derived appearances and do not know how to arrive at the essential questions about how they have emerged.”
- In this predicament, following the anthropomorphic viewpoint (“humans first”) that logical thinking is committed to would be the worst choice we can make.
- In the ontology here followed, we think of the real world as constituted and pervaded by four Moments of Dialectic: Moments that Bhaskar named **First Moment (1M), Second Edge (2E), Third Level (3L), and Fourth Dimension (4D)**.
- We conceive of human dialectical thinking, whether it is ontological or epistemological, as *approximating* these four **perspectives on Being**.

The Limits of Bhaskar's Ontological Dialectic (will not hamper us)

- Ontological and epistemological dialectic don't operate at the same level, the latter being an 'approximation' of the former.
- Bhaskar's *ontological* dialectic has its limits: it is more 'stipulatory' (by fiat) rather than fully realized and spelled out.
- In contrast to DTF, the four moments of dialectic are not associated with *thought forms* that would explicate and navigate between and across them.
- As a consequence, in this Practicum we will use DTF thought forms as *epistemological approximations* of ontological aspects of being.
- We will thereby lay the groundwork for creating an *independent ontological dialectic* which Bhaskar has laid the foundations for.
- The challenge of using DTF thought forms in this way lies in not reducing them to logical concepts but remaining aware of **(and becoming able to practice them in)** their dense interrelatedness as a totality and 'navigability' as a dialogical universe of discourse.

Example of *Ontological Thought Forms* for Reasoning Across Moments of Dialectic (instead of only within)

pel→	<i>p</i> - pointing	<i>e</i> - elaborating	<i>l</i> - linking
Aspects of Being			
<i>1M, First Moment</i> E.g., TF# 8	C<i>p</i> : Relationship between part(s) and a whole TF# 8 →	C<i>e</i> : Structure and stability of a system →TF # 12→	C<i>l</i> : Multiple contexts and frames of reference →TF# 14
<i>2E, Second Edge</i> E.g., TF# 2	P<i>p</i> : Emergence and inclusion of opposites TF# 2 →	P<i>e</i> : Patterns of interaction →TF# 4→	P<i>l</i> : Embeddedness in process →TF# 7
<i>3L, Third Level</i> E.g., TF#16	R<i>p</i> : Bringing elements into relationship TF#16 →	R<i>e</i> : Structure of relationship →TF# 19→	R<i>l</i> : Patterns of interaction and influence →TF# 20
<i>4D, Transformation</i> E.g., TF# 22	T<i>p</i> : Limits of System Stability TF# 22 →	T<i>e</i> : Developmental movement of systems →TF# 24→	T<i>l</i> : Coordination of systems; emergence of new entities →TF# 25-26

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graph TD
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    B[ ] --> I
    C[ ] --> I
    D[ ] --> I
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INTEGRATION

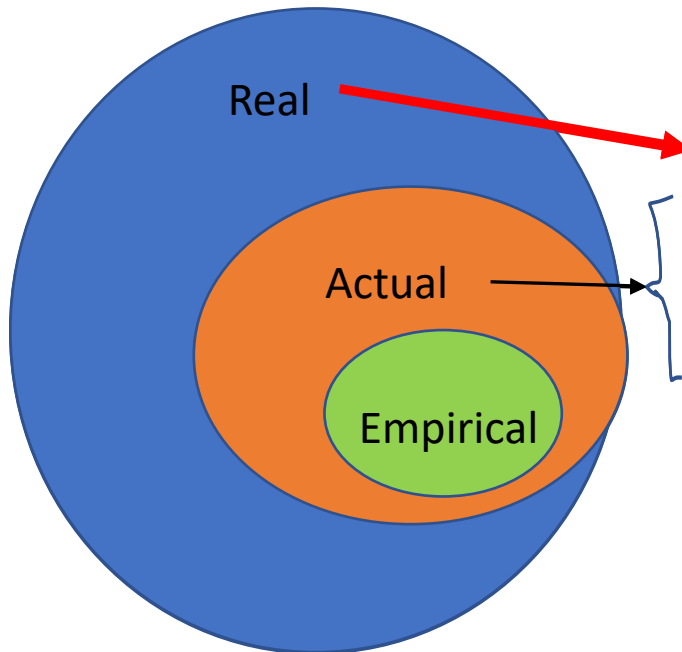
Open versus Closed Systems

- When looking outside of ourselves, it makes a huge difference whether we see physical and social reality as a closed or open system.
- In the first case, we mistake empirical regularities and their 'laws' for what is real, rather than making a distinction between the generative mechanism that create these regularities, and these regularities themselves (Bhaskar 1975).
- Being fixated on closed systems, we then see the real world as flat and leave out of account the multidimensional sources of what emerges for us as 'reality'.
- The world we then focus on Bhaskar refers to the "actual", in contrast to the "real" world.
- This then establishes a fundamental discrepancy between 'how the world works' and 'how humans think'.
- Once we make a distinction between OPEN and CLOSED systems, the error described can no longer occur because we realize that the systems we know from scientific research **are all closed** (viz., 'closed' by the fiat of the experiments we do), and that the regularities we find are incomplete snapshots from an emerging world in unceasing transformation.
- These ideas led Bhaskar in 1975 to postulate that reality comprises three layers, and to formulate the four moments of dialectic as dimensions of the real world, as shown next.

Three Domains of Being

While closed systems forged by science have only two layers, open systems comprise three: (1) generative mechanisms, (2) events and entities [‘actualities’], and (3) experiences, as shown below:

3 Levels of Depth of Reality



	Domain of the Real	Domain of the Actual	Domain of Empirical Experience
Generative Mechanisms	X		
Events (& Entities)	X	x	
Experiences	X	X	x

Generative mechanism create both events and experiences. Events (& patterns of events) are caused by generative mechanisms. **Actualism**: assuming there are no structures, just states of affair, and locating cause and effect solely at the level of events and entities. **Empiricism**: denying the reality of generative mechanisms and reducing actualities to human experiences.

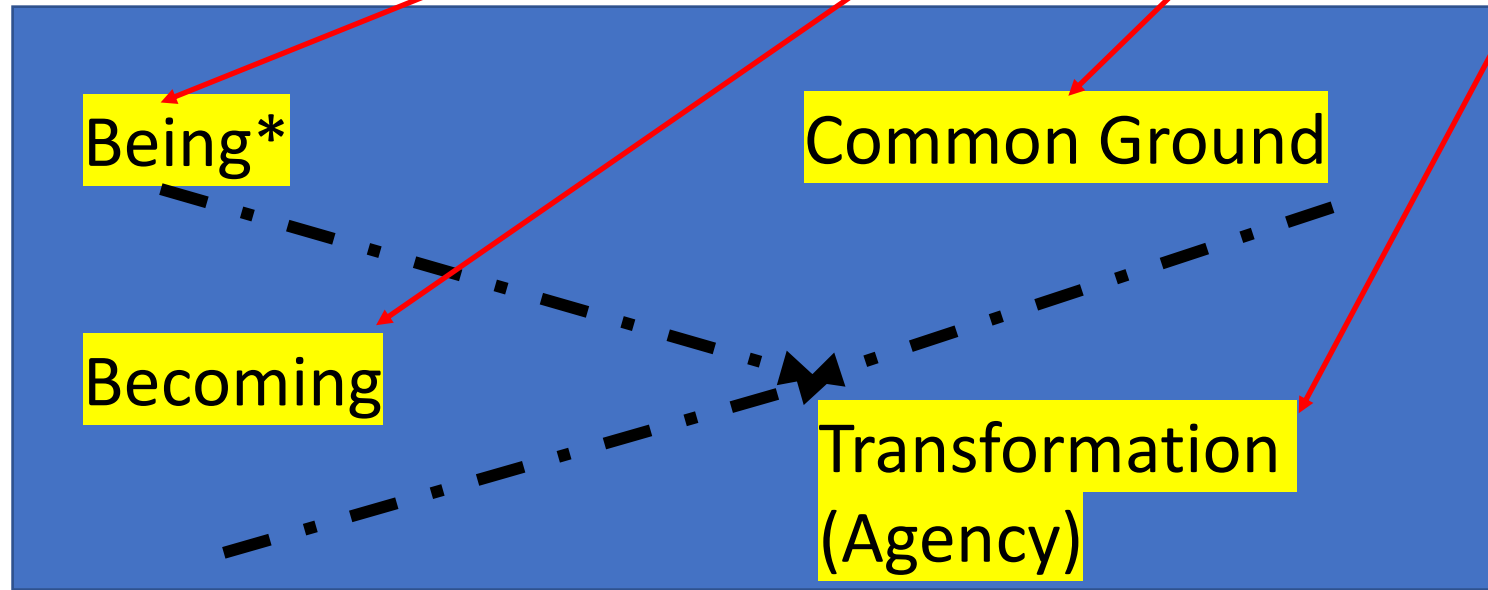
The Falsity of the Notion of “the empirical world”

- The *empirical* world is one humans as scientists “experience”; it is different from the *actual* world we encounter in activities, events, and entities that we take note of.
- The notion of “the empirical world” entails an epistemic fallacy since it speaks of the real world as defined *by its relationship to our experience*, in addition implying that it as the only world there is (both of which are false).
- The notion ‘empirical’ thus gives us the license to reduce questions about what exists (ontological questions) to questions about what we can know about what exists (epistemic questions).
- This notion refers to the real world as a *closed* system since it denies that in open systems mechanisms operate that depend on still other mechanisms outside of the closed ‘experimental’ system we are presently looking at.

Why does Understanding the Reality of Generative Mechanism Require Dialectic?

- Dialectical ontology posits that the world we know empirically and in actuality (in the form of events, entities, and activities) is a *social product* of science and derives from the causal powers of (largely unknown) generative mechanisms, including those defining society itself.
- Generative mechanisms 'exercise' four moments of dialectic and thus are themselves interrelated and in unceasing transformation, thus *emergent*.
- In order to understand such mechanisms requires more than logical thinking since such thinking reduces generative mechanism to logical 'regularities' and their logical 'laws' but does not capture the multi-dimensionality and emergent character of generative mechanisms.
- Generative mechanisms of the social world are even more complex than those of the natural world since they are embedded in those of the natural world, and in addition include the **intentional causality** of human agents and groups of agents.

Four Moments of Dialectic: 1M, 2E, 3L, 4D



* **Being** Is all-inclusive; it Includes everything that has causal power and thus is 'real', -- entities, events, knowledge, falsehoods, illusions, possibilities, formed existences, actualities, empirical findings --

How We Think the Four Moments of Dialectic

1M Being as such, including all that has causal powers

2E Being as process, change that is irreducible to Being, involving absence and negativity (what is not yet or no longer there)

3L Being as a totality of interrelatedly defined things held together

4D Being as incorporating transformative praxis based on intentions

Three further levels of Bhaskarian Ontology not included in DTF: *MetaReality*

5A being as *incorporating reflexivity and inwardness* (spirituality)

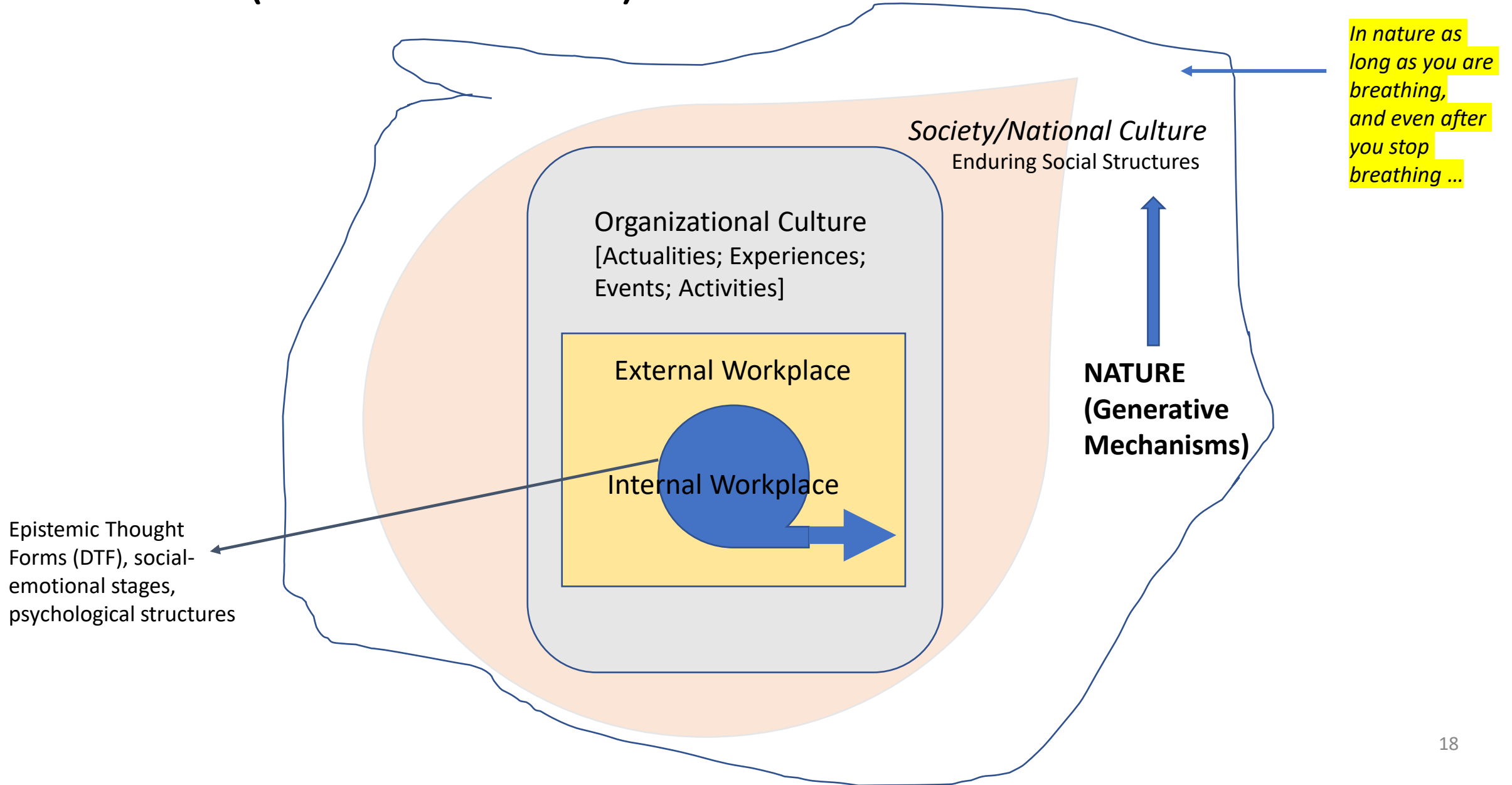
6R being as *re-enchanted*

7Z/A being as *incorporating the primacy of identity over difference and unity over split, and as non-duality (which cancels out 1M).*

The Four Moments as Defined by Bhaskar (J. Schrader)

- ***"levels or stadia of development , each remedying absences in its predecessor level in a process of self-transcendence"***
- *The first (known as 1M or 'first moment') establishes being as such, as non-identical (differentiated) and as stratified; this is the level of basic critical realism.*
- *The second level (2E or 'second edge') involves the idea of being as process*
- *The third (3L or 'third level') that of being together or as a whole*
- *The fourth (4D or 'fourth dimension') that of being as incorporating transformative praxis or agency*
- *These form the basis for the so-called MELD system of dialectical critical realism.*

Where (in the real world) Are You When You 'Think'?



Everybody Has an Ontology (Theory of Being): What Thinking is 'About'

- Whether you like it or not or know it or not, you, too, have an ontology.
- An ontology spells out what you are thinking 'about', and since there is no thought that is not 'about' something, your thinking presupposes an ontology.
- For instance, an empiricist believes that facts are 'real' or define reality: that is an ontology. An idealist believes that only ideas are real. That is another.
- An empiricist believes that what causes facts are Hume's *continuous conjunctions of events* and identifies them with "laws".
- But that is not what scientific practice shows is happening in research: According to Bhaskar, scientists are looking for the generative mechanisms that **create** "continuous conjunctions" – but only in **closed systems** (brought about by experiments), -- not in open systems such as Nature and Society.
- To understand nature or society, we need to go beyond continuous conjunctions of events [actualities] to the "generative mechanisms" that cause them. We will encounter a nearly overwhelming complexity of such mechanisms.
- We call this take on the world, with Bhaskar, **basic critical realism**.
- Only having once worked ourselves through BCR, we can go to dialectic, and to dialectical thinking, thus also to dialectical critical realism, without falling prey to the epistemic fallacy which hides our ontology from us.

Importance of Bhaskar's Distinction of 'Intransitive' from 'Transitive'

Intransitive: (1) independent of human understanding, (2) inviting scientific inquiry and susceptible to causal inquiry, (3) general character of natural necessity in open systems. (Only what has an ontological structure is a possible object of human understanding).

for example., (a) the conceptual equipment brought to be in communicative episodes; (b) the social structures underlying team dialogue, etc. [all of social life has an irreducible material aspect not absorbed by its conceptual aspect or 'interpretations']

Transitive: all that falls into the human domain, including thinking, meaning making, scientific inquiry as a social process (itself intransitive) by which to inquire into the causality of what is.

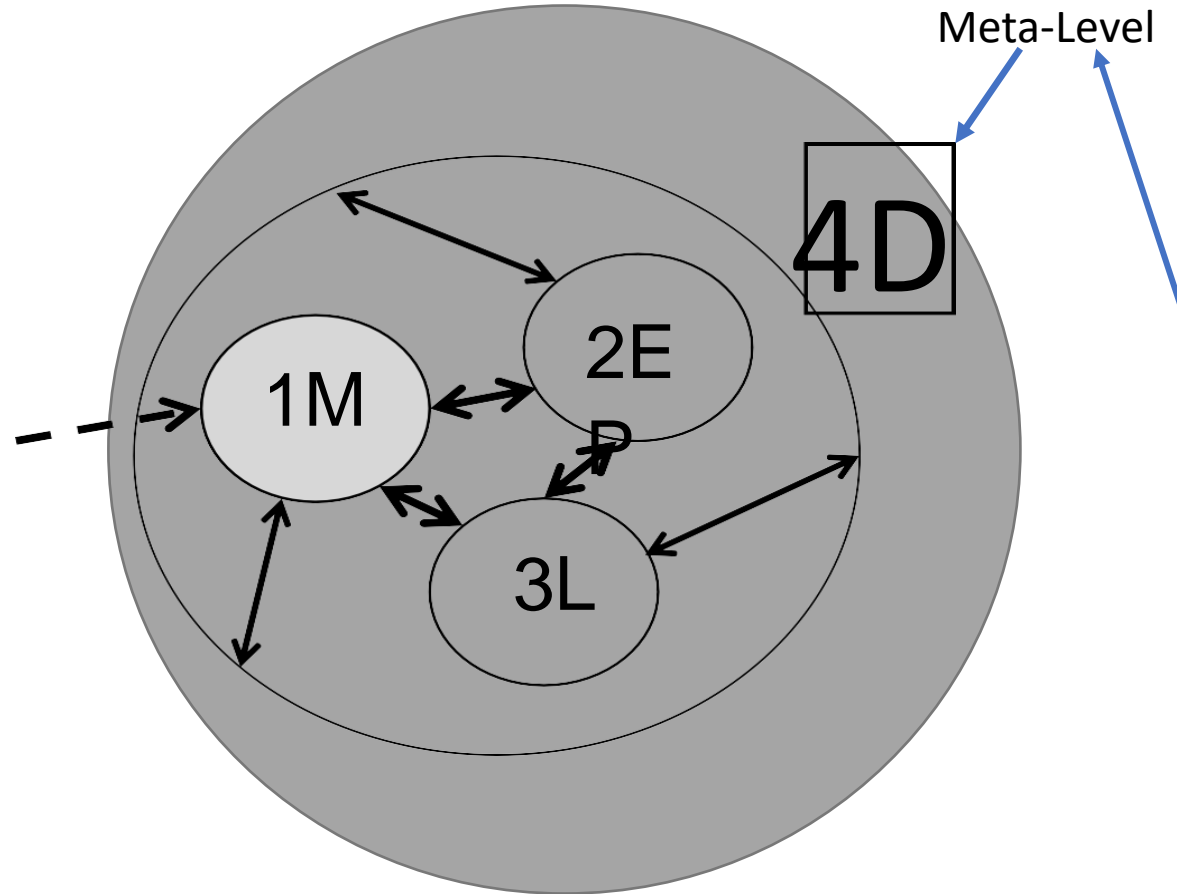
The Four Moments of Dialectic Are *Ontological Perspectives*

- How can we understand the multi-dimensional emergent world we are part of?
- Bhaskar suggests that in addition to all that has causal power and is therefore “real” (including human reason and intention), we also need to account for **“what is not yet or no longer there” (‘absences’)**, as well as the massive connections & relationships between things forming a totality we refer to as a “world”.
- He therefore adds a fourth moment, that of transformation and agency, called Fourth Dimension (4D) which presupposes the other three moments and also pervades them (snake bite of dialectic).
- Altogether, we refer to these four moments 1M, 2E, 3L, and 4D as MELD.
- The question that arises is: how as thinkers can we make sense of the MELD-determined world ‘epistemologically’, in terms of human (e.g., DTF) thought forms.

Moments of Dialectic Entertain Relationships Within and Between Themselves

All Three Levels of Reality are pervaded by Four interrelated Moments of Dialectic:

- Generative Mechanisms
- Actuality
- Empirical Experience



There is no 'priority ranking' among the Moments, only a precedence relation: $1M > 2E > 3L > 4D$. In Bhaskarian dialectic, the Moments are not seen as explicitly interrelated, only as implicit in each other.

AXIOMS DEFINING THE FOUR MOMENTS AND THEIR THOUGHT FORMS

<p>First Moment: Being Unified by alterity (sheer otherness) and alethic truth</p>	<p>(1) Independent of human thinking (intransitive) (2) Shaped by Stratification (3) Determined by natural necessity (4) Characterized by differentiation and non-identity of layers</p>
<p>Second Edge: Becoming Unified by absence [‘what is not year or no longer there’]and negativity (pervading what is real)</p>	<p>(1) Includes what is no longer and not yet there (2) Characterized by opposition including reversal (3) Showing the interpenetration of opposites (4) Determined by the presence of the past in the present and future</p>
<p>Third Level: Common Ground Unified by unity-in-diversity resulting in totality</p>	<p>(1) Emergence (2) Non-linear (holistic) causality (3) Internal relatedness and intra-activity, fission and fusion (4) Dialectics of figure and ground</p>
<p>Fourth Dimension: Transformation Unified by natural and human agency; In the social domain pervading 1M, 2E, and 3L</p>	<p>(1) Open future (lack of inherent conjunction of events) (2) Unceasing reshaping of formed existence (3) Natural and intentional (human) causality as ‘absenting’ (remediating what is missing axiologically) (4) Unity in diversity [in society] as (moral) telos</p>

Foci of Attention in Description, Analysis, Interviewing, Coaching, and Facilitation

Focus of attention in 1M	<ul style="list-style-type: none"> (1) Mechanisms and tendencies that fuel emergence of new realities (2) Stratification of potentially incommensurate layers (3) High degrees of differentiation within and between layers (4) Error: simplification by way of <i>de-stratification</i>
Focus of attention in 2E	<ul style="list-style-type: none"> (1) What is no longer there (presence of the past) (2) What is not yet there (emerging trends, unforeseen developments) (3) What is in conflict and could feed reversal; interpenetration of opposites (4) Error: reduction of complexity by way of <i>positivization</i> (suppressing absences such as ills, pains, conflicts, clashes, incongruences)
Focus of attention in 3L	<ul style="list-style-type: none"> (1) Emergence from the void (2) Non-linear (holistic) causality (3) Internal relatedness and intra-activity, illicit fission and fusion (4) Error: simplification on account of <i>de-totalization</i> (reduction to single elements)
Focus of attention in 4D	<ul style="list-style-type: none"> (1) Lack of inherent conjunction of events (despite 'laws' claiming their existence) (2) Unceasing reshaping of formed existences and experiences (3) Causal power of intentional causality [including its absence] (as part of human agency) (4) Error: Fixation of actualities on account of <i>de-agentification</i>

<i>Moments of Dialectic</i>	<i>DTF Thought Forms</i>	<i>Four Characteristics of the (ontologically) Real World</i>
1M [error: de-stratification]	Context [C]	<p>First Moment. The real world comprises causal powers, lacks a unitary cause, and is highly stratified.</p> <p><i>Thinking errs</i> if making it centric and flat (de-stratifying it).</p>
2E [error: arresting change; positivity]	Process [P]	<p>Second Edge. The real world is pervaded by absences (geological shifts, loss, death, ills, etc.), i.e. what is no longer or not yet ‘there’.</p> <p><i>Thinking errs</i> if it denies them and paints the world as purely positive.</p>
3L [error: de-totalization]	Relationship [R]	<p>Third Level. The real world is a totality of internally related, often incompatible, strands and components.</p> <p><i>Thinking errs</i> if it neglects (do-defining) interrelationships.</p>
4D [error: de-agentification; reduction to static system]	Transformation [T]	<p>Fourth Dimension. The real world is in unceasing transformation, offering entry points for human action.</p> <p><i>Thinking errs</i> if it neglects transformation and denies the possibility of human intervention in the natural cause of events (intentional causality).</p>

Questions Arising From the Four Moments

	1M	2E	3L	4D
* partly unformed	What *mechanisms and causal powers fuel the emergence of new realities?	What forms [closed systems] of the past pervade and overshadow present and future?	What *unforeseeable developments form part of the totality of what is real?	What *realities remain undetermined by inherent conjunctions of events?
	What *layers are comprised by this reality, and how do they communicate?	What emerging trends and realities are at work in the world we are embedded in?	What *holistic causalities determine this domain of reality?	What kinds of incessant *transformation define events and existences?
	How are existing layers differentiated one from the other?	What *implicit opposites feed reversal; how are *opposites linked?	How are *things intrinsically related and in interaction with each other?	What *forms of intentionality of human agency have causal power?
	Error: Reduction by way of De-stratification	Error: Positivization [reduction of negativity and absence]	Error: Reduction by way of De-totalization	Error: Reduction by way of De-agentification

The Four Moments Relative to Social Reality

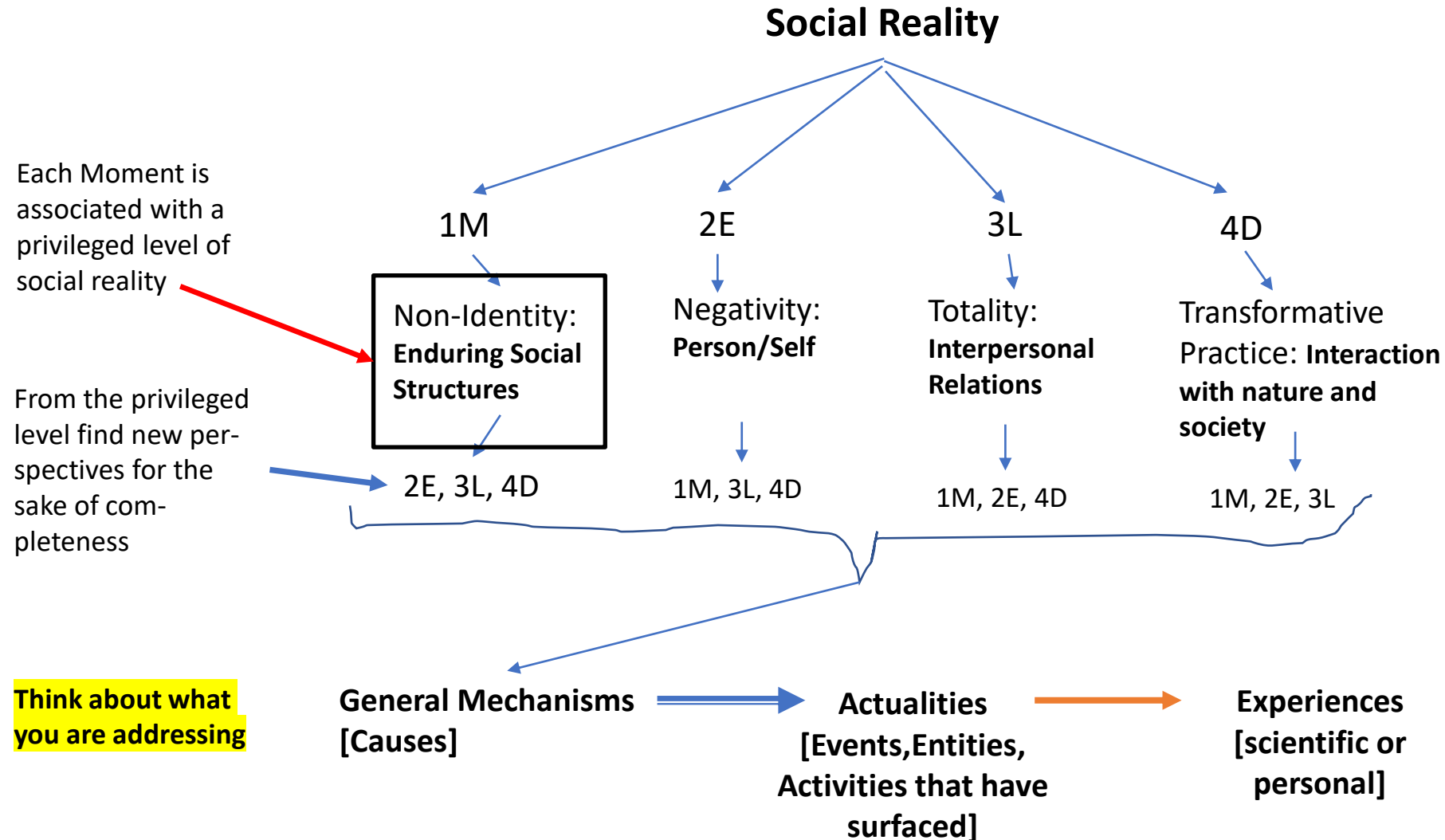
Social reality differs from natural reality in that it is both material and conceptual. For this reason, it is 'open to interpretation'. It depends on your ontology how you conceive of social reality.

Each of the four moments has a privileged relationship with each level of social being/reality.

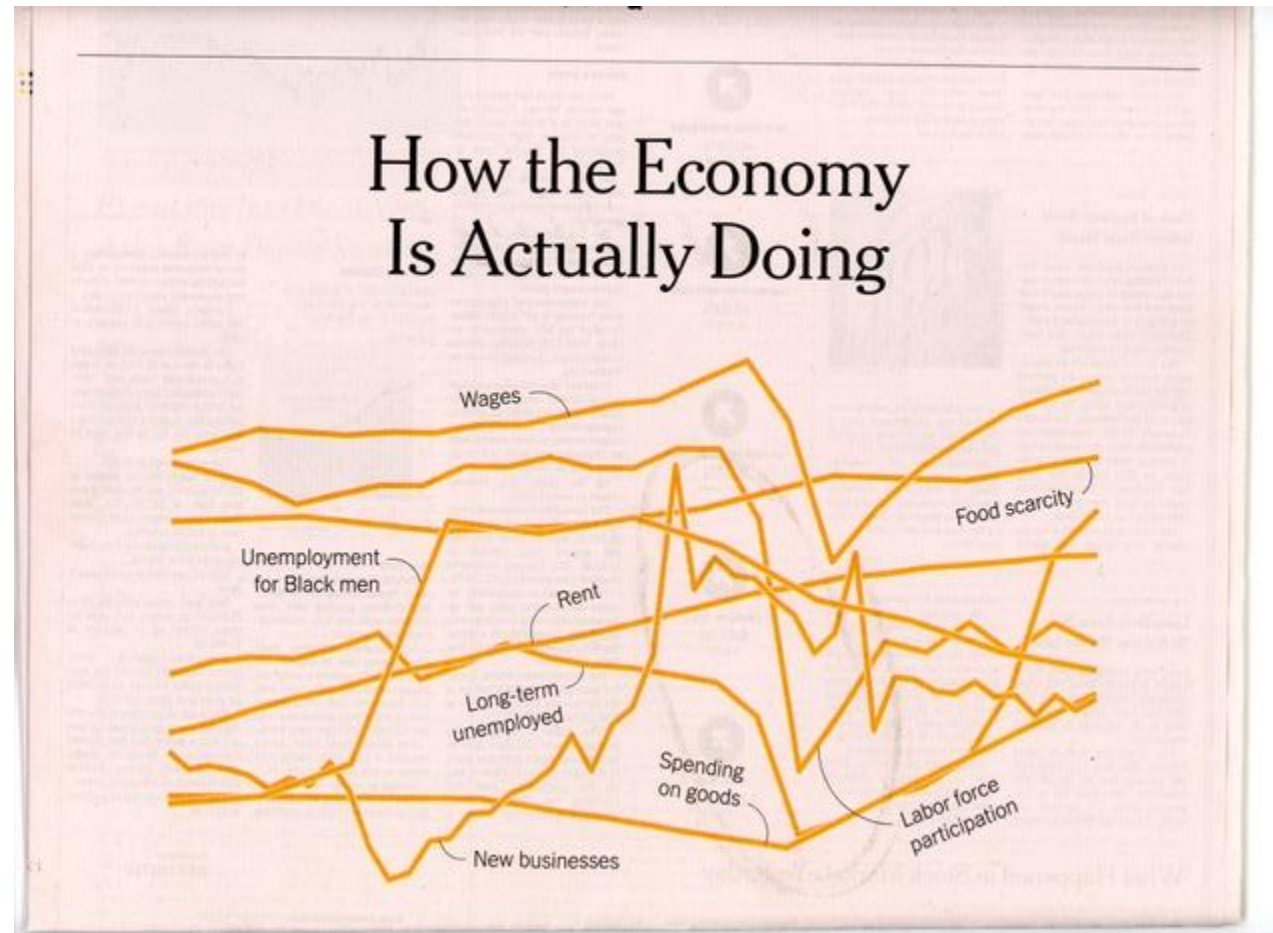
Bhaskar's 'Four Planar Social Being'

- **Social processes don't occur on a single level but on four interconnected levels simultaneously:**
 - plane 1 is about bodies and our material relations with nature (e.g., food intake);
 - plane 2 is about interpersonal relations;
 - plane 3 is about enduring social structures;
 - plane 4 is about our inner being, called the person (self) from which human agency flows.
- In developmental theory (as a theory of social being), planes 2 and 4 are intrinsically linked and moreover entwined with [or overlaid by] plane 3, given that social structures are reproduced by human agency.
- As a result, not only is there a dialectic on each of these planes stemming from the relationship [interaction] of its constituent components; there is also a dialectic *between these planes* that surfaces, for example, in questions such as:
 1. in what way does the aggregate level of social-emotional or cognitive maturity of a team or community determine the nature and quality of the social structures based on which members act as agents of social change?
 2. What is the influence of social-emotional other-dependence (Kegan stage 2) on the reproduction of the social structure of a specific organization?
 3. Would that structure be more likely to be transformed (rather than just reproduced) if members were operating at a higher than other-dependent level of meaning making?
 4. What is the influence of higher cognitive levels of sense-making on the dominant level of meaning making in an organization operating as a hierarchy in comparison with one operating as a sociocracy or shared-leadership organization?

The Critical Realism Approach to Social Reality [how to be complete in one's description of social reality]



Example of Stratification of Social Actualities Seen From 1M (NYT January 2020)



Plane 1: material relations with nature and society [4D]

Plane 2: interpersonal relationships [3L]

Plane 3: enduring social structures [1M]

Plane 4: Person (Self) [2E]

Implications of 4D

- Entails

- Human work
- Human work constitutes 'history'
- Human work implies/contains 'human/adult development over the lifespan'
- Human work is embodied in scientific, not just applied, work and practices
- 4D is anchored in, and pre-supposing, social processes and products (unthinkable without embedding in enduring social structures)
- 4D is a type of causality based on human 'reason' that itself is embedded in natural and social causalities
- 4D entails conceptual structures that are social and historical products and are potentially a target of causal scientific inquiry (in the social sciences)

First Moment [➔Enduring Social Structures]

(Bhaskar, Dialectic, 1993, pp. 392 f)

- 1M = Prime (first) moment. Characterized by non-identity relations, such as those involved in the critique of the epistemic and anthropic fallacies, of identity theory and actualism (denial of generative mechanisms). *Unified by the concept of alterity*, it emphasizes existential transitivity, reference detachment, the reality principle and ontology which is necessitates. More concretely, it fastens on to *the transcendently necessary stratification of the world, entailing concepts of causal powers and generative mechanisms, alethic truth and transfactuality, natural necessity and natural kinds*. Its dialectics are characteristically of stratification and ground, but also of inversion and virtualization. Its metacritiques turn on the isolation of the error of de-stratification.
- **In short:** under 1M, the world is seen as built from highly differentiated layers (dimensions) that are non-identical with and irreducible to each other; it is a world of 'alterity' (sheer otherness) requiring a distinction between the human, 'transitive', and the natural/social, 'intransitive', domains. The dialectics of 1M are those between stratification and ground (the many and the one), of inversion (of one stratum into another) and virtualization (removing of strata into absence where they remain unrealized).
- **Basic Error:** simplifying reality based on reducing stratification.

Second Edge [→ Person/Self/Agent]

- 2E = Second edge. Unified by the category of absence, from which the whole circuit of 1M-4D links and relations can be derived, its critical cutting edge is aimed at the Parmenidean doctrine of ontological mono-valance (sheer positivity), the Platonic analysis of negation and change in terms of difference and the Kantian analysis of negative into positive predicates. *It spans the gamut of categories of negativity, contradiction, and critique.* It emphasizes the tri-unity of causality, space, and time in tensed rhythmic spatialization process, thematizing the presence of the past and existentially constitutive process (geo-history). Its dialectics are typically of process, transition, frontier, and node, but also generally of opposition including reversal. Its metacritiques pivot on the isolation of the error of positivization and oppositional apriori to which it inevitably gives rise.
- In short: under 2E, the world is seen as pervaded by absences (by what is not yet actualized or de-actualized), requiring for its understanding the categories of negativity (x intrinsically linked to its other, y), contradiction, and critique. 2E thematizes the presence of the past and existentially constitutive (geo-historic) processes [thus deep embeddedness in process]. The dialectics of 2E are those of process, transition, frontier (area near or beyond a boundary) and node (basic unit linked into a network), but also of opposition including reversal.
- Basic Error: denial of negativity (positivization), thus denial of change and transformation of reality, natural or social [preservation of status quo].

Third Level [➔ Interpersonal Relationships]

- 3L= Third Level. Unified by the category of totality, it pinpoints the error of ontological extensionalism, including the hypostization of thought. It encompasses such categories and themes as reflexivity, emergence, constellationality, holistic causality, internal relationality and intra-activity, but also de-totalization, alienation, split and split-off, illicit fusion and fission. Its dialectics of centre and form and content, figure and ground, generative separation and de-alienation, retotalization in a unity-in-diversity. Its meta-critiques pivot on the identification of detotalization. There is a special affinity with 1M, since totality is a structure.
- In short: under 3L, the world is seen as a totality as itself a *structure* that gives rise to holistic causality (irreducible to single factors as attempted through 'experiments'), thus an organism defined by internal relationality and intra-activity of components. As a result, reality actualizes itself in the form of emergence based on splitting (fission) and fusion, a movement reaching from center to periphery, both physically and mentally. In the social domain, it appears as reflexivity, generative separation and de-alienation, striving for creating a unity-in-diversity (based on reasons and conceptions), as well as critique of reduction of totality to single factors and causes that disregards intrinsic relationships.
- Basic Error: de-totalization.

Fourth Dimension[➔Interactions of Society with Nature]

- 4D = Fourth Dimension. Unified by the category of transformative practice or agency. **In the human sphere it is implicit in the other three.** Metacritically, it pinpoints two complementary kinds of ontological de-agentification – [a] dualistic disembodiment typical of (e.g., discourse in) the intrinsic aspect, and [b] reductionist reification, characteristic of the extrinsic aspect. There is a special affinity with 2E since agency is (intentional) causality, [power of intention] which is absenting. Agency is sustained philosophically by an emergent-powers materialist orientation and substantively by the concept of four-planar social being in nature with the moral evolution of the species, like the future generally, open. Its dialectics are at the site of ideological and material struggles, but also of absolute reason and it incorporates dialectical critical realism's dialectic of desire to freedom.
- In short: under 4D the world is seen as both giving rise to human action empowered by reason and desire (mind) and as being (potentially) complicit with human agency directed to 'absenting' social ills and insufficiencies, in affinity with 2E. This plays out on four [intrinsically related] planes of social being [1M: enduring social structures; 2E: Person, 3L: interpersonal relationships; 4D: interactions with nature]. Social being itself is seen as based on mind as it emerges from matter over the adult lifespan (embedded in cultures), oriented to an open future, determined by ideological and material struggles in society viewed as embedded in and impacting on nature. Society as part of nature.
- Basic Error: De-agentification.

Human Agency as ‘Work’; Internal and External ‘Workplace’

- People working in organizations are ‘agents’ acting from reasons as well as desires, under the influence of enduring social structures; they have both an *external* workplace (role, position, associated with practices) and an *internal* one in which they ‘conceive of’ and ‘construct’ their work.
- We refer to the external workplace as the environment of Job 1 where work is ‘delivered’, and to the internal workplace as the environment of Job 2 where ‘adult-developmental work’ is done.
- The internal workplace is something people take with them when they change their external workplace, and this workspace is structured social-emotionally, cognitively, and psychologically.
- The ‘thinking’ people do in their external workplace is anchored in their internal one, and a function of their level of cognitive development manifest as fluidity of thinking.
- DTF ‘epistemic’ thought forms have their proper place in people’s INTERNAL workplace from which they configure their external workplace which is primarily geared to Experiences and Actualities, not Generative Mechanisms.
- By being anchored in their internal workplace (Job 2), people are straightforwardly at risk for the epistemic fallacy by which they reduce natural and social reality to pure thought, essentially logical thought.
- We can conceive of people’s internal workplace/Job 2 as a DIALOGUE SPACE, both for dialoguing with themselves as persons and with others in interpersonal relationships.

Work is the Fulcrum of Human Agency

[and of the external and internal workplace]

- At its core, ‘human agency’ manifests as ‘work’.
- **Work activities are based on the interrelationship of all planes of social being.**
- Work is developmentally determined by various strata of mind, as well as situated ecologically in specific ways.
- Work delivery cannot be understood separate from individuals’ *conception* of their work *role* as associated with work *practices* (which together form an enduring social structure).
- Conception of role/practices is subject to an *epistemic as well as adult-developmental dialectic* both per individual or team, which determines quality of collaboration.
- **Adult development is the glue linking the four planes of social being**, which thus is differentiated in manifold ways social-emotionally, cognitively, psychologically, and spiritually.
- Levels of development of a worker show up in his or her conception of work role and associated practices, **decodable from epistemic findings in his/her internal workplace.**

Each Level of Social Reality Has A Privileged Relationship With One of the Moments of Dialectic

Moments of Dialectic	Planes or Levels of Social Reality
First Moment (1M)	Plane 3: Enduring Social Structures (e.g., organizational Position/Practice Systems)
Second Edge (2E)	Plane 4: Person/Self
Third Level (3L)	Plane 2: Interpersonal Relationships
Fourth Dimension (4D)	Plane 1: Material Relationships with Nature and Society

Plane 1: material relations with nature and society [4D]

Plane 2: interpersonal relationships [3L]

Plane 3: enduring social structures [1M]

Plane 4: Person (Self) [2E]

Each of the Four Moments has a privileged Relationship with one of the 'planes'/levels of social reality.

How the Real (Physical and Social) World Shows Up Under Each of the Four Moments

Sheer Otherness.

Under 1M, the world is seen as built from highly differentiated layers (dimensions) that are non-identical with and irreducible to each other; it is a world of 'alterity' (sheer otherness) requiring a distinction between the human, 'transitive', and the natural/social, 'intransitive', domains. The dialectics of 1M are those between stratification and ground (the many and the one), of inversion (of one stratum into another) and virtualization (removing of strata into absence where they remain unrealized).

Negativity/Absence

Under 2E, the world is seen as pervaded by absences (by what is not yet actualized or de-actualized), requiring for its understanding the categories of negativity (x intrinsically linked to its other, y), contradiction, and critique. 2E thematizes the presence of the past and existentially constitutive (geo-historic) processes [thus deep embeddedness in process]. The dialectics of 2E are those of process, transition, frontier (area near or beyond a boundary) and node (basic unit linked into a network), but also of opposition including reversal.

Totality -- Under 3L, the world is seen as a totality as itself a *structure* that gives rise to holistic causality (irreducible to single factors as attempted through 'experiments'), thus an organism defined by internal relationality and intra-activity of components. As a result, reality actualizes itself in the form of emergence based on splitting (fission) and fusion, a movement reaching from center to periphery, both physically and mentally. In the social domain, it appears as reflexivity, generative separation and de-alienation, striving for creating a unity-in-diversity (based on reasons and conceptions), as well as critique of the reduction of totality to single factors and causes that disregards intrinsic relationships.

- **Transformative Praxis -- Under 4D**, the world is seen as both giving rise to human action empowered by reason and desire (mind) and as being (potentially) complicit with human agency directed to 'absenting' social ills and insufficiencies, in affinity with 2E. This plays out on four [intrinsically related] planes of social being [1M: enduring social structures; 2E: Person, 3L: interpersonal relationships; 4D: interactions with nature]. Social being itself is seen as based on mind as it emerges from matter over the adult lifespan (embedded in cultures), oriented to an open future, determined by ideological and material struggles in society viewed as embedded in and impacting on nature. Society as part of nature.

Four Perspectives on Organizational Merger Relative to a Company's **Position/Practice System (PPS)**: An Example of Describing a Social System Comprehensively

A PPS is an enduring social structure that holds together collaborative work in an organization or institution.

Merging two different PPSs amounts to moving from the reproduction to a transformation of social structure.

Using Bhaskar's four MELD moments, we can describe the issues that may arise from an ontological point of view.

First Moment (1M): Manager 1 [privileged focus: enduring social structures, social being/reality, level 3]

We used to make quite a good profit by selling our product line, but when the pandemic [4D: interaction with nature ...] came along, we felt compelled to consider buying, and merging with, a service company aligned with our products called Acme. Our first thought went to structural concerns, how we would manage to unite two very different role/practice systems we now were settled with. Each of them, one aligned with services, the other with production, had a very different teamwork structure in that the first (Acme) had nothing to do with actual product invention and improvement, while the second was absolutely focused on it. According, role and performance expectations were completely different in the two role/practice systems the former companies comprised and so were what was expected from managers operating in the two different role systems. Managerial issues primarily showed up in how activity streams now had to be managed differently since we had not yet developed mind sets which combined products and services, not to speak mindsets for building products around services and vice versa. As a result, our work levels, both in production and service development, became much more differentiated than they had been previously, in addition to requiring very different forms of alignment. We found out the hard way that even functions that remained outwardly identical had internally different hooks that linked them together so that we had to refine our notion of them in the merger environment in which we were working. And while we had previously done well assuming a somewhat top-down approach to production, when we integrated Acme services, we had to move toward a much more horizontal, agile orientation and reconstruct our teams from top to bottom so that many of the social structures in place simply fell away.

Second Edge (2E): Manager 2 [privileged focus: Person, social being/reality level 4]

We used to make quite a good profit by selling our product line, but when the pandemic came along, we felt compelled to consider buying and merging with a service company aligned with our products called Acme. Our activities were now overshadowed by our past, our ingrained habits and tested solutions which we now needed to view highly critically. Since production by itself tends to follow validated, largely top-down, directives, customer orientation issues -- so essential to services -- had us rethink not only our products but our team structures, and the interpersonal relationships that went with them. In the broader field of customer and supply chain relationships, we found many contradictions that had to be located and critiqued in team dialogues as well as at the executive level, and so the dialogical structure of both production and services got considerably strengthened. We were forced to have a much closer look at our contributors as persons than we had become used to. Specifically, we began focusing on the process of teaming, how a network of agile teams required more highly complex role definitions beyond simple notions of team leader vs. team member. This complication of team formation also led us to becoming increasingly aware of the causal power of team members' personal potential, moving our understanding of human resources from a focus on competences to the broader view of human potential that we called 'capability'. This, in turn, led us to seeing that our contributors were really doing two jobs at once, *job 1* as what the work directly and logistically required of them, and *job 2* as what the work required of them as individuals on a developmental journey, and as naturally emerging toward higher levels of personal meaning making and sense making. In short, we had to throw out the (neo-) tayloristic reduction of persons to "human resources".

Third Level (3L): Manager 3 [privileged focus: interpersonal relationships, social being/reality level 2]

We used to make quite a good profit by selling our product line, but when the pandemic came along, we felt compelled to consider buying and merging with a service company aligned with our products called Acme. As a result, we began to see our operations in a different light, namely as a totality, almost an organism whose structure was defined by how work levels and functions within them interrelated and interacted. It struck us that the company as a whole was less something given (as we had previously viewed it), but rather something that was emerging into an open future on account of how well we were able to understand how production and service functions were literally undefinable one without the other. This entailed, on the one hand, that we needed to analytically *separate* what previously we had seen as a unit (as for instance product development and production proper), while on the other hand we needed to *fuse* functions we had always separated (such as production and sales). On the customer side, we realized we would have to understand and manage the new perceptions which customers would develop of our company now offering both products and services. Inside the company we felt we needed to update our notion of interpersonal relationships, especially by more clearly distinguishing work levels (levels of work complexity), from continuous improvement to value stream management to business modeling. It seemed to us that our previous top-down structure had blinded us to how work streams intersected with each other, and this had diminished our sense of the embedding of one in the other. We also became more sensitive to adult-developmental issues having to do with developing our workforce in a more deliberate manner, relying less on trainings than on working to improve the quality of dialogue in and between teams to strengthen interpersonal relationships. In short, we became much more aware of different types of interpersonal relationships as something that differed as a function of work level differences (that we referred to as differences in 'dialogue spaces').

Fourth Dimension (4D): Manager 4 [privileged focus: material relationships with nature, social being/reality level 1]

We used to make quite a good profit by selling our product line, but when the pandemic came along, we felt compelled to consider buying and merging with a service company aligned with our products called Acme. Given that our product line (respirators) now became one of central social necessity, we not only had to modify and increase production but had to view ourselves as operating at a different place in the economy. More specifically, it was no longer enough to pay attention to the internal social structures in place in our company (e.g., the position/practice system we had adopted). We had to pay more attention to our contributors as persons that were *physically at risk* as well as interacting with each other in an increasingly de-socialized, virtual way, and this changed our notion of how we operated as a company and showed us heretofore never noticed limitations of our business model. In a way, we became part of the ideological and material struggles of society caused by the pandemic which heretofore we thought to be aloof from. We now had to put in place a new role system optimally adapted to our new crew and rethink the day-to-day as well as long-term practices and profit structures associated with it. For one thing, the nature of 'work' which already had been dramatically changing before the pandemic now needed our primary attention. Parameters such as the physical health of our contributors as well as consumption defined by customer groups' health status became crucial parts of our business model since we were no longer immune from the natural disaster that had struck our society. In short, the way we viewed our position in the market of health products, and how we conceived of work delivery in-house and customer demand outside of us changed fundamentally.

Four Managers' Internal Workplace: Each Manager is Following a Privileged Moment to Describe an Organizational Merger

In contrast to a 'thought form analysis' in the sense of DTF (where we would ask "what TFs did each manager use?"), in the examples that follow we ask: "to what degree can this manager think in terms of the single Moment of Dialectic s(he) has chosen as a privileged perspective on social reality *and from there find his way to the other three Moments?*"

By so doing, we put 'reality' before 'thought' rather than reducing reality to thought (forms).

Also, we thereby do justice to the real-world referent to which our sense making refers and avoid mistaking the complexity of statements' thought form structure for the quality of the truth claim they make.

Doing so will enable us in the future to critically examine with what degree of adequacy social reality is made sense of, i.e., the adequacy of the sense making by itself, rather than simply its epistemic thought form structure.

Introduction to Epistemic Thought Forms (DTF)

Mismatch of Ontological and Epistemic (DTF) Dialectic [the Four Moments overreach thinking on the four levels of Social Planar Being]

- The association of epistemic TFs with Bhaskar's ontological Moments in DTF (Laske 2008) needs revision since it invites the epistemic fallacy by which reality is reduced to thought.
- Moments cannot be reduced to thought form 'classes'; they cannot be rendered in terms of logical thinking or by DTF thought forms turned into logical schemata.
- Among the CPRT classes, C=context is the worst offender since it reduces 1M to Actualities and Experiences, with no consideration of pervasive Generative Mechanisms. Context TFs thus confine the real world based on its relationship with human experience, disregarding the causal power of human sense- and meaning making.
- Due to the precedence relationship $1M > 2E > 3L > 4D$ linking the Four Moments, all Moments following 1M are reduced in their ontological potency to a shallow realism confined to Actualities and Experiences.
- Since a real world existing independent of human experience is not acknowledged, the epistemic fallacy committed by DTF TFs is pervasive in its result.
- Shallow realism is especially pronounced in the Relationship class of TFs, because all relationship TFs disregard the causal power of absences associated with 2E.
- This tendency culminates in Transformational TFs because the emergent quality of 3L is purely 'transitive'.
- In short, DTF thought forms confine human dialectical thinking to 'transitive' events, entities, and activities.
- **An outline of specific mismatches in the four TF classes follows.**

Context TFs [*larger contexts remain stable across change*]

Sheer Otherness.

Under 1M, the world is seen as built from highly differentiated layers (dimensions) that are non-identical with and irreducible to each other; it is a world of 'alterity' (sheer otherness) requiring a distinction between the human, 'transitive', and the natural/social, 'intransitive', domains of science. The dialectics of 1M are those between stratification and ground (the many and the one), of inversion (of one stratum into another) and virtualization (removing of strata into absence where they remain unrealized).

8. Contextualizing a part within a whole; emphasis on part

Attention to organized wholes of which something is a part or element.

9. Equilibrium of whole; emphasis on whole

Attention on the balance of a larger whole; the way it forms a Gestalt. Holistic perspective.

10 Description of structures, functions, layers defining (social) systems

System descriptions in historical, functional, structural, mechanical, or in terms of strata or levels composing a whole

11. Focus on the hierarchical nature of structures and layers systems comprise

Description of the nature of hierarchy in systems or lack thereof. Emphasis on inclusion and transcendence of lower levels.

12. Focus on stability of system functioning

Describing or explaining the smooth functioning of a system with focus on its stability.

13. Focus on intellectual systems frames of reference

Describing the larger philosophical or ideological environment of assumptions, ideas, principles, paradigms.

14. Multiplicity of contexts (non-transformational)

Attention to a variety of contexts or dimensions in which events, situations, individuals are embedded (without stressing their relationship or transformation).

Explanatory Critique of Context TFs

- Reality presented as a closed and stable rather than an open system that emerges on account of a multiplicity of causal mechanisms.
- Totality of causal powers is installed in a static rather than an open system
- Degree of alterity (incommensurability of layers) and differentiation minimized
- Intellectual and social systems treated as natural systems
- Events, entities, and activities seen as extrinsically, not also intrinsically, linked
- **BASIC ERROR: Brutal simplification of the real world by reducing it to Actualities and Experiences; epistemic fallacy: reduction of reality to thought.**
- **Remedy: Introducing ontological safe-guards for distinguishing social and natural reality.**

The Class of Context Thought Forms Distorts/Undoes 1M

- This class is the worst offender of the four moments of critical realism since it is born of the epistemic fallacy the moments are meant to correct, especially when neglecting to distinguish the 3 levels of reality (generative mechanisms, actualities, and experiences [i.e., 'vertically']).
- The distortions of Context reverberate through the entire table of TFs since $1M > 2E > 3L > 4D$.
- Context thought forms eliminate Bhaskar's "intransitive", non-human domain of nature and leave only the "transitive" one of human agency standing.
- They defeat the purpose of the notion of human agency by absolutizing it.
- They approach what is left standing of the real on positivistic grounds, assuming that experiences and actualities are all we have to worry about, and that the causal powers determining natural and social necessity are themselves "continuous conjunctions" (called 'causes') rather than the products of generative mechanisms operating in open systems.
- Context TFs pretend to be ontologically neutral concepts that paint the natural and social world equally correctly. They do so by turning both worlds into a CLOSED SYSTEMS, which even in transformational TFs cannot be undone (since the latter only deal with actualities and experiences).
- As a result, the 3 remaining classes of TFs (based on Context) equally paint the world as a closed system governed by 'laws' whose ultimate causal roots (generative mechanisms) remain elusive or absent, and consequently irrelevant (not part of the picture).
- Context TFs represent positivism at its best, with no recourse to alethic truth represented by 1M.

Use of Context TFs Requires an Ontology

- **More dramatically than other TFs, Context TFs are typically used without honoring the vertical distinction between three levels of social (and physical) reality, namely, generative mechanisms, actualities, and experiences.**
- To counter a strictly merely epistemic use of Context TFs, we want to pay attention to Bhaskar's definition of the object(s) of social science (PM, 140):
- *Social science is not only concerned with actions, but with their conditions and consequences (including the states and relations of structures and agents), as well as with societies and persons are and may become, as well as with what they do. Moreover, it is concerned with actions that are practical, not just symbolic; with making (poiesis), not just doing (praxis), -- or rather with doing which is not, or not only, saying (signifying or express-ing). Such making always possesses a material cause.*
- *We make neither society nor ourselves (but are becoming who we are in (unconsciously) reproducing and (sometimes consciously) transforming society in acting upon its structures.*
- To so focus our use of (Context) TFs on the three dimensions mentioned above, we can follow *the privileged relationships* of the four moments to the four levels of social reality (shown previously).

Process TFs: [*everything is in unceasing motion*]

Negativity/Absence

Under 2E, the world is seen as pervaded by absences (by what is not yet actualized or presently de-actualized), requiring for its understanding the categories of negativity (x intrinsically linked to its other, y), contradiction, and critique. 2E thematizes the presence of the past and existentially constitutive (geo-historic) processes [thus deep embeddedness in process]. The dialectics of 2E are those of process, transition, frontier (area near or beyond a boundary) and node (basic unit linked into a network), but also of opposition including reversal.

1 Unceasing movement, hidden dimensions, negativity

Expression/awareness of unceasing change, past/future in present, hidden dimensions

2. Use of preservative negation (inclusion of antithesis or 'other')

Seeing change as canceling, including, and transcending what is, leading to differentiation of events through inclusion of what they exclude, thereby broadening conceptual space.

3. Composition by inter-penetrating opposites, correlates

Emergence of something new from an interchange of (opposite) energies or ideas. Figure and ground.

4. Ongoing interaction creating patterns of movement

Patterns of motion in interactive relationships. Processes of 'give and take' bringing about a shift.

5. Active, practical nature of knowledge

Practical, interactive character of knowledge as always under construction, never absolute.

6. Critique of arresting motion and process [reification]

Assertion of the relevance of movement, and critique of attempts to deny, hide, disavow change. What exists is a form, not a thing.

7. Embeddedness in process, movement

Focus on the fact that what happens is embedded in an ongoing process, on past and future as an aspect of the present.

Explanatory Critique of Process TFs

- As 1M is flattened, Actualities and Experiences overreach Generative Mechanisms, leading to a shallow realism of 2E.
- As a result, 'unceasing movement' as well as 'preservative negation' remain bound to shallow realism.
- Human agency complicit with nature is reduced to practical knowledge.
- Embeddedness in process remains at the level of Actualities defined by continuous causal junctures: impoverishment of holistic causality.
- Critique of positivization remains shallow since not encompassing 1M fully.

Relationship TFs [*intrinsic and external links hold things together*]

Totality -- Under 3L, the world is seen as a totality as itself a *structure* that gives rise to holistic causality (irreducible to single factors as attempted through 'experiments'), thus an organism defined by internal relationality and intra-activity of components. As a result, reality actualizes itself in the form of emergence based on splitting (fission) and fusion, a movement reaching from center to periphery, both physically and mentally. In the social domain, it appears as reflexivity, generative separation and de-alienation, striving for creating a unity-in-diversity (based on reasons and conceptions), as well as critique of the reduction of totality to single factors and causes that disregards intrinsic relationships.

15. Limits of separation. Focus on existence and value of relationship.

Assertion of the existence of relationship(s), pointing to common ground and the difficulty of separating things from each other beyond certain limits.

16. Value of bringing into relationship.

Assertion of the value of seeing a relationship between things or forms otherwise seen as separate.

17. Critique of reductionism, unrelated discretes, and de-totalization; neglecting common ground

Critique of de-totalizing reality by neglecting relationships between opinions, assumptions, ideas leading to a reduction of complexity, overlooking underlying shared frameworks, thus common ground. Critique of absence of holistic thinking.

18. Relatedness of different value and judgment systems

Assertion of the relatedness of seemingly different, even opposed values, judgments, ideas, principles, stressing cultural commonalities.

19. Describing relationships in structural terms

Focusing on what is the formal structure of a relationship (or relationships) in order to locate the essence of how things are related.

20. Describing patterns of interaction in relationships

Describing a pattern of interaction and influence in a relationship, emphasizing the pattern(s) of interaction between the elements that are in relationship.

21. Describing the constitutive relationship that determines the nature of what is in relationship

Describing a relationship as 'constitutive' or making the parts it relates be what they are. Emphasis on the logical priority of the relationship over the elements it relates.

Explanatory Critique of Relationship TFs

- As 1M and 2E are flattened, 3L loses its aspect of emergence and is reduced to external relationships.
- Although nominally preserved, internal relatedness is restricted to Actualities and Experiences.
- Value and judgment systems remain unrelated to enduring social structures in which they are grounded.
- Relationships, while described in structural terms, are not seen as generative and emergence at the level of 1M: shallow realism.
- Constitutive relationships are not seen as multi-dimensional and potentially non-identical.

Transformational TFs [*systems reorganize through change*]

Transformative Praxis -- Under 4D, the world is seen as both giving rise to human action empowered by reason and desire (mind) and as being (potentially) complicit with human agency directed to 'absenting' social ills and insufficiencies, in affinity with 2E. This plays out on four [intrinsically related] planes of social being [1M: enduring social structures; 2E: Person, 3L: interpersonal relationships; 4D: interactions with nature]. Social being itself is seen as based on mind as it emerges from matter over the adult lifespan (embedded in cultures), oriented to an open future, determined by ideological and material struggles in society viewed as embedded in and impacting on nature. Society as part of nature.

22. Limits of stability, harmony, and durability

Pointing to limits of stability, balance, and durability without making their causes explicit. (Emphasis is on the 'negative' aspect of negativity which also has a positive aspect, that of emergence.)

23. Value of conflict leading in a developmental direction

Value of the conflict itself and the resolution of conflict in a developmental or transformative direction, leading to dissolution of older forms and systems.

24. Value of developmental potential leading to higher levels of functioning, integration and social change

Value of developmental movement (with or without conflict) for the sake of transformation, establishing a new balance, greater inclusiveness.

25. Evaluative comparison of systems in transformation

Holding systems side by side as forms, and evaluating them as to effectiveness, usefulness, adaptability, and as mutually sustaining.

26. Process of coordinating system

Attention to the process of coordinating two (or more) systems with each other for the sake of bringing them into balance.

27. Description of open, self transforming systems

Emphasizing the equilibrium and ability of a living system to remain 'itself' based on unceasing transformation; pointing to a formal aspect of identity-intransformation.

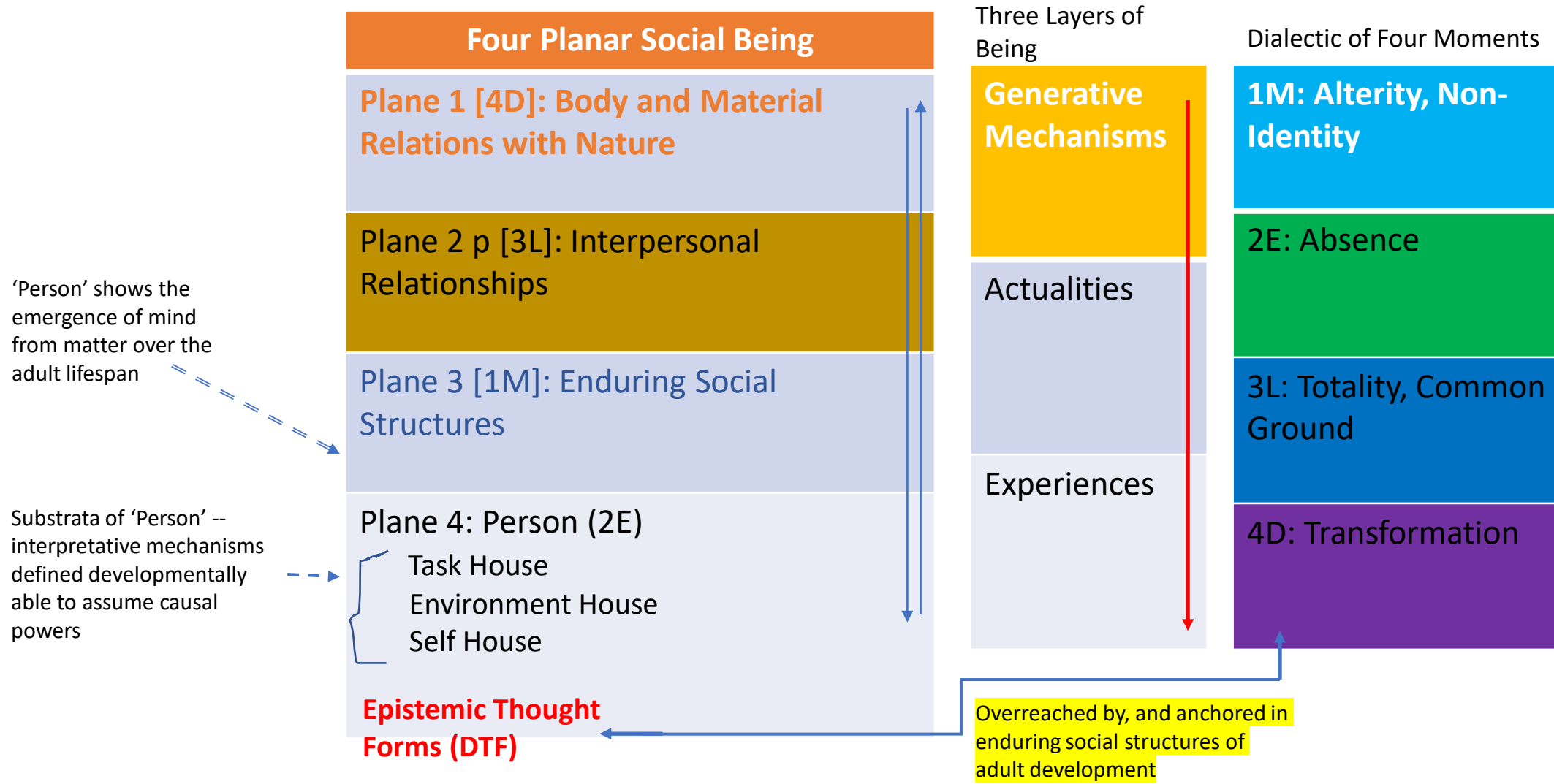
28. Integration of multiple perspectives in order to define complex realities; critique of formalistic thinking.

Critiquing the one-sidedness of abstractions; preserving concreteness and realism by juxtaposing one or more perspectives on the same subject matter.

Explanatory Critique of Transformational TFs

- Due to maintaining a shallow realism of 1M, 2E, and 3L, the transformation of natural systems is confined to Actual[ties and social Experiences.
- For the same reason, social systems lose their complicity with nature and are bereft of the emergence of mind from matter as propelled by developmentally sustained human agency.
- As a result, the causal power of human agency emerging on account of delivering work is diminished in its impact on both the natural and social worlds.
- Without acknowledgement of intransitive realities, the integration of non-identical layers of reality is reduced to a matter of thought.

Epistemic Thought Forms Seen in the Framework of *Four Planar Social Being* Embedding Human Agency As 'Work'



Epistemic Thought Forms are Tools of Human Agency at Risk for Reducing (Social and Physical) Reality to Thought

- Epistemic TFs are tools of human thinking for understanding the natural and social ontology of the real world from a pragmatic human-agency perspective focused on delivering 'work' shaped by protagonists' internal workplace.
- Consequently, the causal power of TFs (when brought to bear on social problems) is itself differentiated in terms of social structures called 'stages' and 'phases' of adult development and its vicissitudes, as well as a function of the existing educational systems, devised for the sake of social structures to be both reproduced and transformed.
- Given that human agents who deliver work have no interest in general mechanisms but only in transforming actualities (events, entities, activities) based on personal and professional experience, and that the Four Moments of Dialectic ontologically 'overreach' the use of epistemic TFs, how might the former serve as norms of alethic truth in social research and organizational practice?
- As seen by inspecting the DTF Table of 28 TFs, they partly distort or even subvert, and thus only incompletely render the Four Moments of Dialectic [see below].
- This leads to a chasm between ontological and epistemic dialectic that functions as a theoretical as well as pragmatic hindrance to harnessing causal power to epistemic dialectic beyond mere *flexibility of thinking*.

DTF in the Context of Social Science

- The epistemic thought forms presented in DTF are largely incommensurable with the Moments of Dialectic to which they refer. When we consider them a part of human agency, itself part of the social world, they appear prone to simplifying, logifying, and reducing real-world complexity [in the sense of Critical Realism], with an attendant goal of no more than 'fluidity of thinking'.
- By nature, DTF thought forms are apt to overfocus on Actualities and Experiences to the detriment of Generative Mechanisms, thus trivializing powers of holistic causality, to the detriment of social science insight.
- To avoid the reduction of Moments of Dialectic -- and thus of generative mechanisms as distinct from actualities and experiences -- to 'classes of thought forms', we need to view DTF thought forms as imperfect approximations of the Moments of Dialectic.
- DTF thought forms are 'houses' in social agents' internal workplace and their effect on agents' external workplace, except for "changes of mind", is unclear. Changes of mind only become causal when they contribute to transformations rather than just reproductions of social structures. Their contributions to changing mere "experiences" is most likely minimal.

Choosing to Think Ontologically Before Epistemically: A Good Choice for the Interviewer, Coach, and Critical Facilitator

- In the social sciences, we can use DTF classes of Thought Forms as ‘approximations’ to, **if we also see them as distortions of**, real-world moments of dialectic.
- By sharpening our awareness of the four planes/levels of Social Being and their privileged relationship to 1M (enduring social structures), 2E (Person/Self), 3L (interpersonal relationships), and 4D (material relationships with nature [and society as embedded in nature]), we will realize that:
 - 1M is irreducible to ‘Context’
 - 2E is irreducible to ‘Process’
 - 3L is irreducible to ‘Relationship’
 - 4D is irreducible to ‘Transformation’.

Exercises

Purpose and Goal

- It is the purpose of the exercises to begin to master both the moments of dialectics and the DTF thought forms while remaining aware of their structural differences.
- The goal is to base one's use of thought forms on one's knowledge of the moments of dialectic since they are the ontological basis of epistemic thought forms (DTF TFs).

How to Avoid a Reduction of Reality to Thought: The 'Epistemic Stance' Needed to Use Moments of Dialectic (i.e., think in terms of ontological dialectic)

- **(1) Be aware that your experiences point to what causes them -- causal structures -- only very indirectly or not at all.**
- **(2) Be aware that what you encounter in the so-called “empirical world” is an ‘actualized’ segment of a reality that excludes *unactualized causal structures* invisible to you.**
- (3) Be aware that you can breach the fact/value divide the more confidently the more you take seriously that what causes the facts (factum = man made) you point to may be ‘transphenomenal’, and thus points beyond the facts you focus on.
- Protect yourself from committing the epistemic fallacy by asking the question: “what must be true in order for x to be possible?” where ‘x’ refers to some feature or product of human experience or activity (alethic truth vs. propositional truth).
- Make a distinction between what is phenomenologically apparent (‘actual’) and what is ‘real’ (the latter comprising what is causal and so far has remained unactualized).
- **Proceed *retroductively*, i.e., from the description of some phenomenon to a description of something which either produces it or is a condition for its existence.**

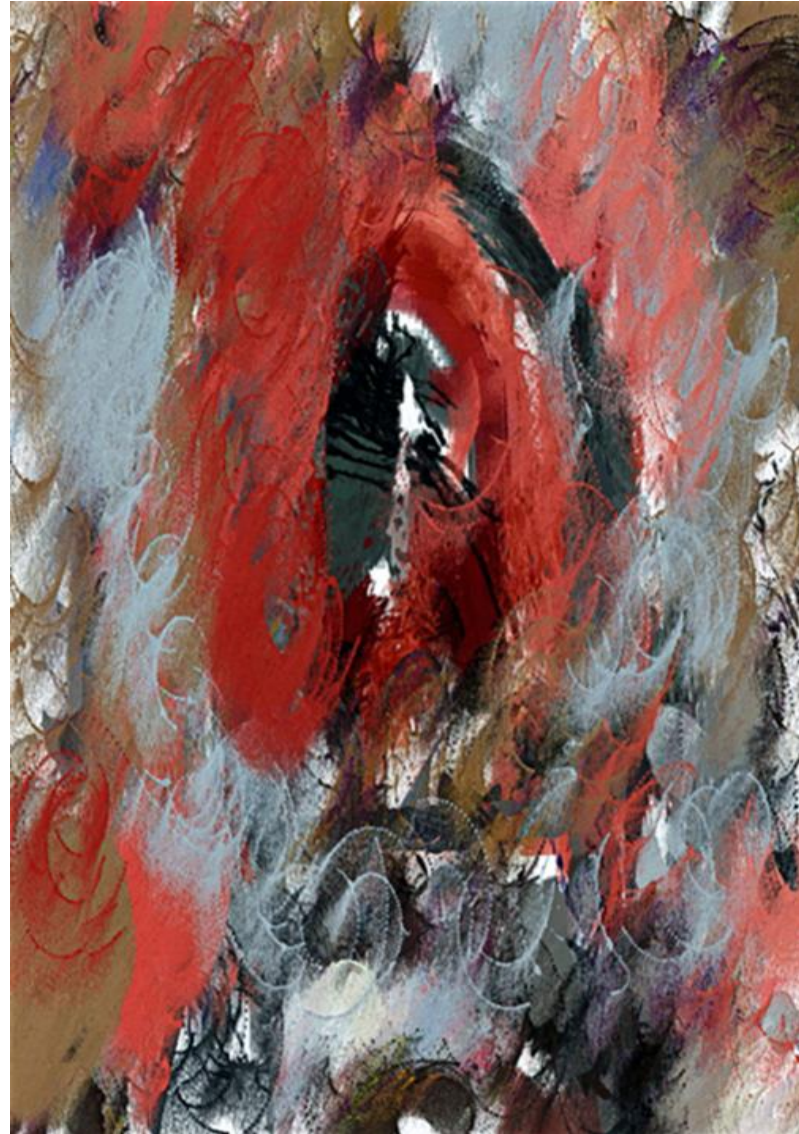
Dialectics Exercise 1: Verbal Description Instantiating Each Moment

- Remember or reconstruct a social or political situation that exemplifies **one** of the Moments of Dialectic.
- Keep in mind the central error that occurs when neglecting a specific Moment's characteristics (de-stratification, positivity, de-totalization, de-agentification).
- Point out what other Moments of Dialectic might be implied in your description (1M, 2E, 3L, 4D) and explain in what way that is the case.
- Reflect on how to change your description to include an additional Moment to correct the central error or initial incompleteness of your description.
- How many of the four Moments do you need to engage to arrive at a (truthful) description of the situation?

CONSULT THE IMAGES FOLLOWING THIS SLIDE TO GET AN IMPRESSION OF EACH MOMENT

- (1) Mechanisms and tendencies that fuel emergence of new realities
- (2) Stratification of potentially incommensurate layers; alterity, non-identity
- (3) High degrees of differentiation within and between layers
- (4) **Error:**
Simplification by way of *de-stratification*

1M



Axioms of 1M

- (1) What is no longer there
(presence of the past)
- (2) What is not yet there
(emerging trends,
unforeseen develop-
ments, absences)
- (3) What is in conflict and
could feed reversal;
interpenetration of
opposites
- (4) **Error:** reduction of
complexity by way of
positivization
(suppressing absences
such as ills, pains,
conflicts, clashes,
incongruences)

Axioms of 2L

2E



- (1) Emergence from the void
- (2) Non-linear (holistic) causality
- (3) Internal relatedness and intra-activity, illicit fission and fusion
- (4) **Error:** simplification on account of *de-totalization* (reduction to single elements)

Axioms of 3L

3L



- (1) Lack of inherent conjunction of events (despite 'laws' claiming their existence)
- (2) Unceasing reshaping of formed existences and experiences
- (3) Causal power of intentional causality [including its absence] (as part of human agency)
- (4) **Error:** Fixation of actualities on account of *de-agentification*

Axioms of 4D

4D



Dialectics Exercise 2: Compose a Descriptive Text or Construct an Argument

- Write 150 words describing a particular issue you are currently facing (either work or life related)
- Alternatively, construct an argument that unfolds your thinking about a particular social structure, social agent (person), set of interpersonal relationships, or a business or other practice.
- When writing this down, always remain aware of “where you are when you are thinking” or speaking in the layers of social reality you are embedded in.
- Share your description with the cohort, stating in a text what Moments of Dialectic are implied by your description (ask for feedback from the cohort).
- Referring to the characteristics of the Moments, reflect on what Moment (or what configuration of Moments) might be centrally involved in your description.
- Reflect upon how your way of thinking about the problem changes when referring to different Moments of Dialectic (and the contribution each Moment makes to the fullness and accuracy of your description).

Dialectics Exercise 3: Explanatory Critique

- In explanatory critique (in the sense of dialectics), we not only analyze (A) what is the problem or dilemma, but also (B) what led to it in the first place and made it inescapable, as well as (C) what can be done to correct the epistemic stance that nurtured the problem for the practice in question in the future.
- *The senior management of your office fought a long, difficult battle to receive funding for an ambitious multi-million-dollar project. Several months into the project, you, as the project manager, have come to believe that the project is not feasible and should be terminated. The engineers working on the project are growing increasingly frustrated at having missed every single project milestone so far, and a group of them recently asked for a meeting in which they described what they considered to be insurmountable obstacles to project completion. You have reported these problems, yet your supervisor is saying, "We fought hard to get this opportunity—make it work." Your office receives a request from the funder for a status report on the project, and you are responsible for preparing the report.*
- A: What configuration of Moments of Dialectic is involved here?
- B: What are the antecedents of the problem (or ethical dilemma), i.e., the causal powers (generative mechanisms) that fostered the problem and the social structures grounding the actions taken or not taken by participants?
- More specifically: what type of organizational culture is likely to give rise to the problem, and what does a culture look like in which problems like the above either can be noticed early on or do not occur, and if noticed, how should they be handled and by whom (the project manager, the engineers, the supervisor, the funder?). Also, in terms of human agency, what are likely developmental factors (causal developmental structures) that nurture a problem like the one selected?
- C: What overall dialectics lessons can be drawn from the problem to avoid its re-occurrence?

Dialectics as the Core of Explanatory Critique, itself the Core of Emancipatory Social Science

- As social scientists, we have to understand ‘social being’ before ‘social knowledge.’
- We would be missing the boat if, upon entering social science, we failed to distinguish dialectical thinking (with or without DTF thought forms) from the dialectics of the social world which to understand we are employing dialectical thinking.
- **We therefore say that there are two dialectics: an ontological and an epistemic one, and that the former sets limits to, and “overreaches”, the latter.**
- Our agency as human agents is based on *reasons* that are shaped by social-emotional, cognitive, and psychological development over the life span.
- For us to deliver an explanatory critique of society (and thus ‘do’ social science), we first need to give an explanatory critique of how our reasons for acting upon the social and natural worlds are *developing* over the human lifespan.
- Once we see developmental structures as enduring social structures that determine ‘reasons’ for human agency, and developmental science as the core of the social sciences, we are on our way to become social scientists in the sense of Critical Realism.

The Three *Houses* of Human Agency as Focus in Developmental Interviewing and Coaching

- To become a causal power, a human agent needs to deliver **work**.
- Work, in whatever domain of society, including the self, is associated with both an “internal” and an “external” *workplace*.
- The external workplace is a cultural and social reality as is the internal workplace.
- The internal workplace is the place where work is conceived of (cognitively); we can view this workplace as comprising three different partitions or ***Houses***:
 - **Task House**: a task domain defined by a role and its associated practice
 - **Environmental House**: the external, social and cultural, task environment of work
 - **Self House**: an ‘inner’ workplace defined by the worker’s cognitive, social-emotional development and psychological profile that defines the professional (not the private) self.
- **The ‘causal power’ of the worker’s agency** -- as exerted on (1) relationships with others, (2) existing social structures, and (3) his/her own developmental status -- **is a function of the worker’s level of maturity.**

Dialectics Exercise 4(a,b): Interview a Cognitive Process in the Three Houses (that define an agent's internal workplace, perhaps bypassing the Self House where the agents motivations and values are found)*

- **Exercise (a)**: in an interviewee's **Task House**, focus on the person's *roles*, their associated practices and accountabilities, including his/her notion of professional identity, role ownership, and role integration.
- In the sense of the Four Moments, consider the Task House as stratified into (e.g.) [1] type of authority wielded, [2] diversity of roles played, [3] ways of proceeding relative to collaborators that are associated with the role or practice.
- **Exercise (b)**: in an interviewee's **Environmental House**, focus on the person perspectives on the social, organizational, or political environment s(he) delivers work into, and the way s(he) reacts to others' expectation of, and feedback to, his or her performance.
- In the sense of the Four Moments, consider the Environmental House as stratified into different perspectives on the organization or life world in question: e.g., [1] a structural, [2] political, and [3] symbolic perspective that determines how the person makes cognitive sense of his/her work and workplace.

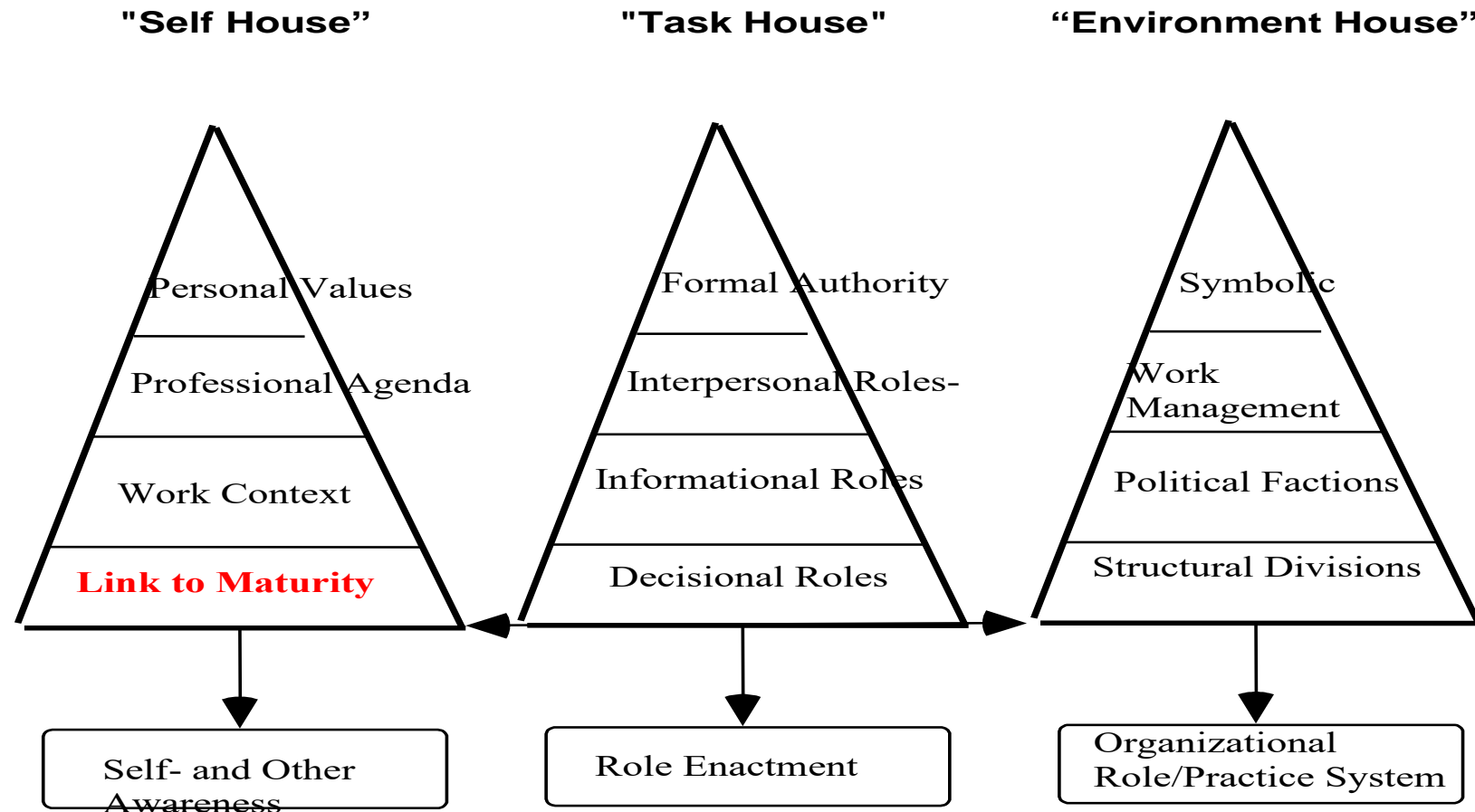
* Interviewing in the Self House risks veering into a social-emotional interview where meaning making, not sense making, is the topic.

Guidelines for Interviewing a Cognitive Process (for comprehensiveness and complexity of interviewee thinking)

- **To bring dialectical thinking to bear on interviewing**, we focus attention on either [1] how social-emotional 'prompts' are responded to, or [2] how work roles and associated practices are made sense of **cognitively**.
- **Interviewing Strategy**: *adopting the Four Moments, we listen for the extent to which their ontological axioms are respected by an interviewee, as well as for the occurrence of dialectical errors of simplification in the form of de-stratification (1M), positivization (2E), de-totalization (3L), and de-agentification (4D).*
- Regardless of whether interviews are developmental, psychiatric, psychoanalytic, or in the form of process consultation work, we listen for what is missing in interviewees' verbal reports (*conceptual absences*) and for *dialectical errors* made for the sake of simplifications.
- For instance, in conducting a semi-structured cognitive interview focused on (one of the) Three Houses of human agency, we focus attention as listeners on which of the axioms of the Four Moments are made explicit or violated, and on what maybe the conceptual consequences of such a violation in terms of fostering false belief systems.
- **Exercise**: interview another cohort participant in one of the Houses shown below.
- *Follow instructions and suggestions on the following slide.*

Three Domains of The Internal Workplace: Subjective Foundation of Position/Practice Systems

The privileged Moment of Dialectic is 1M pointing to an enduring social structure: the 'Position /Practice System' as the dominating social structure defining contributors' work and work relationships. It is in the framework of this structure that agency is exerted [work is done], and possibilities for exerting causal power exist. 1M is pointing to 2E (person) and 3L (inter-personal relationships) which, linked to each other, make transformative practice (4D) possible.



The Client's Internal Workplace

Three Houses:

A Framework for Cognitive Interviewing and Coaching

- The ‘internal workplace’ in which *work* (thus exerting agency) is *conceived* of can be thought of as comprising three domains or “houses”.
- These Houses divide what the agent can ‘think about’ or conceive into three different domains: (1) Task/Practice, (2) Embedding/Environment (of the Practice), and (3) Self Management.
- Each of these houses – Task, Environment, Professional Self -- comprises its own foundational topics.
- In cognitive interviewing and coaching (of individuals), we explore these topics, ways of conceiving of ‘work’, through dialectical thinking.
- We are probing agents’ conception of their work (agency) in terms of Moments of Dialectic before using DTF thought forms, to give a social-science grounding to our inquiry.

Dialectics Exercise 5: Coach a Cognitive Process in the Three Houses

- Cognitive Coaching based on the Four Moments of Dialectic is focused on ways in which a coachee's outlook, self-positioning, issues, behavioral and developmental obstacles and traps may be anchored in failures of comprehensive dialectical sense making.
- As in cognitive interviewing, use the Three Houses defining the interviewee's internal workplace to hone-in on what might be missing from the coachee's conceptualization of his or her external and internal workplace that accounts for his/her performance successes and/or failures.
- Proceed by separating the coachee's Three Houses ([1] Task, [2] Environment, [3] Professional Self), entering into them consecutively (1→2→3) over the coaching hour in order, at the end, to draw findings in all of the Three Houses together, -- perhaps closing with homework to reflect on the session and its outcomes.
- Exercise: coach a cohort participant about an issue of the latter's choosing. Observe that one of the major snafus the issue may be due to is the epistemic fallacy committed in formulating the issue.

Guidelines for Coaching a Cognitive Process in the Three Houses of Human Agency (i.e., of Work)

- Your coachee is unaware that s(he) is ‘thinking’ and thereby constructing his or her unique personal world *conceptually*, with direct consequences for how s(he) “feels” about his/her role, accountability, practice, options, decision-to-be-made, etc.
- As well, your coachee has never heard of the four moments of dialectic as a means to obtain a deeper understanding of what occurs in his or her work and life, and is thus unaware of the difference between the ‘sense’ s(he) making and the functioning of the ‘real world’ of social actualities and experiences s(he) is consistently referring to.
- Most likely, your coachee is a victim of committing the *epistemic fallacy* on account of which s(he) interprets propositional truths (of what s(he) communicates to you) as alethic truth (of ‘how things are’) and is thus in need of deeper conceptualizations of his or her experiences.
- She has engaged you as a helper who will analyze successes and predicaments in the form of an *explanatory critique*: (a) to understand the specific structure of situations, events, and activities at issue [on the level of Actuality], (b) help trace their developmental history, and (c) chart a path into the future leading beyond present limitations and absences.
- She will want to be emancipated from her self-constructed shackles; so your discourse is an emancipatory one meant to free up heretofore buried potentials for the coachee’s being and agency.

Dialectic Exercise 6: Facilitate a Team Process based on the Four Moments of Dialectic

- When working with teams, all four planes of Bhaskar's definition of social being powerfully come into play, predominantly the enduring social structures (#3) that shape interpersonal relationships (#2) and team members' professional and private self (#4).
- In organizational work, social structures appear in the form of culturally enduring **practices at different levels of work complexity** that shape team members' way of working together beyond their conscious awareness.
- For this reason, facilitating team processes poses challenges that go beyond those encountered when facilitating one-on-one processes such as coaching and consulting: there is a need to deeply understand the social structures (i.e., practices) that specific teams are either embedded in or in the process of creating.
- We refer to an expert in this kind of work (who, by definition, needs to master the three aspects of explanatory critique in dialectical fashion) as *critical facilitator*.
- A critical facilitator is a person able to increase a team's quality of discourse, and thus functioning, by questioning team members' way of thinking, by transcending presently entertained perspectives, and keeping differences and tensions 'on the table' productively for as long as possible, for the sake of guiding a team aiming for making more nuanced choices and decisions (De Visch & Laske, 2020).

Guidelines for the Critical Facilitation of Teams

- Team members are unaware of the quality of their thinking viewed in terms of dialectic; they have always identified 'thinking' with making logical inferences and arriving at logical conclusions. As a result, they are unaware of unceasingly committing the epistemic fallacy, of reducing reality to propositions (what is said), and thus have no understanding of the role verbal and written language play in their interactions.
- Then also, team members are focused on experiences (empirical level) and (secondarily) events, entities, and activities *at the level of Actuality*, rather than at the level of Reality (generative mechanisms). Their notion of causality is that of conjunctions of events, thus of closed systems, and excludes holistic causality in the sense of 3L as much as absence in the of 2E.
- Except for the highest level of work complexity involving the re-design of business models, team members are unaware of a 'real world' independent of human thinking that plays a role in their work, except in the form of existing practices they may find restrictive (existing social structures).
- **In short, the degree of critical realism team members practice is exceedingly low.**
- Evidently, your facilitatory interventions in terms of 1M, 2E, 3L, and 4D have to be situated at the level of "where they are in their present work", assisting them in becoming curious and inquisitive about what they are presently not seeing or noticing (their absences).
- For this reason, you need to work at a conceptual level they can understand or relate to, and gradually 'deepen' that level to include what is presently not thought about, seen, or considered relevant (including their own cognitive-developmental journey or Job 2).

On the Dialectics of the Social World

We need to explore the social world both in terms of the dialectic of Moments and the dialectic of Thought Forms, the first to understand how it is constituted, the second for how, on account of its constitution and complicity, we can optimally understand and practically navigate it.

Differences between Social and Natural Structures (Bhaskar)

1. Social structures, unlike natural structures, do not exist independently of the **activities** they govern.
2. Social structures, unlike natural structures, *do not exist independently of the agents' **conceptions** of what they are doing in their position or role*
3. Unlike natural structures, social structures may be only **relatively enduring** (so that the tendencies they ground may not be universal or universalizable).

The Relational Model of Social Being

- There are **three fundamental ontological properties** *societies* (and thus organizations) have: (1) they are stratified, (2) emergent, and (3) dialogical.
- (1) implies that they are (inter-) **relational**, while (3) implies that they are suffused in language, and therefore open to interpretation.
- In an important sense, in terms of verbal language, **relational** implies 'dialogical', i.e., "expressive of relationships".
- The complexity that arises stems from the fact that societies are *both material and conceptual* (based on thought), and inseparably so, since human agency acts upon nature based on conceptions (in a way reproductive as well transformative of society).
- As Marx says: 'Society does not consist of individuals but expresses the sum of interrelations, the relations within which these individuals stand.'

The Complexity of the Social World

- “It is the nature of objects that determines their cognitive possibilities for us” (Bhaskar, *The Possibility of Naturalism*, 1979).
- Closed systems follow “laws” and are *artifacts* of empirical science experience, while experimental closure itself is a social action.
- Both the social and physical worlds, the former embedded in the latter, are open systems characterized by EMERGENCE from largely unknown (even partly unformed) multi-dimensional sources and pervaded by the presence of the past.
- The *presence of the past* is especially obstinate in the social world; it houses a multitude of anachronisms and ideologies, scientific or political, that bind human knowing to what is still believed to be ‘the case’ but no longer the alethic truth of things.
- Social-world complexity is rooted in **social agency**, whether exerted by organizations, global institutions, or individuals, and these agents, while rooted in nature, have very incomplete knowledge of how the ‘real world’ works.

The Focus of the Social Sciences in Critical Realism (CR)

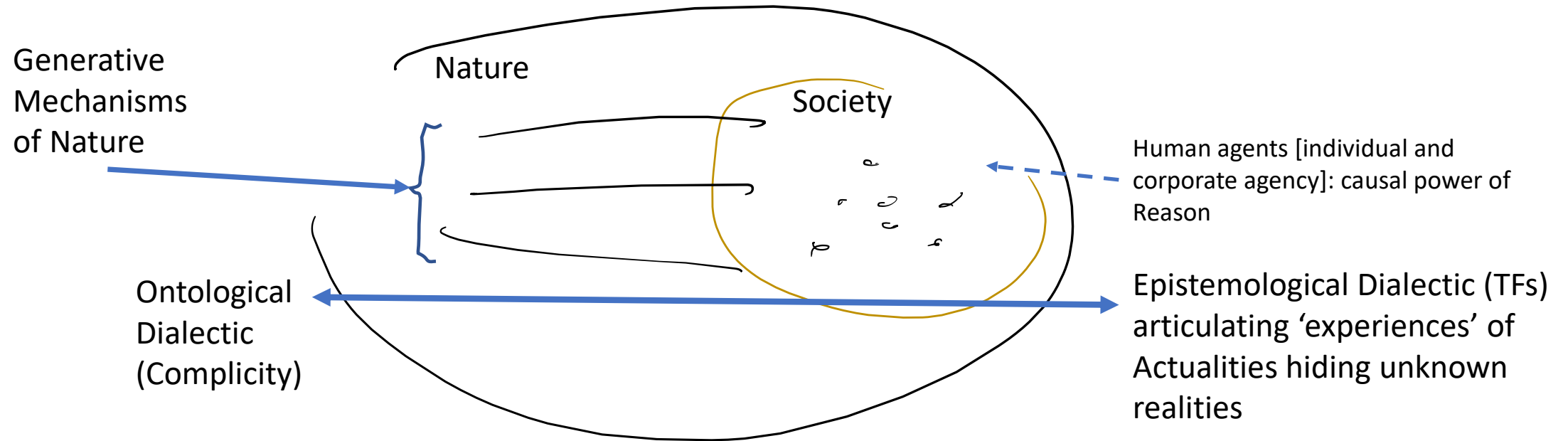
- Social Sciences adopting CR investigate society as an enduringly structured network of relationships between people that is both unconsciously reproduced and consciously transformed by them.
- Social sciences pay primary attention to human agency as based on 'ideas' and 'reasons' and seen as embedded in (overreached by) both society and the natural world.
- Example topics of CR social science inquiry are:
 - What are the nature, origin, and limits of human agency in transforming social structures.
 - What ways of structuring society are optimal for allowing human agency to acquire causal power for transforming society (rather than only reproducing it).
 - How does work (and its external and internal workplaces) have to be structured to enable human agency to acquire causal power in specific forms.
 - How can the emergence of mind from matter over the adult life span -- traced by the developmental sciences -- be optimized for the sake of realizing emancipatory values.
 - How to optimize organizational position/practice systems to make work collaboration increase in quality and causal power.
 - How can social science theories breach the positivistic fact/value divide, and thus transform social practices.

Natural and Social World Communicate

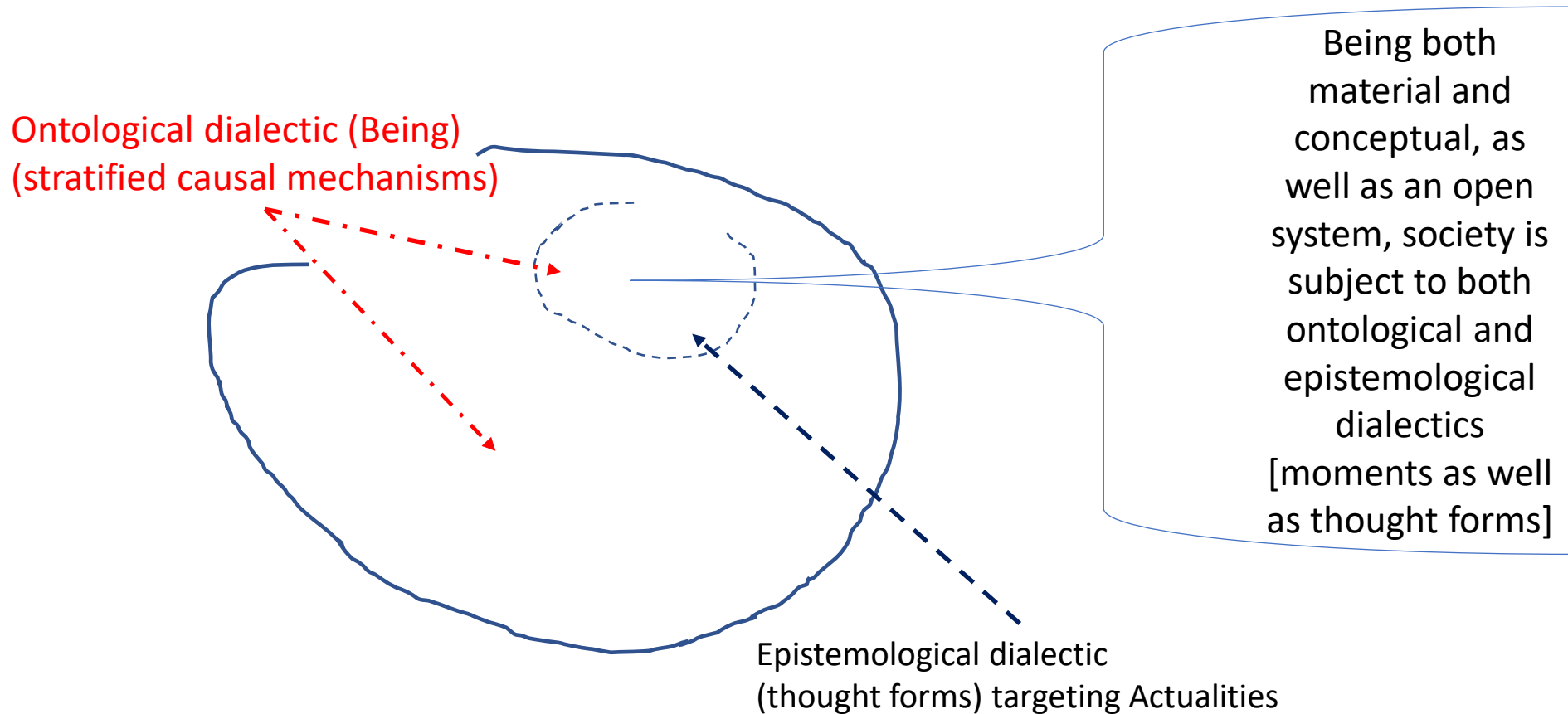
- The social world (society) is embedded in generative mechanisms of 'nature' (the cosmos).
- It implicitly relates to the natural world by way of human agency which is embedded in both nature and society.
- Human agency is based on the causal power of Reason in its many forms: intentions, purposes, goals, ideologies, theories, experiments, technologies.
- The natural world is “complicit” with human agency, giving it opportunities to exert itself -- for better or worse.
- Two dialectics are involved: an ontological one and an epistemological one.
- The ontological one is one of nature vs. society; the epistemological one is one of thought forms that articulate empirical experiences in nature and society and are focused on maintaining and/or re-forming actualities (events, entities, activities).
- The grounding dialectic is ontological: that of the causal powers of stratified mechanisms, whether natural or social.

The Natural World is 'Complicit' with Society

Are there generative mechanisms of society beyond human agency itself, such as originate in social activity?

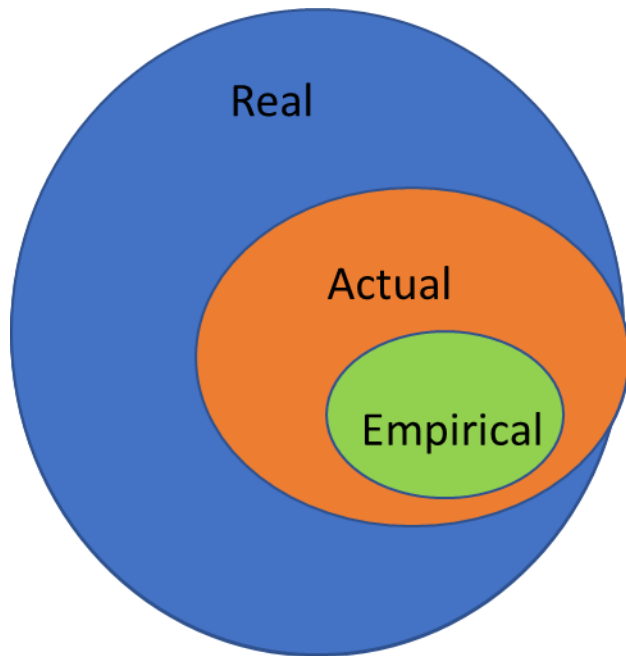


Two Dialectics: of ontological Moments and epistemological Thought Forms



Thought Forms in Their Relationship to Moments of Reality

3 Levels of Depth of Reality



Levels of the Real	Focus of Human Action	Constitutive Moments	Ontological TFs spell out dialectic within and between Moments	Epistemic TFs spell out the dialectics of Actuality and Experience
Generative Mechanisms	Deep understanding (science)	X ↔ (Mapping onto TFs)	X	
Actualities (events, entities, activities)	Practical understanding, maintaining & transforming	(X)	X ↔	X
Empirical Experiences (scientific or other)	Reacting to & 'understanding' (e.g., measuring)	(X)	(X)	X

Most shallow, only attuned to Actualities

Epistemic Thought Forms Add Causal Power to Human Agency

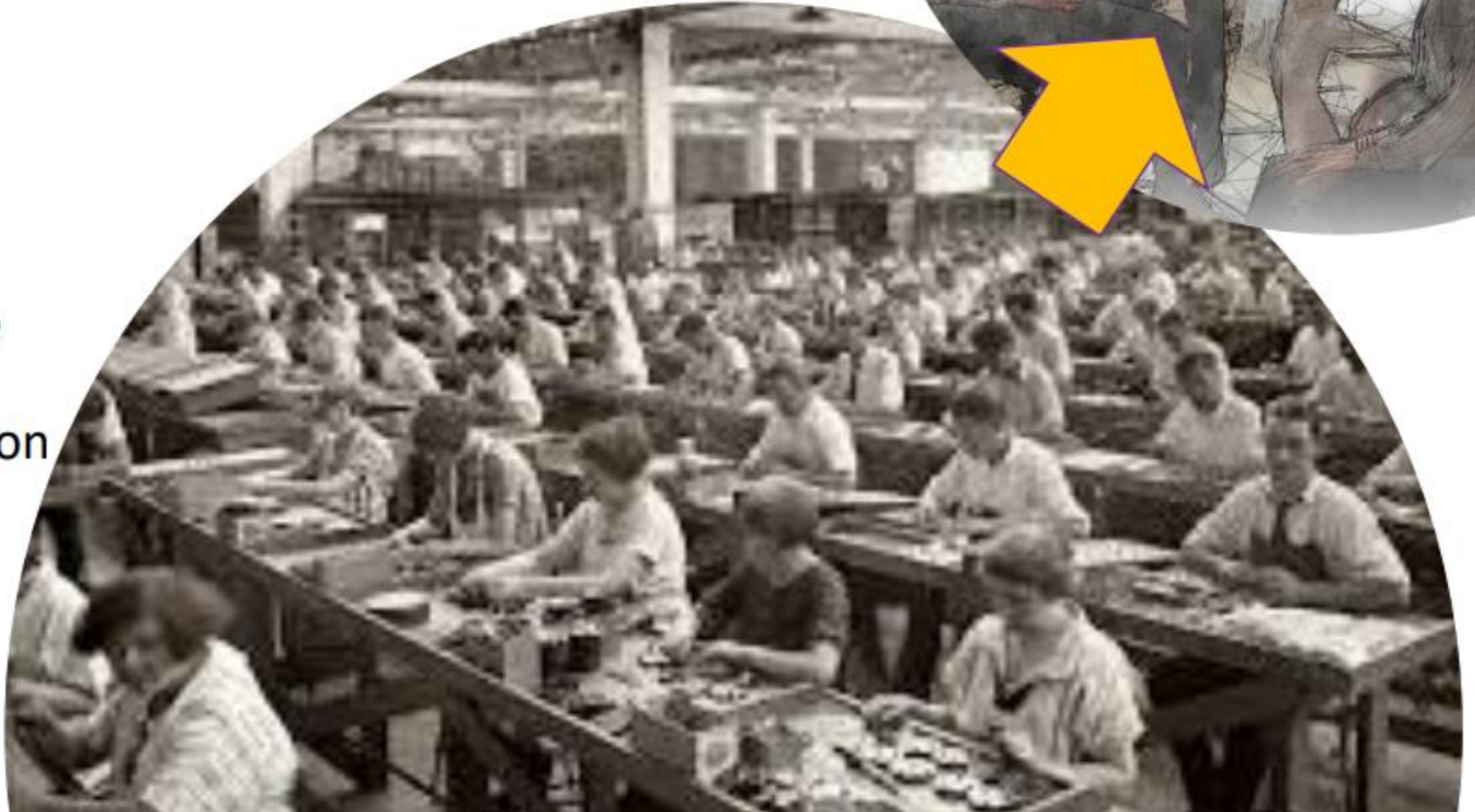
- The line between ‘ontological’ and ‘epistemic’ *thought forms (TFs)* is fluid since human agents, guided by Reason, have causal force, thus ontological impact.
- This poses the question of to what extent epistemic TFs “match” ontological TFs, where “match” means “are sufficiently representative of, or only approximate” ontological TFs.
- Therefore, the thinker can never assume that epistemic TFs (as formulated in DTF) are more than approximations of ontological TFs, thus potentially mere shadows of the generative mechanisms determining the real world.



Calling out Neo-Taylorism

Taylorism is an outdated HR and management ideology now re-surfacing in apps meant to exercise control over contributors.

Apps work against self-organization in teams to the extent that they depress the quality of dialogue.



Summary #1: False assertions in neo-tayloristic approaches to self-organization

- Present approaches to self-organization underwrite major tenets of Neo-Taylorism.
- All of them reduce human *capabilities* validated by research in adult development to mere *competences*, with the result that contributors are thought of as needing to be *motivated*, rather than being supported in their mental growth efforts.
- Viewed from the vantage point of research in adult development, the following tayloristic assumptions are **starkly false**:
 - There is a distinction to be made between ‘thinking’ and ‘doing’, such that the first is carried out by managers, the second by contributors.
 - Differences between contributors are minimal; contributors are basically equally mature and command equal fluidity of thinking and emotional maturity.
 - The central standard of work delivery is efficiency.
 - Work delivery is the only ‘job’ to be accomplished (job 1) in work; there is no ‘job 2’ comprising (internal) work needed for self-development.
 - Dialogue in real time, thus reflection, is subordinate in importance to ‘getting work done’.
 - Value creation is a matter of satisfying investors (outsiders), not contributors themselves.

Summary #2: **Denials** of common sense and research findings in neo-tayloristic approaches to self-organization -- *Terrible Simplifications*

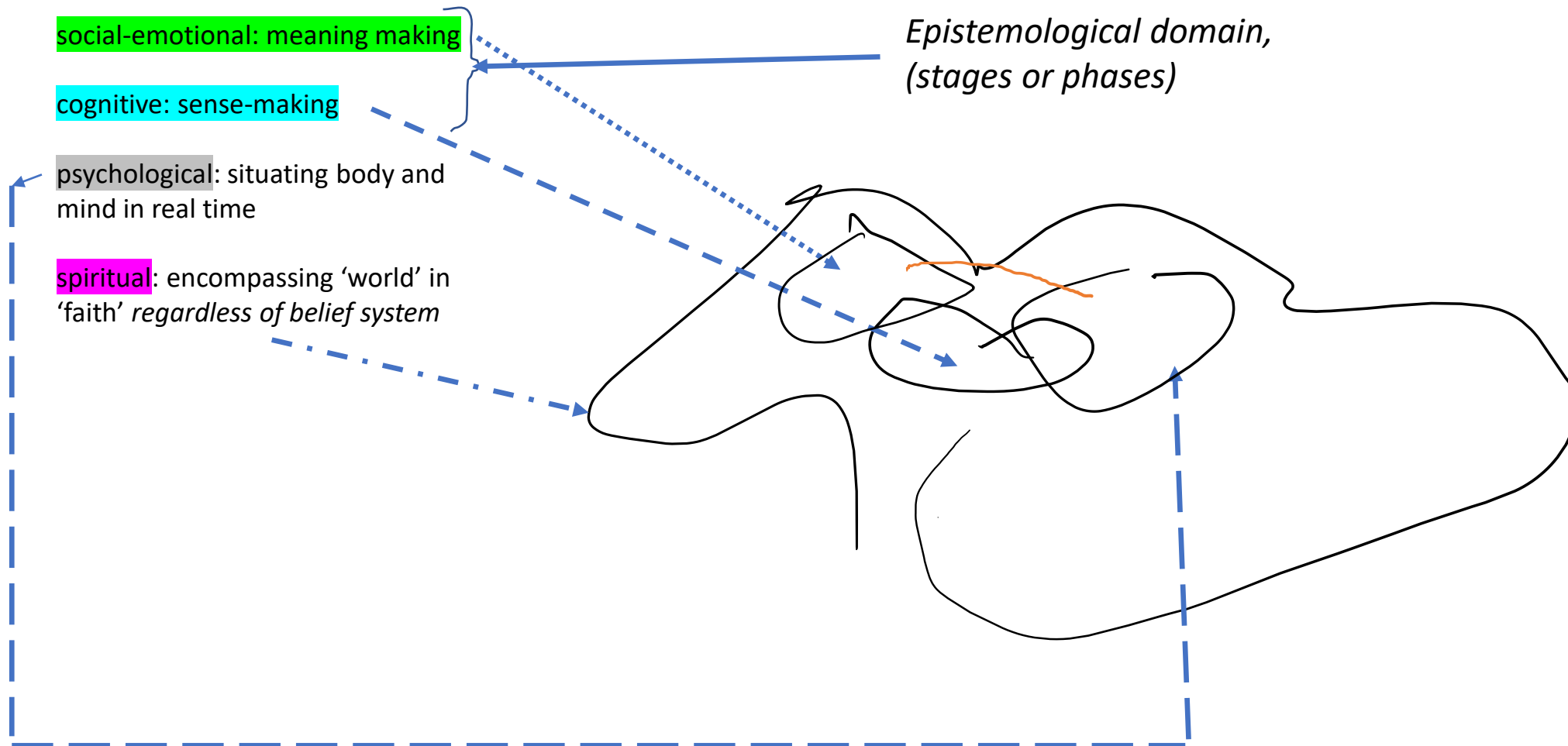
- The main assumption in neo-tayloristic approaches is **that time flow is irrelevant**. 'Time' flows is reduced to the "here and now", so that past times and contributors' development over the lifespan are disregarded. As a result, there are no maturity issues in HR.
- Accordingly:
 - time flow in the internal (personal) workplace can be disregarded since it is identical with external, real-time workflow;
 - there are no maturity differences between teams and their members, whether emotional or cognitive;
 - therefore, there are no differences in levels of work complexity (We-Spaces), either within or between teams;
 - **there are no differences between how the human mind works and how the real world operates**, thus there is no need for critical facilitation based on complex thinking;
 - contributors' uniqueness, expressed in what they 'are' and uniquely 'bring to the table', can be disregarded so long as they exercise required competences, -- i.e., contributors are not unique.

What is 'Mind'?

Mind is Emergent

- Mind and Matter connect.
- Matter gives rise to Mind as the human body gives rise to the human mind over the lifespan.
- ***Developmental sciences have begun to trace the mind's emergence*** but, relative to its totality and wholeness (integration of two brain hemispheres), have so far mapped personal (and implicitly social) mind only very insufficiently.
- In CDF, 'mind' is an open system comprising potentials that have only insufficiently been sighted.
- In CDF, in focus are the current and future potential of mind, not simply its status quo.
- We distinguish the following irreducible strata of Mind:
 - The social-emotional mind that makes meaning (right hemisphere)
 - The cognitive mind that makes sense (left hemisphere)
 - The psychological mind that, closest to the natural world, situates us "in the moment", based on generative mechanisms first sighted by Freud
 - The spiritual mind that, transcending all these, harbors 'faith' (different from belief), bringing about a synthesis of ways of knowing and commitment, -- thereby creating a unity-in-diversity from the debris of life (Fowler 1981).

Mind(s) Visualized as an Open System



Mind is a Causal Power

- As every other reality that is causally grounded, adult development is constituted, and pervaded by, the four moments of dialectic.
- **Adult development is ontologically 'real'; it is researchable and knowable through the four moments of dialectic and their ontological and epistemic thought forms.**
- There is no more succinct outline of emergence of mind than seen in adult development over the lifespan.
- The developing mind:
 - 1M: is highly stratified and differentiated (CD, ED, NP, spiritual faith)
 - 2E: in its 'memory' (the past in the present), it comprises what is no longer there; in its imagination, what is not yet there, -- all forms of negativity
 - 3L: as a totality (which includes language), none of the mind's strata can be reduced one to the other since they are densely interwoven and co-defining
 - 4D: over the lifespan, personal identity is acquired and maintained by humans only through unceasing transformation (i.e., loss of temporary identities).

MIND Links Nature and Society, Emerging from Body (Nature)

- Mind, a biological and social power, emerges from body *over the human lifespan*.
- Its formation is the focus of research in adult development (social-emotional, cognitive, psychological, faith ...) and other sciences.
- The generative mechanisms that drive adult development are still unknown and, since 'experiments' don't exist in the social sciences, remain deeply hidden and profoundly ideologized (polarized).
- Epistemological dialectic is rooted in adult development over the lifespan and comes into play in adolescence.
- Its educational supports in society are very weak and stand in contrast to logical and algorithmic technologies that are hard to bend to dialectic.

MIND is Born in Society and Through Language

Intrinsically Dialectical

- There are no 'individual' minds.
- 'Ego' is an abstraction lacking a social-emotional and cognitive shell as well as personal shape, residing on the psychological level.
- Mind is highly stratified and is a creation of society.
- Individual and social Mind are *distributed over* the body and the social space 'between' individuals connected through *language*.
- Verbal language does not simply 'describe', but 'creates' World as something 'in between' the mind and the real world (Being), mainly Actualities (not Reality or Being).
- *Epistemic dialectic*, rooted in verbal language, is a tool for negotiating the proportional 'attention' paid to Actualities by the two brain hemispheres.

Critical Realism Fails (in) the Social Sciences

- Developmental Sciences trace the emergence of Mind from body in society.
- Although Bhaskar's Critical Realism (CR) acknowledges the emergence of mind from body in society, it remained clueless regarding the generative mechanisms feeding this emergence.
- By not including the developmental sciences in its purview, CR misses the origin and nature of the 'epistemological' domain of Being.
- It therefore also foregoes the capability to gain a deeper understanding of natural language and dialectical thought forms rooted in language, thus is unable to link moments of dialectics to thought forms.
- These lacks severely restrict CR's lucidity in the realm of the social sciences where 'Mind' manifests itself in purposefully human agency.

Critical Realism Shortcircuits the Complexity of Human Agency (eliminating its internal dialectics)

- While the structure of individual development is a social (as well as a biological and psychological) one, it cannot be reduced to social structure in general without missing the dialectic between the two.
- While CR understands that social structure determines 'developmental tendencies' in society, it does not understand that social structure not only determines but is also determined by, individual-development structures (e.g., social-emotional stages and cognitive phases), as a result of which individual-development structures are partly socially determined and equally stand in a *dialectic* with social structure that is at the core of human agency.
- As a result, CR does not understand that the reproduction and transformation of social structure (TMSA) is not simply a matter of human agency in general, but of human agency *developmentally differentiated* according to stages of social-emotional and phases of cognitive development.
- This lacune amounts to missing the truth that human agency presupposes, as well as determines, both social and individual-development structure (stages & phases), and that there is a dialectic between these two kinds of structure. (It also amounts to de-stratifying – reducing the complexity of -- society.)

Natural Language is “Generative” in a Way Not Seen by Bhaskar & Chomsky

- From adolescence on, level of development can be decoded only by investigating how a person uses natural language.
- In contrast to positivism and Critical Realism, the developmental sciences (need to) see language not primarily as descriptive but as creative (generative).
- Dialectic is conceptual, thus inseparable from language, not as descriptive but as generative.
- All four moments of dialectic pervade (the use of) language:
 - 1M: language resides on a meta-level to observation and perception, even to ‘thinking’; it is universalizing, highly structured and differentiated, and has causal power
 - 2E: language captures absence (what is no longer or not yet there) and conflict, thus negativity
 - 3L: language elements show high interrelatedness and interactivity in forming sentential common ground
 - 4D: language articulates purposeful agency and clarifies the complicity of nature without which the reproduction and transformation of social structures would be impossible.

What Makes Society 'Knowable'?

- In adult cognitive development over the lifespan, the understanding of relationships (which are invisible) **follows** that of actualities (entities and events/activities, i.e., actualities), constituting a higher level of maturity.
- Such an understanding is a quality of *Mind* which is distributed over and between human bodies as an emergent property that cannot be encapsulated in single human bodies, brains, or egos, both materially and as a consequence of the dialogical nature of Mind itself.
- While society 'produces' human individuals out of biologically given raw material, thereby supporting Mind as an emergent property of material body, humans in turn, by becoming 'socialized', reproduce and simultaneously transform the societal structures based on which they are acting.
- **Thus 'society' is both the condition and outcome of human agency** (and thus intrinsically 'dialectical'), knowable only to a limited extent.

Thought Forms Develop Over the Lifespan

Benack and Basseches (1989, 97) analyzed the **phases of dialectical thinking** as follows:

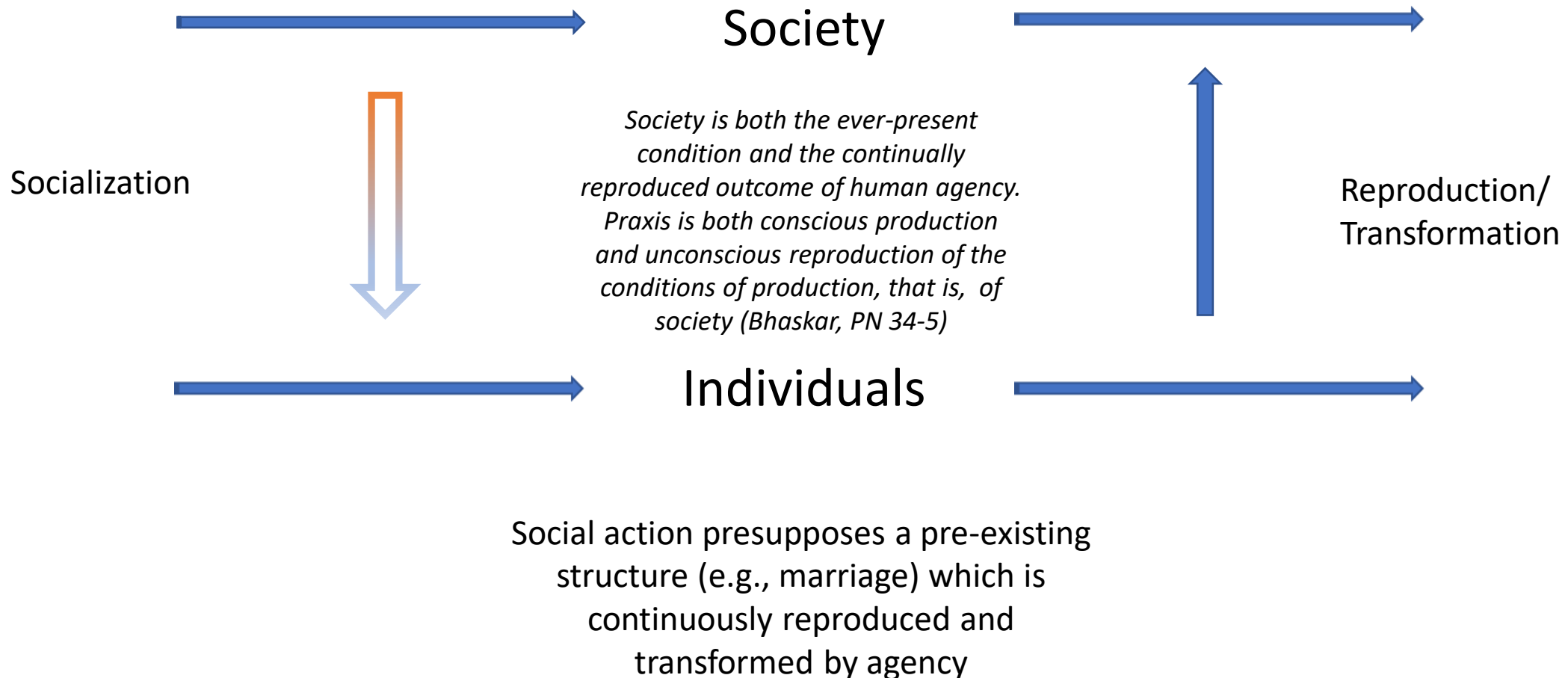
<i>Phase</i>	<i>Dialectic Ability</i>	<i>Description</i>	<i>Thought Form (TF) Class</i>	<i>Thought Forms TFs</i>
1	Elementary	Mixture of concrete, formal, and post-formal operations	Predominating: C	Emerging: 1-2, 5, 8-9, 10-12, 15, 22
2	Intermediate	Formal and post-formal operations	Focus: C Minimal: R, T	Available: 2, 13-14, 22
3	Systemic	Beginning of thought form coordination	Emphasis: R, T Manifesting <i>clusters</i> a) Critical: P, R b) Constructive:(C?),T c) Value oriented (axiological): R, T	a) Critical: 3-4, 6-7, 19-21, 28 b) Constructive: 23, 25-26 c) Value Oriented: 16 -18, 24
4	Meta-Systemic	Ability to join different systems into a comprehensive whole	Emphasis: T	Open, self-transforming system: 24, 27

Table A4.5: The Four Phases of Dialectical Thinking

C = epistemic **context**; P = epistemic **process**; R =epistemic **relationship**; T = epistemic **transformation**

The Structure-Agency Dialectic of the Social World

The individual is 'thrown' into society but due to his/her agency is able to change it.



Capitalism: The Epistemic Fallacy Materialized

- **The epistemic fallacy erases all dialectic, whether ontological or epistemological, from human experience.**
- It is anthropomorphic (centered on humans) and is enacted by making no distinction between propositional (truth of sentences) and alethic truths (truth of things).
- Once missing, this distinction justifies reducing nature to its cognitive appropriation by humans.
- Commercial 'practices' embody this anthropocentric reduction, both materially and in terms of thought.
- Taylorism and Neo-Taylorism are full of stark falsehoods and denials of Mind's reality (see De Visch & Laske, 2020).

There Are Limits to Rationality (Bhaskar)

- To avoid cognitive triumphalism, it is important to recall to mind four limits of human rationality:
 - Unintended consequences (“side effects”)
 - Unacknowledged conditions
 - Unconscious motivations
 - Tacit knowledge (and skills).
- All of these are outflows of Mind being ‘overreached’ by Being (the real world), that is, of all that is “other than” Mind, and beyond the reach of left-hemisphere logical ‘thinking’.
- When focusing only on events, entities, or activities (“actualism”) and even more on personal [and even scientific] ‘experience’ (what is empirical), these limits can be effortlessly denied.

Ontology of Organizations

- Organizations are social networks of great complexity that are simultaneously embedded in, and act upon, the natural world, attempting to take advantage of its complicity.
- In their management thinking, organizations are for the most part suffused in logical abstractions that neither correspond to the empirical nor even the actual world, not to speak of how the real world works.
- An example of the failure of organizational thinking to grasp reality is the defensive stance organizations have assumed toward *emergence of mind from body* in the form of adult development.
- Especially in business modeling, organizations are playing catch-up with the emergent real world – both natural and social – that is in unceasing transformation based on generative mechanisms they largely remained ignorant of.
- It amounts to a step forward in the social sciences, to ‘do business’ on the basis of an understanding of the dialectic of position/role and agency/practice (“my station and its duties”).
- In this context, dialectical thinking can take a step forward in unravelling conflicts, ambiguities, interpretational diversity (non-identity), and the presence of the past.

Organizations as *Relationships* Linking ‘Positions’ (Roles) to ‘Practices’: Position-Practice Systems

- In organizations, the causal power of reason comes into play through the link **between positions (roles) and their associated practices**. (“Human agency is linked to social structures through **positions** occupied [enacted] by individuals (places, functions, rules, tasks, duties, rights, etc.) standing *in relation to the practices and activities in which they engage*”; Bhaskar, PN 38, 1979).
- **Position-Practice Systems** are mediators between the social and natural world.
- Since holding a job is a relationship to an employer and others whom the work serves, such systems embody dense networked relationships.
- Bhaskar misses the fact that without understanding the (emergent) developmental structure of position-bound practices **in terms of adult development**, the *epistemology* of these practices will escape understanding (De Visch & Laske, 2020).
- It is at the intersection of these practices with the natural world that ontological and epistemic dialectics impinge on each other.

Three Layers of 'Positioned Practices': Layers of Work Complexity in Organizations

We can view these layers in terms of 1M, 2E, 3L, 4D

ONTOLOGY (Domain of Actuality)

Continuous Improvement Level

Value Stream Management Level

Business Modelling Level

Types of possible and/or requisite human activity [actual domain of events/activities]

Co-ordination

Co-operation

Co-construction

Co-modelling

EPISTEMOLOGY [how work levels are experienced and 'thought' by contributors]

*Tendency to stabilize & routinize
means of common action*

*Tendency to stabilize planning of
common action*

*Tendency to synchronize models of
common action*

**Dialogical
Countermeasures**

*Reflection on the means of
common action*

*Reflection on the planning
of common action*

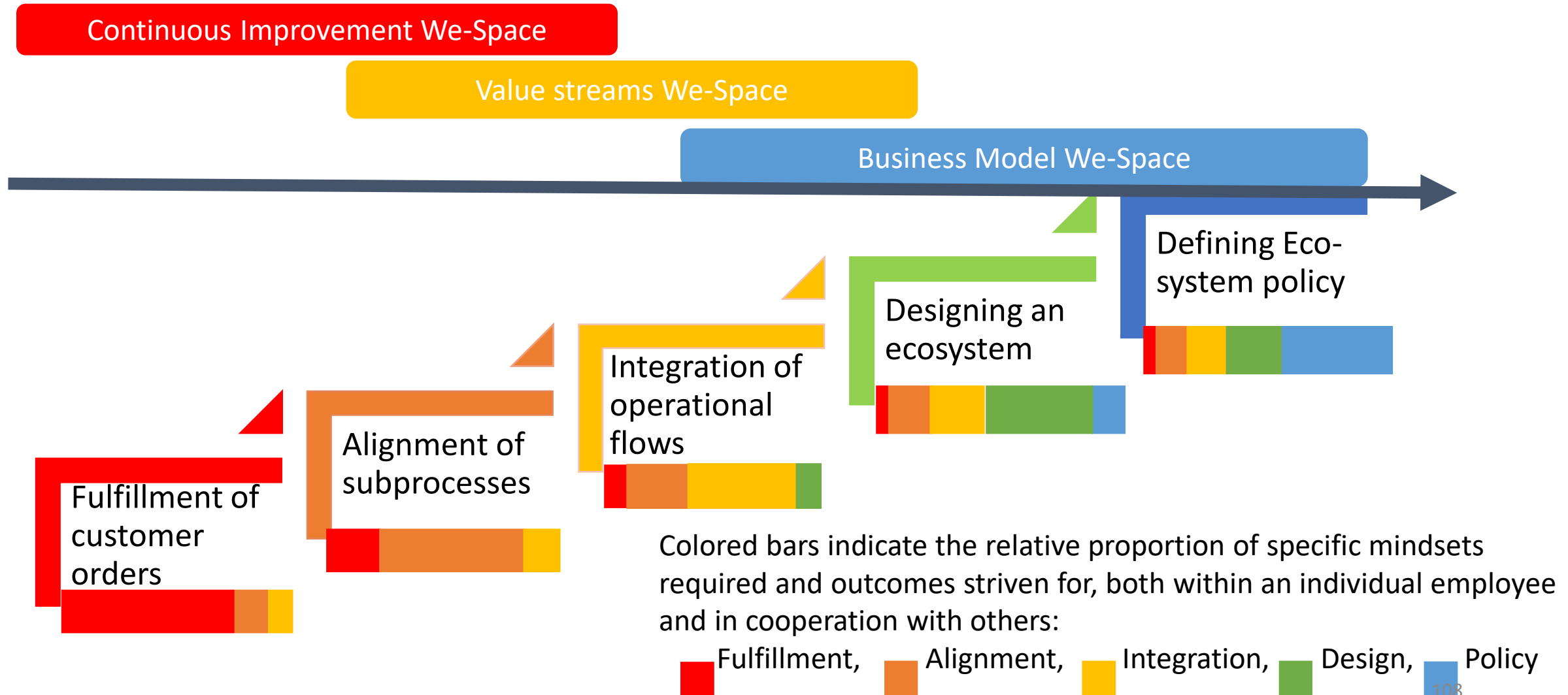
*Reflection on the model
of common action itself*

Team Focus on Control



Team Dialogue about Uncertainty

From *Reproducing* Social Reality to *Transforming* it (Based on Organizational Structure)



Comments on the Diagram (explanatory critique)

- The diagram shown visualizes an *ontological hypothesis* about organizational structure based on how they are conceived epistemically as well as axiologically (in terms of value).
- Being two-dimensional, the diagram fails to convey that organizations are *multidimensional wholes* whose emergent powers [especially in interrelationship to each other] are not predictable from the causal powers of their parts, nor from the epistemic dialectics they give rise to.
- Accordingly, epistemological consequences drawn in social science for the sake of human action remain tenuous and ambiguous.
- The veracity and effectiveness of social science hypotheses is weak.

Moving Toward an Understanding of Ontological Moments of Dialectic

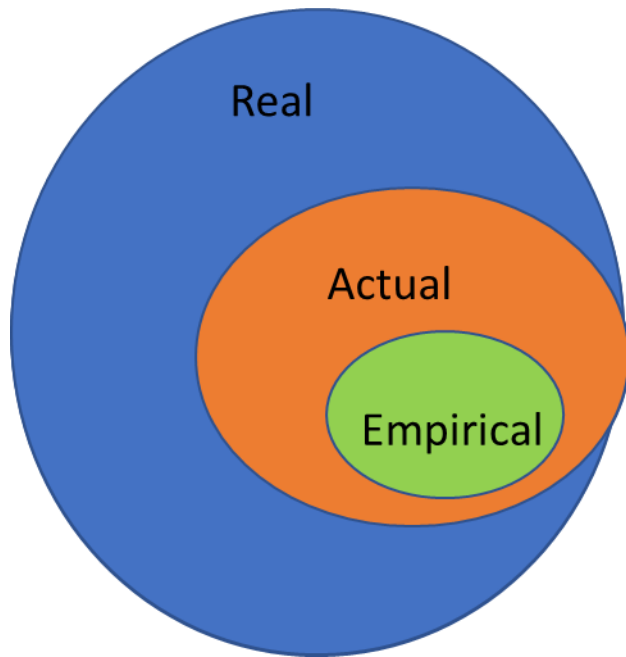
The Gulf Between Ontological Moments and Human Thought Forms

- In contrast to thought forms (TFs) as ways of ‘grasping’ components of formed existence *on the level of human experience*, Moments are ontological dimensions (aspects) which, acting in concert, shape the emergence of the real world.
- The gap between “how the world works” and “how humans think” is the wider the more left-hemisphere dominated (logical) *thinking* overtakes right-hemisphere *presencing* and its inwardized form, intuition.
- **We conceive of epistemological TFs as *tools* for negotiating in the thinker the proportion of left- vs. right-hemisphere *attention* in addressing actualities (more than realities).**
- When reduced to logical concepts (e.g., ‘unceasing change’), TFs lose their intrinsic relatedness to other TFs separated from which they become empty of substance.
- Even when used properly, i.e., dialectically, they remain mere *approximations* of the depth realism articulated by the four ontological moments of dialectic (reflected by human thinking).
- **By nature**, the use of TFs is subject to committing the *epistemic fallacy* of subject-object identity (identity thinking), as well as the opposite, but aligned, ‘ontic fallacy’, in which the ‘subject’ acts as if determined by objects of its own construction (such as facts or hypostatized ideas).

Connecting Moments of Dialectic to Thought Forms (representing them)

Moments of Dialectic	Axioms Defining Moments of Dialectic	Ontological TFs [TFs that do justice to Axioms] -- presently non-existent --	Epistemological TFs (DTF)
Prime Moment	Being: intransitivity, alterity, stratification, natural necessity, non-identity, differentiation	These thought forms define the standard against which to judge the 'goodness of 'fit' of epistemic TFs	"Context" TFs
Second Edge	Becoming: absence, negativity, opposition incl. reversal, interpenetration of opposites, presence of past in present and future		"Process" TFs
Third Level	Common Ground: emergence, holistic causality, inter-nal relationality and interactivity, totality, illicit fusion and fission	DTF is an <i>insufficiently aligned</i> set of TFs that often fail to match, or even approximate, ontological axioms	"Relationship TFs"
Fourth Dimension	Transformation: open future, human agency, unceasing transformation (of formed existence), natural and intentional causality, unity in diversity		"Transformational System" TFs

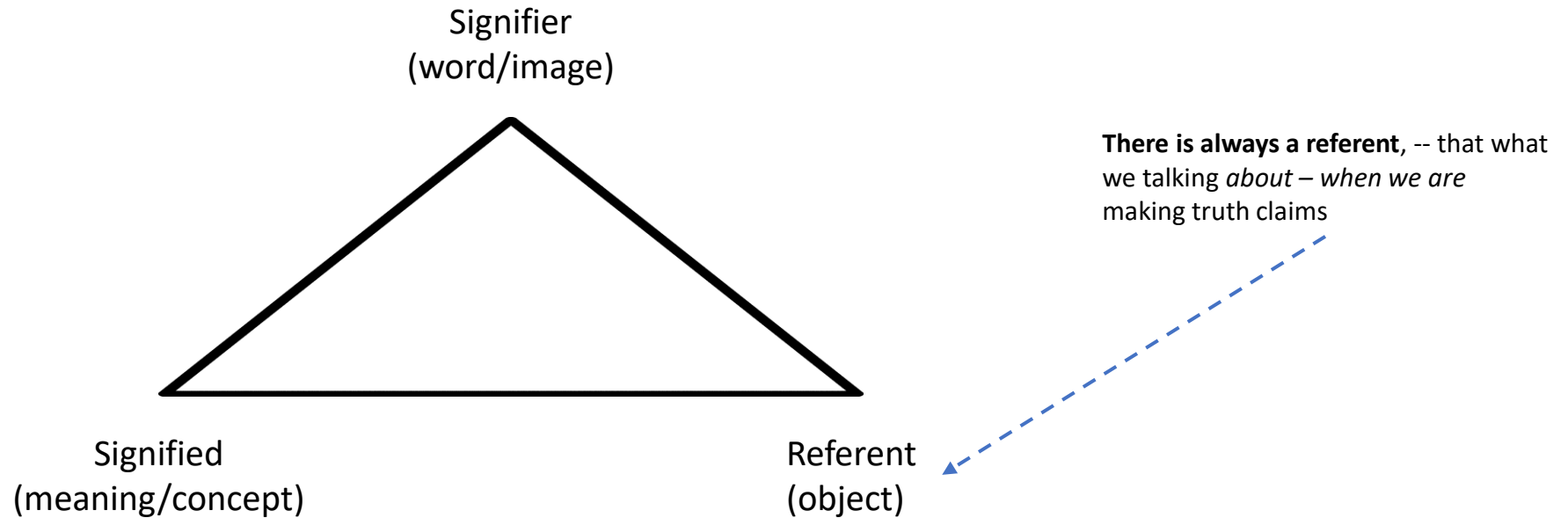
How Do Thought Forms Relate to the Three Levels of the Real?



Levels of the Real	Focus of Human Action	Need of Attention to Moments	Attention to Ontological TFs	Attention to Epistemic TFs
Generative Mechanisms	Deep understanding (science)	X ↔ (Mapping onto TFs)	X ↔	X (Mapping onto ontological TFs)
Actualities (events, entities, activities)	Practical understanding, maintaining & transforming	(X)	X ↔	X
Empirical Experiences (scientific or other)	Reacting to & (shallow) 'understanding'			X

Sizing Up Moments of Dialectic Through Images

Here we are looking at Moments of Dialectic as ontological 'referents'
and, using an image as signifier, ask about what the image 'means'
and how well it spells out a particular Moment



SUMMARY OF FIRST MOMENT

Dialectical image: all that has causal power including existences, absences, knowledge (thoughts), ills, illusions, falsehoods.

Figure: what is generative of appearances, forms, events, entities, activities (at the level of actuality as well as empirically).

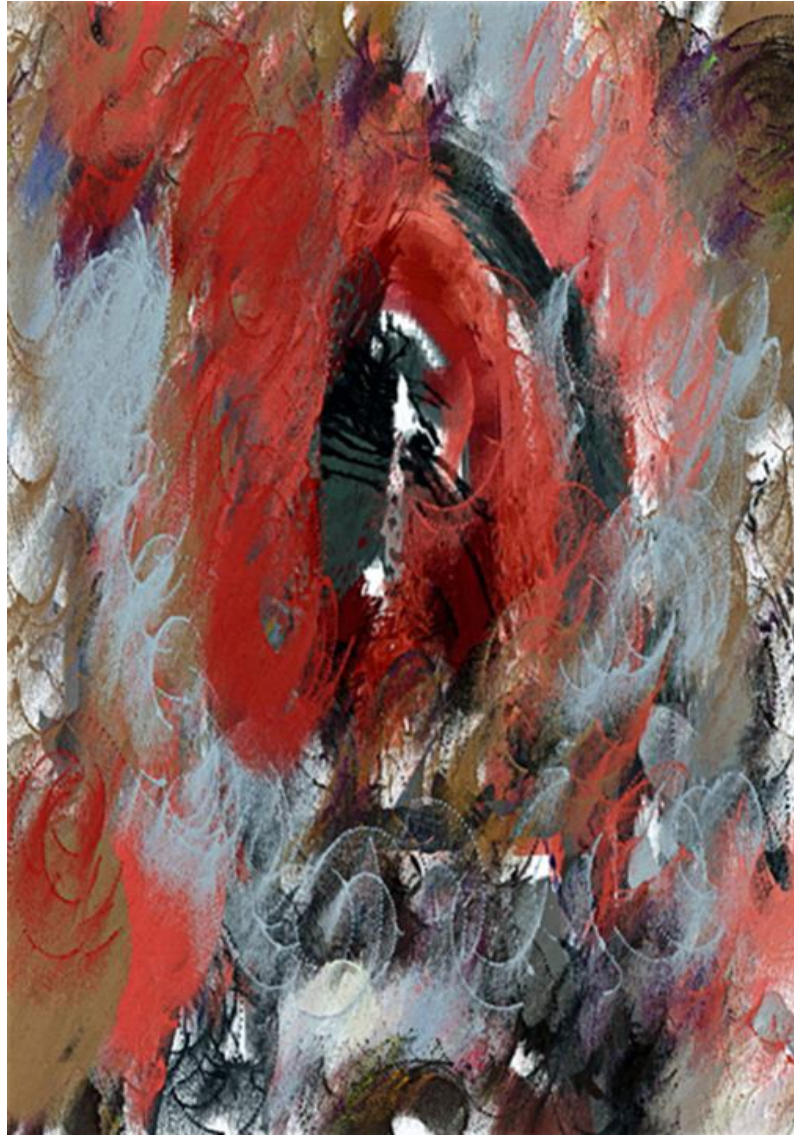
Ground: unified by the category of *alterity and differentiation* that introduces variety and depth into what is real, making it alterable.

Relationship to System: open system without predictable conjunction of events.

Scope: all formed existences, their vanishing or absences.

Theme: Alterity = multiplicity of entities not primordially aligned and often out of synch.

Dialectics of 1M: (that of) stratification, virtualization, inversion.



SUMMARY OF SECOND EDGE (BECOMING)

Dialectical image: emergence from, and vanishing into, a void.

Figure: something not happening that has a causal effect; presence of the past.

Ground: unified by the category of absence [and thus potential] from which the whole circuit of the four moments of dialectic derives.

Relationship to System: what keeps systems open rather than closed.

Scope: negation, contradiction, critique (many kinds of dialectic).

Theme: the presence of the past and future in the present; unceasing motion in both thought and reality; critique of purely positive existence; **error of destratification** (reduction)

Dialectics: (that of) process, transition, interaction, opposition, reversal, permeation of opposites.



SUMMARY OF THIRD LEVEL (COMMON GROUND)

Dialectical image: common ground uniting disparate, intrinsically connected, events, entities, activities.

Figure: holistic causality; what is unified by the category of totality.

Ground: a totality of (possibly oppositional) links and connections.

Relationship to System: living core of any open or closed system.

Scope: all parts of a whole, however fused, split, and split off; center to periphery.

Theme: unity in diversity, internal relatedness, illicit separation and fission, reflexivity, error of fixating on isolated elements and multiples, partial totalities shot through with internal and external relations, concrete singularized individual; **error of de-totalization.**

Dialectics: (that of) internal relationality and intra-activity, center and periphery, component parts and whole, figure and ground, but also of alienation and any ‘outside of’.



SUMMARY OF FOURTH DIMENSION (TRANSFORMATION)

Dialectical image: Living System (e.g., beehive)

Figure: What is in unceasing transformation through generative mechanisms (including intentionality and human agency), seeking equilibrium, often in sudden reversal, breakdown, pains and ills.

Ground: Unified by transformative agency (some of it human) that is irreducible, as is intentionality.

Relationship to System: Privileged relationship to 2E that grounds change.

Scope: Everything occurring in the world occurs at many different levels simultaneously.

Theme: Stability and identity through developmental movement, coordination in an ego- and eco-developmental direction [impacted by, and giving rise to, human agency], **error of de-agentification leading to ‘TINA’ (‘there is no alternative’) formations.**

Dialectics: (that of) structure and agency [e.g., TMSA], spontaneous thought and hypostatized (frozen) ideas; human intentionality overreached by Being.



EPISTEMOLOGY

Human epistemologies (ways of conceiving and thinking) are contained in and overreached by Being. They are always pointing to a particular part of Being that 'knowledge' is "about", and whose referent is a specific (intransitive) object existing independent of thinking.

Bhaskarian vs Laskean Epistemology

- Bhaskar has not written about epistemology in general but only about epistemology of the physical and social *sciences*; he has focused on demoting epistemology from its central place in philosophy where it overshadowed ontology to the detriment of understanding the real world.
- By adult-developmental considerations, especially those of cognitive development, I have been led to put in place a *dialogical* epistemology based on 'thought forms' of which we need to think as forming an epistemology embedded in, and overreached by, Being.
- How dialogical epistemology fits into the social sciences in the sense of Bhaskar's Critical Realism is at this point undetermined. Perhaps this Practicum can shed some light on the issue.

Human Experiences Are Social Products

[Bhaskar 1978; Elder-Vass 2004]

- Experiences and the facts they ground (give rise to) are social products.
- This is the case because experiences are not simply bundles of sense-data but are a result of our application of socially-influenced *conceptual frameworks* (e.g., scientific theories or our personal cognitive profile) to the interpretation of sense-data.
- For example:

Our eyes may detect a pattern of colors; but what we experience is ‘seeing’ a set of meaningful objects behaving in meaningful ways. It is in this interpolation of our conceptual frameworks between sense data and ‘experience’ that experiences become social products. Hence experiences are no longer purely the outcome of the events they might appear to reflect, but rather a product of the combination of those events with our prior knowledge, whether in science or in our personal life.

Humans Perceive the Real World as Flat

[Elder-Vass 2004, pp. 5-6]

- As interpretations, our experiences are constructed based on sense-perception.
- Sense perceptions are inevitably limited to impressions of those components of reality that we are capable of perceiving with the senses we possess, or else augmented by artificial tools.
- The combined effect of this process of interpretation and our restricted perceptual (and perhaps cognitive) abilities is that we generally perceive reality as 'flat' in the sense that our experiences are interpreted as impressions of entities and/or events *at a single level of stratification*.
- As a result, our **experiences are flat**, they are single-levelled abstractions from what are *in reality* inherently multi-levelled occurrences.

Human Thinking Makes *Truth Claims*

- When we think and share what we think through language, the ‘referent’ to which we refer is the real world (domain of the real), whether it be its mechanism, events, or experiences.
- We can say that “things” have their own *truth* (alethic truth), and that this truth is different from the propositional truth of sentences through which we refer to them.
- The distinction between alethic and propositional truth is fundamental to dialectic thinking because thinking negotiates TRUTH CLAIMS.
- Mixing up alethic and propositional truth leads to the ‘epistemic fallacy’ (reduction of reality to knowledge) or its associated ‘ontic’ fallacy of seeing knowing be subject to being.
- **For this reason, we distinguish two kinds of dialectic: that of ontological moments and of epistemological thought forms.**

Way of Attendance and Attention Matter in Human Thinking

- You can approach a flower or a person in many ways that are entirely under your control.
- The way you approach something in existence not only changes your relationship to it but also determines what you find and see.
- There is a difference to be made between focused, left-hemisphere attention, often associated with logical thinking, and a holistic, empathic attention that is the hallmark of right-hemisphere functioning.
- Anything you see is determined by how you approach it and how you synthesize left- and right-hemisphere functioning, both of which are under your control.

Dialectical Thinking Attempts To Acknowledge the Real World's *Emergent Complexity*

- Given that our perceptions are single-levelled *abstractions*, when we use logical thinking as the standard of 'thinking' and 'understanding' we are woefully simplifying the events and experiences we speak about.
- Logical thinking, while a *pre-requisite* of dialectical thinking, is a powerful medium in which to distinguish, and a very impoverished medium in which to synthesize based on having previously distinguished.
- Therefore, in dialectical thinking we speak of events and experiences being "shadowed" by their OTHER, Non-A, or Negative, that is seen as an essential ingredient of any formed existence, process, common ground, or transformation.
- **Dialectical thinking strives to deliver *downwardly and upwardly inclusive* accounts of the social, psychological, and physical world.**

The Relevance of Dialogue For Thinking With Others

- The notion of 'mind' being a single existence and entity is false.
- *Mind* is spread over your entire body and extends to others with whom you communicate.
- We are not dealing with 'ego' but with what an African language calls 'ubuntu': "I am because of you".
- This 'ubuntu' notion of self, while denied (or at least put in brackets) by Western developmental theories is alive in dialogue.
- Dialogue and dialectic are inseparable aspects of thinking beyond logic.
- They are the core of what we do in this Practicum.

DTF: The Deep-Thinking Framework

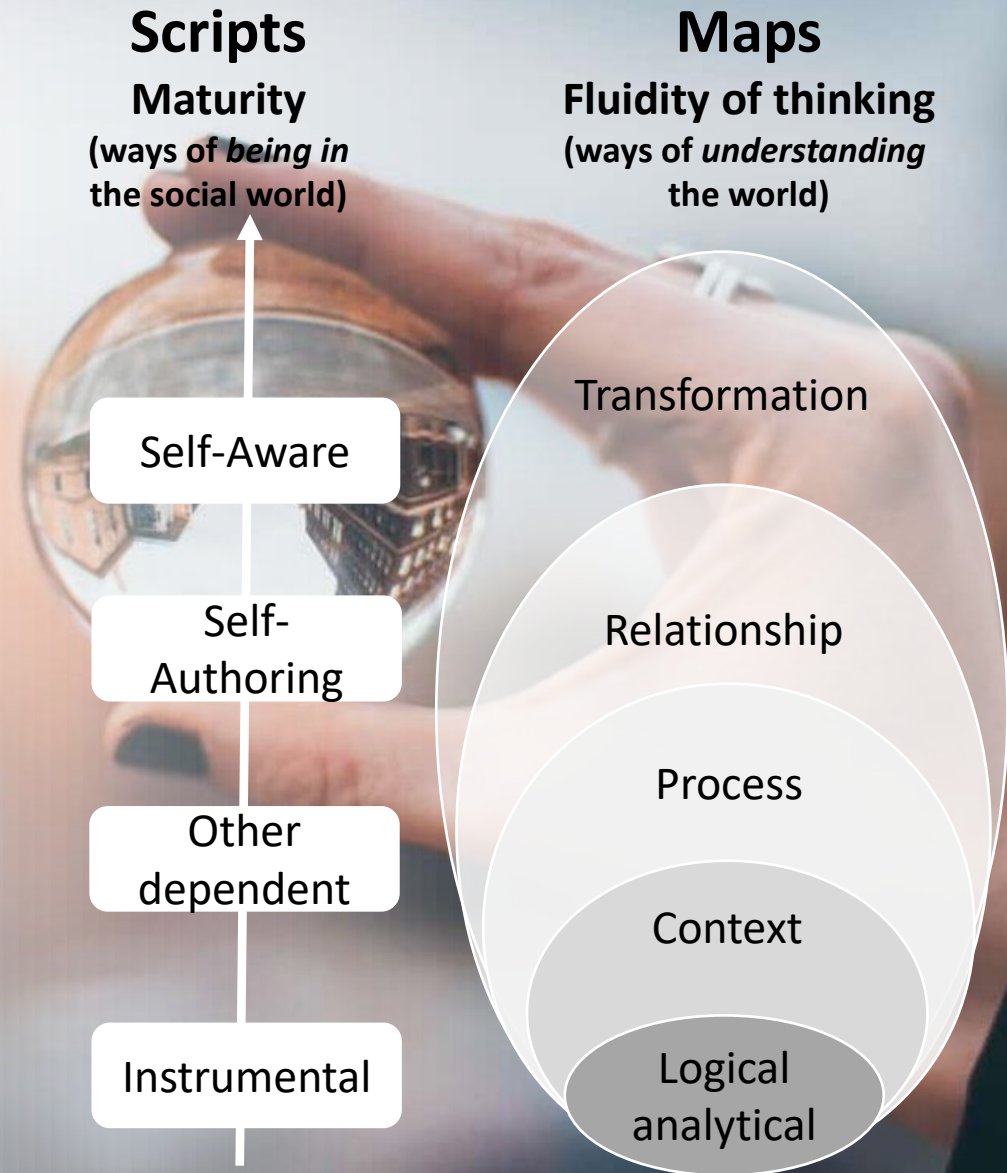
A Matter of Human Development

- DTF, the Deep-Thinking (or Dialectical Thought Form) Framework conceives of dialectic as the peak of adults' cognitive development over the lifespan.
- Such a development is not purely cognitive but is linked to social-emotional and even faith development, in a way barely researched at this time.
- In this Practicum, we look at the how knowable the world is before speaking of “thinking”, to put the latter in perspective.
- Since humans are embedded in the cosmos, we see ontology enwrapping and overreaching epistemology (e.g., climate crisis), with potentially fateful consequences for civilization.
- Since human epistemology is developmental, emerging from the human body over the adult lifespan, ‘knowing the world’ is a developmental achievement impossible to “speed up” but possible to hinder or delay.

Research in Adult Development Is Changing the Way We Are in the World, 'Live' and 'Act'

- ° Our grasp of what we construct as 'reality' develops over our entire lifetime
- ° Present research distinguishes **three** main dimensions of human development:
 - Socio-emotional
 - Cognitive
 - Faith (Engagement with, and commitment to, transcendence)

Intrinsically linked
but rarely in sync



Deep Thinking Framework (DTF)

CDF comprises DTF, the 'Dialectical Thought Form Framework', also referred to as the 'Deep Thinking Framework'

DTF is based on Roy Bhaskar's *Dialectical Critical Realism* stipulating four (ontological) moments of dialectic. In DTF, these *Four Moments* are thought to be made explicit by Michael Basseches' epistemological thought forms.

Given that 'thinking' (epistemology) is embedded in 'being' (ontology), all thought forms make *truth claims* in that they refer to the real world. In this Practicum, the four moments of dialectic are conceived of as *dimensions of the real world* to which we give the names of (1) FORMED EXISTENCE, (2) BEING, (3) COMMON GROUND, and (4) TRANSFORMATION.

It is important to distinguish moments of dialectic from 'classes of thought forms' in order not to *logicize* the real world. Moments are not 'classes of thought forms' (Bhaskar's **epistemic fallacy**).



Context



Process



Relationship



Transformation

Levels of Dialectical Thinking ‘Know-How’

<i>Action → Approach↓</i>	<i>Identify</i> [others' TFs]	<i>Reflect</i> [on own TFs]	<i>Use</i> [in speech and/or texts]
Moments of Dialectic (Foundations)	Begin to build an internal model of dialectic by understanding the nature and relationship of Bhaskar's four moments of dialectic (1M, 2E, 3L, 4D = MELD)		
Elementary (4 TF classes CPRT)	Analyze/classify pictures/texts	Reflect on a problem	Ask questions, describe and illuminate
Advanced (12 TFS p,e,l)	Compare texts [on same topic]	Reflect on a personal goal	Rethink a problem
Complex (28 TFs)	Analyze a structured interview	Reflect on values; evaluate	Coach a process
Expert	Analyze the TF structure of speech flow in real time	Reflect on TF constellations Heard or self-formulated in real time	Model TF constellations for others in real time

Four Phases of Dialectical Thinking Development

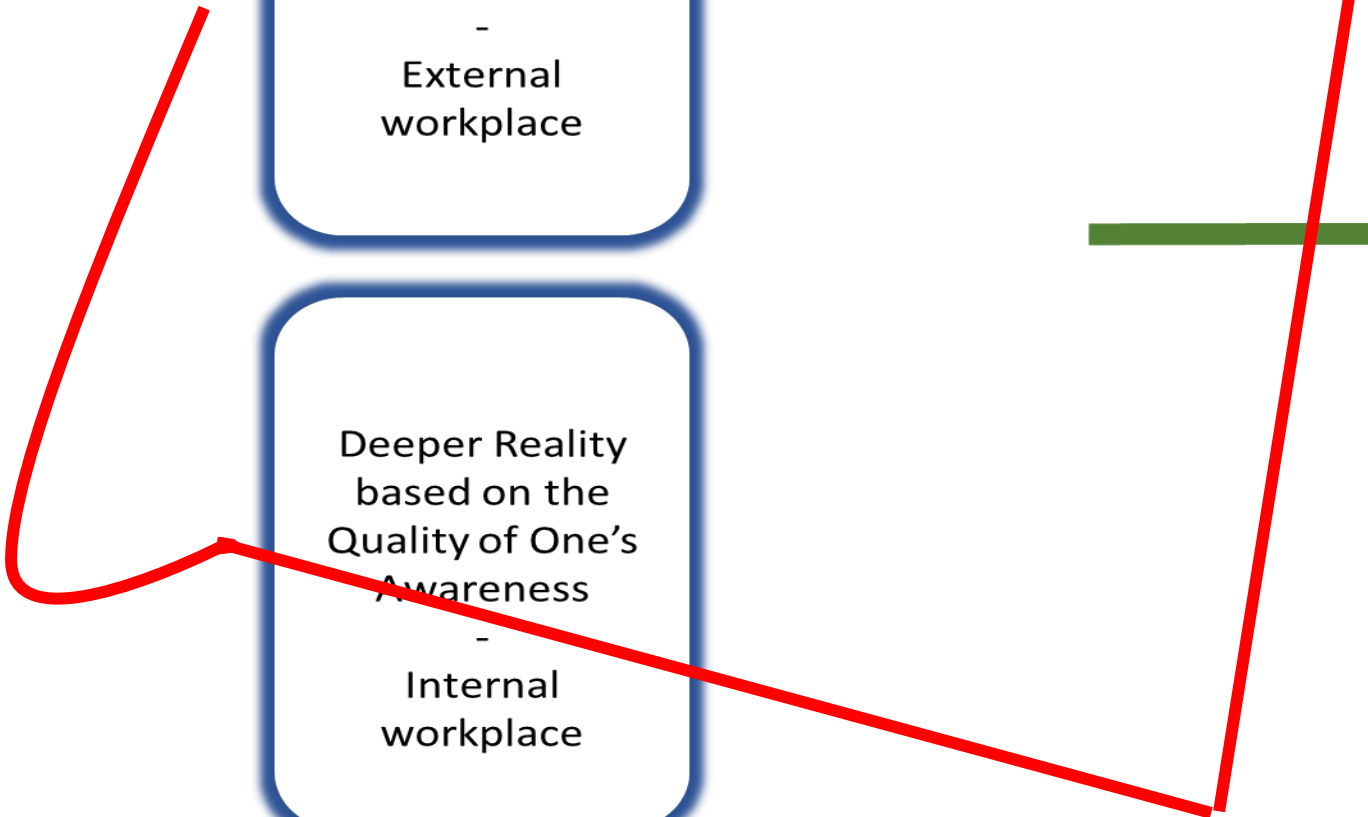
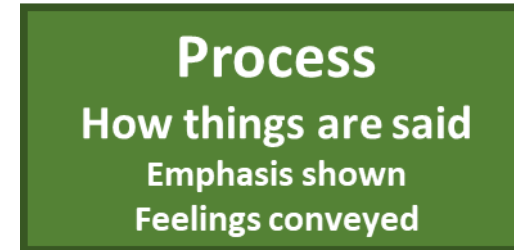
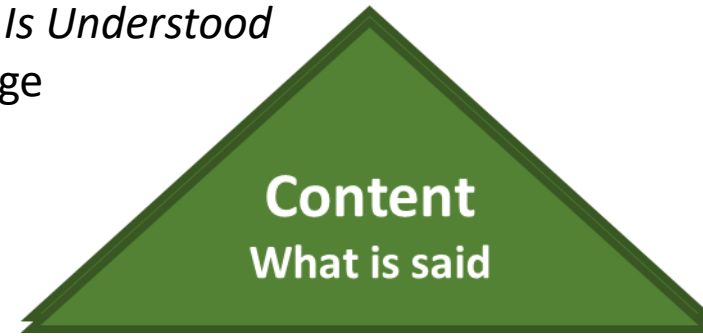
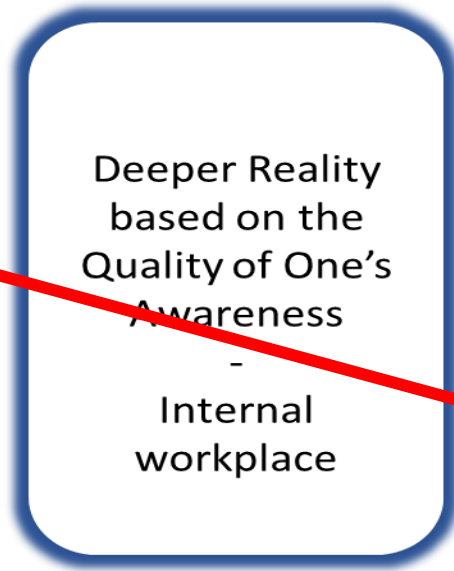
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4	Meta-Systemic	Ability to join different systems into a comprehensive whole	Emphasis: T	Open, self-transforming system: 24, 27

Table A4.5: The Four Phases of Dialectical Thinking

ONTOLOGY: *What Is*

EPISTEMOLOGY: *What Is Understood*
Through Verbal Language



The essence of epistemological dialectic: *Negative Space Thinking*

"Negative space" may be most evident when the space around a subject, not the subject itself, forms an interesting or artistically relevant shape. Such a space is often used to artistic effect as the "real" subject of an image.

In almost all real-world issues, negative space consists of what is absent – not there or not yet there – but also the broader context, emerging changes, essential structural relationships and developmental tendencies of what is (formed existence).

Negative space questioning brings to the foreground what is 'absent' in the real world but influences perspective taking and decision making in the epistemological space.



Human Thinking (Epistemology or Theory of Knowledge)

In the social realm, dialectic is dialogical, not monological.

The social realm in which we live is suffused in verbal language (and, increasingly, images).

Verbal language does not simply ‘describe’ what we observe and know, *it creates the “real world” we know and speak of.*

Therefore, the social world we *live in* is a dialogical universe.

‘Truth’ is not simply *found* but is generated by us in dialogue with ourselves and others, and so is the ‘data world’ we make up for ourselves – now algorithmically.

‘Truth’ is a dialogical social product, and so are ‘data’

Developing with Others is Listening to Embodied Others

*My attitude: I leave behind the assumption
that given arguments are true*

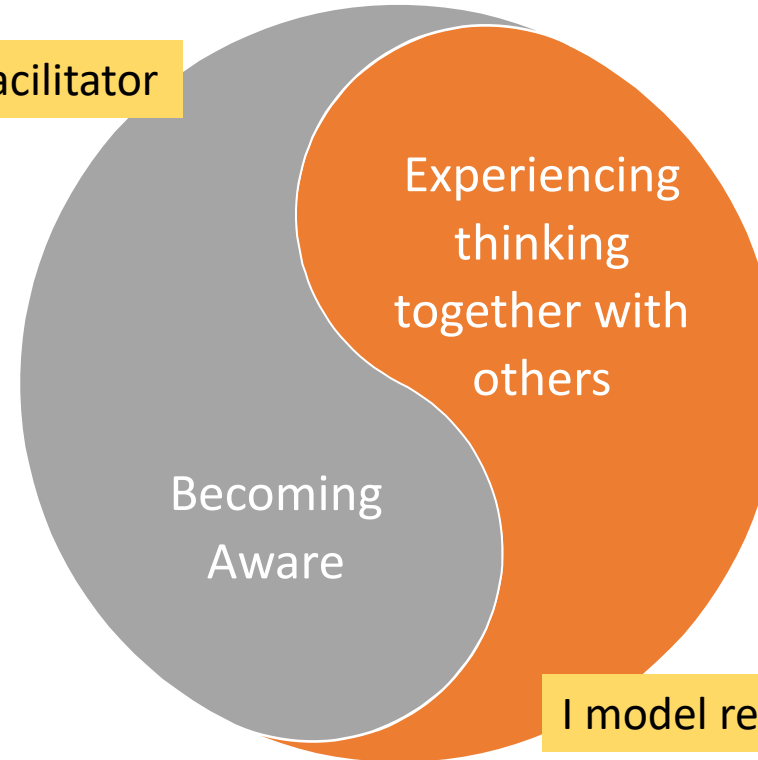
I call upon/get coached by a critical facilitator

Becoming aware of my own thinking

I consciously develop my internal dialogue by:

- learning to deconstruct streams of thought (from 'it/its' → 'I/we')
- I intensify my effectiveness by applying thought structures

*My attitude: I focus on the stream
of thoughts in the cohort and
make them an object of reflection*



Experiencing thinking together with others

I interweave my inner reflection process with that of others in such a way that we see achieved outcomes as the result of our joint reflection process.

- I learn to think together with others.

I model reflective practice for others

*My attitude: I attach value to the
reflection process rather than
being fixated on the outcome*



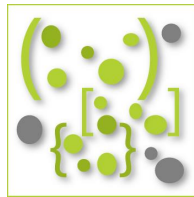
Four sets of epistemological tools (TFs) for discovering real-world emergence and complexity



- **Procedure 1: Part of a Big Picture:** In what way an issue is part of a broader context, and the nature of that context.



- **Procedure 2: In-Motion:** In what way an issue is still emerging, creating unforeseen problems.

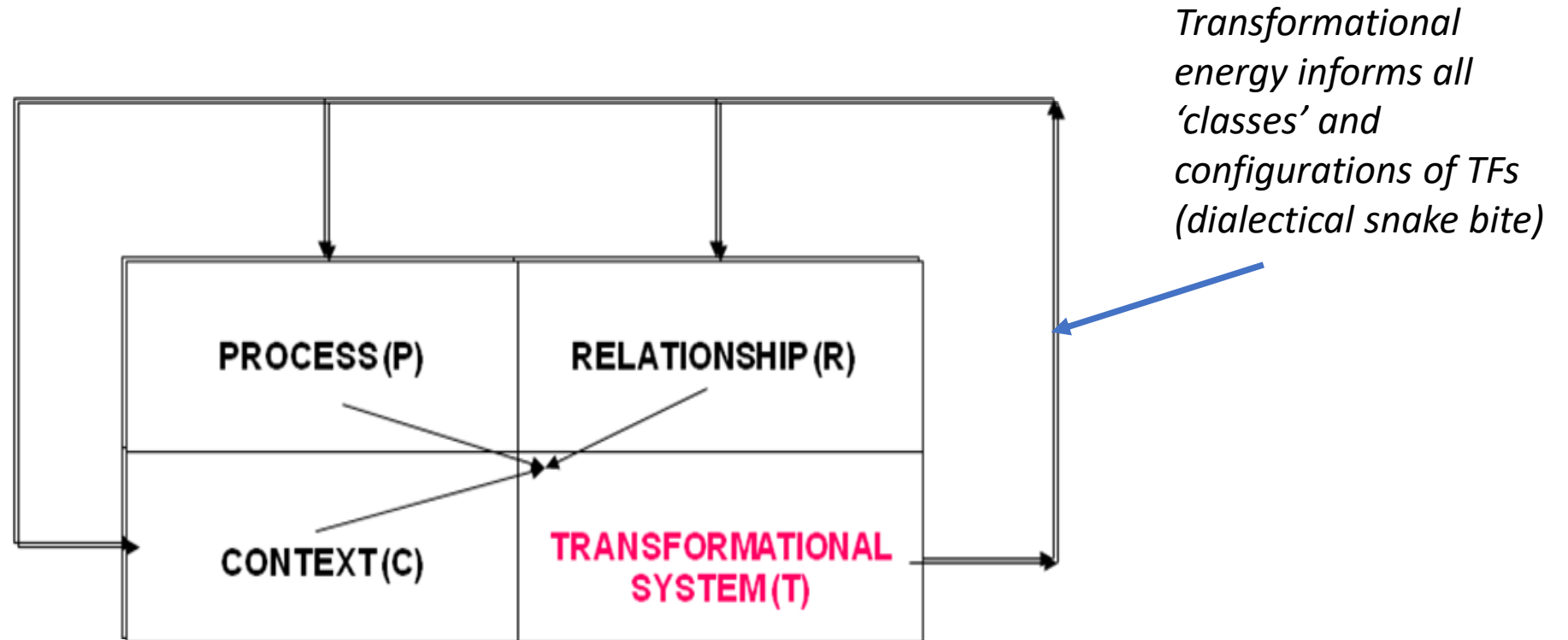


- **Procedure 3: In-Relationship:** How an issue is shaped by its function in a totality of intrinsic and extrinsic relationships, thus sharing common ground with other issues.



- **Procedure 4: In-Transformation:** How tensions, disequilibria, and developmental challenges create risks as well as a potential for transformations.

Links Between Epistemological Thought Forms in DTF



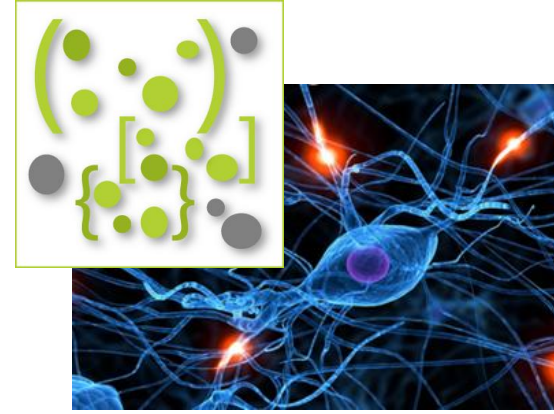
Why TF 'Classes' and 'Configurations' are Non-identical with Moments of Dialectic

- Given that epistemologies are 'overreached by' and 'embedded in' Being, (ontological) Moments of Dialectic defining the Real World cannot be reduced to logical 'classes'.
- Such a reduction strips TFs of their real-world referent and converts them to nothing but linguistic patterns.
- The logical reduction of TFs is anchored in the *epistemic fallacy* that knowledge defines Being or is commensurate with Being.
- In the use of DTF, especially for the sake of 'applications' and 'outcomes', the epistemic fallacy is RAMPANT.
- We could call it an 'anti-dialects' fallacy since it reduces dialectical thought forms to purely logical concepts whose relevance and meaning is confined to Actuality (the actual dimension of the real world).

Under What Circumstances Do TFs “approximate” Moments of Dialectic

- Dialectic depends on the rectification of absence (omissions, incompleteness) in a move to greater generality, inclusiveness, and coherence, and is necessary for fully understanding intentional action.
- Therefore, uses of epistemological TFs **not** contributing to a grasp of inclusiveness and coherence, as well as **not** honoring that ‘there is a world independent of thinking out there’) are varieties of the *epistemic fallacy* that reduces the real world to pure thought.
- *Approximating* Moments of Dialectic thus equals *approximating alethic truth*, the truth of things, in contrast the truth of propositions, even dialectical ones.
- Axiologically, this equates with the definition of dialectic as ‘absenting absentive agency’ (agency harming human flourishing) [Bhaskar 1993].

Logical Maps for Translating Moments Into Sets of Thought Forms



- **Formed Existence**
→CONTEXT (C)
- Big Picture: How an issue is part of a broader context?
 - Parts vs. the Whole
 - Layering
 - Virtual dimensions
 - Frame of Reference used
 - Multiplicity of contexts

- **Becoming →PROCESS (P)**
- In-Motion: How an issue has become a 'problem'
 - Inclusion of hidden opposites
 - Unseen, neglected dimensions
 - Embedded in correlated or simultaneous processes

- **Common Ground →RELATIONSHIP (R)**
- Totality – sets of dense relationships that hold things together. How one issue is shaped by another
 - Value of establishing relationships
 - Structure of relationship
 - Patterns of interaction
 - Reductionism

- **Ontological into epistemological Transformation**
- Human agency – What are the tensions, disequilibria, and transformational challenges an issue provokes?
 - Limits of stability
 - Function of conflict
 - Potential of re-emergence through breakdown
 - Logics of coordination
 - Integration of diverse factors

Context as an Approximation of Bhaskar's 1M (Laske 2008)

The dialectic of Context is that of a world of “things” existing independently of human thought which the logical gaze of the thinker transforms into a world of static configurations that may include intellectual traditions and ideologies humans have constructed during the course of their history.

Scientifically considered, Context is pervaded by linear causalities. However, since Context is deeply layered as well as discontinuous, such causalities hide deeper generative mechanisms and therefore feed the *illusion* of things remaining the same over long stretches of time.

This illusion is further nurtured when human thinking, following “laws of logic”, reduces the real world to single, unrelated moments of dialectic, instead of experiencing these as a *society of mind* working in tandem, and thereby making possible a realistic picture of the social and physical world.

Context thus easily feeds the illusion of “A is always A”, imposed by logical thinking.

Even so, any attempt to illuminate static configurations will promote a growing awareness that not only over time, but in terms of their very structure, static configurations classified by logic hide shifts, reversals, and breakdown of systems.

Process as an Approximation of Bhaskar's 2E (Laske 2008)

The dialectic of Process is that of a world of unceasing change, emergence from the whole, and the presence of the past and the future in the present. Process is not identical with *change* since its internal movements are structural, not necessarily temporal (although they are *experienced* in human space and time as linear).

In this world, the present unremittingly slides into the past, and the past re-emerges in the presence of the future.

This world is one of *negativity*, in the sense of loss, pain, conflict, reversal, miscarriage, and absence. In terms of thought, it is the world of *preservative negation* where the existence and definition of something "A" is inseparable from what A is NOT (non-A), which makes Process a world of oppositions and critical thinking.

The dialectic of Process is one of emergence of things and forms into reality from less developed, more restricted, forms, and equally one of decay of fully developed forms into oblivion, or renewal in a different form, with gain and loss inextricably intertwined.

Relationship as an approximation of Bhaskar's 3L (Laske 2008)




The dialectics of Relationship is one of figure and ground, of a totality comprising entities that mutually constitute (account for) each other, such that *one* makes the *other* what it is, and could not be without the other since it intrinsically relates to it. It is a world of limits of separation and reciprocity in which what is different is only *different* to the extent that it *shares* existence in the totality that embraces all partial entities. It is also the dialectic of what is seemingly single and isolated but is unmistakably based on what it excludes and cannot be isolated from the larger whole to which it belongs, being part of a larger cohesive totality that synthesizes seemingly independent elements and configurations.




B.8 Example: Alternative Format Cognitive Interview Graph CIG

	Process (P)	Context (C)	Relation - ship (R)	Transform - ational System (T)	P TF#1-7	C TF#8-14	R TF#15-21	T TF#22-28
Utterances	<i>Thought Forms #s</i>				<i>Graph</i>			
1	6				•			
2				22				•
3	(5)	(9), 14	15		•	• •	•	
4			20	22, (24)			•	• •
5	5			22, 27	•			• •
6			19	25			•	•
7				22				•
8		14				•		
9		8	19, 20			•	• •	
10	5			26 ,27	•			• •
11				28				•
Separate TFs	2	3	3	6	←See Table 10.3 for weighting			

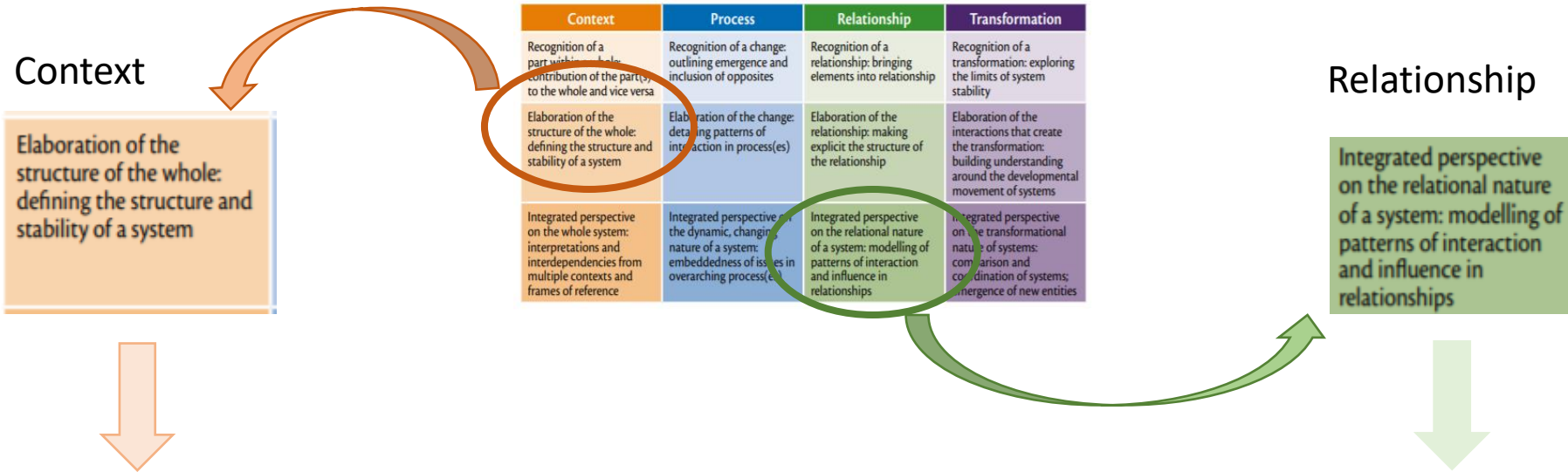
B.8: Manager C's Cognitive Interview Graph – CIG (a Constellation of Thought Forms)
 - Vol. 2, Ch. 10 - [Alternative Format]
 (Courtesy A.Snow)

Four Steps in Deepening Movement-in-Thought (Vurdelja 2011)

	Context	Process	Relationship	Transformation
	Recognition of a part within a whole: contribution of the part(s) to the whole and vice versa	Recognition of a change: outlining emergence and inclusion of opposites	Recognition of a relationship: bringing elements into relationship	Recognition of a transformation: exploring the limits of system stability
	Elaboration of the structure of the whole: defining the structure and stability of a system	Elaboration of the change: detailing patterns of interaction in process(es)	Elaboration of the relationship: making explicit the structure of the relationship	Elaboration of the interactions that create the transformation: building understanding around the developmental movement of systems
	Integrated perspective on the whole system: interpretations and interdependencies from multiple contexts and frames of reference	Integrated perspective on the dynamic, changing nature of a system: embeddedness of issues in overarching process(es)	Integrated perspective on the relational nature of a system: modelling of patterns of interaction and influence in relationships	Integrated perspective on the transformational nature of systems: comparison and coordination of systems; emergence of new entities

Within each thinking-form class, the cards that probe for 'recognising' are indicated by a pointing arrow icon . The 'elaboration cards' have a microscope icon . The 'integration cards' have a interlocking pentagon icon .

12 maps to explore one's movements-in-thought: Two Examples



- What makes these elements function together so harmoniously?
- Is the present stakeholders' engagement strategy sufficient to guarantee the (relative) stability of our business?
- How can we describe the system we are working in, in structural and compositional terms?
- What makes the layers / functions / elements we describe function as an integrated structure?

- Are we paying attention to reciprocal influence between different teams and departments?
- Would these elements (individuals) be what they are if their essence were not defined by their intrinsic relationship?
- Do the parties to this relationship have aspects that fall outside the relationship they are in?
- What patterns of influence do we see here? Is there reciprocity? Is each side indirectly supporting the other, or is it more oppositional?

Pictorial Presentations of Moments *Logicized* as 'Classes of TFs'

**Formed
Existence** as
seen by
systemic logical
thinking



**Formed
Existence** as
seen by
analytical
logical
thinking



Becoming as
seen by
logical
thinking



**Common
Ground** seen
by logical
thinking



Common
Ground seen
by logical
thinking



Transformational
System as seen by
logical thinking



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