Dialectic as Core Discipline of Integral Epistemology: Establishing Bhaskar’s MELD as the Cornerstone of Professional Thinking About Human Flourishing.
Otto Laske

Abstract

This is an outline of intention and content of my book “Dialectical thinking for integral leaders: A primer” (henceforth referred to as Primer). I highlight the use of dialectical thinking within an epistemology constellated within dialectical critical realism. While implicitly referenced by its founder, Bhaskar, such a discipline presently does not exist. However, it ought to be brought into existence for the purpose of overcoming what Bhaskar calls “irrealism” and “the epistemic fallacy”, errors he finds at the doorstep of all of Western philosophy, including present integral thinking.

To assist readers in resonating more deeply with Bhaskar’s work, in this article I speak from my personal experience of him and his 1993 book on dialectic, keeping in mind the neglect that has befallen the dialectical period of his thinking (Alan Norrie 2010). My main purpose is to show that MELD (his acronym for the four moments of dialectic 1M, 2E, 3L and 4D) is not only the cornerstone of his ontology (without his fully realizing it); it also highlights a cognitive-developmental sequence, that has been empirically validated in my research based on the Constructive Developmental Framework (CDF).

As such, $M \rightarrow E \rightarrow L \rightarrow D$ permits a new understanding of adult cognitive development, and can serve as a solid base of integral epistemology as a developmental discipline.

My presentation has two parts, a theoretical and practical one. I hope to contribute to a deeper reception of Bhaskar’s dialectical work whose “spiritual turn” to MELDARA (Bhaskar 2002) has been prematurely adopted, if not colonized, without a thorough understanding of MELD on which it is based. I do so because I fear that this premature jump over MELD into ARA (spirituality, enchantment, non-duality) is working out to the detriment of complex thinking within the integral community.

Keywords: Constructive Developmental Framework (CDF), dialectical ontology, dialectical epistemology, four moments of dialectic, dialectical thought forms, dialectical critical realism, integral thinking, MELD, MELDARA

PART I
Introduction

Forbidding sounding notions used by Bhaskar, such as epistemic fallacy and ontological monovalence, have concrete and profound epistemological consequences, as well as a very practical meaning for understanding both the development of adult thinking over individuals’ life span and the cultural biases governing scientific and philosophical thinking in western society today.

These concepts are central for any kind of critical realism since they address the topic of absences, especially the absence of negativity as the core of natural necessity, and the neglect of generative mechanisms by which absences become manifest in the physical and social worlds.

Bhaskar’s concepts are also part of any cogent critique of culture (Kulturkritik) since they highlight the four fallacies that underpin not only modernity but continue beyond it
(Marshall, 2016):
the dominance of analytical over dialectical thinking,
of epistemology over ontology,
of presence over absence,
and of the exterior over the interior (the latter understood as an individual’s mental universe of discourse).

All four fallacies are grounded in the dominance of presence (positivity) over absence (negativity) in western thinking: the predilection of painting the world in a single color.

Integral epistemology based on an awareness of absences is, in my view, the proper response to such fallacies. It is thereby not only of cultural but political importance.

For Bhaskar, absences indicate that which is “not there” or “not yet there”, something that is real, in fact more real than what is merely the case, or actual. Absences are place holders for what lies in the past and lies outside of things, and thus also of what is to come or already becoming.

From an epistemological point of view, such absences not only pervade the real world (as Bhaskar says), but also the universe of discourse of everyday thinking, at least for a dialectically schooled listener.

Thinking void of dialectic is “flat” in a sense far beyond the meaning Wilber has given this term: such thinking, despite its claims, cannot structurally grasp transformations.

The denial of absence in western thought has pervasive consequences; it also obscures the dramatic finding of the cognitive-developmental sciences since Kohlberg: that human thinking follows a sequence grounded in the four moments of dialectic.

According to empirical research (Basseches, 1984; Laske, 2008), these moments are acquired by individuals only gradually and in the sequence indicated.

When these moments are recast as the cornerstone of a dialectical epistemology -- as I do in my book on dialectical thinking of 2008 and, in a more compact form, in my 2015 Primer -- a theoretical as well as practical opening for complex integral thinking is created. In the Primer, therefore, I treat the four moments as the cornerstone of integral realism, for the purpose of deepening integral thinking.

A Lucky Find

When preparing volume 2 of Measuring Hidden Dimensions: Foundations of Requisite Organization (2008), I had the unexpected privilege of coming upon a copy of Bhaskar’s 1993 book entitled “Dialectic: The Pulse of Freedom”. As a former student of Th. W. Adorno, I could not believe what I was reading: a thorough critical revival of the age-old tradition of dialectical thinking starting with Parmenides and the late Plato which contained a profound critique of Hegel’s dialectic and an appreciative re-evaluation of the dialectic of Marx.

What the late Plato had introduced through the notion of “otherness” (to heteron), Hegel had magnified into “negativity” as the driving force of both history and the human mind.

The Frankfurt School had taken up Hegelian and Marxian dialectic but had insistently circumvented ontology because its members saw ontology as an unjustifiable justification of the capitalistic status quo.
Here was Bhaskar reviewing the entire history of western philosophy and finding it lacking in its recognition of negativity as driving forward not just the mind (epistemologically) but the real world (ontologically).

Here was the Apollo of the 21st century showing a dialectical path toward human flourishing, one that remains unseen without the exercise and experience of dialectical thinking. (The present neglect of Bhaskar’s dialectical period is rooted in a denial of his historically most relevant work.)

By introducing to heteron, Plato had articulated, in a playful way, the notion that every existing thing is accompanied by its Other, a kind of shadow that will not go away, comprising the outer and the past of everything.

Bhaskar generalizes Plato’s heteron as well as Hegel’s negativity and Sartre’s negatité to the term Absence, as something that not only denotes the past and the outside of a thing but equally its unrealized potential and unrevealed depth. Without absence, there is no space for any kind of development to take place nor even any developmental potential.

Although today Plato’s heteron is often viewed as bound to the notion of Difference more than of Negativity (Alan Norrie, 2010), which I question, it is this platonic notion that is at the root of Bhaskar’s absence which he insists upon by saying that the real world is pervaded by absences.

By saying so he means that we can’t paint the world in positive colors alone (as is done in most philosophies and the sciences to this day).

We must equally think about what is not there or not yet there, the world’s negativity, as well as what in the real world does not fit human concepts (Adorno, 1999).

In fact, as Sartre would add, thinking is itself a form of negativity, since it is “other than the world”, in light of which positivistic “thinking” is a contradiction in itself since it is one with the world.

Bhaskar addresses positivistic as well as present integral thinking as irrealism. He sees it rooted in the epistemic fallacy that the real world is nothing more than what humans know or can know about through their epistemologies.

Irrealism is a fallacy committed by both individuals and the sciences (now largely under corporate tutelage). When this fallacy is exercised, the real world gets reduced to human knowledge, object to subject, AQAL to UL (upper left quadrant).

This is in contrast to Bhaskar’s notion that human knowing (thus epistemology) is constellated within ontology, and not the other way around.

Thinking developmentally, there is an obvious link between the epistemic fallacy and adult cognitive development.

If we take Bhaskar’s four moments of dialectic -- MELD in short – as defining a developmental sequence, M \(\rightarrow\) E \(\rightarrow\) L \(\rightarrow\) D, leading from formal logical to dialectical
thinking (as I do in the Primer),

then the notion that the world is equal to what humans know about it indicates the lowest conceivable level of thought complexity.

The fallacy occurs, to speak with Hegel, because no effort of the Concept is made, and only “downloading” takes place. In downloading, the experience of one’s own thinking never even arises.

In the epistemological terms of my Primer, “downloading” amounts to getting stuck in Context thought forms that spell out Bhaskar’s 1M moment of dialectic (viz., non-identity and alterity), but in a pitifully elementary way, except if related to other moments of dialectic.

The epistemic fallacy so exercised is characterized by a pervasive focus on what one thinks in contrast to how one thinks, or how one could think differently about subject matter than is presently the case.

Table 1. Correspondence of moments of dialectic in epistemological and ontological terms

<table>
<thead>
<tr>
<th>CDF</th>
<th>Bhaskar</th>
</tr>
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<tbody>
<tr>
<td>C</td>
<td>Context</td>
</tr>
<tr>
<td>P</td>
<td>Process</td>
</tr>
<tr>
<td>R</td>
<td>Relationship</td>
</tr>
<tr>
<td>T</td>
<td>Transformation</td>
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</table>

A Second Lucky Find: The Mapping of Moments of Dialectic into Classes of Thought Forms

As I continued reading Bhaskar along with doing assessment research in cognitive development based on semi-structured interviews, I made a second lucky find.

I occurred to me that what Basseches (1984) had called the “four classes of (dialectical) schema” – which in CDF I called C (Context), P (Process), R (Relationship), and T (Transformation) – convincingly map onto Bhaskar’s four moments of dialectic (1M, 2E, 3L, 4D).

This is to say that Bhaskar’s moments not only “run the real world” as he undertook to show in his ontology. They also “run the human mind” as part of the real world, pervading human epistemology when seen from a constructivist perspective.

In short, as holds for the real world, human thinking is intrinsically “dialectical”, following not logical but preservative negation. In the latter, what in terms of formal logic is considered “false” is an essential ingredient of truth, - a heteron. Bhaskar emphasizes this by calling this truth alethic, meaning truth grounding reality, not just thinking.

The double find I made: that Plato’s heteron and Hegel’s negativity resurge in Bhaskar’s absence, and that the four moments of dialectic form a developmental
(epistemological) sequence, are the foundation of both of my books on dialectical epistemology (2008, 2015), whose manual is found in earlier work. These two finds led me to forming a different picture of cognitive development than is taught and researched today.

Following Bhaskar, I refer to the developmental trajectory adults follow the “UDR movement” of their thinking.

\[ U \rightarrow D \rightarrow R \]

[The New Natural]

Fig. 1 The UDR movement of Thinking (adapted from Bhaskar 1993, p. 22)

This movement from Understanding (U) via Dialectic (D) to Reason (R) has the noteworthy character that it comes out of Common Sense and also leads back to it:

Once human thinking masters formal logic – enabling Understanding – the next step, toward Reason, has incipiently already been taken (Basseches 1984; Hegel, 1806). The motor driving it is the UDR movement of dialectic which, when reaching a complete merger of logical and dialectical thinking in the last phase of cognitive development, Practical Wisdom, returns to Common Sense.

The epistemological meaning of this return is simple: mature, dialectical thinking becomes “common sense”, or second nature. This is the cornerstone of a dialectical
epistemology that honors empirical cognitive research. As my Primer shows, such an epistemology can be called integral to the extent that integral thinkers actually engage with dialectical thinking (rather than just “hand-waving” dialectic as now happens).

**Toward a Dialogical Epistemology**

While historical epistemologies have been focused on argument (monologue), a major application of dialectical epistemology, according to the Primer, lies in dialog, both between individuals and in teams.

We can speak of a "dialogical turn" that brings into focus the experience of one’s own thinking in dialogical, rather than monological, processes. While in argumentation one can easily objectify one's thought process, especially in writing, in one-to-one or one-to-many dialog this is much more difficult; a failure apparent as “closed thinking”.

The focus on experiencing one’s thinking, both of one’s own and that of others (as in Platonic dialogs), is starkly neglected in our society, even in teaching. In such neglect, "thinking" becomes an activity in which the dialog with oneself, which underlies dialog with others, is constantly disavowed.

Therefore, in ordinary logical thinking, people are pushing around (greatly so in books) lifeless abstractions as if they were pieces of furniture, rather than becoming observers (and analyzers) of their own mental processes in real time. In my experience, only close observation of one’s own thinking will open the mind's floodgates to untrammeled dialectical thinking.

In experiencing one's thinking as a "Gedankenexperiment" or thought experiment made in internal and/or external dialog, Bhaskar's four moments of dialectic are, as I will show below, indispensable tools. This is so because one can always ask oneself and others the simple question:

"What moment of dialectic are you instantiating by way of the thought forms you are presently using?", and also:
"What would your subject matter look like if you switched attention from one to another moment of dialectic?"
or even:
"In this context, wouldn't it be more appropriate to think of the relationships (or processes, or transformations) involved in what you seem to be focused on?"

This kind of thought experiment resembles bringing into play different Wilber "quadrants", except that his quadrants are perspectives, not moments of dialectic.

**A dialectical use of the quadrants**, therefore, consists of exploring each of them guided by the four moments of dialectic (MELD), with the result that each quadrant is seen as pervaded by absences.

This way of thinking entails following the principle of AQAM, “all quadrants, all moments”, or more comprehensively expressed,
AQAMAT, “all quadrants, all moments, all thought forms”, thereby developing fully what the original quadrants comprise, entail, and foreshadow.

[AQAMAT, “all quadrants (Wilber), all moments (Bhaskar), all thought forms (Basseches, Laske)”]

Obviously, embedding the four moments of dialectic in each of Wilber’s quadrants shifts integral thinking to a higher level of complexity than is presently attained.

It leads to rescinding the epistemological predominance of the upper left quadrant (UL) that now prevails, clearly a pre-dialectic legacy.
It forcefully demonstrates that the four (Wilber) quadrants are intrinsically linked across each of the four moments of dialectic and their thought forms, as concretized in Fig. 3, below.

When one links Bhaskar’s work on dialectic to empirical cognitive research outcomes, he appears not only as the originator of AQAL dialectic; he is also the originator of a dialectical epistemology able to restore dialog to a prominent place in society (including scientific research), as much as he is the originator of the foundations on which to rest research in post-formal thought (extending Fischer’s and Common’s work).

The Four Moments of Dialectic as a Developmental Sequence: Measuring MELD in Speech and Text

Simplifying research results obtained by both Basseches and myself (1978-2008) one would say they show that adults – when properly educated -- begin their journey from logical to dialectical thinking in late adolescence.

They accomplish their longitudinal journey in four phases (measurable by an index), moving from one moment of dialectic (as a pivot) to another, in the order M⇒E⇒L⇒D.
Successive pivots become their “second and third cognitive home”.

Thought forms associated with moments of dialectic other than the presently dominant pivot are of course present, but remain subordinate to the pivot in terms of degree of articulation.

As other moments are acquired, they are increasingly coordinated and integrated, thus avoiding relativism based on single moments.

In terms of Laske’s Dialectical Thought Framework (2008, 2015), stops on the journey are quantifiable by a fluidity index which measures the number and weight (strength) of different thought forms associated with different moments activated.

Spelled out further, the index defines an individual’s, or even text’s (Frischherz and Ulmer, 2014), cognitive profile.

Accordingly, individuals’ cognitive-developmental journey is one toward increasingly masterful handling of complexity and thinning out of
ideological content.

**Fluidity** conveys the degree to which dialectical thought forms, and thus **moments of dialectic**, are articulated in their coordination.

The four phases of this journey
– demarcated by an increasing fluidity index (<10, <30, <50, >50) with successive dominance
-- of 1M (Context)→2E (Process)→3L (Relationship)→4D (Transformation)
– are empirically manifest both in people’s speech and writing.
No hiding behind glittery contents is possible.

In light of the longitudinal (M→E→L→D) sequence followed by adults we can thus say:
- the four **moments** of dialectic not only determine the natural necessity of **real world transformations**,  
- but also specify the **developmental structure of the human mind** trying to grasp the real world.

**Irrealism** is thus shown to be the failure of the human mind to realize its full dialectical potential, as demonstrated by the history of western philosophy as much as present society.

**The Snake Bite of Dialectic**

At this point, a comment on an important **difference between Bhaskar’s and my own dialectic** is in order that amounts to an epistemological sharpening of MELD.

Although Bhaskar clearly sees the interconnectedness of the four moments, *his ontological focus seems to hinder him* from emphasizing that, as a mental process, dialectic is a snake biting its own tail.
This is shown in the figure below.

As the arrows in Fig. 3 indicate, the **dynamic of dialectic is twofold**.
• According to the **inner arrows**, it is only when C, P, and R thought forms become *coordinated* that transformational thinking is measurably achieved.

• As indicated by the **outer arrows**, the potential for transformational thinking is always *inherent* in using C, P, and R thought forms, but only in a weak fashion due to the thinker’s low fluidity index.

• It is the unceasing give and take between *remediation* (Bhaskar’s *absenting of absences*) through T and *illumination* through C, P, and R thought forms that the snake bite of dialectic highlights.

So while human *thinking* is at its core *dialectical*, *as long as this give and take is not picked up by the integral thinker*, s(he) remains chained to an *inferior, immature form* of dialectic.

The dynamic of the four moments of dialectic becomes more palpable and pragmatic if it is *concretized by way of thought forms*, as in the table below.

**DIALECTIC IN A NUTSHELL**

<table>
<thead>
<tr>
<th>Context (M)</th>
<th>Process (E)</th>
<th>Relationship (R)</th>
<th>Transformation (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cp</td>
<td>Pp</td>
<td>Rp</td>
<td>Tp</td>
</tr>
<tr>
<td>Relationship between part(s) and a whole</td>
<td>Emergence and inclusion of opposites</td>
<td>Bringing elements into relationship</td>
<td>Limits of system stability</td>
</tr>
<tr>
<td>Ce</td>
<td>Pe</td>
<td>Re</td>
<td>Te</td>
</tr>
<tr>
<td>Structure and stability of a system</td>
<td>Patterns of interaction</td>
<td>Structure of relationship</td>
<td>Developmental movement of systems</td>
</tr>
<tr>
<td>Cl</td>
<td>Pl</td>
<td>Ri</td>
<td>Ti</td>
</tr>
<tr>
<td>Multiple contexts and frames of reference</td>
<td>Embeddedness in process</td>
<td>Patterns of interaction and influence</td>
<td>Comparison and coordination of systems; emergence of new entities</td>
</tr>
</tbody>
</table>

Table 2 DTF classes of thought forms simplified (p=pointing, e=elaborating, l=linking)

Compared to my 2008 book, in the Primer I chose to **reduce the number of thought forms from 28 to 12** for pedagogical reasons.
I refer to them as arranged in three consecutive steps across Table 1: 
\[ p \text{ (pointing to)}, \ e \text{ (elaborating), and } l \text{ (linking)}. \]

The \( p \to e \to l \) progression indicates increasing fluidity, the fact that a speaker or writer working \textit{in real time} always has a choice between summarily

- \textit{pointing to} \((C_p, P_p, R_p, T_p)\),
- \textit{elaborating} \((C_e, P_e, R_e, T_e)\), or
- \textit{linking} previously elaborated thought forms \((C_l, P_l, R_l, T_l)\).

What the 2-dimensional table hides is the dynamic of dialectic, that \textit{dialectical thought forms give rise to a dynamic system of co-defined and intrinsically related base concepts}.

In (recorded) dialog, this dynamic can be captured, measured, and given feedback on, not to mention the more complex decisions that emerge from it, \textit{guiding human agency}.

**Epistemological Claim Made in the Primer**

It should be clear by now that \textit{formal logical thinking}, even in its \textit{meta-systemic} form, \textit{only scratches the surface of the mind’s potential} which comprises increasingly higher levels of systems thinking emerging from the increasing coordination of thought forms (first shown by Hegel 1998 [1806]).

What is known today about \textit{human cognitive development beyond formal logical thinking} is therefore most succinctly conveyed by the diagram below.

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*Fig. 4 Dialectical Thinking as the Peak of Adult Cognitive Development (see below)*

<table>
<thead>
<tr>
<th>Process (P)</th>
<th>Relationship (R)</th>
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<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Seeing and articulating the work in unceasing change

Seeing the multiplicity of entities and thoughts and how they connect together

**Context (C)**
Understanding the big picture and its encompassing parts

**Transform (T)**
Seeing the world as an organism

The diagram depicts human thinking *in terms of levels of systems thinking* named after Bhaskar’s MELD.

As we move through the thought forms associated with MELD (M1,E2,L3,D4), we acquire a **holistic and transformational understanding of the real world**, leaving behind us the flat actual world of formal logical thinking.

Our quest is directed to TRUTH, *not to meaning-making* to which truth is presently reduced by much of integral thinking (based on hypostatizing Kegan’s work).

Involved are two opposite, but equally complementary, tendencies:

- the **constructive** one moving from **Context** to **Transformational** thought forms, and
- the **critical** one moving from **Process** to **Relationship** thought forms.

As suggested by the figure, *at the core of dialectical thinking is negativity* on account of which the world appears as *pervaded by absences* in whose vicinity nothing is simply “false” since it is a moment of truth.

**Dialectic is thus revealed as a disciplined discovery procedure** capable of doing justice to the intrinsic connectedness of AQAL quadrants, *transforming AQAL from a logical scheme focused on breadth-first search into a dynamic system focused on depth-first search* clearly revealing speakers’ and thinkers’ measurable level of cognitive development.

However, the *Dialectical Thought Form Framework (DTF)* presented in the Primer as well as in volume 2 of *Measuring Hidden Dimensions* (2008) is *not* solely focused on thinking but equally on *dialogical listening.*

The figure indicates how a *dialectically schooled ear* moves between thinking and listening. As the hierarchy of levels implies, human speech concretizes MELD in a way best rendered by $M \leftrightarrow E \leftrightarrow L \leftrightarrow D$ indicating the **permeability of moments** of dialectic.

To a *dialectically schooled listener*, interlocutors’ speech becomes transparent in terms of its *absences as well as associated fluidity index.*

As a result, such a listener can make cogent judgments about the speaker’s or writer’s **present inquiring system**, which is defined by the **present phase of cognitive development** toward dialectic the individual is presently documenting.

As MELD is *spelled out in speech through concepts instantiating individual thought forms*, the *dialectically schooled* ear of the listener turns into a tool for helping
interlocutors -- whether individually or in a team -- **detach from the content** of their speech, in order to **focus on its thought form structure**. I am referring to **dialogical process consultation**.

**MELD-grounded dialog**
- makes interlocutors realize what it is that presently separates them from having an **ontologically cogent sense of the real world**.
In a sense, then, dialectic is its own cure:
not only does it point to the structure of the real world referred to in speech (the truth content of speech),
it also helps surface and assess the gap that separates speakers from the real world.

This gap can be **made conscious and spelled out** for mutual benefit in mentoring and consulting.

**A Concrete Example of the Four Moments**
To give a concrete diagnostic example, let’s say that we want to think about what is a beehive.

This inquiry requires a **dialectic discovery procedure**.
How we approach the inquiry will depend on our interlocutors’ level of cognitive development.

Thinkers pivoting around **1M (Context thought forms)**
would see in a beehive no more than a wooden box with, inside of it, 10 wax-coated wooden frames in which the bees deposit water, honey, propolis, etc (Cp).
For them, such a hive remains an inert entity however many meta-systemic microscopic details they may add to its description down to the atomic level.
The hive would fit seamlessly into the static world these interlocutors permanently live in.

It is only when proceeding to the **second moment of dialectic (2E)**, using **Process thought forms**, that a thinker would include in his/her thinking “what is not there” (seen as an opposite; **Pp**).
S(he) would come to realize that there are **patterns of interaction**
– both **within and without** the hive
– that are the **holistic cause** of what happens in the hive
over the four seasons and potentially years to come (**Pe; Pl**).

**Joining Context with Process thought forms**, the thinker would have achieved not only a broader but a more realistic view of the beehive, which would include the possibility of internal collapse or externally caused loss of the hive.

However, even when conceived based on **1M=C and 2E=P thought forms**, the hive still remains **irreal** in the sense of Bhaskar.

It still lacks the specificity it possesses on account of **intrinsic relationships within** the hive, but also **intrinsic relationships between the hive and its environment** which are an integral part of its existence.

Merely outlining such relationships in logical fashion (**Rp**) would **not** do much to change this state of affairs.
It is only when the intrinsic relationship of elements of the hive – the insight that one element could not even exist without the other – is acknowledged by the thinker (R; R), that the veil of irrealism begins to lift, opening the view on the common ground of opposites in the hive that are both the same and different from each other.

(E.g., there could be no life in the hive without the intrinsic relationship between queen and worker bees which do not exist independently, a worker bee being a potential queen should the original queen leave the hive or be killed by another queen.)

Only a 1M→2E→3L (or CPR-) articulated hive would move the thinker toward transformational questions such as:
(1) What are the limits of the system stability of the hive over short or long periods of time? (Tp);
(2) What is needed to sustain the hive over the period of a year of its life? (Te); and
(3) How are subsystems of the hive best coordinated by frame placement before summer begins (Tl)?

Such topics lead to broader questions about how to avoid using noxious substances in the vicinity of the hive, that a dynamic picture of the hive’s environment would naturally provoke.

Summary
So far, I have outlined dialectical thinking mainly in terms of argumentation. However, complex thinking is equally, if not more, important in dialog, whether between individuals or within teams. I therefore show in the Primer how M→E→L→D and their associated thought forms (CPRT) function in human dialog, noting that human thinking becomes an open book if observed and inquired into in terms of the four moments of dialectic.

This is made possible by the Dialectical Thought Form Framework (DTF) described in both Laske 2008 and 2015. (For the use of DTF in dialectical text analysis, see http://interdevelopmentals.org/dialectical-thinking-and-comparative-text-analysis/).

Thinking that uses the four moments of dialectic and their associated thought forms (Laske, 2008, 443- 622) is especially fruitful in the helping professions, whether in teaching, coaching, mentoring, facilitation, mediation, or consultation.

In these activities, reversing the irrealism of conventional speech has an important pragmatic function, that of adding value not only to individuals’ but teams’ and communities’ decision making.

Through consulting that is both diagnostic and dialogical and thus pays attention both to the What and How of what people (and whole cultures) speak about, more insightful decisions can be reached, not only on an organizational but a national political level.

In addition, feedback on clients’ thinking, called process consultation by E. Schein (Schein 1999), conveys to clients the fruits of dialectical mind opening.

PART II
A dialectical epistemology is tasked to unfold how thinking in terms of each of the moments of dialectic experientially presents itself to the individual thinker and his/her dialog partners.

At the same time, it is meant to show how, in correlation, the real world shows up qualitatively different with each moment of dialectic spelled out, in a way conforming to participants’ present levels of cognitive development.

This discipline is integral only to the extent that it transcends formal logical thinking (e.g., AQAL in its original form). It is co-extensive with an underlying ontology within which it is constellated.

An integral epistemology can best substantiated in a circumscribed task domain since the thought forms associated with each moment of dialectic take on the color and cognitive essence of that domain.

Nevertheless, we can speak about the epistemological nature of each moment of dialectic in general, theoretical, terms. In doing so, we need to keep in mind that each moment of dialectic requires us to relate it cogently to other moments and coordinate it with them in the sense of progressive unfolding in the sense of M→E→L→D.

So far, developmental epistemologies (e.g., Commons (1984); Fischer (1980)) have only described the results, not the structure, of higher cognitive processes. Because of that, they have eschewed dialectic: it has had no value for them. The What has overrun the How.

By contrast, the epistemological process of unfolding dialectic, as followed in the Primer, reflects what Hegel called “die Anstrengung des Begriffs” (the effort of the concept), an effort by which the mind advances from conventional to post-conventional, and finally “philosophical”, thinking (the term “philosophical” here makes no reference to academic thinking).

Philosophical thinking is based on the full deployment of dialectical thinking, and thus a sign of cognitive maturity. It is an expression of phase 4 of adult cognitive development in which the real world gains its full complexity for the thinker (Laske 2008). In that phase (best demonstrated by the late Adorno, 1999), thinking is no longer misled by quadrants conceived outside of AMAT ("all moments, all thought forms"), but unfolds them in terms of moments of dialectic.

For the purpose of cognitive research, phases of dialectical thinking lie open to inspection through interviews to which precise fluidity indexes can be assigned as in DTF.

The index of an interview reflects not just to what degree a particular moment of dialectic has been articulated by a speaker or writer, but also the degree with which thought forms associated with that moment have been employed.

Within the context of each moment, formal logical thinking functions as a mere tool for revealing dialectical depth of thought, thus the How of thinking.

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In a pragmatic culture like ours which is dominated by formal logical thinking even in systems theory, dialectical thought forms are best appreciated as tools available for
thinking about oneself and the world in terms of preservative, rather than logical, negation.

In the latter, what is negated is “thrown away” as false, whereas in the former what is negated is “preserved” as a crucial ingredient of the truth of the matter in question (Bhaskar 1993, 1-37).

In the preservative negation of A, for instance, the thinker maintains a memory store for both A and its negative, non-A (Pp), in order to make possible a synthesis of both, namely, A-prime (A’). Inclusion of what is logically false leads to a comprehensive view of the truth of A in which non-A is sublated.

[Sublate: to negate or eliminate (as an element in a dialectic process) but preserve as a partial element in a synthesis]

For instance, if a beehive in the month of February (when the queen begins to lay eggs again) were seen as A and as non-A in the month of August, at the peak of hive development, the inclusion of both in A-prime would give us a more realistic picture of it than we would acquire fixating attention on one or the other month.

We would certainly acquire an appreciation of the dramatic changes the hive undergoes from February to August.

Using Process and Relationship thought forms, we would be able to think more clearly about the transformation the hive actually undergoes over 6 months.

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While in the Primer dialectical thought forms are, for pedagogical reasons reduced from 28 to 12, illustrated by examples taken from organizational life, especially team work, in what follows I restrict myself for shortness sake to a more academic presentation. I would like to emphasize that the thought forms apply in every field of human endeavor, in business, politics, teaching, philosophy, and in speaking as well as writing.

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(The four moments of dialectic are discussed in the next 4 sections, each starting in a new page.)

The Dialectic of Context: A First Step Beyond Formal Logic p.16
The Dialectic of Process: A Second Step Beyond Formal Logic p.19
The Dialectic of Relationship: A Third Step Beyond Formal Logic p. 22
The Dialectic of Transformation: The Fourth Step beyond Formal Logic and the end of Downloading p.25

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The Dialectic of Context: A First Step Beyond Formal Logic

When as dialectical thinkers we speak of Context (see Cp, Ce, and Cl in Table 1),
- we refer to a way of thinking, speaking, and writing about the real world
- from the point of view of a “big picture”
- including an event’s, object’s, or situation’s component parts and layers.
(The notion of the world as comprising (possibly hidden) layers already transcends purely logical thinking.)

The large number of disparate details we encounter in the world—
referred to as Alterity by Bhaskar
tempts us to construct a “system” (in the logical sense of the term) in which all of the
details have their assigned and unchanging place.

[Alterity: The state of being different, especially with respect to one’s perception of one’s identity within a culture; otherness; the entity in contrast to which an identity is constructed.]

Using logic, we are thus defending ourselves against the world’s complexity (non-identity). This defensive posture based on formal logic leads to a series of errors which nobody has flagged more succinctly than Bhaskar who finds them in almost all day-to-day thinking as well as philosophical writing (Marshall 2016):

- Analytical over dialectical
- Epistemology over ontology (epistemic fallacy)
- Presence (positivity) over absence (negativity)
- Exterior over interior.

If one’s picture of the world does not encompass what is not there or not yet there, that is – it’s negativity,
then clearly any scheme, including AQAL,
will be missing a lot of reality and potentially leads to “cognitive triumphalism”.

Not only that, the epistemic fallacy (that the world is equal to what we can know about)
will become unavoidable, and a split between subject and object will occur.

Wherever a positive big picture overrides its intrinsic negativity,
the “ARA” (ideology) of MELDARA will triumph over MELD
without a grounding in the latter.

The limits of Context thinking
- are shown in Cl (Multiple contexts and frames of reference)
- by which the thinker acknowledges that many perspectives can be taken
- on the same subject matter.

However, Cl- based thinking by itself leads to mere perspectivism
as often found in integral writing
where one perspective is more irreal than another.

What is missing in perspectivism
is the realization that separating frames of reference
is the beginning of linking them,
and that one frame of reference cannot be understood
without those from which it is being separated.
This realization, however, requires the use of **Relationship and Process in tandem with Context thought forms** by which, alone, a notion of *transformation, synthesizing all moments of dialectic*, can be achieved.

We can summarize the epistemological definition of **Context** as follows:

The dialectic of **Context** is that of an *intransitive* world existing independently of human thought.

Context comprises the intellectual traditions and ideologies humans have constructed over the course of history, and these often deliver “models” for irrealism, both in the work place and in academia.

When only *pointed to* (Cp) rather than *dialectically explored* (Ce, Cl), Context is seen in the shallow perspective of linear causality (sanctified by the sciences) rather than deeper (ontologically grounded) generative mechanisms.

Therefore, it can *feed the illusion of things remaining equal to their status quo* and of *natural and social laws being independent of specific, ever changing content*.

This **illusion remains alive** as long as Process and Relationship thought forms are not *coordinated with those of Context*, which lets thinking fall back into formal logic.

**When approached dialectically**, Context is *punctuated by absences* and unified by the category of *alterity* (irreducible non-identity) which makes it highly complex. Accordingly, it is not only deeply layered but always shifting, reversing, virtualizing, and breaking down (Adorno, 1966, 1999; Bhaskar, 1993).

![Image of Context](image)

**Fig. 6 Image of Context**

**Context**

- **Dialectical image:** “big picture” in the sense of a whole encompassing parts, and built of layers.
- **Figure:** what outwardly appears as a stable, well-balanced form.
- **Ground:** unified by the category of *alterity* introducing non-identity, variety and depth into what is real, but also making it alterable.
- **Relationship to System:** pre-figuration of a system in static form.
- **Scope:** equilibrium of what exists.
- **Theme:** multiplicity of entities and thoughts partaking in a common frame of reference.
- **Dialectics:** parts of a whole shifting their balance, stratification, and generative mechanisms.
Dialectic Mind Openers: Context p,e,l

1. **Cp [Context, pointing]**:
   *What would our subject matter look like if we saw clearly the AQAL system as unified by the category of *alterity* due to which the real-world referents of individual quadrants are characterized by stratification and differentiation resulting from generative mechanisms *beyond our control or even understanding*?*

2. **Ce [Context, elaborating]**:
   *What would our subject matter look like if we saw clearly that the stability and equilibrium of the AQAL system *cannot be understood in detail* other than by engaging AMAT – all moments of dialectic and their associated thought forms?*

3. **Cl [Context, linking]**:
   *What would our subject matter look like if we acknowledged that the quadrants are multiple, intrinsically related frames of reference each of which is *without meaning unless we spell out their intrinsic relatedness* from which alone their identity and differences emerge?*

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The Dialectic of Process: A Second Step Beyond Formal Logic

Since, according to developmental research, individuals start thinking beyond formal logic by way of Context thought forms but also tend to remain stuck there (Basseches, 1984; Laske, 2008),

moving to the epistemological domain of Process amounts to what Kant called a Revolution der Denkungsart – a revolution of one’s way of thinking.

It is the dialectic of Process that introduces human thinking into the pervasiveness of absences (Bhaskar’s 2L), that is, negativity.

Absences point us to the past in the present and the future, as much as to what is absent in the present but could be there.

All Process thought forms articulate negativity as a shadow accompanying all that is positively there. These thought forms take us one step closer to the real world in the sense of ontology.

Process thought forms enable critical thinking in a dialectic sense. Although such thinking is often declared a laudable educational goal, in the dialectical sense of the term one can be critical only when using Process and Relationship thought forms.

Both kinds of thought form enable us to distinguish between what is merely actual and what is real; they save us from irrealism.

A common, distorted, form of thinking in Process thought forms is relativism, in which everything goes, as in post-modernism.

But dialectical Process is not, per se, relativistic, nor is it just change; it brings to the forefront, more properly the:

- Emergence and inclusion of opposites (Pp)
- Patterns of interaction (in which both interacting elements change) (Pe)
- Embeddedness in process in the sense of unceasing change at deeper and deeper levels (Pl).

Importantly, Process thought forms are not primarily pointing to time elapsing.

Time is the only medium in which unceasing structural changes appear for the human mind which is always “behind the times”.

In addition, just when, focusing on Context, we thought we had a handle of the layeredness and perspectival multiplicity of the real world, our dialectical thinking confronts us with the fact that what we considered the whole is also just a part;

that the only stability of systems possible is ultimately rooted in unceasing change;

and that multiple contexts and frames of reference interact with each other, themselves embedded in broader processes that alter them.

When we think this through to the end (Pl), we are imperceptibly moving into the domain of Relationship (Bhaskar’s 3E). Experience then points us to the intrinsic relatedness of things real.
We can summarize the epistemological definition of Process as follows:

The **Process moment of dialectic points to absence** which invites thinking about what could be there or should be there. Absence can point to hope or despair.

We can interpret absence as **emergent change**, either as a potential going to be realized, or the beginning of decay and breakdown, still hard to discern.

**Absence** translates to the Platonic heteron and to Hegelian negativity but steps beyond their irrealism.

As Sartre saw, **human thinking itself** constitutes negativity simply by the fact that it is the opposite of what is empirically before our senses, hovering “above it” on a meta-level.

That is why he saw thinking as a “for itself” (être pour soi), and the world as an “in itself” (être en soi).

Without being removed from what is “there” as they are, humans would be without “thinking”.

The same holds true for language which is always already “away from”, if not “beyond”, what is there.

In terms of thinking, therefore, the Process moment of dialectic opens up resources for dealing with intrinsic contradiction (reversal) and applying critique (dialectical comment).

This moment boosts the ability of discrimination as well as the critical faculty powered by holistic thinking.

Contradiction points to what in logical thinking is lawfully excluded as “false”, which, when isolated from what is “true” (as in formal logic), amounts to a major amputation of the scope of reality since the latter (ie, reality) dialectically comprises falsehood as a necessary ingredient.

**In summary:**

The dialectic of Process is that of a world of unceasing change and the presence of the past and the future in the present.

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, miscarriage, and absence, but also of desire (for what is not there).

In terms of thought, it is the world of preservative negation where the existence and definition of something “A” is inseparable from what it is not (“non-A” or “other”).

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

- **Dialectical image**: emergence (from a void).
- **Figure**: what does not exist yet (is absent) but is emerging through unceasing change.
- **Ground**: unified by the category of absence (negativity) from which the whole circuit of the four moments of dialectic derives (which further constellate the four AQAL quadrants).
- **Relationship to System**: always embedded in system.
- **Scope**: spanning negation, contradiction, critique.
- **Theme**: the presence of the past and future; motion in thought and reality.
- **Dialectics**: process, transition, interaction, opposition (including reversal).

**Dialectic Mind Openers: Process p,e,l**

1. **Pp [Process, pointing]**: What would our subject matter look like if we acknowledged that the AQAL quadrants are unified by the category of negativity (absence), and that they are therefore always in an emergent, tensed rhythmic state and cannot be treated as a perspective in isolation?

2. **Pe: [Process, elaborating]**: What would our subject matter look like if we acknowledged that the life blood of the quadrants flows through patterns of interaction they create in the mind, constituted by their embedding in the natural necessity of the real world due to which alone they partake of (alethic) truth?

3. **Pl [Process, linking]**: What would our subject matter look like if we acknowledged that any AQAL system’s quadrants are embedded in the irreducible vicissitudes of natural necessity and human history (negativity) on account of which the real world is characterized by transition, breakdown, virtualization, and reversal?

Fig. 7 image of Process

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The Dialectic of Relationship: A Third Step Beyond Formal Logic

Relationships are opaque to Common Sense
and are captured by formal logical thinking only as external, not as intrinsic, ones.

They are, however, the gold of Reason.
While one can perceive processes, like water streaming through a landscape,
and can envision a context, say a landscape or social scene,
relationships seem elusive,
and therefore emerge adult-developmentally “later”
than either Context or Process thought forms.

Relationships are characterized by the category of common ground,
formed by opposites whose differences derive from the common ground
as much as they constitute it.

Thus, common ground is larger than the unity of differences; it also strengthens the latter.

For instance, you can’t be a Republican in a culture without Democrats, and vice versa.
Their Common Ground is the US constitution that gave rise to their differences.
Nor could you “separate” them were they not linked,
since linking is a precondition of separating.

Dialectic relationships are intrinsic.

Relationship thoughts are requisite
wherever there is an awareness of a totality formed by different entities
that are parts of an organized whole
(and that without Relationship would be merely a rich Context).

We can speak of the intrinsic relationship of different entities
whose differences derive from sharing a common ground.

Common Ground thus creates not only commonality but also difference,
bringing into being a totality
outside of which elements cannot be what they really are.

Nor can elements of Common Ground be differentiated as “different” in the logical sense
since what is different in one from the other is so only within a specific Common Ground.

The more we move from simply “pointing to” (Rp: Relationship, pointing)
to exploring intrinsic relationships,
the more we are able to enter into a critique of subjectivism, pluralism, and multiplicity,
all of which deny the intrinsic relatedness of elements.

The progression into the depth of Relationship thinking is as follows:

1. Bring elements into relationship with each other.
2. Focus on the structure of the relationships that intrinsically connects things.
3. Pay attention to the patterns of interaction and influence between seemingly unrelated elements.
4. Recognize constitutive relationships without which different elements could not cohere as a totality.
In summary:

The dialectics of Relationship is one of Common Ground
which often appears in the form of (shifting) figure and ground,
but also as a totality comprising entities that mutually constitute each other.

(In this sense, AQAL is nothing but a constitutive relationship between quadrants
such that one quadrant makes the other what it is, and could not be without the other,
being intrinsically related to it.)

Relationship opens up 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.

The dialectic of Relationship is thus that of seemingly single and isolated elements
that are unmistakably based on what they exclude,
and that cannot be isolated from the larger context to which they belong
since they are an integral part of a larger totality.

More succinctly: Relationship

- **Dialectical image:** common ground (totality).
- **Figure:** what does not exist other than held within a totality of
  (possibly oppositional) links and connections.
- **Ground:** unified by the category of totality, thus of holistic causality.
- **Relationship to System:** living core of any system.
- **Scope:** all parts of a whole, however split and split off, center to periphery.
- **Theme:** unity in diversity, internal relatedness, illicit separation and fission,
  (un-dialectical) fixation on unrelated (isolated) elements and multiples.
- **Dialectics:** reciprocal, intrinsic, based on constitutive relationship (logically
  preceding parts of a whole) and shared common ground.

Dialectic Mind Openers

1. **Rp [Relationship, pointing]:**
   *What would our subject matter look like if we were aware that the AQAL system
   is a constitutive relationship of a chosen number of quadrants that is
   unified by the category of totality in which the differences between quadrants
   are anchored in the common ground they share (have in common)?
   (Such a relationship excludes the hypostization of thought over reality, giving
   rise to an awareness of holistic causality, internal relationality and intra-activity,
   and making possible the re-totalization of results of illicit fission.)*

2. **Re [Relationship, elaboration]:**
   *What would our subject matter look like if we were able to
   make an effort of the concept sufficient to detect, investigate, and explore the
   quadrants’ detailed relationships in a specific domain of application?*
3. *RI [Relationship, linking]*:  
What would our subject matter look like if we, *by effort of the concept*, could show the interactions of the AQAL system’s different frames of reference in all of their specificity, *based on the Common Ground they share*?  
(This might entail *seeing the quadrants as shifting figure and ground* likely to reverse, virtualize, or collapse).

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The Dialectic of Transformation: 
The Fourth Step beyond Formal Logic and the end of Downloading

There is no way of jumping into the fourth moment of dialectic without having paved a path to it via the use of Context, Process, and Relationship thought forms: one can’t just claim to be thinking “transformationally”.

A thought form such as Tp, pointing to limits of systems stability, cannot be properly articulated without the realization that “limits of stability” presuppose Process (Pp, if not Pe), and “system stability” (Ce) presupposes Relationship, thought forms (Rp, if not Re). Otherwise, no more than lip service is paid to the transformational notion of limits of system stability, and content overrides structure in the speaker’s or writer’s thinking. (Examples abound in the integral literature).

The fourth moment of dialectic (T) is thus an accumulated, emergent result, not simply another moment (as Bhaskar will have it).

It is a moment that is the outcome of a transformation of thinking whose energy stems from using illuminative thought forms (Context, Process, and Relationship) for using transformational depth.

This holds not only for thinking here and now, but equally in terms of entering the fourth phase of dialectical thinking adult-developmentally considered:

nobody is born as a dialectical thinker who has not paid his/her dues to the progression M ➔ E ➔ L ➔ D.

In dialectic, which knows of things and structures only as unceasingly changing forms, the notion of transformation is central.

Since the real world is in constant transformation, “understanding” it in depth remains a feat.

Identity itself is the outcome of transformation, and there is no other substitute for it except logical identity in which all transformation has been terminated (if it ever emerged in the first place).

Epistemologically, all development, as well as all transformation, stems from a coordination of the three moments of dialectic preceding Transformation which alone can remediate them.

How, in such a world, could “thinking” be real except when incessantly transforming, both in individuals and communities, and on different levels simultaneously?

Therefore, when speaking of the cognitive development of adults, what peak, other than dialectical thinking, could we possibly name? Systems theory? Meta-paradigmatic systems theory? They are pure products of logical thinking that western cultures have practiced ever since Aristotle.

In dialectic, these theories are mere tools for achieving dialectical ends.
Bhaskar’s *fourth moment of dialectic*, 4D, is thus not just another moment of MEL, but the most dynamic of all moments.

One could denote it by writing MEL $\Rightarrow$ D,
where MEL denotes its *illuminative* elements, and D the *remediative* one.
It is in the fourth moment of dialectic that the *snake bite of dialectical thinking* is achieved (Adorno 1999).
This moment reveals that the *components of dialectic were always already one*,
and that it *is only human thinking which has to spell them out one by one,*
both in cognitive development over the life span
and in real time linear discourse in verbal language.

However, as Hegel saw, the *snake bit of dialectic is not* the last word of spirit.
The *completion of dialectical thinking in the transformational moment* leads the mature thinker back
to the simplicity of *Common Sense* (*before formal logic emerged*)
since in *remediation* it becomes *second nature* for him or her.

**In summary:**

The *dialectic of transformational systems* is one of *remediation,*
thus of healing rifts and absenting absences.
But rifts and absences are *continually re-emerging,*
with no unified cause to explain them (*alterity*).

The dialectic of such *systems* is thus a “movement through forms”

In the *Anthropocene*, this dialectic is also one of natural necessity
**directly responding to human agency** wherever it is less than dialectically requisite.

Since *all things are forms*.

we are dealing with a movement that is naturally developmental,
comprising *growth as well as decay*, including virtualization.

This dialectic is the fullest expression of things *real as well as imagined*,
appearing in *static form in the guise of Context,*
forming the *common ground (totality) in Relationship,*
and brimming with *absences (potentials)* due to *Process negativity.*

[*The Anthropocene: The period during which human activity has been the dominant influence on climate and the environment, that is, beginning in the 18th century (1700s).]*

More succinctly: **Transformation**

- **Dialectical image:** organism following natural necessity.
- **Figure:** what is in *constant transformation* seeking equilibrium, through physical or mental growth, shift, sudden reversal, virtualization, collapse, breakdown, and pain.
- **Ground:** unified by the social category of transformational praxis or agency.
- **Relationship to System:** itself under *constant transformation*.
- **Scope:** all of reality with a focus on *human practice and flourishing*.
- **Theme:** *stability through developmental movement,* attention to problems of coordination and change in a developmental direction, multiplicity of perspective, acknowledgement of *human agency as intentional causality in the cosmos.*
- **Dialectics:** *special affinity with Process as social change* (which, in the anthropocene, is also potentially the planet’s potential undoing).
Fig. 9 Image of Transformation

Dialectic Mind Openers

1. **Tp** [Transformation, **pointing**]:
   *What would our subject matter look like if* we acknowledged that the AQAL system is unified by the category of *transformative practice and agency* which constantly exposes its limits of stability relative to the real world we are trying to capture by way of it? (In particular, if we could pinpoint *where the quadrants’ equilibrium breaks down*, to give rise to a more advanced form of what we are trying to envision.)

2. **Te** [Transformation, **elaborating** ]
   *What would our subject matter look like if* we managed to exert the *effort of the concept* sufficiently to forestall de-agentification (denial of human agency), thus able to make us aware of the *constellational dynamic* of the AQAL system’s quadrants as elements of a Common Ground that opens up transformational vistas (like ARA [from MELDARA])?

3. **Tl** [Transformation, **linking**]:
   *What would our subject matter look like if* we became aware of new dimensions and entities *emerging despite inclusive perspective-taking*, showing us heretofore *overlooked or not envisioned* obstacles, possibilities, and transformations, as well as *intrinsic linkages between elements we have carefully separated*?

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Call to Action

In a world dominated by formal-logic algorithms reflected in world-wide commercial activities and transactions, giving rise to test-based educational systems reinforcing them, it is a huge, never ending task to make people *experience their own thinking*.

What would seem to be closest to them, their own thinking, is—under present conditions—giving way to downloading and following “models” that obliterate crucial differences between individuals’ thinking.

**Other-dependence in thinking is fatal to thinking; it destroys dialectical thinking.**

In intellectual “movements” thinking for oneself, as philosophy once required it, has become a victim of social consensus.

As humans enter the anthropocene in which their actions are more and more directly reflected in the planetary environment that sustains them, *dialectical thinking* has an important role to play:

- to function as a repertory of mind openers
- by which to grasp global and systemic problems posed by *unceasing real-world change*.

I have written the Primer to provide an opening for efforts aimed at thinking through global social and political issues in depth, freed from the blinders of formal logical thinking and the ideological movements based on it.

I consider this book required reading for all integral thinkers who want to *understand their own thinking and the AQAL system* better.

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Selected Bibliography