

How Roy Bhaskar Expanded and Deepened the Notion of Adult Cognitive Development: A Succinct History of the Dialectical Thought Form Framework (DTF)

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The major problems in the world (today) are the result of the difference between how nature works and the way people think.

Gregory Bateson

Logic merely defines how the world must be if we are to successfully apply certain techniques.

Roy Bhaskar

This article explains in the most simple terms possible how Roy Bhaskar, in his book on dialectic (1993), simultaneously deepened and expanded the notion of adult cognitive development, going far beyond contemporary cognitive science, and what his insights mean for attempting to understand the real world in one's daily life, private or professional.

Bhaskar's insights have the character of "theory". Using them as hypotheses in empirical research on adult cognition, I have amply verified them empirically, by making a broad range of cognitive-developmental assessments via semi-structured interviews using DTF (https://en.wikipedia.org/wiki/Constructive_developmental_framework),

During my research, I kept coming upon the same epistemic fallacies Bhaskar found in philosophical texts in ordinary conversations about matters regarding a speaker's workplace and career goals. My conclusion is that the customary distinction between "philosophical" and "day by day" conversations does not hold, and that there exists a constant feedback loop between the two. For changing how people ordinarily think, this feedback loop is important to consider.

A Narrow Notion of Adult Development Prevails

It is customary, in the U.S. and abroad, to speak of adult development as having solely to do with what Loevinger and Kegan have called *meaning making*. This is a sly way of keeping adults' cognitive development over the lifespan under wraps. Since the middle 1990s, however, this narrow and misleading notion of adult development (also followed by Wilber) has been shown by Bhaskar's and my own work to neglect what for 2,500 years has been considered *thinking* in the western philosophical tradition. This narrow notion has become less and less tolerable given the urgent problems posed in the world that require attention to the structure, rather than the content, of western thinking.

Below, I will outline how, by way of his lucid analysis of philosophical thinking over 2,500 years, Bhaskar has forcefully forged a new perspective on the concept of dialectic and the thought fallacies humans are subject to that help them circumvent it, thereby narrowing their thinking considerably. By embedding Bhaskar's "Dialectic: The pulse of freedom" (1993) in the short history of empirical research on adult development, I hope to highlight the enormous contribution of his investigation to our understanding of what G. Bateson has called "the gap between how nature works and the way people think" (Bateson 2000).

The off shot of my findings is this: Bhaskar elucidates the depth of the gap Bateson indicated. He also delivers tools needed for bridging this gap, by anchoring the structure of human thinking in the structure of the real world whose functioning human thinking aims to understand.

The Threefold Origin of the New Notion of Adult Cognition

The new notion of adult cognition that has emerged since the middle 1980s, up to now carefully kept in the shadow of serious discussion (or else not understood, or both), has three sources:

1. M. Basseches' work on dialectical thinking and adult development (1984)
2. R. Bhaskar's work on dialectic (1993)
3. O. Laske's work on DTF, the *Dialectical Thought Form Framework* (2008, 2015).

Of these writings, the most difficult, but also deepest, is the work of Roy Bhaskar whose major topics I will put into the simplest terms possible below.

Basseches' Work

In his research, begun in 1978, M. Basseches became a pioneer by researching dialectical thinking *empirically*. He developed a hypothesis as to its componential structure and documented that structure by using semi-structured interviews focused on a strategically chosen topic in conversations typical for a college population (both students and faculty). Basseches' goal in doing this was to show that dialectical thinking is not just a "philosophical" method, but is

actually the backbone of adult cognitive development over the life span, thereby bringing philosophy down to earth and making it central to education.

For this purpose, Basseches extended Piaget's findings about the development of formal logical since childhood into adult development over the lifespan. He hypothesized that, beginning in late adolescence, there appeared in human thinking a tendency to extend formal logical to dialectical thinking. The cognitive journey adults make for him had to do with acquiring, and increasingly embodying in one's thinking, four classes of "schemata" (cognitive patterns) that led the adult to "see" the world in increasingly complex ways, thereby coming closer to constructing the real world as it "really" is.

Using semi-structured interviews, Basseches showed that cognitive adult development leads from being fixated on static constellations of "things" to investigating the processes by which, as "forms", they come into being and fade away and are, in addition, intrinsically related. He thought that this development enabled adults to assemble a set of tools by which they could begin to understand the most difficult topic of all, namely, transformations. Accordingly, he called the classes of schemata that form the backbone of adult cognitive development toward dialectic "form", "process", "relationship", and "transformation".

In order to scrutinize the development of dialectical listening in an adolescent and adult college population, Basseches interviewed a sample of students and faculty on educational issues. First designing and then internalizing four classes of "schemata" (as he called thought patterns) taken from the philosophical literature, he made himself into a listener able to detect which of 24 schemata he had assembled and sorted into four "classes" surfaced during a particular interview.

In this way, he modeled what became the backbone of cognitive development research and teaching at the Interdevelopmental Institute (IDM): learning and then applying schemata or thought forms, first in interviews, and then in order to give feedback to people on the structure of their thinking, as well as most importantly, deepening one's own understanding of the structure of one's own thinking. At IDM, listening to, and analyzing, others' thinking became, and still is, the "royal road" to understanding one's own thinking, and to teaching dialectical thinking to others.

By recording his interviews for the sake of analyzing them in terms of schemata, Basseches was able to show that their use varied with the phase of cognitive development a speaker was presently in, and that one could measure this phase in terms of a *fluidity index*. One could thus give feedback to a speaker – whoever it might be -- regarding his/her present way of constructing the real world.

Basseches' study, published in 1984, is the first to make inroads into creating a broader notion of cognition than that which is still followed by the Kohlberg School at Harvard and the cognitive sciences of every conceivable ilk today.

Bhaskar's Work

Bhaskar's Approach

Thinking about what classes of schemata found in the philosophical literature might be said to make up *dialectical thinking*, Basseches had read this literature as a developmental psychologist, not as a philosopher. Without knowing of Basseches' work, in the early ninety's, R. Bhaskar developed a well reasoned hypothesis as to what had gone wrong in western philosophy, in the sense that over 2,500 years philosophers had shown themselves unable to arrive at an understanding of the generative mechanisms of natural necessity that to him seem to rule the real world.

As he saw it, philosophers had largely evaded the issue of necessity and reality, by way of formulating *identity theories* (Adorno 1999) that either reduced thinking to reality ("materialism") or the other way around ("idealism"). Even the greatest dialectician of the western tradition, G. F. Hegel, had, in his view, failed to escape "irrealism" because of not seriously considering the rigors of natural necessity, but rather dissolving them into pure thought complexities.

I, at least, have learned the most from Bhaskar when, rather than viewing his book on dialectic as focused on "ontology" or as a critique of Hegel's work, I was reading his book as a demonstration of the failures adults in general commit in trying to grasp the complexity of the real world, and happily continue to do so. I have also found that the best way to honor Bhaskar's work as a philosopher is to view it as a deep elucidation of G. Bateson's statement that "the major problems in the world (today) are the result of the difference between how nature works and the way people think" (for this quote, see John Stewart's review of the Laske Primer (2015) at <http://interdevelopmentals.org/john-stewart-reviews-otto-laskes-work-on-dialectical-thinking/>),

In short, I have benefited from reading Bhaskar's work from the point of view of philosophy and adult-developmental psychology simultaneously. This benefit has come to me since I approached Basseches' work as a philosopher, and Bhaskar's work as a developmental psychologist, thereby linking the two traditions.

Viewed from this double vantage point, what Bhaskar does in his book on dialectic is to take the pulse of the history of western philosophy, especially Hegel, to elucidate "the way people think" relative to "how nature works" (conventionally referred to as an "ontological" method). By using his unrivalled knowledge of western philosophy, and inspired by the critique of Hegel by Marx, Bhaskar succeeds in laying out in a very clear way what he calls "the fallacies of human

Understanding”. By this he refers to the pitfalls and avoidances that keep philosophers as well as everybody else from reaching in their thinking dialectical depth, and thereby from acting in full cognizance of the transformational nature of real world (including society).

Although Bhaskar himself did not see fallacies of human thinking as being *developmental* in nature (that is, open to remediation by mental growth and educational scaffolding), he created, as well as demonstrated the use of, a set of unrivalled intellectual tools for elucidating the developmental nature and dissolution of ancient fallacies of adult thinking.

Of course, Bhaskar did so in a peculiar, “philosophical”, way.

Being primarily interested in the concepts of *natural necessity* and *aleithic truth* (in contrast to propositional truth), Bhaskar addressed the way people think in terms of failures of (predominantly) logical thinking, to grasp the natural necessity that reigns in the physical and social worlds. Positively speaking, this amounts to an effort to “diffract” [bend or spread] and “re-totalize” [making a whole of] the concept of dialectic “under the sign of absence” [of what is not there] (1993, 370).

Bhaskar’s effort is grounded in the notion of a *UDR movement* describing movements in thought as rooted in formal-logical Understanding (U) and transcending Understanding toward Reason (R) via Dialectic (D), a notion that essentially captures the trajectory of adult cognitive development over the lifespan and thus also indicates its peak: dialectical Reason.

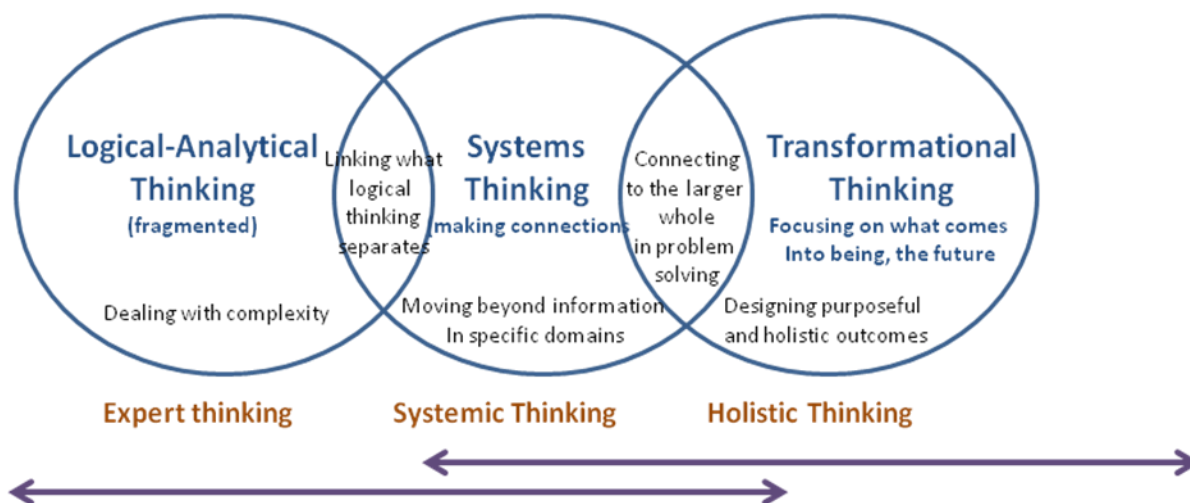


Fig. 1 The Continuum of Human Thinking (Courtesy Jan De Visch)

Bhaskar's Focus (that needs to be accepted to learn from him)

Let us accept the notion of an UDR movement in the human mind as the philosophical speak of a deep thinker whose passion is to approach aleithic truth – the truth of reality rather than of propositions -- as closely as possible. It is the intent of this movement to grasp the world “ontologically”, in the sense of Being. Rather than making thinking into a thing to which Being can be reduced (as done in the sciences) or something which is squashed by being (as in Sartre’s existentialism), let us remember that human thinking is “constellated within” and thus also “overreached by”, Being, and not the other way around.

At the same time, let us honor Bhaskar as a philosopher of the nature of human freedom, which for him is unobtainable without first opening a path toward aleithic truth by way of interactions with nature that are based on deep, that is, dialectical, thinking.

To elucidate Bhaskar’s broad hypothesis *that human thinking is subject to fallacies hindering it from grasping how the real world works*, let us follow him further in his outline of what can be shown to be the problem with human thinking by studying the history of western philosophy. After all, what Bhaskar found in the philosophical literature can equally be found in ordinary conversations captured by cognitive interviews, as I discovered when using the *Dialectical Thought Form Framework* (DTF, part of CDF) for understanding how selected speakers thought about their organizational function, the environment in which they work, and their professional agenda (Laske 2008).

Bhaskar's Central Concepts

In order to understand Bhaskar’s contribution to dialectical cognitive science and social science, we best focus on two of his central concepts: *Re-totalization* [bringing together what was separated into independent pieces], and *Absence* [what is not – yet – there, also referred to as “negativity”]. For the sake of a more complete understanding, let us consider “dialectic” both as an actual energy structuring the real world and the source of movements-in-thought in the human mind. In this way, we can build a bridge across the gap indicated by G. Bateson.

- a. **“Re-totalization”**: *Bringing together again* refers to what Bhaskar found was the only way to reach aleithic truth, namely, an ontological conception of the world based on *four moments of dialectic* he called 1M, 2E, 3L, and 4D. From the point of view of human thinking, these four moments can be interpreted as a set of “perspectives” or “vantage points” from which to view the real world in a holistic and systemic way, as well as as something independent of human thinking (but sheltering it).

Bhaskar found in his critique of western philosophy, especially Hegel, that most philosophies got stuck in one or the other of the four moments and therefore did not manage to bring them together as “moments” of a totality, where “moment” means that

they are separate and intrinsically linked **at the same time**, thus transitory as well as eternal.

Bhaskar found also that Hegel excelled in understanding (intrinsic) relationships (3L), but failed to do justice to the world's sheer variety that might stem from different sources (alterity; 1M). He discerned that Hegel restricted absence (2E; negativity) to a single modality, namely thought reflexivity, and could not sustain it into ongoing real-world transformation. This is so also because for Hegel, the world came to its historical end in the early 19th century. Hegel's "endism" was particularly irksome for Bhaskar since transformation, in his mind, included human agency in and on nature, a vital dimension of the real world far beyond any particular time point. In short, Hegel sold nature short for the sake of a history of the European mind.

What Bhaskar said of Hegel applies to all of us, He is not just talking "philosophy"; he is talking about fallacies of human thinking, sustained for a multitude of reasons over thousands of years.

You can infer from the above that "re-totalization" implied for Bhaskar a need to look at the real world from all four perspectives, in particular doing so with a focus on *necessity* in nature and society. He thought that humans, as *causally efficacious agents in the world*, would fail at realizing freedom if they could not sustain a multi-perspectival glance at the world's necessity. This comprehensive glance he thought to be a necessity for humans also if they wanted to make use of the "complicity" of nature – the openings for change that it offer to humans -- in order to transform her, and thereby themselves, by "absenting absences" such as ills and constraints of freedom.

If we accept the distinction Bhaskar makes between "being" and "thought" -- or ontology and epistemology -- it's clear that the lack of totalization – seeing the real world as a whole – points to a major lack, in human thinking. Humans apparently find it hard to consistently activate in their minds all of the four moments of dialectic (something that Hegel had referred to as "making the effort of the concept"). This lack of effort ultimately meant that humans were constantly re-creating the gap between how nature works and how humans thinks that Bateson had pointed to.

Among the fallacies of human thinking Bhaskar found in both in philosophy and daily life, there is one he found particularly pernicious: the fallacy of *ontological monovalence*. This is a fallacy that makes people "paint the real world in a single color", namely positively, without taking into account that what is not (yet) there is equally, if not more, real than what is there, as we all know from experiencing desire (where what is not there trumps what is there)..

Clearly, then, dwelling on positivity and disavowing the reality of Absence (non-being) in the world is a major handicap of good thinking for Bhaskar.

- b. “**Absence**” in Bhaskar’s writing refers to what is “not there” or “not yet there”, things like potential, the future, the past and the outside of things. Concretely, Absence may show up in the form of missing a friend in a café, or having an unfulfilled desire. Freedom (from and to) would not be an issue if Absence did not co-create reality. Without absences being real, everything would already be in the best possible shape, with no desires left unfulfilled and no ills in existence (as in Voltaire’s spoof *Candide*).

What makes human desire so fundamental is that what is not there is not only real for humans but is actually *more “real”* (or relevant) than what is there (right now). This is the foundation of Bhaskar’s philosophy of human nature “in nature”. As an ontologist, Bhaskar thought that what is “not there” predominates what is there. The pervasiveness of Absence in the real world is for him the main indicator of unceasing change in the world, and the main wake-up call to humans.

It’s clear that if human thinking does not take into account what is not there, there can be no change because “change” means that something that is (or was) “not there” actually “comes to be there” and most likely has “been there” all along, but not in a form in which it could be noticed, such as what Bhaskar calls “the future in the present”.

What is worse, if we can’t truly think “change” – and dialectic is the art of grasping change – then we also can’t see that many forms of change are really forms of TRANSFORMATION, in which one and the “same” thing, such as our own being, unceasingly changes over its life time, and thereby remains identical with itself – in fact, the only way for a human being to stay identical with him- or herself is to constantly change. (We should know this from our own experience, but we simply ignore it.)

Thus, for Bhaskar there exists an intrinsic link between aleithic truth and transformation, which amounts to saying that there is no absolute “beginning” of things, something most religions rely on. Since natural necessity cannot be bottled up in a single uncreated cause, as it is in irrealism, Bhaskar viewed most everyday and philosophical thinking as *irrealist*, meaning that **it misses the generative mechanisms by which transformation comes about in the world**. In so doing thinking also misses the movements-in-thought which are, especially in the Anthropocene, instigators of the world’s transformation.

Summary of Bhaskar’s Main Findings About Human Thinking

Bhaskar diagnosed human thinking, whether “philosophical” or not, as being at risk of committing four major fallacies:

- Reduction of complex realities to what can be grasped by formal logical thinking (“de-totalization”; see the quotation at the start of this text); this implies a denial of alterity (1M), as in positing a unitary origin of multitudes and sub-totalities, but also of stratification.
- Denial of unceasing change by denying Absence (2E), thus remaining clueless about change.
- Denial of intrinsic relationships, including of opposites, thus ultimately of totality and common ground of what is separate and related simultaneously (3L), thus never seeing problems in their totality and complexity.
- Inability to grasp transformation (4D), both in the form of transformations of nature and of society, including of human agency as a force in society, thus missing out on realizing freedom as far as natural necessity permits.

Laske’s Work

Preparations

Dialectical thinking has been a pre-occupation of my entire life, not only in scientific but also artistic work (www.ottolaske.com). Having begun my involvement with it in the Frankfurt School during the late 1950s and 1960s and continued it during the 1990s under the influence of Basseches’ empirical work, I was able to refine Basseches’ cognitive assessments by showing that his *Fluidity Index* gives rise to three further measurements that I called (1) the *cognitive score* (showing the proportions in which a thinker uses the four moments of dialectic), (2) the *systems thinking index* (showing the strength of transformational thinking and indicating dialectical thinking potential), and (3) the *discrepancy index* (showing the discrepancy between what I called “critical” (P+R) in contrast to “constructive” (C+T) thinking in a person.) The four measurements together came to form a holistic measure of a person’s present ability for handling real-world complexity in a domain reasonably known to him or her, but also as a *discovery procedure* for domains unknown to her, such as their own internal world.

When I encountered Bhaskar’s work in 2006, I came to understand that **thinking of adult cognitive development in terms of the progressive re-totalization of dialectic in the human mind** would not only broaden the notion of adult cognitive development, but would also give it an ontological foundation, so that epistemology would be constellated [sheltered] within ontology, rather than making it a dead object of positivistic cognitive and social science as happens now.)

In particular, I realized that cognitive science without a foundation in a dialectical ontology of the real world was a kind of fantasy world which could never address the issue *of how close to*

the real world human thinking was able to come. In short, **I think of dialectic as the peak of human cognitive development.**

Equivalence of “philosophical” and “ordinary” thinking

By “diffracting” dialectic into many related forms, Bhaskar had shown that fallacies of thinking occurred all over the place, not just in philosophy, and that “theory/practice inconsistencies” abounded in what people think they are doing. So it was in no way astonishing to me that what Bhaskar had found in scrutinizing examples of western philosophy I found in scrutinizing 1-hr long interviews recorded to show analytically in what proportion each of the four classes of thought forms showed up in what people said when interviewed about their professional work. **People seemed to be quite as stuck in their thinking as the philosophers Bhaskar had interrogated, although the level of complexity they were able to handle did not compare too well with philosophers’ thinking.**

What I found was that, essentially, people could not “bring together again” (re-totalize) the four classes of thought forms by way of which, and focused on which, I interviewed them, just as western philosophers of the last 2,500 years had been unable to totalize the four moments of dialectic (1M, 2E, 3L, 4D) Bhaskar had been looking for in their work.

From a developmental perspective this seemed to indicate there were strong remnants of ego-centrism in the philosophical tradition as well as in human life, to speak with Piaget.

In accepting Bhaskar’s moments of dialectic (that is, his ontology) as the basis of the four classes of thought forms (or epistemology), I reasoned that human cognitive development was essentially a journey toward the re-totalization of the four classes of thought forms. From this perspective, I began to see Transformation (4D) as more highly intrinsically linked to the preceding three classes of thought forms (PCR) than is found either in Basseches or Bhaskar, something I refer to as “the snake of dialectic bites its own tail” (2008).

Consequently, I began to think of maturity of thinking -- the peak of human cognitive development -- as the ability to capture what Bhaskar called “aleithic truth”. Bhaskar had convinced me that only by thinking in terms of all four moments of dialectic *together* could humans hope to understand the real world, including themselves, and move toward freedom for themselves and their society as far as natural necessity would allow.

Important Inferences I was led to make

The inferences I was led to draw from anchoring dialectical thinking in ontological thinking were the following:

- “Dialectic”, the totalization of the four moments of dialectic, does not simply occur “in the head”, but is grounded ontologically in the four moments of dialectic Bhaskar

elucidated, thus directing the lifespan development of human thinking, in whatever society.

- Cognitive development leads adults increasingly to leaving behind “identity theories” in which the reality of the world is simply put in brackets, in a way that enables them to integrate logical analysis with dialectically grounded holistic and systemic thinking.
- There is a huge need for helping people realize and overcome the limitations of formal logic, -- a form of thinking they internalize in their twenties that is now increasingly embodied in machines (from which they are becoming increasingly hard to separate, thus losing their freedom).
- There is an urgent need for developing pedagogical and consulting approaches to teaching people to listen to others in terms of the four classes of thought forms (i.e., the four moments of dialectic), so that they can gradually learn *to listen to themselves*, becoming able to follow their own movements-in-thought in an untrammelled – rather than a logically censored and stifled – way.
- Given the immense problems confronting mankind today, there is little hope that these problems could even be *accurately seen* unless many more people, especially in organizations and think-tanks but also in politics, began to acquire and practice dialectical thinking.
- Finally, I came to the conclusion that contemporary cognitive science is useless for closing the Bateson gap that Bhaskar has given a superbly cogent account of in his philosophy of *critical realism*. The reason for this is that that “science” is mired in irrealism, and thus misses (as well as denies) the dialectic of logical and dialectical thinking that drives adult cognitive development.

Practical Consequences

These thoughts led me to founding and shaping a teaching program at the Interdevelopmental Institute (IDM) for helping individuals and teams transcend the narrow confines of formal logical thinking that is embodied in their “models”. While this program should have been attended by diverse professional groups, especially managers and leaders, it was primarily made use of by consultants and coaches, and thus had only limited impact and little power.

However, it is not too late: totalizing the four moments of dialectic in our thinking about the real world has never been more urgent. And the technology for doing so is there for the taking by those brave minds who do not wish to be replaced by machines, as all other thinking will in future be.

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