

ON SOME CRUCIAL ISSUES IN ADULT DEVELOPMENTAL THEORY

For ILR



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Overview

The author presents a novel methodological approach to researching adult development named *Constructive Developmental Framework* (CDF; www.interdevelopmentals.org) and some of the empirical findings the framework has so far given rise to that are of use in and beyond organizational settings. The approach is both more holistic (right-hemisphere conscious) and more dialectical (left-hemisphere conscious) than the conventional varieties. It is focused on explicating the intrinsic relationship between two developmental dimensions of human consciousness, the *social-emotional* (ED) and *cognitive* one (CD), the former being extended into the *cosmic-emotional* domain to broaden the scope of ED.

The thrust of the methodology lies in relating sense- and meaning making as aspects of a unified consciousness known to be bicameral (McGilchrist 2009). As this author demonstrates, insight into brain structure permits to formulate non-introspective perspectives on the structure of the mind. One of these perspectives indicates that the mind's bicameral nature provides individuals with two fundamentally different takes on the 'worlds' they construct, here referred to as Rh and Lh (right and left hemisphere). Another indicates that Rh is based on a 'cosmic-emotional' kind of witnessing that can in no way be reduced to conventional, socially restricted, meaning making in the sense of Kegan's work.

As a result of 20 years' reflection on adult development, the author redefines adult *maturity* as a balance between the two mind hemispheres, the potential for which to emerge he sees as grounded in dialectical movements-in-thought. As a result, his term 'maturity' focuses on achieving a balance between CD and ED (sense- and meaning-making), rather than having to do with achieving 'high' levels of either in separation from each other. Dialectic, in turn, is shown to be rooted in the perspectival cleavage between the two hemispheres, with Rh enabling a return movement to itself by engaging Lh dialectic.

The methodology introduced here, CDF, serves as the master tool from which the updated theory of adult development derives. As an *epistemological* tool, CDF assists in making visible the unity of human consciousness through dialectic. Dialectic, in focus throughout this essay but specifically in Section 6, is thought to pervade both meaning- and sense-making, such that the latter strongly influences the former. Dialectic is shown to be both a craft and a science. As a craft, it aids individuals in bridging the two hemispheres, specifically in accomplishing the 'return loop' (Aufhebung) spelled out below as 'Rh→Lh→Rh', which logical identity thinking arbitrarily forbids. As a science, dialectic assists in researching both ED and CD with a focus on their intrinsic relationship which alone makes them what they are. Their independence is shown to be illusory.

As shown specifically in Section 7, CDF's practical mandate destines the theory to becoming the preferred tool set for practitioners of *developmental process consultation* (DPC), a deepening of Elliott Jaques' and Edgar Schein's work, especially for the sake of critical facilitation of team work (Jan De Visch & Laske 2020).

In terms of extant writings, the methodology presented is based on the author's 1999 two-volume dissertation entitled 'Transformative Effects of Coaching on Executives' Professional Agendas' (<https://interdevelopmentals.org/?p=6870>) and two volumes of the title 'Measuring Hidden Dimensions' (2005, 2008) whose *later editions* are found in pdf form at https://interdevelopmentals.org/?page_id=1974 (Section C). These two books have spawned a large number of papers and teachings found in downloadable form at www.interdevelopmentals.org under Blogs. The methodology is succinctly described at https://en.wikipedia.org/wiki/Constructive_developmental_framework.

Understanding hemisphere difference offers a perspective on the structure of the mind which is not available merely by introspection.

Iain McGilchrist (2009, xxi)

Introduction

I have come to believe that, as embodied minds, what we ‘see’ largely depends on how we approach what we are looking for. Paying attention is a moral act which gives us a choice as to how to configure what for us is *real*. An absolute reality is nowhere to be found, which is not an invitation to relativism.

As is known, the human mind operates based on two intrinsically related hemispheres each of which spawns a totally different take on its “world”. The left-hemisphere mind is myopic and utility-focused while the right one is broad and curious, unceasingly connecting us to what is *other* than ourselves. On the left, we risk working ourselves into a hall of mirrors that only a return of thinking to the holistic right-hemisphere can save us from (McGilchrist 2009; Bhaskar 1993). It is this return which makes dialectic pervasive in the mind’s functioning, both as a *discovery* and *recovery* procedure.

Holistic theories are attempts by the Rh-mind, to balance two contrary takes on the world -- the holistic one that knows that parts cannot be understood other than as components of the whole, and the logic- and syntax-based one that puts the whole together piecemeal from re-presented (virtualized) parts. Any methodology’s outcomes depend on how the theoretical mind balances the contrasting takes of the world it fashions in its two hemispheres.

My principal concern as regards theories of adult development is that they are predominantly analytic, left-hemisphere enterprises that have shown themselves incapable of viewing human consciousness in its wholeness. Not only that, since Lh is known for its unwarranted optimism and delusion about its own limitlessness, developmental theories tend to be cock-sure of their findings, most of which are the outcome of recording analytical task behaviors (such as sentence completion or logical-thinking tasks). Since the latter do not stem from interviewing dialogue in real time -- to which Rh-input is considerably stronger than it is in logic- and syntax-based writing tasks -- holistic thinking in such theories is pre-ordained to get short shrift.

Even twenty years ago, when my thinking about adult development was less evolved than it is today, I was perplexed that at Harvard’s Kohlberg School, where both Ed and CD theories were spawned (e.g., Kegan’s and Basseches’ work), there was no felt need to bring them together. I therefore resolved that in my thesis of 1999 on the developmental coaching of executives, I would link findings from both “social-emotional” meaning-making (as I critically refer to Kegan’s endeavors) and “cognitive” sense-making interviews. Two years later, I added to these assessment tools a psychological component in the form of the *Need/Press* questionnaire which stems from Henry Murray’s work (www.needpress.com).

My thesis work, briefly described in <https://dhp.3e9.myftpupload.com/wp-content/uploads/2020/02/2001a-Linking-Two-Lines-of-Adult-Development.pdf>, became the foundation for what was initially called DSPT, or ‘developmental structure/process tool’. In this title, ‘structure’ referred to stages of meaning making, and ‘process’ to phases of cognitive development from logical to dialectical thinking. Soon after, DSPT was given its present name, CDF, or *Constructive Developmental Framework*.

Naturally, even this more comprehensive, tripartite, approach to adult development yields a Lh articulation of adult development, but with a difference. The difference is that Lh ‘cognitive’ functioning is seen as extending formal logical to dialectical thinking longitudinally, with the latter pervading *both* sense- and meaning making (which I have found to be inseparable).

As a case study methodology, CDF requires students and researchers to configure three intrinsically related profiles. Each of them is considered as in itself inconclusive since it is a mere facet of unified consciousness whose wholeness the profiles can approximate only jointly. The three profiles answer three unspoken client questions:

1. ED: “What should I do and for whom?” [social-emotional meaning making].
2. CD: “What can I do and what are my options?” [cognitive sense making].
3. NP: “How am I doing?” [psychological self-experience in real time].

These three CDF components form a hierarchy. The most abstract characterization of an individual is that by stage of meaning making (ED) which is the same for millions of other individuals. Already closer to the uniqueness of the individual comes his/her cognitive profile. It spells out the individual’s phase of cognitive development (CD) which, however, might be characteristic of an entire group of individuals (such as subcultures and teams within them). An individual’s uniqueness is most precisely rendered by the NP questionnaire profile, which remains, however, without depth if it is interpreted out of context with the two developmental profiles. In short, there is no ‘pure’ developmental profile that by itself makes any sense, certainly not in practice.

To signal my avoidance of Kegan’s philosophically naïve reduction of cognition to meaning making, in CDF I introduced the term *social-emotional* as a critical term. Today, I locate meaning-making predominantly in Rh, in contrast to sense-making whose roots lie in Lh. In McGilchrist’s perspective, social-emotional meaning is a tiny sliver of what I might call *cosmic-emotional* meaning making, the root of individuals’ *Lebenswelt* (*lifeworld*). In the latter, individuals make meaning not only of the social, but of the broader cosmic, world in which their social world is wholly embedded. **This cosmic-emotional world, to which Rh guarantees unceasing and untrammled access, is the ultimate context from which all three empirical CDF profiles (and all other developmental profiles, for that matter) derive.**

The dialogical nature of qualitative research

I came to the field of adult developmental from a background of philosophy and as an expert interviewer, having practiced both interview-based expert system design and clinical

interviewing over many years. Learning Kegan's subject/object interview added another dimension to my interviewing skills which, taken together, served me well when I came to cognitive interviewing which, for me, became geared to tracking phases (not stages) of cognitive adult development from logical to dialectical thinking.

Interview-based qualitative studies augmented by quantitative psychological ones became for me the foundation of searching for the truth about adult development. I refused to make an object of my clients, conceiving of quantitative psychological findings as a further articulation of clients' social-emotional and cognitive profiles.

Having practiced different kinds of interviewing had shown me that the way you approach people will determine what, and how much, you get to see of them. (This is no different from approaching the physical world since in both cases people make meaning first and make sense second.) Sitting them down to *tasks* (whether sentence completion or any other) is for me fundamentally different from engaging them in real-time dialogue. Reducing the platform for developmental inquiry to tasks (which mimics organizational competence models) sets up constraints that mightily reduce the magnitude of Rh influence on empirical developmental findings.

From the start of my work in adult development, then, I saw qualitative research as crucially *dialogical* in method. I assumed that the 'world' emerging for adults is anchored in two kinds of dialogue: *internal* (speaking with oneself through silent speech) and *external* (dialogue with others via acoustic speech), and that the *world creation* we as embodied minds live by is fundamentally different from monological scientific descriptions of the world (Linell 2009).

The process of world creation unceasingly mingles meaning making (ED) with sense making (CD) to different degrees. This is inevitable since it is based on the unceasing dialogue between the two hemispheres. Separating them, or leaving them unconnected, violates both epistemological and developmental common sense. As I was 20 years ago, today I remain convinced that following a *dialogical methodology* alone can guarantee that each of the two mind hemispheres receives equal attention as it does in actual living.

In my understanding, extant adult developmental theory has remained as it began: an undertaking of the Lh mind that leaves the wholeness and unity of consciousness in the lurch. This one-sided, non-dialectical research orientation has taken a heavy toll also on researchers' conception of verbal language – spoken as well as written: conventional (non-dialectical) theories conceive of language only as a medium of description, not equally as one of *world-creation* (Liebrucks 1977). Recognizing the intertwinement of these two aspects of language dialogue is, of course, nearly impossible when reducing developmental assessment to mere writing tasks by which the embodiment of language is wiped off the table. As Heidegger said: "Words and language are not wrappings in which things are packed for the commerce of those who write and speak".

Reducing language to description, and thus discounting that it is the medium in which "world" is constructed by embodied minds in real time, makes designing a *developmental epistemology*

cumbersome if not impossible (see Section 5 below). Such a discipline needs to show how human understanding as well as meaning-making of the physical and social worlds develops over the human lifespan. Without the inclusion of people's *Lebenswelt* through dialogue in real time, open to both chambers of the mind, such a discipline is dead in the water -- if it can even be conceived.

Below, I will address 7 for me crucial issues regarding research in adult development, ending with a short summary of purpose and selected list of references:

1. A philosophical scandal: the reduction of cognition to meaning making.
2. Cognition comprises four moments of dialectic.
3. The mistaken replacement of dialogical interviewing by tracking logic-based task behaviors.
4. The narrowing and ideologizing of adult development.
5. Ideas for establishing a developmental epistemology.
6. A short outline of Dialectical Thought Form Framework (DTF) dialectic.
7. Empirical findings based on CDF.

1. A philosophical scandal: The reduction of cognition to meaning making

For anybody even slightly familiar with Western philosophy, the reduction of cognition to meaning making (as attempted in Kegan's work) is a jarring proposition that runs counter to Western philosophical tradition since at least Kant. Kant's distinction in *Critique of Pure Reason* between two aspects of cognition, namely, Understanding (*Verstand*) and Reason (*Vernunft*), was shown in Hegel's *Phenomenology* to constitute a developmental sequence. While the *terminus ad quem* of the Understanding is truth, that of Reason is meaning.

Along the same, implicitly developmental, line of thought, Hannah Ahrendt (*The life of the mind*, 15) says: "The need of reason is not inspired by the quest for truth but by the quest for meaning. And truth and meaning are not the same. ... The basic fallacy, taking precedence over all specific metaphysical fallacies, is to interpret meaning on the model of truth" (or truth on the model of meaning, for that matter; OL).

From a vantage point informed by neuroscience, theories (e.g., of adult development) are self-conscious attempts by Lh Understanding, to render in thought, or *re-present*, the embodied experience of Rh Reason. The truth such theories aim for is mere coherence (empty of world experience); they cannot and do not render ontologically rooted, embodied experience issuing from Rh Reason. Such theories do no more than translate human experience initially induced by Rh in the form of gestures, into a logical and linguistic form (McGilchrist 190-193).

The reduction of Rh *experience* to Lh *re-presentation of experience* is clearly a tour de force because it involves rendering experiences of the embodied mind in terms of mere logical

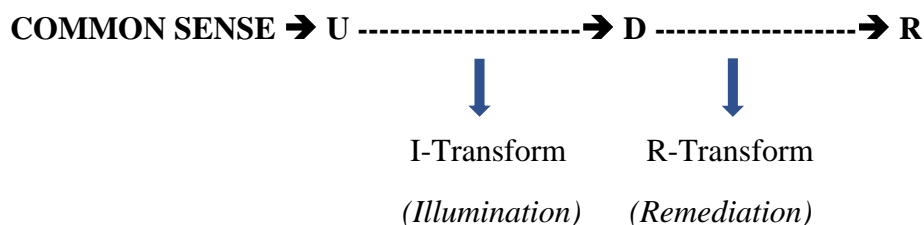
coherence. Due to its logical mandate and syntactic form (which together constitute ‘identity thinking’ (Adorno 1966)), such reductionist theories are unable to render contradictions and paradoxes that human experiences are full of (if not defined by).

As Bhaskar says when developing (and justifying) the dialectical UDR (‘Understanding-Dialectic-Reason’) movement-in-thought (1993, 21):

Now it is clear that if we stay at the level of the understanding, we will not be able to find or recognize contradictions in our concepts or experience – in general it takes an effort or quantum leap ... to find the contradictions, anomalies, or inadequacies in our conceptualizations or experience – and another quantum leap ... to resolve them.

And dialectic is just this method or practice of stretching our concepts to the limit, forcing them and pressing contradictions out of them, contradictions which are not immediately obvious to the understanding.

Bhaskar depicts the movement-in-thought that links Understanding (U; sense-making) to Reason (R; meaning making) via dialectic as shown below:



Against this historical background, judging theories of adult development becomes easier: one type of theory remains in logic- and syntax-bound *Understanding* territory (using only the Illumination Transform), arbitrarily stopping short of making the full UDR movement into Reason; while the second type of theory, in order to do justice to embodied human experience moves on, via the Remediation Transform, to *Reason* via Dialectic.

From the point of view of CDF’s cognitive component DTF (*Dialectical Thought Form Framework*) which illuminates empirically, through qualitative interviews, to what extent individuals complete UDR movements, those who reduce cognition to meaning-making falsely claim to stand in a position of Reason (R) which, to judge from their theoretical formulations is, however, never substantiated. By way of a subterfuge, in such theories the Understanding (U) postures as Reason (R) but saves itself the effort of dialectic.

The reason for this is obvious: reaching the level of meaning-making in the epistemological sense of the term is not achievable without dialectic. Getting to (or ‘at’) meaning making in the empirical sense of the term, as seen in conventional theories of meaning-making, remains a reductive Lh enterprise whose truth claim is predicated upon mere logical coherence.

In short, conventional theories of meaning making fail the UDR test.

2. Cognition comprises four moments of dialectic

In CDF, the *Understanding* is upgraded to Bhaskar's MELD which comprises the *four moments of dialectic* also referred to by him as 1M, 2E, 3L, and 4D (1993, 392-3). These ontological perspectives have their epistemological counterparts in CDF in the form of *classes of thought forms* (Basseches' schemata) each of which unfolds MELD into the domain of cognition, in a way that is of relevance for understanding both meaning- and sense-making. The specific way in which Kant's *Understanding* takes the form of MELD is too technical, as well as too hypothetical, to detail here (Laske 2017; 2008).

Bhaskar is easily the over-towering philosophical mind who changed the notion of human cognition and thus also the notion of human cognitive development over the lifespan (something that has failed to be noticed). As he showed in "Dialectic: The pulse of freedom" (1993), purely logical Understanding (i.e., Understanding empty of MELD) is prone to intrinsically related fallacies that ruin its chances of getting a truthful view of how what he names the 'real' world – in contrast to the empirical, 'actual' world – works.

In contrast to Kant who shows that Understanding (scientific sense-making) goes beyond its limits when it tries to cross over into *Reason* (e.g., in morality, where it ought to become merely "regulatory"), Bhaskar shows that Understanding *does not go far enough* if it reduces itself to a concern with the actual rather than real world, failing to make the UDR movement that is based on MELD (the four moments of dialectic). This self-limitation or rather -mutilation amounts to the *Understanding* reducing itself to left-hemisphere (Lh) functioning, thereby refusing to recognize that Rh is the origin of its processing, and that its own nature unceasingly drives it back into Rh via dialectic.

While meaning making, a natural expression of the embodied self, is (predominantly) anchored in Rh functioning, *theories* of meaning making are Lh-anchored and -dominated enterprises relying on syntax and logic to produce and communicate their findings. They are self-conscious attempts of Lh, to 'understand' its partner, Rh, to which it stands in a partly adversarial relationship.

In short, we can evaluate any social theory, such as a theory of meaning making, by whether it does, or does not, comprise the four moments of dialectic (MELD) which enable it to make the UDR movement toward Reason, thereby returning to Rh territory.

By introducing dialectic in the form of four moments of dialectic (MELD), Bhaskar redefines the notion of cognitive development over the lifespan as the transition from logical to dialectical thinking. He thereby opens the doors for Lh thinking, to recover what it 'forgets' is nurtured by Rh functioning. This opening of doors toward Rh is meant to enable the Understanding to overcome its own fallacies which are rooted in refusing to lift the arbitrary 'stop sign' with which it opposes completion of the UDR loop, Rh→Lh→Rh. The return movement of Lh thinking, as instrumented through DTF dialectic (see Section 6), then remains blocked. As a

result, Lh thinking refuses to engage in meta-thinking about the contents it produces, the processes that engender that content, and the relationships binding that content's components.

This is the situation a critical facilitator encounters when working with a team comprising a highly developed minority and a larger, less developed majority that is 'downwardly divided' because the minority does not manage to hinder the majority from reducing the team's agenda to the lowest common denominator, whether in its social-emotional *personal*, or its cognitive *task*, process. We can then speak of a *downwardly divided* team, whether it is one working on issues of continuous improvement (the lowest level of organizational work), or whether its task is to reorganize value streams in a more customer-oriented direction, or a team tasked to transform the organization's business model (the highest level of work complexity). (Most theories work on the lowest level, that of continuous improvement, as 95% of all individuals delivering work do.)

In all three cases, the return to Rh in the form of dialectical thinking (<Rh→Lh→Rh>) is never made due to posting the arbitrary stop sign <Rh→Lh [stop!]>. In Bhaskar's term, such a team is stuck in pure identity thinking fixating on DTF context thought forms, so that PRT (Process, Relationship, and Transformational) thought forms never surface in team members' dialogue (De Visch & Laske 2020).

For a theory of cognitive development the broadening into dialectic entails that it must show *empirically*, grounded in real-time cognitive interviews, to what extent an individual, in his/her present social-emotional positioning, is able to expand the twofold movement Rh→Lh[stop!] of identity thinking into the three-fold, 'dialectical', Rh→Lh →Rh, movement that qualifies him or her as a more or less dialectical thinker. In DTF, the degree to which an individual can show dialectical capability in response to cognitive prompts during a 1-hr semi-structured interview indicates that individual's *phase* of cognitive development toward dialectic s(he) is presently "in". DTF distinguishes four phases (not stages) of cognitive development since clear boundaries between subsequent steps toward dialectical maturity cannot be found. (The term 'stage' would not make sense in the cognitive domain of development anyway since it is a purely logical category term and thus in itself undialectical.)

The movement of adults from logical identity thinking to dialectical thinking has been consistently substantiated empirically by DTF, the *Dialectical Thought Form Framework* (Laske 2nd ed. 2017).

Based on empirical studies since 1998 (Laske 1999), the DTF Framework of cognitive research owes a major debt not only to Roy Bhaskar (1993) but also to Michael Basseches (1984). It embodies at its core the link between these two researchers' work in that it conceives of Bhaskar's ontological MELD components (1M, 2E, 3L, 4D) as logical classes of *thought forms*, used for the sake of developing an empirical epistemology able to trace adults' lifelong cognitive development from formal logical to dialectical thinking (in which the former is fully embedded)..

Importantly, the inclusion of DTF in CDF makes the latter methodology into a *dialogical*, in contrast to a *monological*, framework of research, as well as of coaching and consulting practice

(Linell 2009). As an outflow of its dialogical nature, in CDF we conceive of language not simply as a set of arbitrary descriptors but as a medium of *world creation through dialogue*. We work from the assumption that it is through dialogue, both with themselves and others, that individuals intersubjectively articulate Bhaskar's ontological moments of dialectic in an epistemologically transparent form.

In DTF, we see this articulation as the essence of what is called 'constructing the world', while in CDF, we expand this world construction to social-emotional meaning making seen as a *sliver* of the Rh's *cosmic-emotional meaning making* of which so far we know very little (But see Section 5, below).

When speaking of 'constructing the world', we have in mind the use of thought forms deriving from Bhaskar's four moments of dialectic. The four classes of thought forms, listed below, are epistemological equivalents of these four moments, as follows:

Bhaskar's moments of dialectic	DTF classes of thought forms [Illumination Transforms leading to Remediation]
1M	C: <i>Context</i> [big picture]
2E	P: <i>Process</i> [emergence]
3L	R: <i>Relationship</i> [common ground]
4D	T: <i>Transformation</i> [transcending mere 'change']

Thought forms are thoughts that emerge from Rh in *gestural* form which precedes in real time the linguistic mimicry bestowed on them by Lh. Once a thought is 'uttered', it enters into consciousness and its gestural origin in Rh is forgotten (McGilchrist 190). As clearly emerges from cognitive-developmental interviews, *classes* of thought forms, once iron-clad in *words*, do not form a bucket brigade but appear as networked into conceptual *constellations* (Adorno 1966) which, since they are conscious, can function either as a defense mechanism barring the return to Rh-functioning (when used purely logically, as in identity thinking), or as a bridge to Rh-functioning (when used dialectically, as in untrammelled thinking).

How dialectical thought forms are acquired over the life span is empirically still not well known because of the paucity of existing research. Over 20 years of DTF research, we have found a large *diversity of cognitive-developmental paths* adults follow, such as (1) C→P→R→T, (2) C→R→P→T, (3) P→C→R→T, (4) R→C→P→T and others, whose relationship with social-emotional development has just begun to be shed light on through the CDF-based 'Dynamic Collaboration App' put in place by Jan De Visch (See Section 7).

DTF thought forms are alive only in dialogue, in the form of 'inner' and 'outer' speech as it occurs in a semi-structured cognitive interview as well as deep-thinking conversations. Cognitive

profiles put in place based on interviews are composed of various *indexes*, such as a Fluidity Index, Cognitive Score, Systems Thinking Index, and Discrepancy Index. Of these, the *Cognitive Score* states the balance or imbalance of an individual's present thinking in terms of the four moments of dialectic (CPRT), thereby defining the individual's 'phase' of cognitive development toward dialectic. A DTF cognitive score measures the distance an individual has so far traveled away from identity thinking, as well specifying his/her potential capability to reach a better CPRT balance (rather than a 'higher level' as in conventional theories).

The overall DTF finding so far is that the class of transformational TFs (T) resides at a meta-level of cognitive development since only individuals who master C, P, and R thought forms sufficiently can synthesize transformational movements-in-thought which therefore are seen as constituting the peak of adult cognitive development (see Fig. 1, below).

The hypothesis followed in DTF is that a bicameral agency such as the human mind is intrinsically dialectical. This is structurally indicated by lateralization into a 'right' and a 'left' hemisphere (Rh, Lh) which carries over into the structure of the mind as the distinction (and contrast) between ED and CD. Each of the hemispheres offers the individual two starkly different 'takes' on what is 'real' in the world. One of them is based on largely unconscious sympathetic *witnessing* (Rh), while the other is based on *grabbing control* by way of syntax and logic (Lh). Both hemispheres determine, jointly as well as by inhibiting each other, the broad outlines of an individual's adult development.

Since the starting point of mental (and one might add, developmental) processing lies in Rh functioning and is thus holistic (McGilchrist 190-193) [as every book on infancy will bear out], it is the task of Lh to bring to bear on Rh input narrowly focused attention which virtualizes and objectifies – 'logicizes' -- such input and prepares it for linguistic sequencing. Lh-anchored identity thinking turns human experiences into circumscribed and static entities, whereby Rh's natural curiosity about, and connection with, what is *other* than itself gets lost in fixations on control and utility. Longitudinally, this virtualization of Rh input, required for the development of identity thinking up into early adulthood (Piaget), puts adult Lh functioning at risk for ending up in a hall of mirrors, where logical thinking drones on and on about what the mind knew all along, which Lh is only just systematizing. (For the consequences of this 'droning on' as it appears in team collaborations, see De Visch and Laske 2020).

The best way to characterize DTF dialectic is to say it helps build bridges between the two hemispheres of the mind. Dialectic is a bridge builder. It works for the sake of re-instating Rh as individuals' *master*, thereby putting Lh in place as the master's *emissary*, rather than supporting its posture of renegade master the way logical thinking does. One could call the humbling of Lh through dialectic its true maturity, a 'waking up' to the gap between how the real world works and how the Lh by itself 'thinks' it does.

Dialectic is thus the mind's preferred vehicle for completing the $Rh \rightarrow Lh \rightarrow Rh$ loop that 'lifts up' the LH data world into its broader Rh-context, and thereby restores as much as possible the mind's natural connectivity to what is 'other' than, *rather than identical with*, itself.. As McGillChrist puts it: Hegel's 'Aufhebung' – which implies both preservation and transformation – “crystallizes the relationship of the hemispheres” (204). This crystallization has little to do with Wilber's purely logical 'transcend and include' which is void of an understanding of *transformation*.

In practical terms, the re-constitution of human experience from Lh scrutiny is accomplished by thought forms (TFs) each class of which unfolds MELD, Bhaskar's four moments of dialectic. In DTF, these moments are *re-presented* epistemologically by four thought form *classes* C/context, P/process, R/relationship, and T/transformation, CPRT for short. These moments are *presented* both in internal dialogue with oneself and external dialogue with others.

The dialectical loop referred to above is best visualized as a double one. It originates in T and unfolds through CPR (Bhaskar's 'illumination transform') back into T (Bhaskar's 'remediation transform'). From a meta-level, the loop takes the form of a snake bite that remediates mere identity thinking as dialectical thinking. Dialectic is thus both a *discovery* ($Rh[T \rightarrow CPR]$) and a *recovery* procedure ($Lh[CPR \rightarrow T]$).

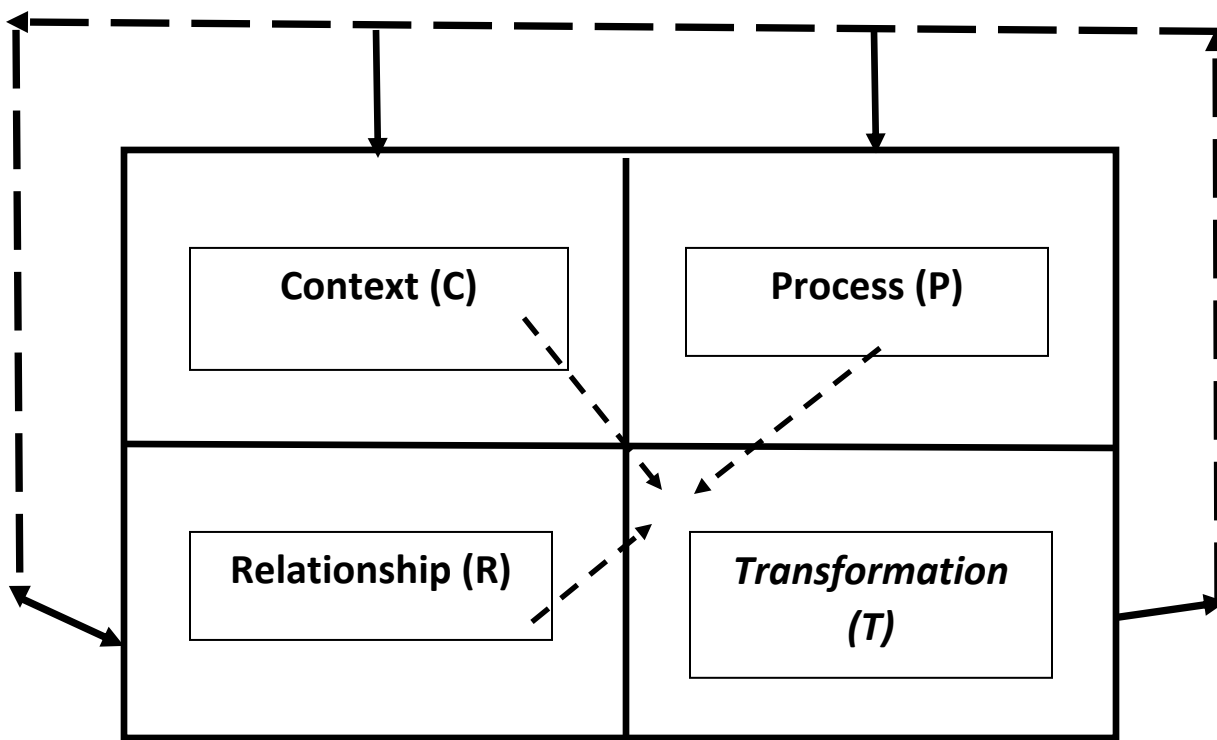


Fig. 1 The Four Moments of Dialectic in their epistemological form

What is the impact of stopping short of a return to Rh (in the sense of remediation as Rh→Lh→Rh) on the concept of adult development? The impact is twofold:

- 1) It leads to replacing the mere labeling of end states, whether ‘stages’ or ‘phases’, with an explication of how end states are longitudinally reached in terms of the flow of CPRT thought forms.
- 2) It shifts the notion of maturity as hierarchical ‘complexity’ or ‘height’ to the notion of balance between Rh and Lh, calibrated in terms of the C:P:R:T balance found empirically, both in ED and CD (although in a different form).

On closer reflection, the two kinds of impact of identity thinking on theories of adult development [(1) and (2)] above) are two sides of the same coin. Once there is an understanding of how developmental progressions proceed in terms of thought form fluidity, it becomes easy, or at least easier, to relate and compare social-emotional with cognitive developmental progressions, and elaborate balance-criteria in the medium of dialectic itself.

The reason why this is revolutionary should be obvious. Lh theories of development which replace the UDR loop by identity thinking, Rh→Lh [stop!], whether of meaning-making or sense-making, deliver no more than a *labeling of the end-state* of a developmental process. They never spell out the actual structure of the mental processes that lead (e.g.) from one social-emotional stage (such as S-3/4) to another (S-4/3), or from one phase of cognitive development to a subsequent one. (I call that ‘handwaving’).

The presently prevalent notion of ‘maturity’ derives from metaphors such as ‘level’ or ‘height’ and sounds as if taken from tayloristic management theories. It is a pure Lh-notion that conveys a lack of an interest in understanding developmental balance, -- not only within ED (regarding the proportions explicated by CDF’s social-emotional ‘Risk-Clarity-Potential’ index, or RCP), but also within CD (regarding the proportions of C:P:R:T) in an individual’s cognitive profile.

While present notions of maturity essentially coalesce into competence models (pervasive in the commercial world), what matters in human life is not *competence* but rather *capabilities* such as an awareness of wholeness and the balance of parts, whether the parts are one’s own proclivities standing against obstinate realities in the social surround, or stem from a conflict of internal proclivities not easily resolved.

3. The mistaken replacement of dialogical interviewing by tracking logic-based task behaviors

Unsurprisingly, when identity thinking short-circuits the Rh→Lh→Rh loop to Rh→Lh [stop!], understanding the nature of language takes a beating, too. Rather than seen as a Rh-, embodied, medium, the elements of language, even when spoken rather than written, are treated as mere descriptors of the logical data world, and lose their pregnancy with Rh-metaphors that poets explore.

Accordingly, words spoken in social-emotional and/or cognitive interviews are never heard as documenting the bicameral (Rh \leftrightarrow Lh) process of constructing WORLD in real time; rather they are reduced to mere content whose cognitive thought-form structure remains uninvestigated. This reduction of spoken *words* to mere linguistic *terms* is especially counter-productive in applications, e.g., when working with teams developmentally in real time. Facilitators then fail to notice that it is the *quality of team dialogue*, measurable in terms of DTF's four classes of thought forms (CPRT), that ultimately determines teamwork outcomes (De Visch & Laske, Springer 2020).

In empirical developmental studies, the short-circuiting of thought and word flow to terms of Lh-thinking is most jarringly pursued when reducing developmental interview dialogue in real time to tracking logically conceived-of task behaviors – as in social-emotional sentence completion tests or investigations of task behaviors. As pioneering as these studies may once have been, even Adorno (et al.)' 'Authoritarian Personality' of the 1950s went far beyond their categorical reductionism. These assessments mimic tayloristic notions of workflow which adhere to competence models rather than a broad notion of human capability. In line with their impoverished notion of language, such models erect considerable barriers to achieving a fully mature and humanistic adult-developmental theory un beholden to commerce.

Viewed from DTF, the *Dialectical Thought Form Framework*, Lh-based developmental theories use language in a way that restricts movements-in-thought to mere Context thought forms (C; Bhaskar's 1M). In this situation, mental processes get frozen to static entities and relationships are reduced to their mere external form. Stuck in pure context thought forms, researchers and their subjects are then inhibited in their thought fluidity and inhibit Rh functioning. In interviews administered by individuals sporting identity thinking, the use of dialectical thought forms by 'subjects' and clients simply goes unnoticed.

Staying with the confines of Lh-logic and syntax, the richness of metaphorical thinking is then excluded from registering in developmental findings because they are *unscorable*. Clearly, this is a far cry from a mature adult-developmental theory which spells out, not just the end-stage of sense- and meaning-making processes, but acquires an understanding of how developmental end-states are reached on account of real-time movements-in-thought involving both mind hemispheres.

There is another element that gets lost in any task-behavior focused methodology based on identity thinking, whether in academic research or organizational teamwork (which become nearly identical), and that is *internal listening*, both to oneself and others.

By this notion I am referring to the ability of a speaker/listener, to move what is gesturally and acoustically received from another person in real time to a meta-level of reflection (Lh \rightarrow Rh), in order to review the implications, ramifications, and innuendos implied. This kind of listening, best schooled in semi-structured social-emotional and cognitive interviews, is more succinctly called "double listening" since what is involved is listening to oneself and another person in the same breath.

Double listening eschews Lh-rooted ‘focused attention’ in favor of deep-thinking *vigilance*. Those who master vigilance correctly innervate that spoken as well as written language does not so much ‘describe’ as ‘create’ world, not as something “out there” but rather “in between” oneself and the world. It is the Rh which is a master of such *betweenness* since it foregoes performing the subject/object split innate to Lh-functioning (McGilchrist *passim*).

Among the many kinds of interviewing I had the fortune to learn and practice, there is, in my experience, a single activity that stands out as a practicing ground of double listening, namely, *semi-structured developmental interviewing*. The notion of ‘semi-structured’ is of importance in this context since it implies that what one is listening for is not thought *content* but thought *structure*, whether it be social-emotional or cognitive.

In the case of social-emotional interviewing, one is formulating hypotheses as to intermediate stages of meaning making, while in cognitive interviewing, one formulates hypotheses concerning thought forms linkages and entire constellations of thought forms. Unsurprisingly, mastery of semi-structured developmental interviewing/listening leads to mastery in developmentally grounded process consultation (a deepening of E. Schein’s work) as well as critical facilitation of teamwork.

It would be accurate to say that double listening in developmental interviewing takes two interrelated forms, each of which emphasizes different aspects of such listening: (1) real-time structured interviewing, (2) evaluating transcribed interviews for the sake of “scoring” them social-emotionally or cognitively focused on the quality of team dialogue.

In (1), *real-time interviewing*, it is the aspect of witnessing, thus vigilance, not focused attention, that stands out. This Rh way of paying attention does not approach what it encounters directly but obliquely. This is so because to formulate developmental hypotheses, whether ED or CD, one needs to avoid “making an object” of what is said since what is said emerges from a more highly Rh- than Lh-determined focus. In the moment of ‘inter-viewing’, the ‘viewing’ implied is crucial: the interviewer creates a mental context in which specific stages or thought forms “come into view” for the mind. This kind of witnessing is of a connected, curious, and vigilant nature since it foregoes objectifying (virtualizing) what is being said.

In (2), *interview evaluation*, the listener as an assessor of transcriptions of developmental interview texts creates in his/her mind a variety of hypotheses and tests them against empirical evidence. S(he) is engaged in ‘finding the right text passage to evaluate’, and secondly, is determined to ‘pin down’ the appropriate intermediate stage (e.g., S-3/4) or thought forms (e.g., TF#1, ‘unceasing motion’) expressed in a chosen text passage. To do so, the assessor listens foremost to himself/herself, even when conjuring up “what the interviewee sounds like” as she parses the text to be evaluated.

The learning and practice benefits of semi-structured interviewing and its evaluation, summarized above, get lost in developmental work that is not based on qualitative interviewing, - a great loss to fluidity of thinking and Rh-imagining. This is a pity since often developmentally schooled individuals try their hand at consulting and critical facilitation. However, since most of them never learned to score real-time interviews, especially cognitive interviews, they never

develop a mastery in switching from ED social-emotional to CD cognitive listening in their interventions as consultants. This amounts to a big loss in the quality of process consultation of which the consulting industry is totally unaware.

In this context, working with teams stands out as an opportunity for excelling in double listening outside of case studies. Teams, always developmentally mixed (i.e., never developmentally uniform), are social-emotionally determined in their personal (ED), and cognitively defined in their task, process (CD). No wonder that in *downwardly divided* teams -- in which members of the team majority fail to bring to bear their own higher-level maturity on a less mature but politically or otherwise dominant subgroup (Laske 2005) -- true collaboration remains nearly impossible (De Visch & Laske 2020; 2018).

As a result of their relentlessly Lh-focused thinking, on whatever level of work complexity, team members not only do not (know how to) listen to each other; they also unerringly narrow their agenda to the lowest possible denominator. Double listening is neither on their own, nor their facilitator's, agenda, which leads to a kind of *the blind leading the blind* syndrome which is rampant in consultation practice.

4. The narrowing and ideologizing of 'adult development'

Unsurprisingly, questions about how social-emotional and cognitive development intrinsically relate is taboo in contemporary developmental theory, nor has observing the link between ED and CD become a mainstay of professional coaching, consulting, and facilitation outside of CDF. Considering that ED and CD capabilities are intrinsically linked, the impoverishment that has resulted from this taboo, in assessment and consultation alike, is considerable.

Why should this situation have arisen?

The short answer is that the term *adult-development*, reduced to meaning making, and thus de-totalized by Lh identity thinking, has become an academic, and recently also an everyman's organizational, ideology. This reduction in the meaning of the term, over at least 25 years now, has resulted in relegating cognitive development to a lesser place so that no more than paying lip service to it is required for maintaining academic respectability and social standing.

'Meaning-making', as the term is now known, expresses the Lh's view of the Rh that LH does not truly understand. As a result, identity thinking has used the term to reduce the *cosmic-emotional* reach of Rh to the sliver that I named 'social-emotional' for critical reasons 20 years ago. As understood today, the notion of 'meaning making' casts aside what real people intuitively make meaning of in the world far beyond their social self-positioning toward others. As a result, not only the link between meaning-making and sense-making has been obliterated; the link between meaning-making in the broader sense, of Rh-connectivity to the world and curiosity about what is "other" than the human mind, has been obliterated as well. As a result, the mandate of 'developmental theory' has been dramatically but conveniently reduced.

Methodologically, ideologizing meaning making and obliterating sense-making comes easy to Lh identity thinking. Understanding these two components of adult development in their relationship is impossible if one cannot transcend thought forms of class C/context (1M) that merely describe static constellations of elements whose history, intrinsic relationships, and longitudinal transformations are reduced to linear change that moves up a scale of opaque end states.

Consequently, the notion of a unified, embodied consciousness as it is alive in the Rh→Lh→Rh loop, is buried in a one-dimensional notion of ‘meaning-making’ that is literally out of touch with its developmental partner, sense-making. There then remains only a small step to take, to substitute the *ontic notion* of development (as something that happens independently of human doing) by its *agentic* homologue, the behavioristic notion of development, which can be accomplished through human doing, in the sense of “we are developing this team”. The vertical axis of adult development is then collapsed into the horizontal one of persuasion and ‘we can do it’. This substitution is just another example of reductive thinking wiping out important epistemological distinctions between ontologically decidedly different real-world dimensions.

The practical outcome of this dialectic-free foreshortening of adult developmental research necessarily informs the consulting profession that again and again fails to address the true complexity of its mandate. In both developmental research and consulting, the emissary (Lh) has forsaken its master (Rh), declaring itself to be the renegade master, and heading for unremitting world virtualization and automation while feigning to provide humanistic support for developing adults.

5. Ideas for establishing a developmental epistemology

At this point epistemological questions arise.

They have to do with the issue of: *what kind of a developmental research is needed to chart the course of human self-understanding in the world at large, not just the social world?* For me, this question is inseparable from the issue of ‘*what mode of interviewing for **cosmic-emotional** (rather than only social-emotional) meaning-making is optimal?* In short, I would like to replace the objectifying allure of conventional theories of adult development by establishing a dialogical emphasis that lets emerge the thought-form structure of emotional development seen as flowing from Rh-functioning at large, without reducing it to mere issues of social stance.

It would seem to be a common sense developmental notion that meaning making is *cognitive* precisely in the sense that it transforms Rh innervations about oneself in relationship to the world at large (not just others) into Lh-formed sentences that ‘come to mind’ when projective speech utterances emerge in semi-structured interviews. In addition to their semantic and syntactic structure, answers to prompts such as *success* and *important to me* employed in such interviews (Lahey et al. 1988) have, in addition, a *thought form structure*. The latter is equally, if not more, indicative of maturity level than the mere content of an interviewee utterance regarding social self-positioning.

Such a broadened ED research practice would override the notion that individuals' meaning making is exclusively socially (or sociologically) determined, as well as transcend the underlying psychotherapy notion of ego dressed up as an epistemological 'Self'.

The reader will wonder how such an ED/CD merger focused on cosmic-emotional meaning making might be accomplished.

Once interviewers have learned to think in dialectical thought forms, they can follow a broader, philosophical, rather than merely behavioral, notion of meaning making. Thinking both cosmic-emotionally (Rh) and cognitively (Lh), they become able to probe meaning-making at a much more relevant level that is now the case. Their task becomes to employ new kinds of prompts (examples of which are stated below) that enable them to work with thought-form constellations giving rise to progressions of meaning-making. In this way, post-Kegan interviewers are enabled to address the full compass of Rh functioning, not just a social-utility-confined sliver of it.

At this point, the notion of *double listening* takes on still another meaning. It points to a methodology for understanding human meaning making that is open to both mind hemispheres, with an emphasis on meaning (Rh), not truth (Lh).

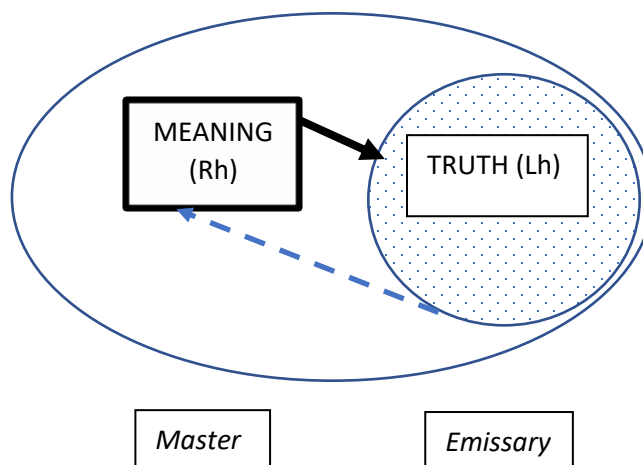


Fig. 2 Accomplishing the Rh→Lh→Rh loop between the two hemispheres adult-developmentally

Meaning making (which is largely unconscious) then appears as the fertile, omnipresent ground of adults' search for truth. The use of dialectical thought forms would ensure that the Rh→Lh→Rh loop from meaning to meaning via truth – or from Understanding to Reason via dialectic (UDR) -- completes.

To assist a more practical understanding of this thought revolution, the following examples might be helpful.

An individual who says: ‘I now make decisions on my own and don’t wait for my boss to come in’ -- which would be said differently spoken from four different intermediate stages listened for in S/O interviews [(3(4); 3/4; 4/3; 4(3)] -- when interviewed cognizant of DTF thought forms, will be expected to make explicit her meaning making at a particular Kegan stage in *cognitively* more or less mature ways, depending on the present level of her phase of dialectical thinking. To give an example, an interviewee who resides at Kegan-stage S-3/4 [with a particular RCP, say, {3:8:4}] and has begun to internalize relationship TFs, might say to her developmental coach:

“I well know that my boss typically has no time for me and therefore resents my approaching him for help in making decisions. Despite this knowledge I feel in need of his support as an external other who could assist me in feeling more confident in myself internally. So far, I have found it very hard to dispense with this kind of physical and psychological handholding, and this leads me to concentrate more and more on understanding why my other-dependent internal positioning toward my boss may be so determinative of how I make decisions. Although I very much see the limits of separation between what I call ‘my boss’ and myself, I have so far failed cognitively to cut the link between us and thus to follow my own value system when it comes to making decisions. So, I need your help, not just in order to strengthen my resolve to make decisions on my own, but to refine my thinking about how I internally relate to, and position myself toward, others I work with.”

No conventionally trained social-emotional coach, ignorant as s(he) is of dialectical thought forms, would have any inkling that what is being said here goes far beyond conveying meaning making contents that logical thinking can dissect and formulate hypotheses about (which is all that now happens).

The above utterances convey insight into the thought-form *absences* that hinder the speaker from taking the next social-emotional step. By way of these utterances, Lh counsels Rh about its décalage (lag in manifesting itself). At the same time, these utterances create an opening for the interviewer who can now zoom in on (or else propose) notions like ‘limits of separation’ which is a Relationship TF that opens an entire slew of more complex differentiations of ‘being related to’ and ‘sharing common ground with’ somebody or something.

It seems evident to me that a cognitive probing of an interviewee’s present developmental ED-state by way of more differentiated TFs (not just of Relationship) would be an excellent path both toward testing a social-emotional stage hypothesis and, simultaneously, toward promoting a social-emotionally upward directed movement of the client. The stale distinction between ‘assessment’ and ‘coaching/mentoring’ could then be transcended, and the notion of ‘assessment’ broadened dialogically

Of course, limiting interview prompts to probing social stance alone would cease, and prompts of a much broader resonance would need to be introduced.

For example, there could be an ‘empathy prompt’ that says: “when you for a moment think about your present life in the context of experiences of nature you have recently made – either on walks, or even when looking at TV shows dealing with wild animals -- what comes to mind?” Such a (positive) prompt challenges an interviewee to articulate his/her present potential for

empathy with the natural world or for feeling embedded in the natural world, something that is congenial with Rh functioning. Such an ‘empathy’ prompt could then be used to lead back to a focus on social stance, for instance, by saying, “when you now direct the kind of empathy you just spoke of to the narrower social world you see yourself as part of, what consequences might such empathy have for how you (presently) relate to people you work or live with?”

A more ‘negative’ prompt that brings out what is emotionally hard to do for the interviewee could be a ‘hardship prompt’ such as: “When you think back to a recent hardship you encountered, whether it directly affected, or even injured, you or your community at large, or not, what comes to mind?”

The ED interview protocol, however, would not change. As before, it would be the interviewee who chooses the prompts to engage with. There are endless ways in which a DTF-schooled interviewer can work with an interviewee’s emotional projections dialectically (as every Basseches-trained interviewer already knows). Also, the degree to which an individual makes meaning beyond the narrow confines of social stance would itself be an indicator of maturity.

The expansion of social-emotional to cosmic-emotional meaning making is long overdue. It is presently held up in two related ways: (a) by the stubborn separation of meaning- and sense-making (if not the reduction of one to the other), and (b) by the reduction of sense-making to formal logical thinking (which uncritically replicates the Lh research culture). These two reductions pan out as a disservice to understanding adult development as anchored in the *lifeworld* and its conflicts, which manifest the bicameral nature of the human mind. In this sense, to acknowledge the work that has been done with DTF is a step toward *critical realism*.

6. A short outline of DTF dialectic

Dialectic helps Lh *not* to say ‘no’
to what flows from Rh *too early*.
Otto Laske

Dialectic is anchored in the mind hemispheres’ distinctly different *takes* on the world: the difference, if not cleavage, between the vigilant, holistic, affect-grounded witnessing-based connectivism of Rh, on one hand, and the language- and logic-clad, utility- and control-focused attention of Lh, on the other. This very fact suggests that to struggle with cleavage and harmonize its effects on the lifeworld is individuals’ primary adult-developmental assignment.

In whatever way one might interpret this assignment, clearly it is a task of tall order, especially given the many Lh fallacies ontology and epistemology have unearthed of which not only human life, but also scientific work, the lifeblood of modern existence, are the primary carriers. On the personal side of the life equation, avoiding a cleavage between individuals’ work which is increasingly Lh dominated, and their life, which remains Rh anchored, is a primary and lifelong task regarding which new notions of maturity are called for.

When reviewing the notion of *maturity* from this vantage point, defining the term like an old-fashioned manager whose concern for hierarchy is primary, while that for wholeness and balance is minimal, would seem to be out of place. Given what is known about the mind's structure and longitudinal development today, maturity is more adequately rendered as BALANCE. However, this balance is not 'balance' in the sense of formal logic (if there is such a thing), but rather a dialectical balance which results from transcending conflict and opposition, and thus is a result of mental transformation.

Criteria for determining individuals' mental growth balance are foreshadowed in CDF scores, both in its social-emotional RCP ('risk-clarity-potential') Index associated with ED stages, and the DTF cognitive score which specifies the proportion in which thought forms of class C, P, R, and T have been articulated by an interviewee over the course of a 1-hr semi-structured interview.

What does achieving a mental growth balance in one's life have to do with dialectic?

In this essay, *dialectic* based on DTF thought forms has emerged as a medium in which the two-step 'logical' <Rh→Lh [stop!]> movement of the mind is transformed into a three-step, 'dialectical', <Rh→Lh→Rh> movement, which implies the 'lifting up' (*Aufhebung*) of less articulated into more amply articulated forms. As we now know, this 'lifting up' points not only to the path along which individuals gain social-emotional but also cognitive maturity: in the social-emotional domain, stages outlived by an individual are 'lifted up', or assimilated to, "higher" meaning-making perspectives, while less developed thought form constellations are 'lifted up' into increasingly transformational processes through which they become *moments* of an overarching, better articulated, movement (CPR→T).

Why should this be so?

My answer would be that all 'developmental' movements have one and the same origin, that auf 'Aufhebung' as the equilibration of the mind's two hemispheres. From this perspective, dialectic is not the esoteric mystery it is routinely made out to be by those defending against it, that is, defending themselves against their own Rh functioning. Dialectic is rather a natural gift of the bicameral mind in which it is firmly rooted, and whose unconscious as well as conscious expression it is.

Accordingly, development is not 'logical' nor linear nor does it equate to 'change'. It is *transformative*. While in purely logical thinking, humans end up in a hall of mirrors in which experiences are merely re-presented rather than presenced, in dialectical thinking the bicameral mind re-constitutes as much as possible the original Rh-experiences from which its processing, including its 'developmental' processing, begins. Discarding the arbitrary stop sign of logical processing anchored in the law of the excluded middle (Rh→Lh [stop!]), dialectical processing recovers the human experience of being alive, whether conceptually or non-conceptually (as in art making). **The same dialectical logic reigns in adult development where limits, marked by 'stop' signs, are transcended as soon as they are recognized as limits.**

Bhaskar's expansion of the notion of cognition to dialectical thinking and McGilchrist's study of the intrinsically dialectic relationship of the mind's hemispheres make it more understandable that and why dialectic is both a *discovery* and *recovery* procedure, not only ontologically but epistemologically. This is understood better when once again considering Fig. 1, below, whose internal arrows exemplify the first, while its external arrows point to the second, procedure.

As shown below, the internal movements-in-thought within the compass of the four-moments of dialectic that use CPR (Context, Process, and Relationship) thought forms prepare for, and merge into, the class of transformational thought forms (internal arrows) *of which they are incomplete manifestations* (external arrows), just as lower 'stages' [inner arrows] are incomplete manifestations of 'higher' ones [outer arrows]. The snake bite indicated by the external arrows makes up the core of dialectic as a bridge builder between the mind's two hemispheres as well as between less well and better articulated mental processes of a social-emotional and cognitive nature.

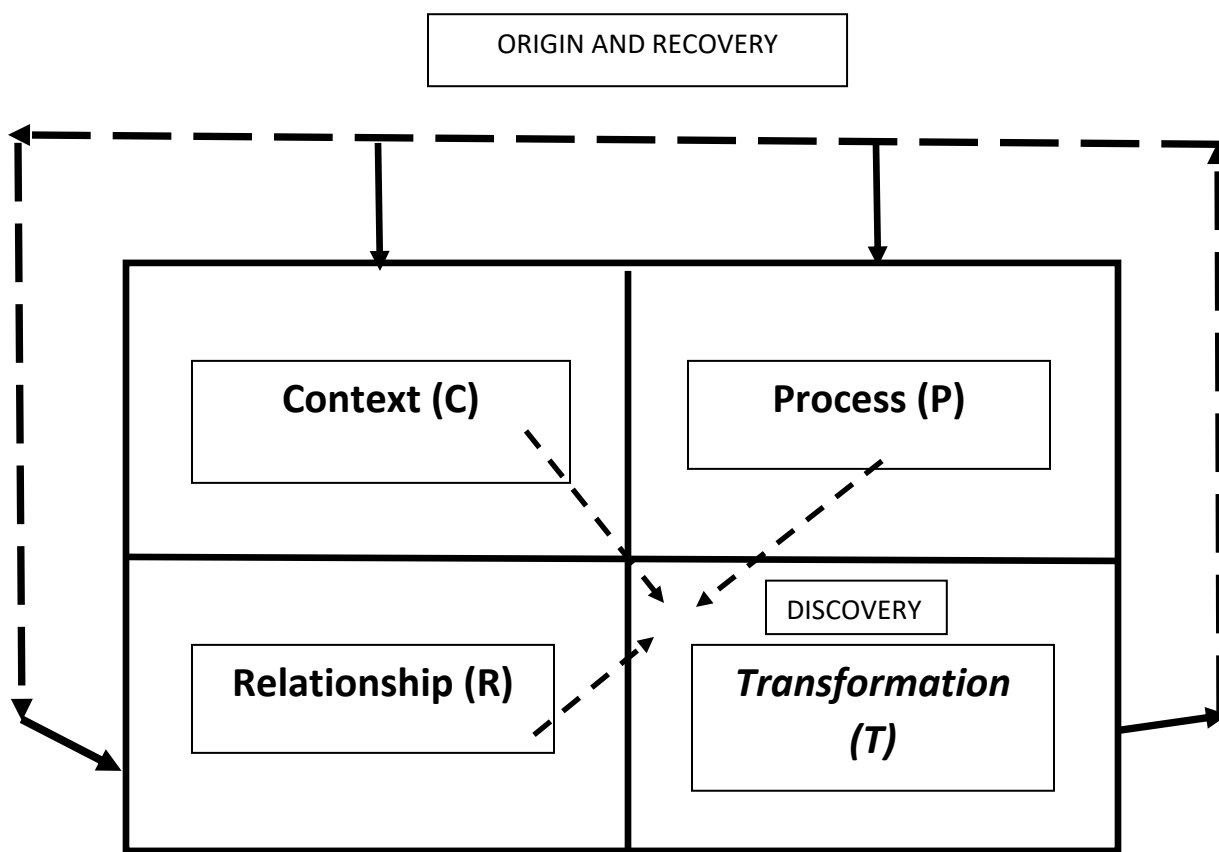


Fig. 1 The double engagement of the four Moments of Dialectic in discovery and recovery

Epistemologically, the ‘snake bite’ metaphor illuminates that all mental processes are unceasingly networked since no single one functions for its own sake: any ‘A’ always implies a ‘non-A’ the knowledge of which is required for understanding A in its fullness.

The snake bite of dialectic also hints at the *intersubjectivity* of both thinking and adult development which cannot be bottled up in individual minds as conventional developmental theories do. **‘Development’ constitutes the medium in which ‘Mind’ exists.** The snake bite ultimately visualizes that adult development itself operates as the ‘Aufhebung’ (uplifting) of earlier stages and/or phases in(to) subsequently attained, ‘higher’, ones for the sake of balancing the two hemispheres. This balance is achieved neither in the form of perception or logical thinking but is established only dialectically over individuals’ entire lifespan over which they gradually ‘return’ to their mind’s Rh origin.

For this reason, dialectic is not only a mind changer as seen from the perspective of identity thinking. It is a *developmental driver of maturity*, cognitively and social-emotionally a *mind-opener and -expander* that provokes revolutions in the way individuals become able to operate in the world and compose, as well as understand, their lives.

What Hegel called ‘the effort of the concept’ is not ‘conceptual’ in the logical sense of the term at all. It is the joint effort of both mind hemispheres, whether they operate social-emotionally (when Rh focused) or cognitively (when Lh-focused), to establish a balance between themselves. **What we observe when we study adult development are the outcomes of this effort. We ‘understand’ them only to the extent that our theory of development is itself dialectical.**

7. Empirical Findings based on CDF

I designed CDF assuming that to render the unity of consciousness, a single developmental profile would be insufficient as would be the reduction of one profile to another. I put together three -- only seemingly independent -- profiles, a social-emotional, cognitive, and psychological one, to generate insight into how in their togetherness they shed light on the bicameral human mind. It was clear to me that focusing on some kind of task behavior substituting dialogue by writing out ‘exercises’ was beside the point since it squelched the *internal listening* both interviewer and interviewee need to practice, to arrive at data documenting both hemispheres. (Rh comes into play not only through speech but also the presence of another person as part of a social surround.)

This design decision turned out to be apt one also in practical terms. My early students and I found, that the internal listening learned when making interview-based CDF *case studies* (which produce developmental profiles) was invaluable since it permitted practitioners to learn to switch from social-emotional to cognitive to psychological listening when appropriate, -- an ability that directly transfers to coaching, consulting, and critical facilitation in teams. Due to this transfer, learning a methodology like CDF straightforwardly began to be perceived as learning a consulting methodology at the same time, especially since it could be shown that CDF consulting is, in many ways, an extension of Chris Argyris’ and Elliott Jaques’ work.

Developmental interviews accumulating over 20 years have made it evident that, rare cases apart, social-emotional meaning-making (ED) and dialectic sense-making (CD) are largely out of sync with each other, in one or the other directions of the comparison. This overall finding, which appears as a failure of adult development, could reflect different **paths** an individual takes to arrive at higher maturity levels, both inside of ED or CD and within them. (Such paths could be longitudinal oscillations or follow a different, still unknown, pattern.) How could such paths be structurally defined if not cognitively, in terms of movements-in-thought?

CDF social-emotional scores are more explicit than has conventionally been the case since they not only spell out a center of gravity ('clarity') but use an **RCP** (*Risk-Clarity-Potential Index*) to fully explicate social-emotional end states. This index makes explicit (a) developmental risk of regression, (b) center of gravity, and (c) future potential, and is spelled out in a score like **S-4 {5:7:3}**. The individual this score points to, despite of having what outwardly seems to be solid center of gravity (=7), is burdened by heavy risk of regression to lower stages (=5) that considerably weakens the center. Although the individual has a small future potential (of 3) to accede to the higher stage of S-4(5), this potential does not match the developmental risk of regression which is higher than the potential (5>3).

How would an individual with an ED profile such as S-4 {5:7:3} manage, while staying at the same stage, to acquire, over 2 years, a profile such as S-4 {2:9:4} which shows s(he) longitudinally reduced her developmental risk (5→2), strengthened her center of gravity (7→9), and slightly augmented her potential for further growth (3→4)?

Being used to conceive of ED and CD scores as intrinsically linked, I began to hypothesize that the individual's cognitive score connected to the first ED profile, namely (C=30%, P=36%, R=31%, T=19%), had a lot to do with her ability to grow social-emotionally. Her growth spurt was solidly anchored cognitively since, rather than being mired in C/context thought forms, she commanded impressive process and relationship thinking (36 and 31%, respectively) although her transformational thinking was still weak (19%).

The answer seemed to be that the individual had the required cognitive strength (in terms of her dialectical thinking) to grow social-emotionally.

Over time, DTF research led me to the hypothesis that there exist *different cognitive maturation paths* that might account for different degrees of the ability to avoid "resistance to change" (see below). For instance, individuals who start to develop dialectical thought forms of class P (process) or R (relationship), rather than getting stuck in context thought forms, have a lesser propensity for resisting change simply because thought forms of class (C) are no longer their intellectual and emotional mainstay.

From findings such as the above derive three related CDF hypotheses:

Hypothesis #1: Dialectical movements-in-thought build rainbow bridges between the two hemispheres.

Hypothesis #2: Social-emotional as well as cognitive mental growth are structurally based on the instantiation of thought forms, the first unconsciously (with a lower or higher potential of making movements-in-thought explicit, e.g., in mentoring), the second consciously.

Hypothesis #3: Mental growth, whether social-emotional or cognitive, longitudinally occurs in the proportion of an individual's ability to complete the Rh→Lh→Rh (or UDR) Loop using thought forms unfolding the four moments of dialectic C (1M), P (2E), R (3L), and T (4D).

For a DTF expert, the following possible *maturation paths* exerting a direct influence on both sense- and meaning-making (although in a different way) suggest themselves:

- (1) C→P→R→T (in Bhaskar terms: 1M→2E→3L→4D)
- (2) C→R→P→T
- (3) P→C→R→T
- (4) R→C→P→T.

To explain. The start of mental growth in C (context thinking), shown in the first 2 developmental progressions, above, equates to predominant formal logical thinking in an individual. It is validated by the majority of extant IDM social-emotional and cognitive interviews, for good reasons: logical thinking obliges an individual to conceive of his/her 'real world' in subject/object terms, which is brought about by using Lh *focused attention* in terms of which everything 'out there' shrivels to an object to be scrutinized, thus moving the individual out of the holistic meaning-making of his/her Rh which is by nature *witnessing*, not *grabbing* and *controlling* as is its partner, Lh (McGilchrist 2009; *passim*).

Much more rare are the third and fourth DTF paths mentioned above that start from P (process; 2E) or R (relationship; 3L), respectively, and then "steady themselves" (→C), sufficient for living in a structured, rather than merely static, world. Or else (as in (4)), the individual strengthens his/her awareness of the contextual features of primarily discerned relationships, enough to begin to grasp the transformational aspects of his/her world (T).

The claim made here is that the influence of sense-making on meaning-making (CD→ED) is strong, and apparently much stronger than the obverse one (of ED→CD). To date, the latter influence is not only *terra incognita* but also hard to research, at least as long as meaning making scores retain their opacity as to the mental processes by which social-emotional end states are reached. Since a single ED score is said to hold true for millions of individuals, assuming a single path of reaching higher stages is clearly absurd.

By contrast, a cognitive score gives much deeper insight into the *personality* of a specific individual since it articulates that individual's world view in terms of his or her insight into the transformational nature of human life (T) which to grasp *fully* is reserved for those who reach the peak of their development toward dialectic. Individuals who never acquire strong Process and Relationship thinking are unlikely to reach high social-emotional levels simply because they do

not possess enough future potential (in their RCPs) to engage with internal movements-in-thought required for reaching such levels.

When reviewing DTF scores of team members, it becomes abundantly clear that the longitudinal development of meaning-making is an *intersubjective* rather than a *personal* journey (as which it is conventionally conceived). Conventional ‘stages’ are labels presuming that ‘mind’ can be bottled up in individuals, which is a falsity even if stage scores are computed based on real-time interviews, rather than the outcome of mere reading and writing tasks.

This becomes ever more evident when working as a team facilitator. Not only is quality of team dialogue an indicator of team members’ meaning- as well as sense-making maturity, -- individual team members’ meaning making in real time (as shown, e.g., in how they conceive and execute a role or function) is ultimately under the influence of other team members’ sense- as well as meaning making. In a team that is ‘downwardly divided’ due to a dominance of less over more developed team members, for instance, members’ quality of meaning making, in terms of their social-emotional RCP, suffers as much as that of the quality of their sense-making (Jan De Visch & Otto Laske 2020).

While meaning-making might outwardly be seen as an increasing capability to observe one’s internal reflection processes and sharpen one’s internal listening to oneself and others, one can think of sense-making as the development of *breadth-first search strategies* (C→P→R→T), on one hand, and *depth-first search strategies* unfolding these moments of dialectic into individual thought forms (e.g., C1, C2; P1, P2, etc.), on the other, both of them working in tandem. For a developmentally schooled critical facilitator, there is little doubt that the latter, ‘cognitive’, strategies (which grow out of Lh functioning) have a mighty influence on strengthening Rh-anchored meaning-making, especially if the Rh→Lh→Rh Loop is completed by an individual or team by way of using transformational thought forms (T).

It would seem to be developmental common sense that an individual, at say, S-4(3), who is ensconced in Context thought forms with a diminished grasp of Process and Relationship thought forms (e.g., C=60%, P=20%, R=15%, T=5%), would have a harder time to move out of verbosity into an authentic S-4 positioning toward others than an individual whose cognitive maturation path is P→C→R→T to begin with (with P>C if not (P&R)>C).

On account of his/her sense-making (Lh functioning), such an individual has an inbuilt ‘resistance-to-change’ propensity, maintained by living in an internally and externally static-context world (C), -- contrasted with an individual whose ability to discern emergence (P) or intrinsic relationships (R) is commensurate with, or higher than, her use of Context thought forms (e.g., C=18%, P=28%, R=30%), perhaps because her cognitive-development path started out in P→C or R→C to begin with.

In short, by neglecting the interwovenness of ED with CD, conventional developmental theory has so far honored only a small part of its mandate.

Empirical Findings (Courtesy of Jan De Visch)

Working along these hypothetical lines, my colleague Jan De Visch, an expert CDF user since 2011, designed the *Dynamic Collaboration App* (<https://dynamiccollaboration.app>) for the sake of facilitating five of the most prevalent organizational practices, e.g., meeting practices (see De Visch & Laske 2020). The DC App exercises the notion that social-emotional as well as cognitive development are intersubjective rather than confinable to individual minds developing in isolation from each other (as academic theories assume).

The DC App comprises 2 modules, a thought-form-informed social-emotional (ED) assessment module (A) and a jointly ED & CD-based *story generator* (B), both geared to facilitating high-quality team dialogue around role accountability. The first module gives insight into the user's ED/CD balance, while the second sheds light on the complexity of his or her understanding of role accountability. The App's configuration permits to examine the enactment of ED/CD relationships in the form of whether the user's understanding of accountability is primarily ED- or CD-based, or else shows an equilibrium between these two developmental strands.

In the first module (A), team members' level of meaning-making is measured in terms of how they interpret values important to them, offered them by the App in interpretations whose articulations differ in terms of thought form complexity: the more refined a user's value interpretations, the more social-emotionally developed the individual is considered to be.

In the second module (B), team members select organizational subprocesses for which they claim accountability which are combined by them into *story lines* constructed in terms of increasing levels of thought complexity. Increasing story-line quality correlates with increasing complexity of thinking documented by increasingly diverse CPR thought form constellations. There are as many story lines regarding a specific role as there are different dialectical-thinking trajectories shown by role holders.

The App assists a critical facilitator interacting with teams in real time by gathering team members' responses to inquiries into their conception of assigned or chosen role within the team, using a 'native language' model. Use of the App focuses on teasing out to what extent, and in what way, a team member's phase of sense-making (determined in terms of DTF cognitive scores) is influenced by, and thus intrinsically related to, his or her present level of meaning making.

In so exploring ED-CD relationships for the purpose of facilitating social-emotional development, Jan was struck by the complexity of, and differences between, ED-CD interactions, in other-dependent (S-3) as well as self-authoring (S-4) team members. Considering that ED is a largely Rh-directed process that "cannot speak", and CD a largely Lh-directed, speech-based one, the App's combination of both strands of adult development in their real-time interaction simulates the bicameral interactions within the human mind displayed in intersubjective contexts such as teams.

Evaluating a sample of 400 App users (by employing an equation developed in Laske 2008), Jan found support for a well-established CDF finding, namely that social-emotional and cognitive

development are rarely in sync with each other. In both predominantly S-3 and S-4 positioned teams, he found two significant, re-occurring, differences between team members' maturity levels, namely (1) CD>ED (cognitive development significantly higher than social-emotional development), and (2) the obverse case of CD<ED.

Jan found that thought-form based, real time, interventions were optimal when they were made in the awareness of the specific social-emotional 'confusions' characteristic of a specific team on account of the team's developmental (ED/CD) composition. Such confusions (e.g., about one's social-emotional positioning relative to others in the team) differ between team members. Naturally, they have a significant impact on the *quality of team dialogue*, listened to in both ED and CD terms.

As to be expected, Jan's overall App findings differ decisively between other-dependent (S-3) and self-authoring (S-4) teams. Viewed organizationally, these teams are of a different character in that an S-3 team is typically focused on continuous improvement, while an S-4 team is concerned with the cognitively more complex re-organization of organizational value streams.

Jan's findings about predominantly other-dependent teams (S-3 > S-4)

A. (1) CD<ED. Other-dependent team members are limited to concrete, logic-analytical thinking, overfocused on what is the 'correct' definition of a concept. They can increase the complexity of their interpretations in both personal (ED) and task process (CD) only by being given concrete examples, played back to them in a hand-holding manner characteristic of incipient S-3 development. In general, there is a developmentally regressive tendency playing out in the team on account of its members' near-total lack of process and relationship thinking.

(2) CD>ED. Other-dependent sense-makers show up in 2 different ways:

a Despite being cognitively more than social-emotionally developed, members of teams using diverse thinking tools (such as maps, diagrams, tables, and formulas) resist using them because they judge them as 'too abstract', i.e., inapplicable to their particular situation. Since their level of abstract thinking is low, they even fail to understand abstractions such as 'customer touch points' and thus make it an ordeal to explore the CPRT implications of such abstractions. Such members are confounded about how far the tools assigned to them for working together permit or hinder collaboration within and beyond their team. Their sense-making horizon is reduced by their even more restricted meaning-making horizon.

b. Team members uninhibited by social-emotional diversity in their team (which is being overwritten by their sense-making clout), and thus closer to self-authoring, appear confounded about limits of collaboration with and between team members of different degrees of other-dependence. They find it hard to grasp the difference between dialogue as a process in search of new ideas, on one hand, and dialogue for the sake of creating team consensus, on the other. This situation leads to the DTF-based conclusion that facilitation using Process thought forms can

lead to incipient breakthroughs in team members' social-emotional development; in addition, it might create practical consensus between team members.

Jan's findings about predominantly self-authoring teams (S-4 > S-3)

B. (1) $CD < ED$. Team members in this self-authoring group, while they use more complex logic-analytical approaches fail to understand part-whole Context (1M) relationships. They make up two different subgroups:

a. Team members cannot conceptually distinguish between their internal representations of the future and the real-world shape their future is taking; they don't see the gap between how they make sense of the world and how the real world 'works' because they mistake their concepts for being ingredients of the real world, an interweaving of Bhaskar's *ontic and epistemic fallacies*, 397). It is only after realizing some partial objectives that team members recognize that the future does not look like what they previously imagined it to be. There is thus a lack of critical realism that the higher maturity level of ED by itself cannot compensate for. (High ED-level never guarantees high CD-level anyway).

b. Team members, while aware to be judged by others, are unaware of how they themselves judge others (thereby manifesting a shaky center of gravity at S-4 with considerable developmental risk of 'sliding back' into other-dependence, as in, e.g., S-4 {5:7:3}). In terms of sense-making, they do not master Relationship thought forms, and do not understand either social-emotional or cognitive reciprocity, thus inviting Relationship-based DTF interventions as a tool for strengthening center of gravity.

(2) $CD > ED$, Team members begin to master Relationship thought forms, thinking in terms of complex adaptive systems but pay less attention to Context and Process thought forms (thus failing to integrate them in a movement toward T). While they are aware of creating stories when constructing their world, they remain confused about how to put outcomes of their mental process into practice collaboratively. This leads to the DTF hypothesis that an optimal tool for supporting both their meaning- and sense-making is to move critical facilitation into transformational thought forms such as imbalances, limitations, potentials, and fields of tension can be effectively dealt with.

The overall conclusion from my own CDF assessment work since 1998 and Jan's recent App-based ED-CD assessment to date is summarized below:

1. ED social-emotional and CD cognitive development are two sides of the same progression of humans' bicameral mind toward maturity.
2. While ED is largely rooted in Rh-functioning, CD is largely Lh based. These developmental strands' relationship epistemologically replicates that between the two mind hemispheres.
3. Since developmental theories are, by definition, Lh enterprises, they risk replacing the fullness of Rh experience by mere labels for mental end states whose longitudinal emergence they do not structurally understand. This outcome is pre-ordained to the extent

that such theories, in addition to replacing interview dialogue by paper and pencil studies of task behavior, proceed strictly logical-analytically.

4. Reducing ED to CD and/or vice versa leads to a near-total impoverishment of concepts of adult development.
5. Dialectical thinking is a tool for unfolding (illuminating) Rh-experience as well as recovering its fullness by closing the Rh→Lh→Rh loop (snake bite), -- an ability that adults master only when reaching the peak of their cognitive development which manifests in their use of transformational thought forms.
6. Dialectical-thinking interventions in work with individuals and teams are optimally effective when directed toward the *specific* social-emotional confusions characteristic of other-dependent and self-authoring individuals. These confusions often bear the mark of fallacies routinely committed, but never detected, by logical thinking.
7. Meaning-making theories ignorant of dialectical thinking reflect a Lh-fixation on ‘what’ adult development ‘is’, rather than ‘how’ it structurally unfolds in movements-in-thought longitudinally. Their *raison d’être* is control, not insight.
8. The fact that two different, non-overlapping methodologies, one geared to ‘meaning-’, the other geared to ‘sense-making’, have emerged is a manifestation of the bi-cameral functioning of human consciousness, not simply a methodological artifact. Employing these contrasting methodologies independently in no way legitimizes separating ED and CD (except perhaps as a first step toward connecting them).
9. Difficulties in linking ED and CD, whether in assessment, teaching, or consulting, can be overcome through schooling researchers, teachers, and consultants in the CDF methodology whose central purpose is to understand the intrinsic relationship between meaning- and sense-making.
10. The *internal listening* skills learned and internalized through conducting, evaluating, and giving feedback on, case studies linking ED with CD (as schooled through CDF) directly transfer to providing developmental process consultation and critical facilitation in organizations, and is adaptable to a wide variety of service professions.

SUMMARY OF PURPOSE

In this essay, I have outlined an alternative form of developmental theory born of insight into the bicameral and as a consequence dialectical, nature of the human mind. Aware of the stark differences between the two hemispheres’ and their specific ‘take’ on the world and even their ethics, I have proposed a new notion of *maturity* that focuses not on developmental levels (whether ED stages or CD phases), but instead on the **balance** between ED meaning- and CD sense making at subsequent positions along the human lifespan trajectory.

Based on 20 years of work in the field, I am proposing a theory that is not solely beholden to Lh-thinking but is grounded in completing the dialectical return loop between the mind’s hemispheres, whereby I am moving developmental theory work into dialectical thinking. This move is, in my view, a safeguard against reducing largely unconscious Rh functioning to a mere Lh-categorization of end states whose longitudinal emergence remains in the dark.

As one of the corollaries of my move into dialectical thinking, I suggest that the notion of ‘adult development’ regards *intersubjective* development, not development bottled up in individuals seen as isolated ‘personalities’ and propelled by some mysterious but unknown maturation algorithm. As I have demonstrated, the separation of individuals into isolated entities, as conceived by conventional theories, simply reflects the subject/object split of their approach and is thus a methodological artifact of the first order. My shift to seeing adult development as *intersubjective* is, I think, in full correspondence with what is known about the nature of mind as being a dialogical, ‘in-between’, world, rather than one of either subject or object (Linell 2009).

Based on the metaphor of the human mind as a bicameral processor, I have both critiqued conventional developmental theory as a purely Lh based enterprise, and advocated for the relevance of adopting the hemispheric ‘return loop’ of mental processing -- $Rh \rightarrow Lh \rightarrow Rh$ – made possible by dialectical thinking, which is referred to as *UDR movement* by Bhaskar (1993) and as *Aufhebung* by Hegel (1806). I have prepared the methodological grounds for making this movement by establishing a linkage between Bhaskar’s MELD (the four moments of dialectic he named 1M, 2E, 3L, and 4D) and M. Basseches’ schemata (1984) named *thought forms* in the Dialectical Thought Form Framework (Laske 2008).

In practical terms, I have suggested that using the skills learned by working with a methodology like CDF/DTF is revolutionary in the field of consulting, coaching, teaching, and facilitation, especially if these activities are conducted in the spirit of *developmental process consultation*. In such consultation, dialogue based on untrammelled dialectical thinking for the sake of helping is at a premium. Thought form-based dialogue is an optimal medium for consulting to clients’ mental process, rather than solving clients’ problems or giving them minimal choices for input.

My overall purpose in this essay has been to begin correcting the woeful distortions that have crept into theories of adult development on account of their one-sided use of logical, Lh, thinking, which does not presence, but merely re-presents, Rh-experience. I have demonstrated the intrinsic relationship between, and interweaving of, meaning- and sense making theoretically and through empirical results, thereby giving the theory of meaning making a *cosmic-emotional*, rather than a *merely social-emotional*, scope.

Whether the ideas in this essay, which for 20 years have been given very incomplete attention especially in North America, will be able to change the course of adult developmental research and consulting is beyond my control.

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