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# Living Through Four Eras of Cognitive Development

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## Abstract



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In this paper, I outline the graspable existential meaning of human cognitive development. By “existential” I refer not simply to the epistemological positioning of a person to the world as a knower, but the conceptual forces of the social world itself in which this positioning occurs. This world is suffused in language and is the context in which concepts are constantly being created and modified. As a result of this social process, individuals “develop” their own thinking, having the illusion that it is “their own”.

What is the medium of such development? In a nutshell: I am saying **that concepts**, ordinarily considered only as tools for constructing the social and physical world, or even only as tools for “getting things done”, and worse, as external labels for “things”, **are actually life-determining and –directing entities**. In late maturity, their coalescence in a complex inquiring system potentially leads to a synthesis of thought and emotion in an individual, as well as a synthesis of logical and transformational (“deep”) thinking in a person who has made the entire cognitive journey.

I believe that in grasping the trajectory of cognitive development over the human life span individuals can gain a clearer vision on how their life will unfold and what to do with it as long as they have it. To benefit in this way one will have to develop a notion of what is the potential peak of cognitive development, and how reaching this peak is going to be reflected in one’s quality of life and the contribution to the life of others that one can make.

## Introduction

I outlined in volume 2 of *Measuring Hidden Dimensions* that and how cognitive development can be conceived as a progression through four epistemological *eras*, from Common Sense to Understanding to Reason on to Practical Wisdom. The transition between each two of these eras is characterized by the fact that steps taken in cognitive achievement are never rescinded, except perhaps in mental illness. Consequently, they gradually begin to occur in parallel, or more concisely, in layers, and arrive at their end gathered together as integrated dimensions that form a complete transformational system, with intricate relationships between them.

## Structure of the CDF Dialectic

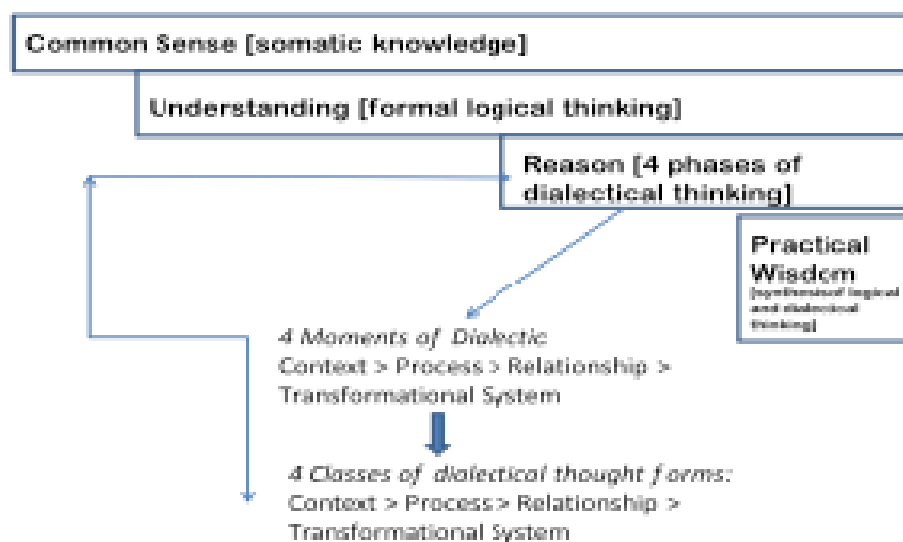


Figure 1

Since the steps taken by individuals in cognitive development are unique to the individual, the resulting Inquiring System is idiosyncratic in content and form, but can be evaluated in terms of its complexity and subtlety, largely expressed in the medium of the individual's speech and/or writing.

The progression by which humans mature cognitively has a well-paced beginning and a foreseeable ending, in that all four strands representing the four eras come together and coalesce. It is as if one were to follow four rivers, each starting at a subsequent location relative to the first, but ultimately, coming closer and closer, together making up a broad stream of sea-going proportions (see Fig. 1).

Clearly, this is an entirely different progression than the social-emotional one, not only because it does not occur in stages but in phases, but also in that it is multi-dimensional. One might also say it is more “explosive” than “implosive”, in the sense that opens not only an internal world but the “external” cosmos to boot.

For a person's later years this entails, that s(he) will get ensconced in her more or less big social-emotional cubicle if s(he) cannot keep going the cognitive explosion that was set off in her adolescence, however imperceptibly. It seems to me that it is in this growing stream that harmonizes all strands of cognitive development –Common Sense, Understanding, Reason, and Practical Wisdom — that the profundity of human development can best be seen. This is in no way diminished, in my view, by the fact that the stream is not visible to the human eye, but only to the human mind, and even then only with proper preparation and curiosity (which, in turn, depends on one's cognitive development).

Of particular interest in this accumulating stream of cognition that is our life is the progression from the second to the third era, Understanding to Reason. It was first outlined philosophically by Kant and Hegel (1780-1830) and empirically by Basseches 150 years later (1984). This progression has unusual properties that have long been unknown. As Basseches first showed it seems to be structured in (four) *phases* each of which is characterized by a successively higher degree of conceptual fluidity fueling the explosion, measurable by the complexity revealed through human speech (see below).

While we are by now, influenced by Kegan and Wilber, used to thinking about human life in terms of social-emotional “stages” or levels (which despite their abstractness are interpreted, almost without thinking, as having an immediately “existential” import), we still have only a vague grasp of what the cognitive transition from the second era (Understanding) to the third era (Reason) really entails *existentially*. Even less do we understand the *function* of this transition in the development of the human transformational system as a whole, not only the human inquiring system but human life in all of its wholeness.

To clarify the existential impact of this transition from Understanding to Reason on people's living and conduct of life is the purpose of this text.

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To begin, let us enter a little more deeply into the division of the four eras of cognitive development of individuals. Each new generation passes through these eras, and since different generations typically live together, stack upon stack of cognitive progressions is created which we typically refer to in their combination as “intellectual history” but which is really of much broader import than that. The way this “history” is shaped moment by moment, year by year, may well decide about the survival or breakdown of humanity on earth in some unforeseeable future.

## **From Common Sense to Understanding**

Common Sense, often viewed by philosophers as trivial, is a deep capability that is strongly rooted in the human body. One might see it as somatic knowledge, a kind of (“unconscious”) knowledge that is in constant physiological fluctuation in a visceral and psychologically relevant way. No computer can tie its shoes, nor does it need to have any. Humans have feet and therefore also shoes that protect them. More than that: “it is my sense that ...” says I have a vague intuition that something is the case. And further, “it is common sense in this situation to do X ...”, points

to a holistic grasp of a situation based on experience, a kind of diffuse pre-conceptual knowledge. Common Sense is the longest-lasting strand of cognitive development, held through to the end of life (see Fig. 1; and of course, by then, dramatically modified.) Since Common Sense is pre-conceptual, it is open to psychological aberrations.

As Piaget has shown, children start to move out of total embedding in Common Sense at about age 10 when they begin to grapple with abstract concepts. It is a long, 15-year long path from here to reaching what Piaget considered maturity of logical thinking through which Understanding establishes itself. Most of what is called “education” is wrapped up in this journey which continues throughout life but in most cases becomes less and less adventurous (alas).

What is the function of leaving the pre-scientific reasonableness of Common Sense behind? Without transcending Common Sense, one will forever be barred from formal logical thinking in the sense of abstract scientific thinking within a logically consistent frame of reference. The world of concepts would thus permanently elude one. This is of immediate existential import because Common Sense has a pretty one-dimensional world view in which that which is NOT, or anything negating mere perception, cannot be dealt with or even “seen”, and thus remains meaningless.

One of the most important functions that Understanding adds to the pre-reflective reasonableness of Common Sense, according to Kant, is that it establishes the world of “objects” that are independent of the knower’s physical existence although these objects are epistemologically “constituted” by the knower. Without the knower’s “transcendental” activity of *mind*, objects would not exist; only a buzzing and booming confusion that would not constitute a “world” would be there. Understanding establishes a world that is independent of me and, on account of my logical thinking, has clearly distinguishable properties, physical, mental and esthetic, that I can observe and analyze.

Being exposed to an object world “outside of me” is fraught with potential fallacies and categorical errors. The notion of an object world independent of me, while vital for survival in the social and physical worlds, as well as for goal setting and goal pursuit within these worlds, is also the great delusion of everyday thinking. People wedded to logical thinking never get rid of it; the world always “stands over and against them” much as Sartre’s “being in itself” (*être en soi*) oppresses the “being-for-myself” (*être pour soi*). As Sartre puts it in *L’être et le néant* (1943):

*... il n’est pas donné à la “réalité humaine” d’anéantir, même provisoirement, la masse d’être qui est posée en face d’elle. Ce qu’elle peut modifier, c’est son rapport avec cet être. Pour elle, mettre hors de circuit un existant particulier, c’est se mettre elle-même hors de circuit par rapport à cet existant. En ce cas elle lui échappe, elle est hors d’atteinte, il ne saurait agir sur elle, elle s’est retirée par-delà un néant. Cette possibilité pour la réalité-humaine de secréter un néant qu’elle isole, Descartes, après les Stoiciens, lui a donné un nom: c’est la liberté.*

In short, *l’être* is there to stay whatever may be the human effort to stand up against it. It is only by “secrétér un néant”, i.e., by way of secreting a negation of what exists, that liberty can be had – it is not a “human right”.

As Bhaskar (1993) shows, seeing the object world as “standing over against me” results in a great number of fallacies, foremost that of mono-valence that sees the world as purely “positive”, by not secreting that negativity of which Sartre spoke.

Understanding is the conventional common ground on which we engage in discourse with each other on the level of abstract concepts, forever unable, on account of natural language, to speak in terms other than universals. This common platform is not easily modified since it is sanctioned by the culture one inhabits and that inhabits the thinker. What is more, in the modern “administered world” (Adorno) what is considered real always already has propositional character: it is like a network of concepts and sentences that one has to break open to get at the fruit of what is real in it.

It seems to me that one has to see the emergence of dialectic in four consecutive *phases* in light of being liberated from an object world independent and outside of oneself. This emergence is that of dialectic. Considering that over the course of the human lifespan, all four *eras* are going to pile up on top of each other, making up a layered system of great, and potentially oppressive, power, finding a way to explode this layered system is of great benefit to the individuals who can do so, and his or her society as well.

Not that it is a matter of denying an object world independent of me, as Sartre points out. But this object world outside and independent of me is also an illusion. In dialectical thinking, and from the vantage point of Reason, it is only a “moment” within the conceptual fluidity of the real world.

Seen in terms of the history of the individual human mind, then, the transition from Understanding to Reason has an overall liberating function, which is why Bhaskar, in his 1993, following Sartre, calls dialectic “the pulse of freedom”. All categorical errors of logical thinking, viewed from dialectic, reflect the failure of this pulse of freedom to establish itself forcefully in a person or organization, with debilitating consequences for the person’s life and the quality of life of all (see the example of the three mothers below).

## **Four Ways of Experiencing the World**

Let us now move on to the existential impact of progressing, in the transition from Understanding to Reason, through the four phases of dialectical thinking that characterize this transition. The phases were first outlined by Basseches in consequence of conducting semi-structured cognitive interviews designed for the purpose of showing cognitive differences between individuals in an academic environment. To this day, learning to conduct such interviews is, in my view, the best way of learning dialectical thinking.

To understand what is happening existentially as we journey to phase 4 of dialectical thinking to complete the era of Reason, we need to take a holistic view of the human capability called Reason (*Vernunft* in German). To do so, we make use of what logical thinking does best: make distinctions. In the present context, we need to distinguish between, and thereby relate, four aspects, or perhaps one could say, dimensions, of what we ordinarily conceive of as *reality*:

1. Context [C]
2. Process [P]
3. Relationship [R]
4. systemic transformation [T].

Even without our linking them, these neat logical categories are intrinsically linked, explicitly so in the fourth category named.

There is a natural progression from one of these categories to another: we can “understand” systemic transformations only to the extent that we also understand the context within which something is transforming, the processes through which it is transforming, and the relationships between elements that get shifted during the transformation (C > P > R > T). This progression itself shows the multi-dimensionality of what Reason tries to grasp: reality.

In contrast to using Understanding, through Reason we view reality as a totality (holon): a transformation of contexts that are already *forms* themselves, not things. As Basseches rightfully emphasizes, dialectical thinking knows “objects” only as forms in transformation.)

Having just distinguished (and thereby linked) the four basic dimensions of any transformation, we become interested in understanding, logically:

- How the four dimensions are structured internally,
- What are the basic “cells” these dimensions are composed of in human thinking (which we will call “thought forms”),
- In what form and order thought form cells are acquired by humans during cognitive development over the life span,
- How, once acquired, and to what extent, they are actively linked and coordinated in the mind in order to compose more complex cells (thoughts), and
- How together they form a system that in some sense reflects, in the human mind, their Other, the “world” they constitute as independent of human thinking.

## **The Existential Meaning of the Four Dimensions or Quadrants of Dialectic**

It will be clear to those withstanding a reduction of world reality to human thinking, that we would make a dialectical error if we equated the four dimensions of reality, or **quadrants of dialectic**, with the human **thought forms** that reflect them. The kind of cognitive triumphalism that would result from such an equation we can do without here. We need to keep “ontology” – what is – apart from “epistemology” – human thinking “about” what is.

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From an existential point of view, that is, in terms of how thinking determines one’s living, the four dimensions can be succinctly characterized as follows:

1. **Thinking/living in terms of context (C):** I am embedded in an object world without any reprieve. It stands over against me like a wall – être en soi – relative to which my own

being – être pour soi – is a miniscule non-entity. It is only to the extent that I can “secrete a néant”, that is, embrace negativity in my viewing the world, that I can break the stranglehold of pure positivity (scientific factuality) on my being.

In this context-dominated position (which “science” teaches us every day), I understand, and can describe in language, the aspect of structure of this world standing over against me, thereby committing the fallacy of reducing the world to the momentary scientific viewpoint of it that I embrace. I know that this world is layered, often hierarchically, and in that sense has “layers” and thus is “deep” (not flat). It is seemingly stable, even if I conceive of a multiplicity of contexts standing next to each other (and in need of being brought into relationship with each other, as in integral thinking).

In this domain, logical thinking celebrates an eternal festival. It can here apply all its glories of separation and of positivity. I can distinguish parts from wholes and shift my attention between them. I can also describe what I see and experience in terms of structure, functions, layers, or strata of a whole, including of intellectual systems made up of frames of reference, traditions, or ideologies. (These are already the 7 thought form cells of C).

Context-bound thinking, although it is able to describe a “big picture” of things, does not manage to perceive the space or gap *between* things it describes in terms of their structure. If it did, the physical and/or mental space between things would be seen as negativity (or otherness), and one could breathe more deeply. But as it is, whether the world one lives in is calm or hectic, “white-water” or not, – “hart im Raume stossen sich die Sachen” as Schiller says (hard in space clash the objects). But this movement – which is also that of the mind using structural descriptions – is not perceived by context-bound thinking, or at least, is neglected, and does not become available for reflection (which is projected into “objects out there”).

This then creates the illusion of positivity, existentially the inability of embodying a knowledge of breakdown and death as a natural implication of what is real (that is, negativity). It also creates the illusion that stability is the rule, rather than change, and all the “white water” trivialities come to the fore of which the trade journals are talking.

2. **Thinking/living in terms of process (P):** I am a swimmer, keeping myself in motion. I am beginning to see spaces between things, – otherness, interpenetrating opposites, patterns of interaction (e.g., between me and the water I am in). I am also conscious of my active mind, not just mindlessly describing things as lying “outside of me”. I know I would be deluding myself should I attempt to arrest motion and reify what I see and feel as being there forever. After all, I am a process embedded in larger processes, such as my own life process is embedded in the larger context of my society. (These are already the 7 thought form cells of P).

Thinking in terms of process of course presupposes context; — what changes or is in motion is always a particular context. This intrinsic C-P link is becoming conscious to me, but I can articulate it in speech — only once I can coordinate thought forms of different classes, to speak with Basseches. I need to coordinate thought forms of C and P, and this only happens slowly in my cognitive life, namely when entering phase 2 of dialectical thinking. As a consequence, my

fluidity of thinking increases, and so potentially does the cognitive score of my the texts, as shown by CDF.

Existentially, what have we gained? We have gained the freedom to move out of stable (rigid) contexts, and to be aware of doing so. But we might lose the benefits of this were we to focus on process alone. I need to remain linked to context. Otherwise, my world becomes topsy-turvy since I would lose track of the stability it also has, and the layering that it is defined by. So, while C and P are “opposites”, they also mutually and intrinsically define each other and the whole they are part of, and this makes what’s real to be of a “dialectical nature”, where constancy and motion are inseparable, and in fact may no sense except in their relatedness.

So, clearly, being able to coordinate C and P gives me a better hold on the world I am constituting for myself as a knower. It is a broader and richer world I am seeing, but also a more tragic one, since I can now begin to fathom the awful negativity that moves me: the losses of self I am going to have to master to become social-emotionally more mature, the breakdowns of reality as I conceive of it (often traumatic), the consequences of trying to arrest motion that show up as surprises. If I can manage to hold a big picture of the world as context, I will also begin to see the historical catastrophes I am part of, all the failures that are elements of my apparent successes.

Overall, I will become a person “on the move”, since I mistrust stability and can brace myself against it by using the practical, active character of my mind which wants to “know”. To speak with Sartre, I am moving into the world of *être pour soi*, the existential loneliness that is my share of the human condition. I am now standing up to it to the extent that my thinking is aware of negativity.

3. **Thinking/living in terms of relationship (R):** I am forming part of a totality without which I would not exist. Otherwise, the air I breath, the words I speak, even the feelings I have would not connect me to what is other than myself, the *not-me* that I social-emotionally struggle with my entire life to define myself as “me”.

This totality I am part of is my *common ground*, physically in the feel of the human body, socially in the structures of my embedding in society and culture, my language and my thinking in it. (I can learn another language in order to move into another reality in which to be me “feels” and “thinks” of itself differently than I do in my native tongue.)

Here, too, I can get lost. Everything could deteriorate into a jumble of relationships, internal and external ones, should I detach from context. The processual underpinnings of relationships and their link to context would then escape me. I need context thought forms to hold on to stability, and to process thought forms not to be stifled by them. At entry into R, I am already forced more strongly than before, in P, to coordinate different perspectives and see their intrinsic linkages. My search for truth has deepened. My thinking is “scientific” only relatively speaking since I now begin to be able to coordinate thought forms of C with thought forms of P and R. My world is now deeper and more tragic. I have the inkling that transformations are occurring, but they remain opaque and threatening to me. (I don’t yet know that they are “within” myself.)



This inkling of the limits of stability, durability, and harmony accounts for the experience that, culturally and linguistically, awareness of relationships is harder to come by than the awareness of mere processes (as is clearly shown by cognitive assessments). I would have to be stupid not to notice processes, but I could be quite “intelligent” and see relationships only dimly and dull-wittedly. The price for not being aware of relationships is thus higher, and the neglect of relationships between what I have fabricated as “things” more costly to me both intellectually and social-emotionally.

Existentially, thinking in terms of R thought forms is a combination of being part of a totality and finding this totality to be in motion, with the result that my being a part of a larger whole constantly changes its meaning for me. I know that there is a limit to which I can separate myself what is not me, from others and otherness, and that there is value in bringing things and people into relationship with each other.

I am also becoming critical of the reductionism that reigns supreme in logical thinking and the sciences since I see reductionism as a “detotalizing” of the world, as making it shrink unduly on account of a lack of intrinsic relationships I am not seeing. Even if I have a big picture of the world through my thinking in context thought forms, and even if I “go with the flow” in the sense of P, I may still not grasp the immensity of the world and its core depth.

Having entered into R, the critique of reductionism is the basis of learning and discovering for me. At this point, therefore, dialectic becomes a *discovery procedure* more than it has done so far. I am in search of the truth beyond what visibly or abstractly stands over against me. I can begin to think about processes abstractly, by seeing them as establishing relationships, without losing track of them as processes.

However, I still need to discover the *intrinsic* relatedness of things. Making use of process thought forms, I can begin to see related things as being “the other” *of each other*. I am unpacking what I sense is negativity, otherness. That is, I begin to see that I cannot even define myself other than by pointing to what I am not. In this way, I will start to discover the structural aspects of relationships I am in with other people and things, they will co-define me as ME (“moi, je suis les autres”). And so, I am becoming a mere moment of a larger whole, whether society, “life”, or whatever I want to call it.

In this way I can also begin to grasp patterns that occur in relationships, seemingly stable configurations that pervade the totality I am part of. I also begin to become aware of “constitutive” relationships that logically precede me and into which “am being entered”, for instance, roles I find myself in that logically precede me, such as “spouse”, outside of which I am quite somebody else.

This outlines the 7 relationship thought form cells and, as seen, they are more complex than either C or P thought forms, and are out of reach before coordination of C and P thought forms is in place in my thinking.

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## Transformation: The Pulse of Freedom

We have now built up the world out of three of its four epistemological dimensions and should be quite satisfied. (Some people never proceed further, those that become “boring” to oneself as a thinker.) We can develop a bigger picture of the situation we are in; we can see that it is in unceasing motion; and we can discern abstract relationships between configurations we choose to focus attention on. What might be missing?

Simply put, we have not taken seriously the fact that C, P, and R together form a system in transformation, something we can realize in our mind by “coordinating” thought forms from these three dimensions. We can think “critical” in coordinating thought forms of P and R, and “constructively” by linking one context to another in terms of transformation, as moments of an open, living system called “reality”.

What would our existence be like if no fourth dimension would exist in which C, P, and R are coordinated through thinking?

A world without a transformational core would be both oppressive (as Sartre’s être en soi) and fleeting (as a social media “text”). What C would have constituted and R would have interrelated P would dissolve with glee. These thinking processes would not feel any obligation toward each other in constituting “worlds” for us. Perhaps some well-meant marriages between two of them could temporarily arise and give us the illusion to be “dialectical thinkers”. But the “pulse of freedom” that draws them together would be absent. So where does the pulse of freedom (which is also the pulse of annihilation) come to the fore?

So what, then, is the secret of “sécréter un néant” (secreting a nothing), to speak with Sartre?

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4. **Thinking/living in terms of transformational systems (T):** how do you describe, in language — which by its very nature freezes reality into nouns and verbs — what is a transformational system? Perhaps the easiest way is to think of your own body, one of the most complex transformational systems there are.

We speak of “being in the flow” in the social-emotional sense, meaning that we abstain from defining ourselves any longer by education, profession, locality, culture. Cognitively, this implies a self negation that is an expression of dialectical thinking. Such a denial is based also on the realization of the limits of stability, harmony, and durability in the sense of TF 22.

Certain values also come to the fore: the value of conflict (negativity) leading in a developmental direction (breakdown or blossoming equally indicated), the value of potential in people and situations, and society more generally. The goal to live by transformation rather than only formation, is the social-emotional aspect of my awareness of reality’s transformational dimension. I decide to become like reality, to gain my full reality.

With these thought forms harnessed, one can then begin to evaluate systems in transformation and coordinate them. This is easier said than done since all transformational mental activity already presupposes the ability to think in C, P, and R thought forms, and to the extent that these are not mastered, the transformation aimed for is going to emerge in an impoverished form, both in speech and action.

We are nearing the point where, through thinking, one can integrate multiple, mutually interdependent, perspectives, not just in breadth (as in integral thinking), but in depth. This means that we discard all formalistic thinking, even thinking “in quadrants”, because we can see the quadrants as mere moments of a totality we already grasped when we entered the world of R. What we actually think and live as *transformation* – moving far beyond change – will mightily depend on how far we have entered into the world of R.

These notions, then, circumscribe the 7 thought form cells of T.

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Having now become aware of the existential aspect of cognitive development, we become interested in applying a little more logical thinking to the four worlds – C, P, R, and T — we have explored. Phases are not stages; they are not discontinuous. What, then, sets them apart?

A rough outline of the existential and mental differences between phases of dialectical thinking, in terms of strength of coordination of thought form cells that fall into different “classes”, is articulated in the table below.

The table aims to convey the existential impact of \*thinking\* on \*living\*”, emphasizing the intrinsic relationship between cognitive and social-emotional development. (The thesis presented in volume 2 of MHD, that the link between cognitive and social-emotional development is indirect, based on epistemic position, will not be discussed here. It is a research hypothesis that hinges on extending the research by King and Kitchener (1994) in order to do justice to dialectical thinking [neglected by these authors] in epistemic positions beyond 7. )

The table attempts to circumscribe the structure of cognitive development in itself and its impact on making meaning of one’s experiences.

<b>Phase of deep (“dialectical”) thinking</b>	<b>Thought form class predominance and coordination of thought forms</b>	<b>Existential feel of being in the world; epistemic position relative to truth</b>	<b>Characteristic strengths and categorical errors ground-ing one’s living</b>	<b>Link to social-emotional development</b>
<b>Phase 1 (60% of people); CDF Fluidity Index below</b>	C predominates, some P but no R thought	“Cock-sure” of what is real; unrelenting	World is seen in entirely positive terms, no breathing	Pre-dominance of C makes self the predominating context (cognitive

10	forms in evidence (i.e., all relationships are contextualized, turned into contexts)	disregard of negativity; “brute force” rationalism (un-reflected use of theories and models describing the world)	space for what is NOT as ingredient of what is real; seeing the world as “standing over against us”, thus anthropocentric reduction of the world to “us” or “me”, as in the sciences; minimal sense of human agency, thus also of facts as made (“factum”)	ego-centrism). Awareness of P lessens rigidity of ego-centrism and identification with internalized others. Lack of R fosters reduction to self as central in living
<b>Phase 2 (25 % of people); CDF Fluidity Index below 30)</b>	Increased grasp of P and incipient awareness of R; contexts show shallow layering and begin to “surprise” on account of being structural depth	Beginning doubts as to the stability of things, some care in avoiding to arrest motion; intrinsic mortality still kept at bay; strengthening of the value of human agency in one’s actions and decisions	Better insight into the stratification of reality but strong de-totalization remains; some insight into the shallowness of “change” compared to radical transformation	Remaining grounding in C strengthens self-alienation; grasp of P supports drive to own agency; incipient critical awareness of R promotes sense of internalized others as value system foreign to one’s true self; increasing ability to divide oneself within oneself
<b>Phase 3 (10 % of people); CDF Fluidity Index below 50)</b>	Richer set of R thought forms; beginning coordination of P and R in “critical thinking” vis a vis physical and mental	More systematic investigation and articulation of the depth, not just the breadth, of reality;	Increased sense of being part of a common ground shared with physical and cultural others; risk of relativism of perspectives,	Use of R thought forms increases interdevelopmental insight (beyond S-4); P/R coordination minimizes stability as a value; thus facilitating adoption of

	contexts	surpassing the flat holism of integral thinking through detailing of the structure of relationships	taken or analyzed; improved understanding of interaction in relationships	transformativel goals
<b>Phase 4 (5 % of people); CDF Fluidity Index above 50</b>	Strong ability to coordinate C/P, C/R, and beginning knowledge of depth of transformation based on such coordination; use of all classes of thought forms at a low to moderate degree of articulation	Negativity (otherness) is seen as real and as pervading what is, in terms of intrinsic related-ness and fragility of things; as the driving force of individual and social history, both in the form of breakdown and fulfillment, Sense of self as momentary gathering point of cultural and physical forces in unceasing transformation	Lessened reliance on theoretical models not embodied in personal agency (start of wisdom). Evolutionary idealism melting epistemology into ontology – knowing into being –; mix-up of developmental and spiritual issues	Thinking fluidity removes self as a system stewing in its own positivity; beginning integration of dialectical and logical thinking promotes deep construct-awareness both social-emotionally and cognitively, in speaking and writing; detached acting on the world focused on reper-cussions

Table 1. Characteristics of the four phases of dialectic within Reason

Four perspectives are detailed:

- Thought form predominance (in an individual's profile) and degree of coordination of thought forms, with the understanding that progression to higher phases of dialectical

thinking is based on a movement from one thought form class to another (namely C > P > R > T)

- Existential feel of being in the world as a knower, related to epistemic position regarding how truth is perceived (increasingly as relative, but without a need for relativism)
- Characteristic fallacies and categorical errors that characterize being alive in the different phases of cognitive development
- Intrinsic links of cognitive to social-emotional development (without further elaboration of epistemic positions that surpass those specific to formal logical thinking).

The first column of the table is technical. It simply outlines the relationship of the four moments of dialectic, mentally represented in humans by thought form classes, to each other in each phase of cognitive development. The second column attempts to circumscribe the “existential feel” and relationship to search for truth associated with a particular phase of dialectical thinking. Column 3 lists some of the predominant cognitive fallacies and errors on which living tends to be based in a particular phase, while column 4 suggests the impact of [cognitive] sense making on [social-emotional] meaning making, given their intrinsic relatedness. (The CDF hypothesis is that \*thinking\* *directly* determines \*emotion\*, while \*emotion\* determines \*thinking\* only *indirectly*, via epistemic position or way of searching the truth. This hypothesis is not further elaborated here, it being a research hypothesis in need of empirical validation that has not even begun. (The reason for lack of research on this hypothesis is simply that “developmental psychology” no longer sees itself as genetic epistemology, as did Piaget, and is thus either incapable or unwilling or both to do the research the hypothesis named requires).

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Before proceeding to the topic of Practical Wisdom, examples of the existential impact of residing in one of the four phases of dialectical thinking would be welcome. To give such examples, here I will expand on Basseches’ 2005 precedent of the three mothers (Mary, Helen, and Judy; International Leadership Review no. 47-63). Topical in these examples is mothers’ reflection on their relationship with their daughters, specifically, the way the mother \*thinks\* she has succeeded or failed in bringing up her daughter.

Basseches sets up the example (quoted in MHD, vol. 2, p. 124) by saying: “Mary, Helen, and Judy are all mothers of daughters. Each mother has held a set of values that have guided her efforts to raise her daughter. Now, the daughters have grown up and each of them is rejecting many of her mother’s values.”

In my elaboration of Basseches’ examples in terms of phases of dialectical thinking during the era of Reason, the three mothers deal with this situation differently, in accordance with the phase of the development of dialectical thinking they are presently in. I exemplify the first three phases by staying close to Basseches’ examples, and then extend the example to phase 4. None of the examples are quite detailed enough to serve as a comprehensive illustration of the four phases of dialectical thinking, but they give one an inkling of what a particular phase might “feel” like in living.

### **Toward Phase 1 (Mary)**

We would not expect Mary to be anything but very troubled by what she sees her daughter doing. Because she is stuck in thought forms of class C (context), she only sees two interpretations. “If her values are right, she has failed as a parent in not having successfully transmitted those values to her daughter. On the other hand, if her daughter’s values are right, the whole foundation of the way Mary has lived her life is wrong, and Mary neither deserves nor is likely to receive her daughter’s respect.”

Some additions to Basseches’ description of Mary’s thinking can be made. Basseches’ main argument regarding Mary is based on her not understanding Process thought forms, which in some way or other refer to handling logical opposites for the sake of understanding “change”. But as we can see also, Mary lacks a big picture of her situation, and thus does not even master essential context thought forms. She is a strict logical thinker for whom anything smacking of relatedness of opposites in motion is entirely inconceivable.

When taken as a representative of Phase 1, Mary has not even begun to contextualize her existence within the larger societal whole she is part of, nor has she any inkling of the historical root of value systems such as her own and her daughters. A multiplicity of values systems is entirely beyond her ken, even if they were just put one next to the other.

Mary would have to have an understanding of process and relationship thought forms to understand that and how her values could be “right” despite her daughter’s following a very different value system. Since Mary thinks of her daughter’s upbringing without holding a bigger picture of the society she finds herself in, she suffers, unable to justify herself before her own court. Her thinking is that of a person in late adolescence that moves from strictly logical thinking to phase 1 of Reason only very reluctantly, and perhaps will never get there.

## **Toward Phase 2 (Helen)**

Basseches sees the second mother as shrugging the matter off. “She reasons that values are totally arbitrary and irrational anyway. All people have their own values and live their lives by them, and who’s is to say which ones are right and which ones are wrong. The important thing is to respect others, even if they have different values.”

Taking Helen as a representative of Phase 2, one might see her situation more broadly as follows.

While in this phase Helen might be able to use process thought forms, her attempt to use relationship thought forms totally fails. Because of that, she lapses into relativism, and loses an interest in the process by which people develop different value systems. Consequently, she ensconces herself in the same notion held by Mary that entities (like herself) can be separated from their common ground (society and its culture). Thus, she cannot see the “rationality” of people’s values which is not simply a stipulation of individuals, but the result of complex processes ongoing in Mary’s social surround. Her relativistic notion of respecting others is an outcome of the same misconception, that because everybody has a right to his opinion, all opinions are equally valid.

One might want to credit Helen with a shallow understanding of unceasing motion (unceasing change of value systems), and perhaps of being embedded in processes bringing about change. But her grasp of process thought forms is very weak.

As a true representative of phase 2, Helen would not have shrugged the matter off. She would rather have brought to bear her rather well developed knowledge of context thought forms – seeing different frames of reference informing society simultaneously. Using a more developed sense of process thought forms, Helen might have conceived of a clash of value systems, and might also have become more aware of her own embedding in the historical process.

In short, Helen is a victim of her own relativism that interferes with her incipient thinking in process thought forms.

### **Toward Phase 3 (Judy)**

Basseches' third mother, Judy, “begins to think about the matter by looking at the evolution of values in a historical perspective. She reasons that human values change over the course of history as old values interact with changing environmental circumstances. People need values in order to decide how to act, but in acting according to their values they change the world, and the changed world in turn leads to the development of new values. Judy understands her daughter's values as resulting from the interaction of the values Judy tried to share with her and her daughter's own experiences that Judy never had or shared. Judy says to herself: “‘Instead of assuming either that I am wrong or that my daughter is wrong, I can try to see what I can learn for my future life from her values borne of her experience. I can also see how she has learned from my values and transformed them to keep up with the times.’”

This shows that Judy has a reasonable grasp of process thought forms. She also holds a big picture of the society and culture she is part of, and in addition shows a (weak) transformational sense of development, both of people (including herself and her daughter) and of society. For her, values are nothing eternal; they are a result of patterns of interaction between people and their cultural environment, although these interactions are not spelled out by her. Thus, her use of relationship thought forms is still weaker than that of process thought forms, and consequently her coordination of both P and R is only beginning. Nevertheless, she is a beginning “critical” thinker, although with a rather low fluidity index.

### **Toward Phase 4 (Judy plus)**

Let us now construct the argument of a phase 4 knower in regard to the situation under discussion. A representative of this phase should be at ease coordinating both C/P and C/R thought forms, and should have a beginning knowledge of depth of transformation based on such coordination.

Such a person might say: “Now that I look back at how I educated my daughter, focusing on the values that seem to have guided me over 20 years or so, I am amazed about how much I was under the influence of my own upbringing and the culture at the time that I became a mother.



What most fascinates me now is the intrinsic relationship between this “culture in motion” and my own development, and even more the fact that I am being given a chance now to learn from my daughter’s value system and its evolution (as far as I can discern it). The opportunity to become and be a mother has had the greatest influence on my own value system. It is as if I am being re-born through contact with my daughter, and challenged to live in the present time rather than in the past.

I am also amazed at how inter-developmental is what we call *motherhood*. There is no way of telling apart the part played by my daughter and by myself since we together have been forming a transformational system all its own, which has its own gestalt as a moment of the cultural history we have shaped and been shaped by. To the degree that my daughter has come into her own, I have been taking conscious steps to relinquish motherly control over her, which once I saw as my “responsibility”. My responsibility now is my own changed sense of being alive at this moment in time, and envisioning the transformations that still lie before me.”

It could easily be demonstrated in detail that the level of social-emotional maturity exemplified here is based on Judy’s thinking in dialectical thought forms, as suggested in Table 1.

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## **Approaching Practical Wisdom**

We have now seen that Common Sense, Understanding, and Reason form the successively developing layers of complex inquiring systems whose in-built motor is dialectic. How the explosive force of dialectic is used will define the inquiring system a person uses in living. Whether we look at a person as a thinker, doer, decision maker, or moral agent, we will always see his or her force of “deep”, dialectical thinking in action. We will also be able to gauge how a person lives their “old age”, depending on whether his/her dialectical force is waning or still growing.

The last step in adult cognitive development could be given many different names. I have chosen the time-honored notion of *wisdom*, adding to it the notion *practical*.

By “practical” I mean to stress that wisdom is not based on theories but on internal (mental) and outward-directed action guided by dialectical insight. This insight is now no longer a “competence” that one could decide to use or not to use, but totally embodied in everything the person feels and acts on. It is the complexity of an older person’s inquiring system that makes it more difficult to gauge “who” the person is. Social-emotionally, the person has already left his/her “self” behind, based on embodied dialectic. There is nothing more to learn or develop, only to transform.

By “practical” I also mean to stress that the synthesis of emotion and thought, and of logical and dialectical thinking that occurs is a matter of living, not theorizing. In this I follow Hegel who, at the end of writing his philosophy, spoke of a “return to life”, distancing his thinking from “grey theory”. One could say that theories, however useful, become something accidental, even something to avoid, — ephemeral models of leading a good life.

In fact, those reaching phase 3 and particularly 4 have a most acute sense of theories as mere models fabricated by the rational mind. In writing and speaking, they are aware of every word they put down or out, knowing well that the unceasing fluidity of the world is constantly making a mockery of any static delineation suggested by nouns and adjectives or even verbs.

Finally, the term “practical” signals reaching a synthesis of emotion and thinking which breaks down the defenses that tend to develop in both domains over one’s life time. There is a sense of self discovery without self, or beyond self, where mental processing seamlessly unites thinking and feeling, now seen as complementary sources of insight into the transformational flow called “world”. This kind of mental processing is “axiological”, referring to ethical questions such as “what is the good life”?

The flow brings to light the one remaining, and inescapable, barrier to full self realization which is one’s psychological profile or *character*, at least in my experience. This remnant of childhood at the same time reminds one of one’s own intrinsic limitations as well as one’s uniqueness which gets strengthened in exercising practical wisdom. There is no practical wisdom *in general*, there is only the idiosyncratic wisdom of a particular person.

In this sense, “conflicts” remain, and “limitations” abound, but they are symptoms of true negativity which now pervades reality in the most natural way. Awareness of intrinsic barriers feeds both pride and humility, simultaneously fueling curiosity regarding the unfathomable richness of natural forms of human and organic life.

How, then, could one briefly characterize Practical Wisdom along the dimensions used in Table 1?

<b>Phase of deep thinking</b>	<b>Relationship of logical thinking to use of thought forms</b>	<b>Existential feel of being in the world; epistemic position relative to truth</b>	<b>Characteristic strengths and categorical errors grounding one’s living</b>	<b>Link to social-emotional development</b>
<b>Practical Wisdom</b>	Pervasive sense that all making of distinctions [thus all speaking] is setting up relationships between elements of holons requiring	Impending dissolution; curiosity (if not barricaded by “faith”, or addressed by some “spiritual” ideology)	Observant detachment without loss of engagement. Strengthened centering in “character”	Complete unity of sense making and meaning making based on embodied (“lived”) transformational thought forms

	further explo-ration; shying away from all formalism, including in living itself (such as “style”).			
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Table 2. Characteristics of Practical Wisdom

In entering the last era of cognitive development, how would Judy [whom we met in phase 4 of dialectical thinking] speak about having brought up a daughter? Here is my attempt to render it.

“I no longer remember how I fell into wanting to be a mother, or perhaps I did not even want it but it just happened. Whatever led me to motherhood, I am now standing somewhat outside the whole reproductive cycle (and the ideologies around it) that in most societies still determines women’s life and fate. My person is no longer identified with my reproductive system, and in that sense my daughter is somewhat of a stranger to me.

But she is a *familiar stranger*, so to speak, a stranger whose faint resemblance with myself, or with what I used to be, still manages to move me at certain times. I am aware of a vast difference in values that we follow, but this difference appears to me as natural because we are different universes. Each of us is a totality in itself, embedded in a vast cultural landscape with many contradictory valuations battling each other. In contrast to my daughter, I am no longer primarily a “doer”, but have set foot into my own being, seeing people’s problems as generated by them through their inquiring system.

My sense of self is not tied to what I generated, as little as an artist would define him- or herself by the work she has done. What matters more now is the process in which I am engaged, the transformations that occur, not any outcome or output. If people say that I brought up my daughter badly, I can only laugh. Even my daughter, now in her prime, would disagree with them. She is continuing my life in her own way.

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## Conclusion

If one does not have a notion of the peak of adult cognitive development, and furthermore neglects to take note of the distressing statistic of cognitive attainment shown in Table 1, in terms of fluidity of thinking reached by adults, one’s understanding of the human condition and of human potential remains deeply flawed.

Any purely social-emotional perspective on the human life span is naturally limited because it only points to results (“stages”) but does not reveal the creative mental processes by which

maturity is actually reached (see my volume 2, chapter 8). These mental processes are “cognitive”, in the strict sense that they are based on a person’s use of conceptual thought forms based on which his or her life is constructed by him or her.

Every social-emotional move a person makes is grounded in a process that can be articulated in terms of the moments of dialectic, and is thus commensurate with a person’s phase of cognitive development. Both developmental motions together make up a unitary whole, broken apart only by developmental “theory”. Theory becomes practical only to the extent that it generates awareness of the holistic unity of development of mind in every person. **Tell me what is your phase of cognitive development, and I will tell you what is the structure of your meaning making, and thus also your living.**

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