

Invitation to Cognitive Process Consulting

Interdevelopmental Institute
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2008

IDM European Seminars 2008

Brussels: Integrative Thinking Practice: Understanding Yourself and Others Better

Berlin: Entwicklungsstufen des Denkens entschlüsseln lernen

Luzern: Einführung in entwicklungs-orientiertes Berufsdanken

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To Think is To Identify ...

Denken heisst Identifizieren. ... Dialektik ist das konsequente Bewusstsein von Nichtidentität. Sie bezieht nicht vorweg einen Standpunkt ... beim Begriffslosen, Einzelnen und Besonderen ... Diese Richtung der Begrifflichkeit zu ändern, sie dem Nichtidentischen zuzukehren, ist das Scharnier negativer Dialektik. Vor der Einsicht in den konstitutiven Charakter des Nichtbegrifflichen im Begriff zerginge der Identitätszwang, den der Begriff ohne solche aufhaltende Reflexion mit sich führt (Adorno, GS VI, 17, 20, 24).

To think is to identify... Dialectics is the consistent awareness of all that does not fit the concept [is not identical with it and transcends it]. When dealing with what is [and remains] outside of the concept, isolated and particular, dialectics foregoes taking a stand. This direction of thinking toward what does not fit the concept [cannot be reduced to it] is the crucial joint of negative dialects. If one held fast the insight of the constitutive nature of whatever is non-identical [with the concept] one would be able to withstand the obsessive identification that in the absence of reflection lies in the nature of using concepts.

Asian Dialecticism vs. Western Fixation on Formal Logic

Thus for the Westerners, especially the Americans and the other people of primarily Northern European culture, a company is an atomistic, modular place where people perform their distinctive functions. For the Easterners, and to a lesser extent the eastern and southern Europeans, a company is an organism where the social relations are an integral part of what holds things together.

...

These different assumptions [in East and West] about change can be derived from different understandings about the complexity of the world, which in turn are a consequence of attending to a small part of the environment versus a lot of it. If the world appears a simple place because we're not paying attention to much of it, then not much change is to be expected. If change is occurring, then there is no reason to assume that it will do anything but continue in the same direction. But if the world seems to be a highly complicated place because we're noticing so much, then stability will be the exception and change will be the rule. The greater the number of factors operating, the greater the likelihood that some variable will alter the rate of change or even reverse its direction.

Richard E. Nisbett
The Geography of Thought (2003, 83-84;103).

What is Process Consulting?

- Process Consulting, introduced by Edgar Schein (1987), means consulting to other people's mental process.
- This corresponds to Chris Argyris "double loop learning" in that the effort is to think back from the result of actions to the underlying thought, and focus on that thought.
- We can, however, go one step further to "triple loop learning" by asking: "why should a person think as s(he) does at this point in their life?"
- This means taking a developmental step in order to find structural evidence that the person thinking and acting follows laws of mental growth shared with others.
- In terms of interacting with others, this entails making an effort to be aware of their present developmental profile, both in terms of their 'social-emotional' meaning making and their 'cognitive' sense making.

Two Lines of Adult Development

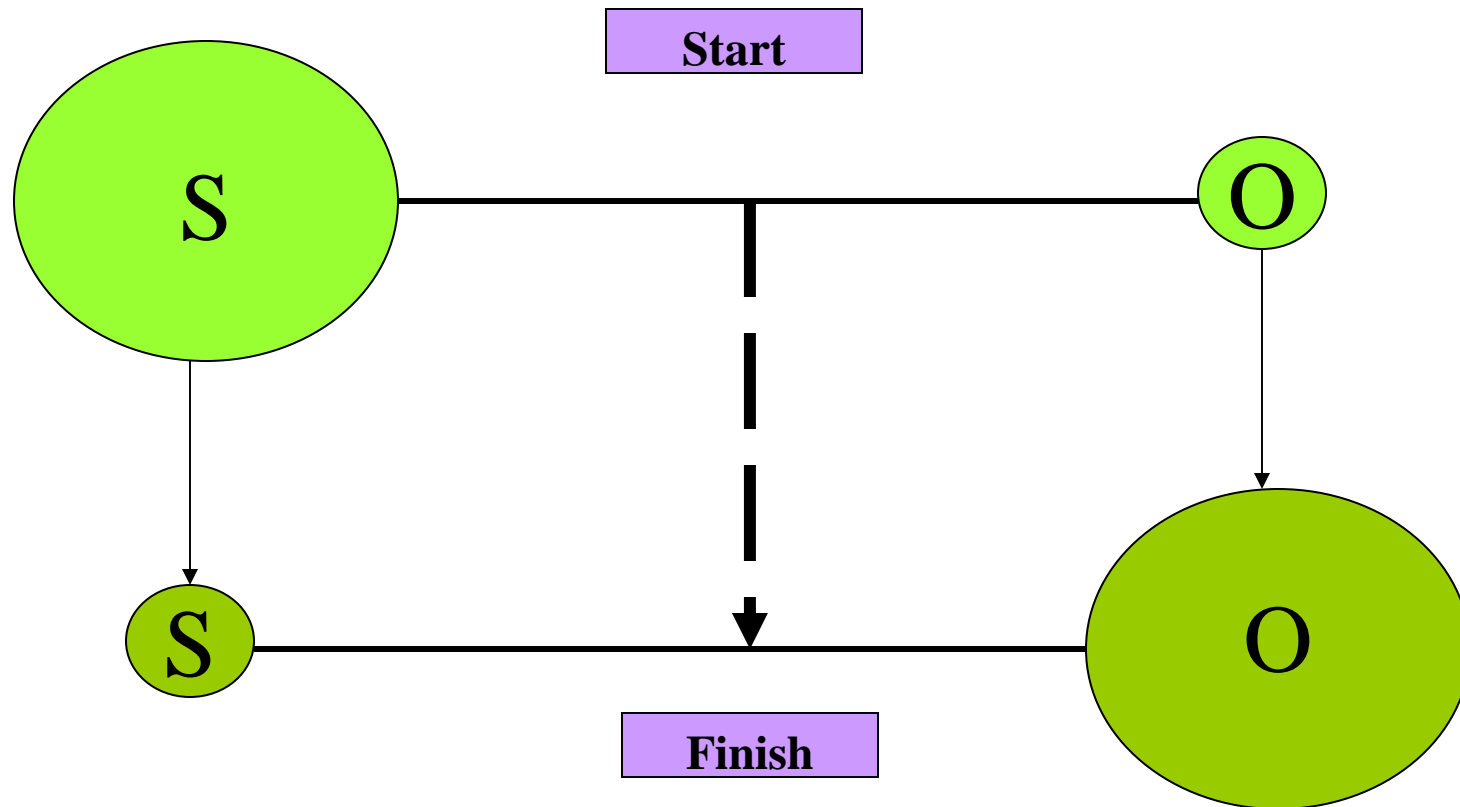
- There are several lines of adult development, the two best researched of which are the development of ‘thinking’ and of ‘interpreting the world’ or meaning making.
- Both are socially constructed, but they address different survival concerns.
- Central in thinking is the question: “What can I do and what are my options?”
- Central in meaning making is the question: “What should I do and for whom?”
- The first question hinges upon the further question: “How am I constructing the world for myself?”, while the second question has more to do with “ what can I presently take responsibility for?”
- Obviously, the two are related.

Focus of this Seminar

- This seminar focuses on THINKING, the internal mental activity by which we use concepts, abstractions, models, theories, and give explanations to ourselves and others.
- More specifically, we are approaching epistemology, the theory of knowledge, from a developmental point of view, asking: “where am I” or “where is this person with whom I am speaking” relative to the cognitive developmental growth curve humans share?
- This questions invites an overall concept of cognitive development over the life span.
- I am proposing a ‘big picture’ view of such development that leads from (1) Common Sense to (2) Understanding to (3) Reason to (4) Practical Wisdom.
- In this seminar, we are primarily interested in the transition from Understanding (logical thinking) to Reason (dialectical thinking).
- More broadly, this transition is a matter of *loss of ego-centricity*.

Overview of Human Development

Whether viewed in a cognitive, social-emotional, or psychological perspective, human development is based on an increasing **loss of ego-centricity (or gain of 'objectivity')**, moving humans from a large to a small ego (subject=S), and to a corresponding larger object (=O; world) [Piaget, 1970; Kegan, 1982].



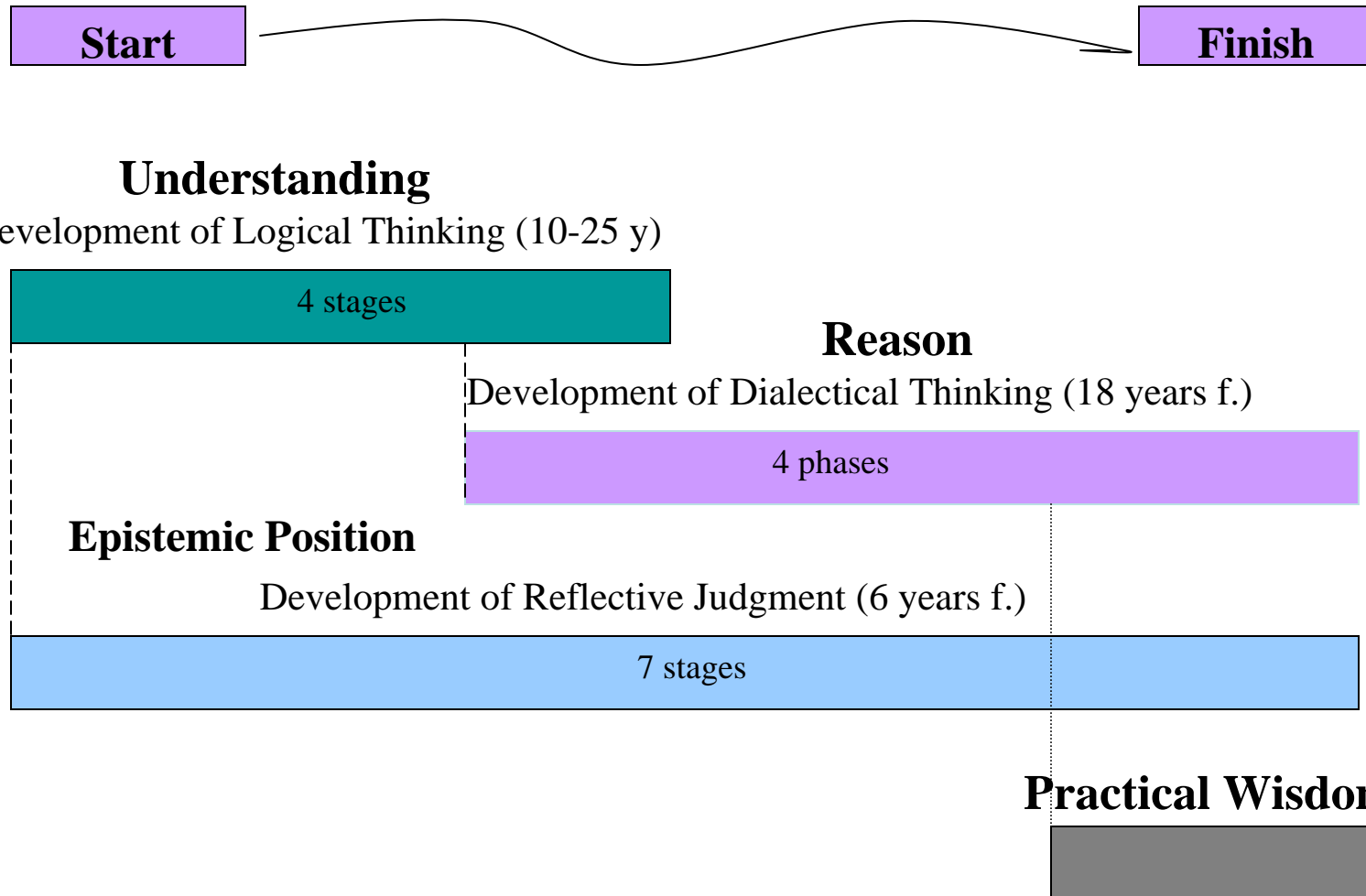
Consciousness is a Transformational System

- One cannot understand cognitive development, thus Thinking, out of context with epistemic and social-emotional development.
- *Stance of Thinking and Thinking Tools are inseparable.*
- ‘Epistemic’ refers to STANCE or attitude, more precisely an individual’s concept of truth and knowledge.
- Research by King & Kitchener (1994) has shown that one can distinguish 7 ‘stages’ of the development of reflective judgment.
- Here, I refer to these stages as ‘epistemic positions’.
- In each of these positions, an individual has different notions of what truth is, how absolute or relative it is, how it can be ascertained, and how one’s knowledge can be justified.

STANCE: Seven Epistemic Positions

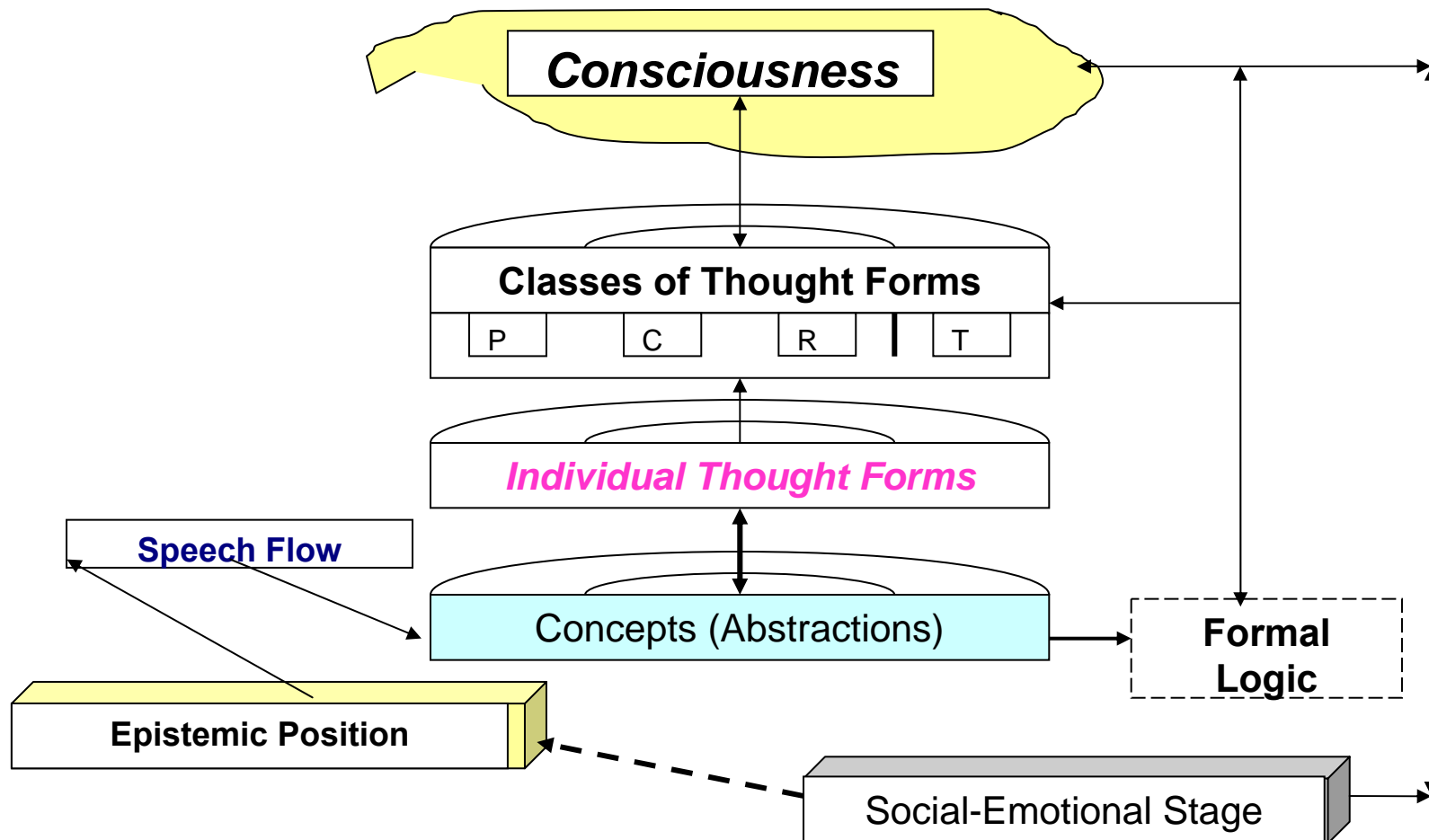
Epistemic Position or [Stage of Reflective Judgment]	Assumptions about Knowledge and Truth [King & Kitchener, 1994]
1 <u>Common Sense</u>	Absolute and certain; knowledge=belief; knowledge is a right answer.
2	Absolute and certain; knowledge held by authorities; truth not always immediately available.
3	Absolute and certain although truth may be temporarily unavailable; concrete systems; unstable view of truth.
4 <u>Understanding</u> Phase 1 of Dialectical Thinking [Stratum IV]	Knowledge and truth are abstractions but idiosyncratic to the knower; knowledge used to substantiate preferred beliefs.
5 Phase 2 of Dialectical Thinking [Stratum V]	<i>Abstract mapping skills</i> allow for comparing and contrasting of abstractions; comparison across contexts possible; issues of part and whole; no integrated view of truth.
6 <u>Reason</u> Phase 3 of Dialectical Thinking [Stratum VI]	<i>Abstract systems skills</i> ; thinking requires action since knowledge and truth are constructed; cross-domain comparisons possible; beginning of internalized categories of comparison and evaluation.
7 Phase 4 of Dialectical Thinking [Stratum VII & VIII]	Knowledge and truth constructed through critical inquiry using hypothesis testing; the common ground of opposites is considered, and used to construct holistic perspectives.

Cognitive Development



Epistemic Position regard stance toward knowledge & truth.

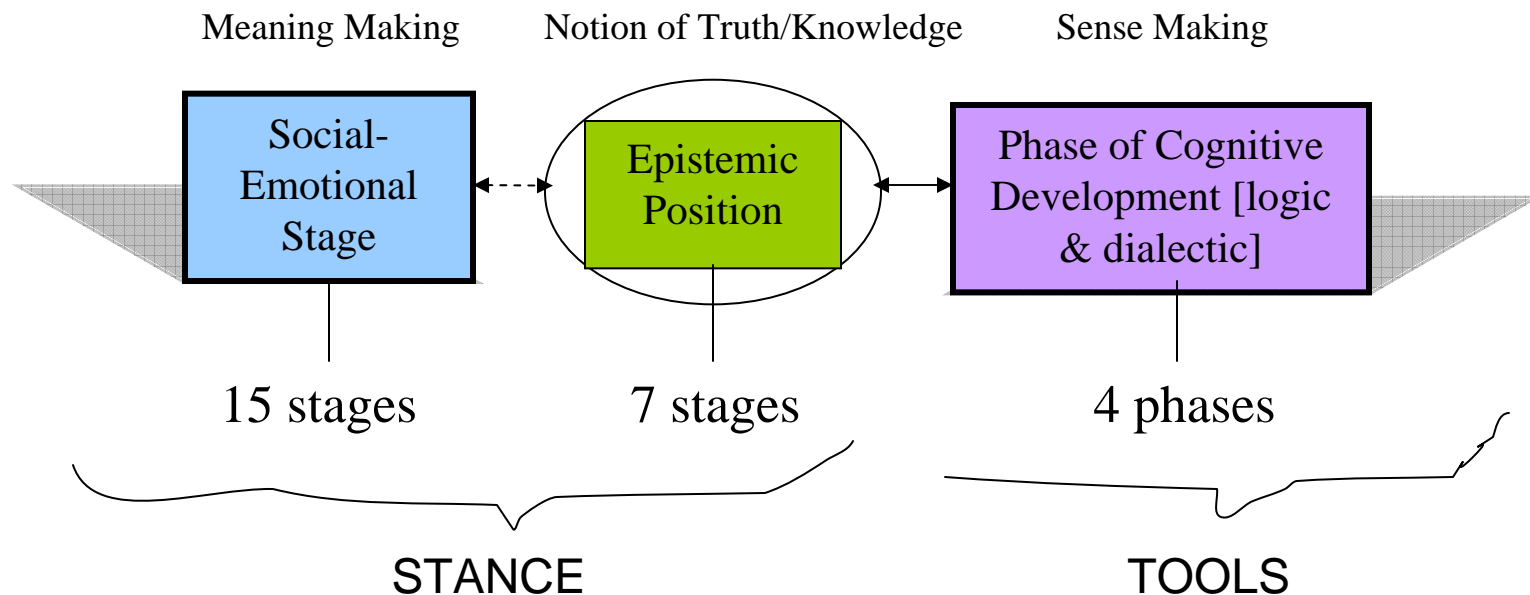
TOOLS: At Higher Epistemic Positions, Dialectical Thinking Begins to Outstrip Formal Logic



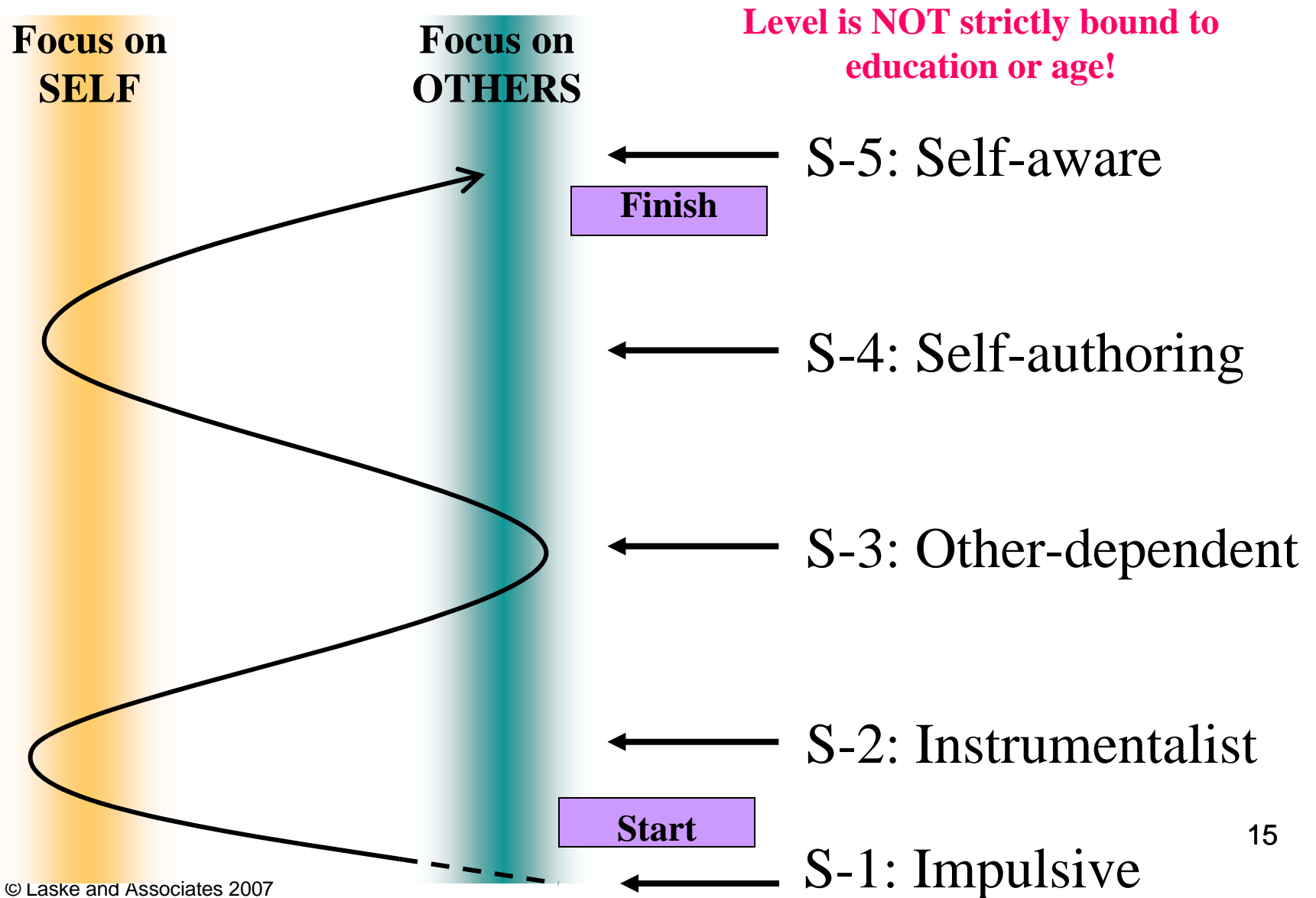
Relationship of the Two Lines

In their thinking, humans take a particular *epistemic position*. (They work from a particular stage of reflective judgment.) This position defines a person's conception of the nature of 'know-ledge' and 'truth,' their type and degree of certainty.

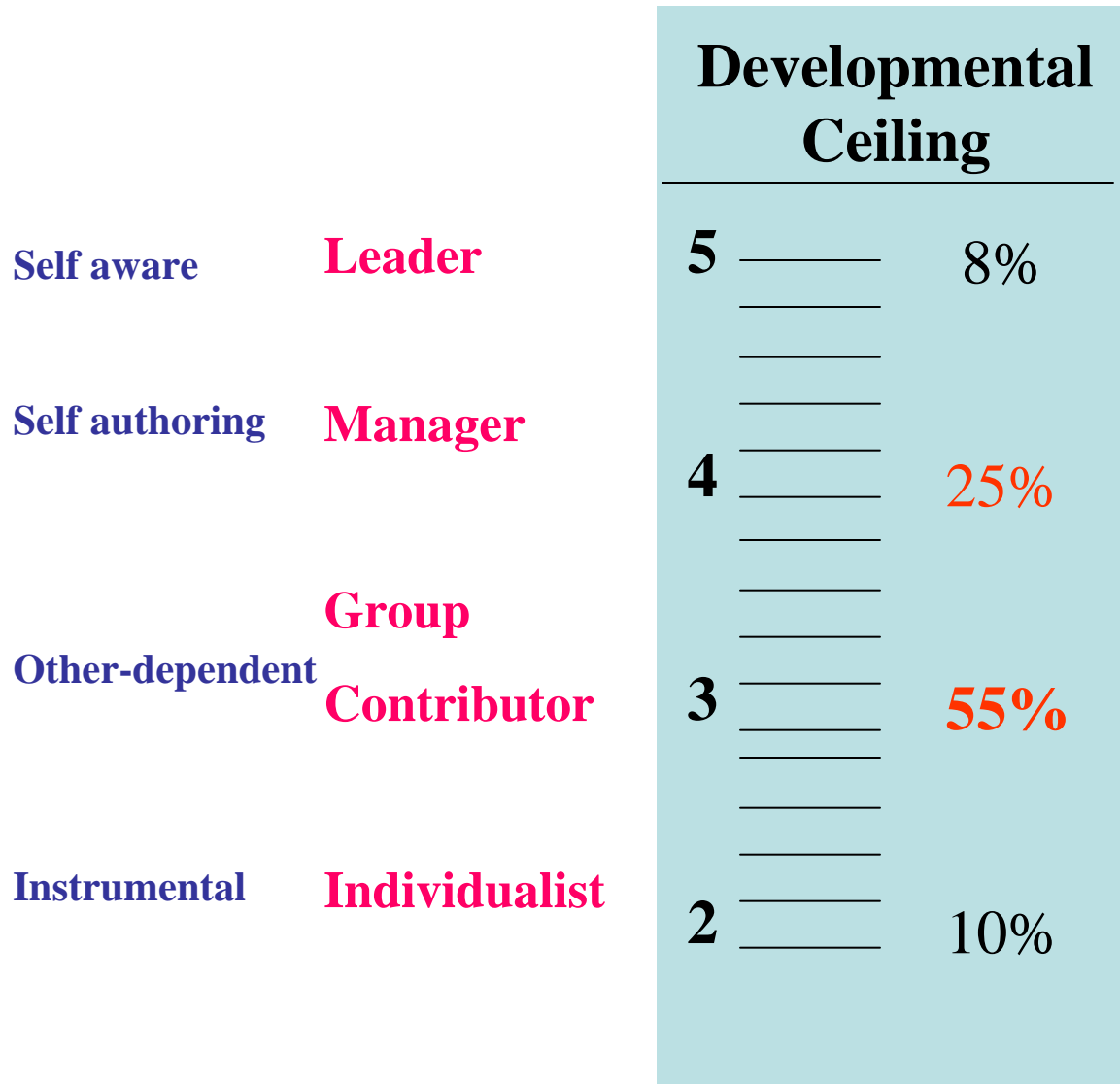
Epistemic position reflects social-emotional position in the cognitive domain, and is thus a mediator between the two lines of development.



Social-Emotional Development

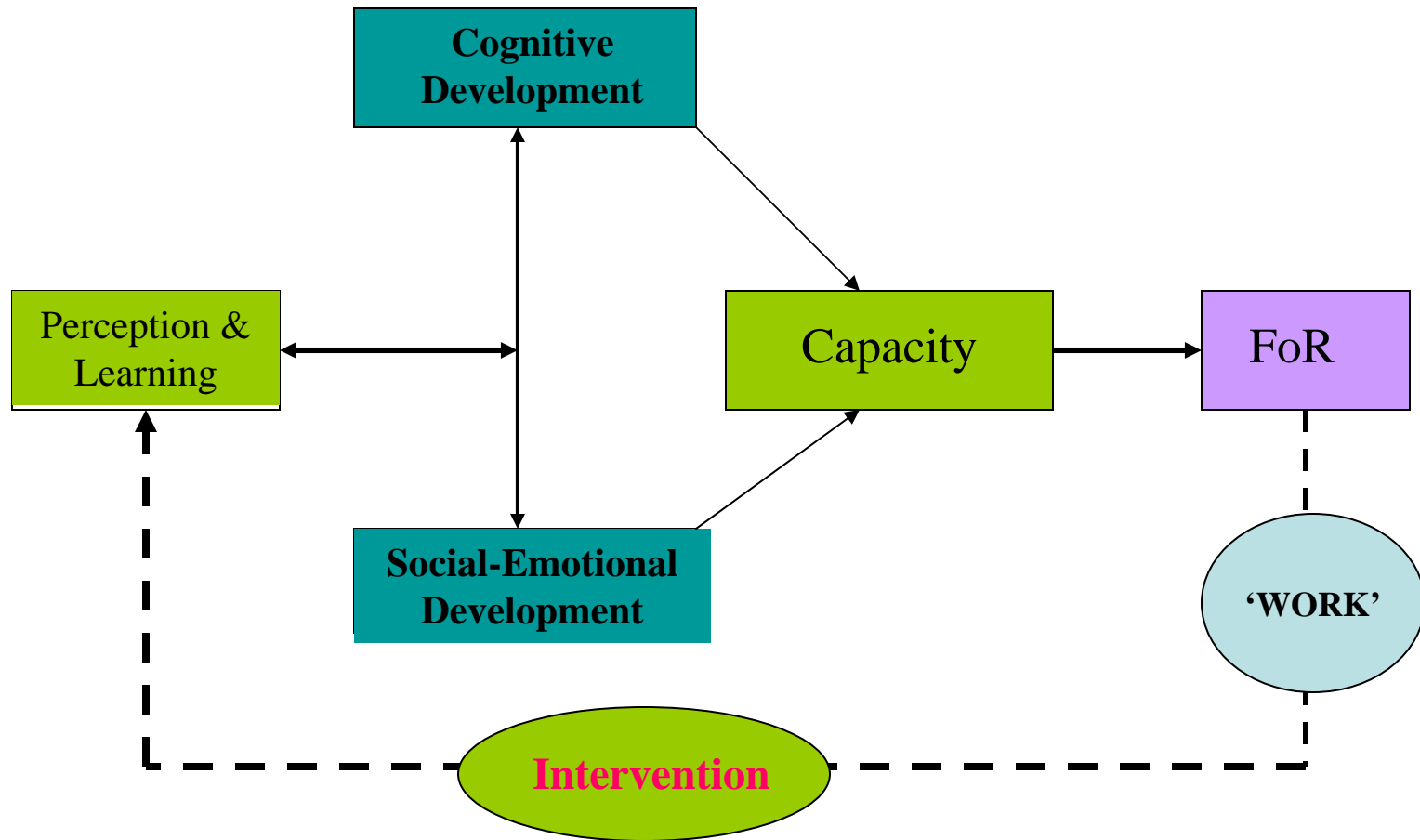


Adult Developmental Attainment in Evolved Societies



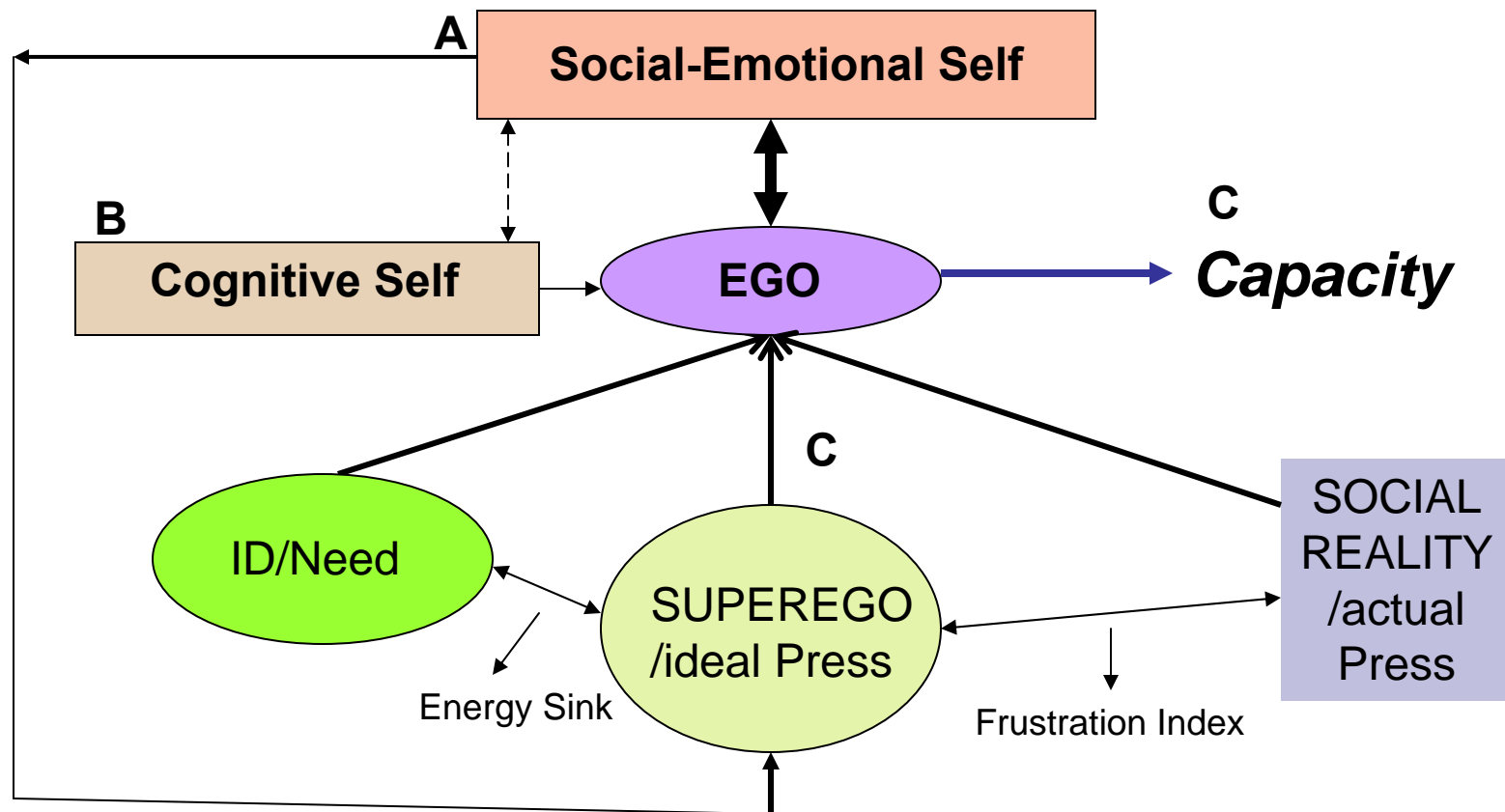
To the left are 4 main levels, each comprising 4 intermediate levels. These sublevels indicate degrees of advancing toward the next following level. As the percentages on the right indicate, most individuals remain on level 3, while 25% of individuals reach level 4, and 8% reach level 5. The names of the levels are meant to indicate a crucial feature of each of the levels of social-emotional potential.

The Relevance of Frame of Reference



1. FoR = Frame of Reference
2. Capacity = A person's psychological profile

Model of Consciousness in the Constructive-Developmental Framework

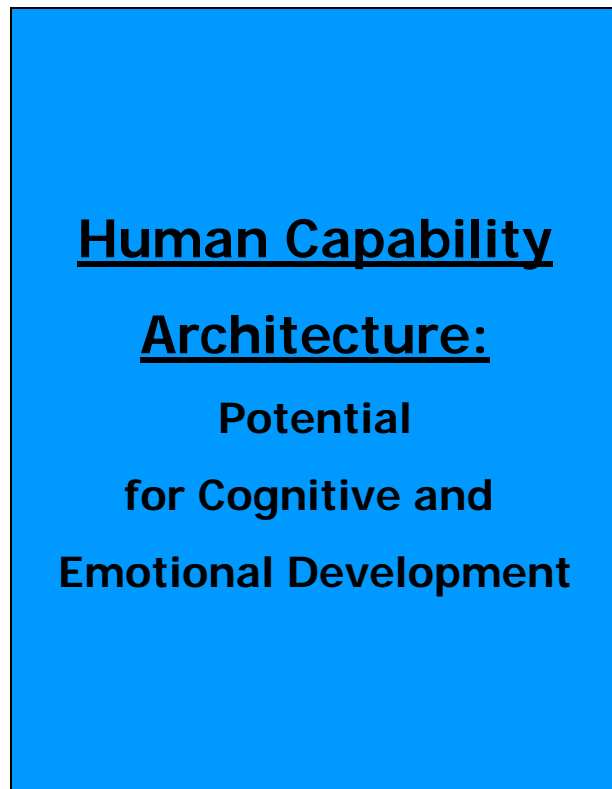


A person's behavior depends on how the social-emotional and cognitive self manage the ego's needs and pressures.

Viewing Organizations Developmentally

Requisitely Organized Companies Match Two Architectures

Human Capability Architecture



Size of Person

HCH

Managerial Accountability Architecture

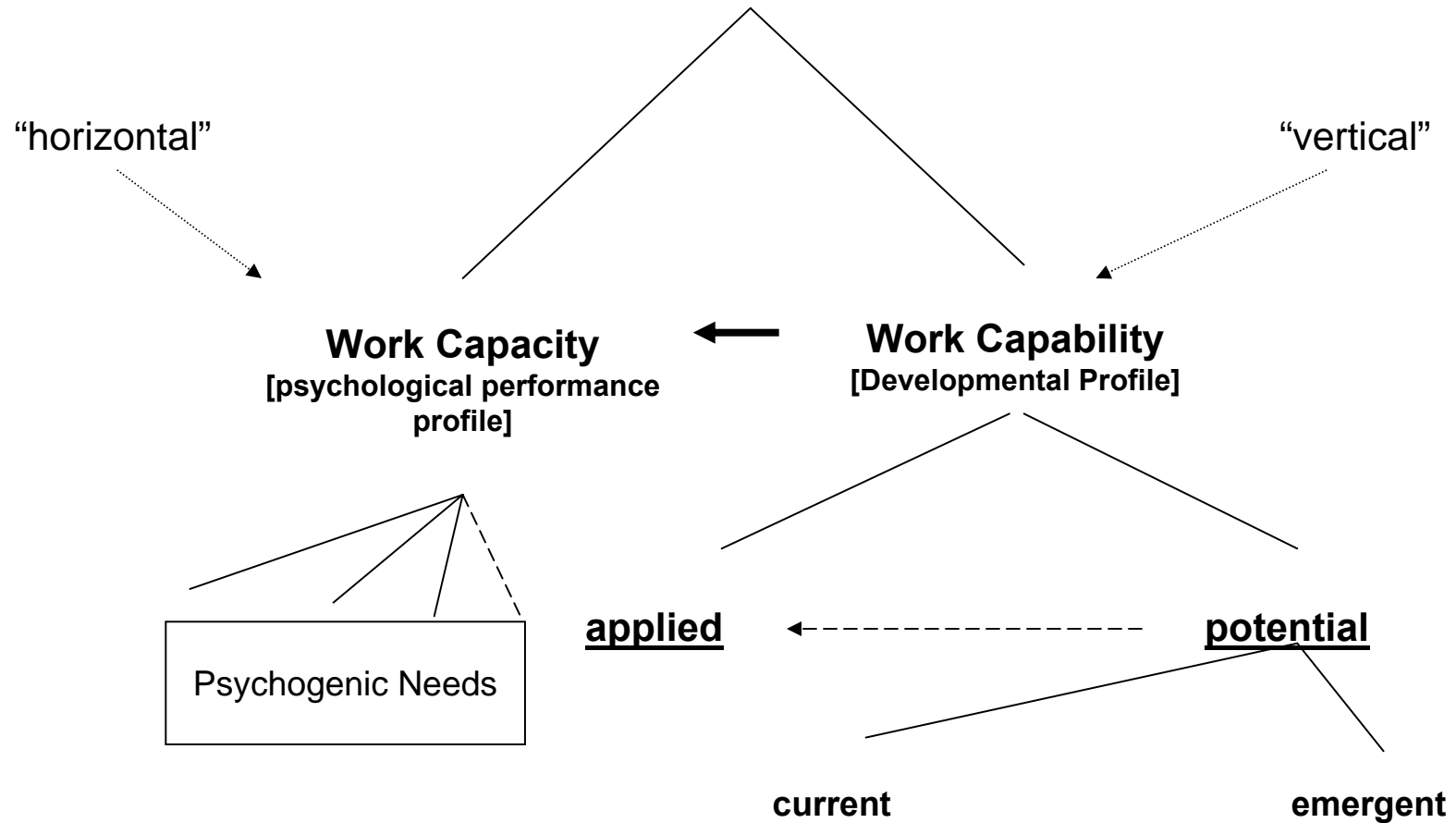


Size of Role

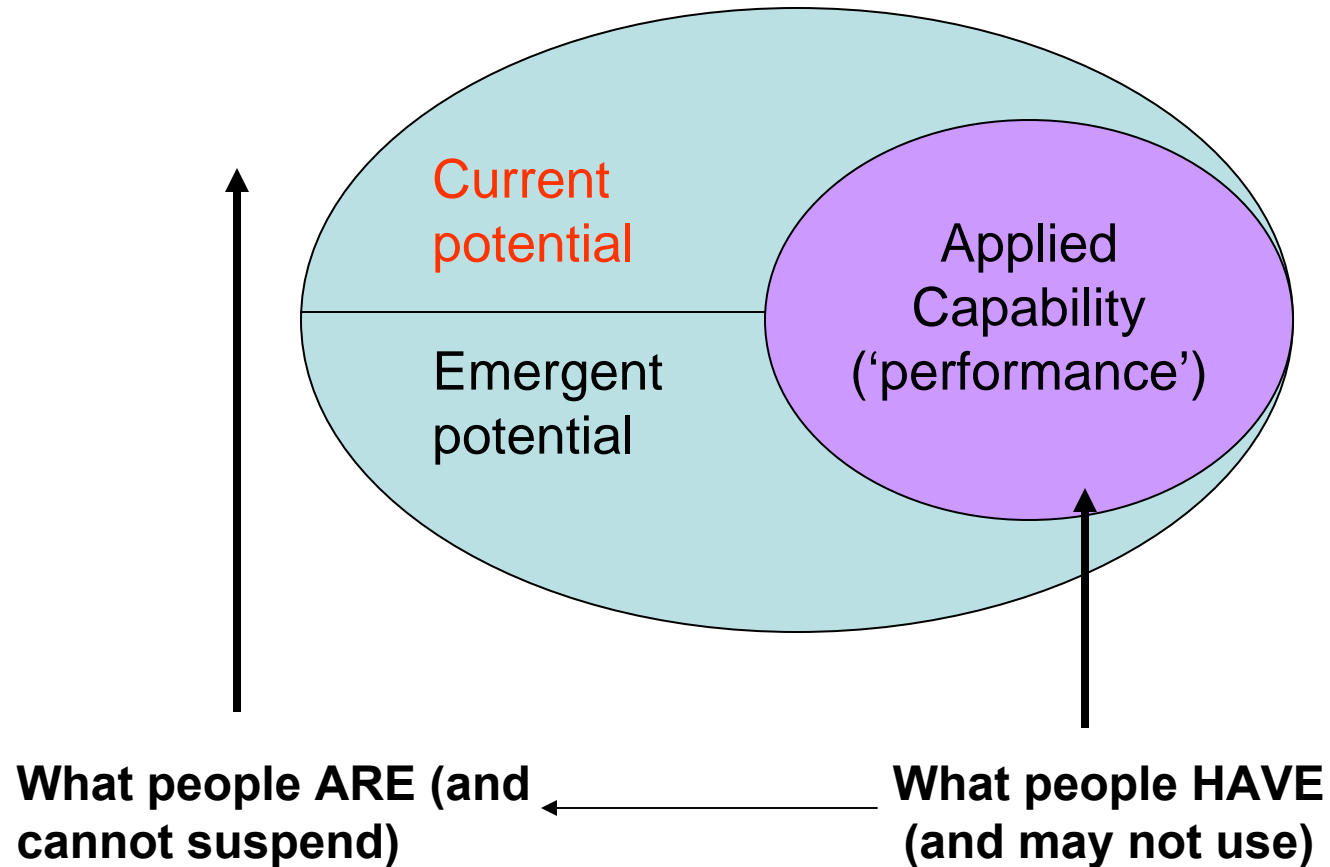
MAH



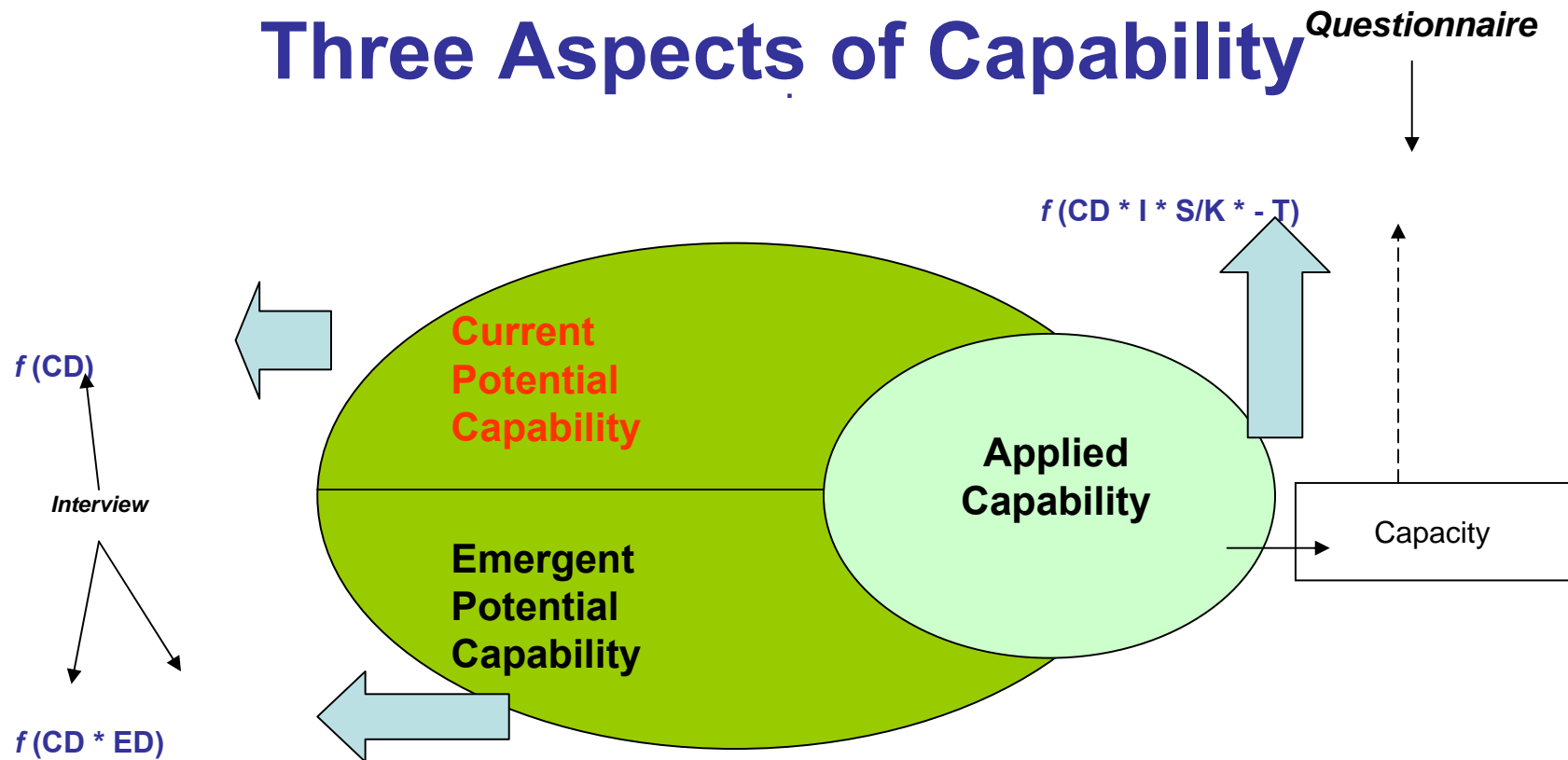
Anatomy of Capability



Structure of the Human Capability Architecture



Three Aspects of Capability



- CD = phase of cognitive development (present cognitive profile)
- I = interest in the work
- S/K = skills and knowledge available for work
- T = psychological capacities not helpful in the pursuit of work
- ED = stage of social-emotional development

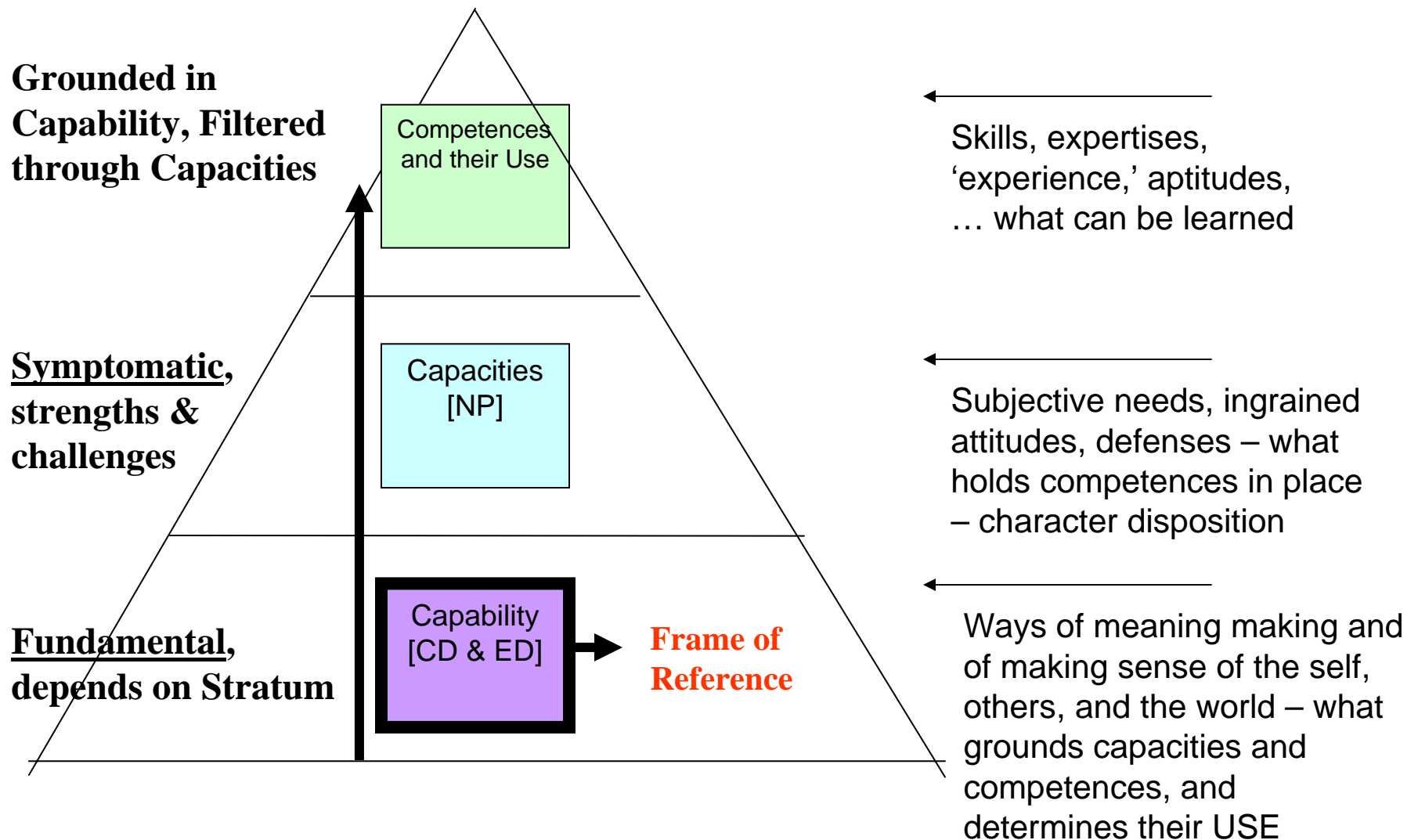
Size of Role vs. Size of Person

Epistemic Position [CD Fluidity Index]	Strata*	Methods of Information Processing	Social-Emotional Stage (ED)
7 [>50]	VIII	C4[parallel]	5
	VII	C3 [serial]	5/4 – 5(4)
6 [>30]	VI	C2 [conjunctive]	4(5) – 4/5
	V	C1 [disjunctive]	4
5 [>10<30]	IV	B4 [parallel]	4/3 – 4(3)
	III	B3 [serial]	3(4) – 3/4
4 [<10]	II	B2 [conjunctive]	3
	I	B1 [disjunctive]	2/3 – 3(2)

* Typical organizational job titles are, from top to bottom: **Board Member, CEO, EVP, VP, General Manager, Unit Manager, First Line Manager, Operator/Staff.**

The 'Human Resources' Pyramid

From a developmental perspective



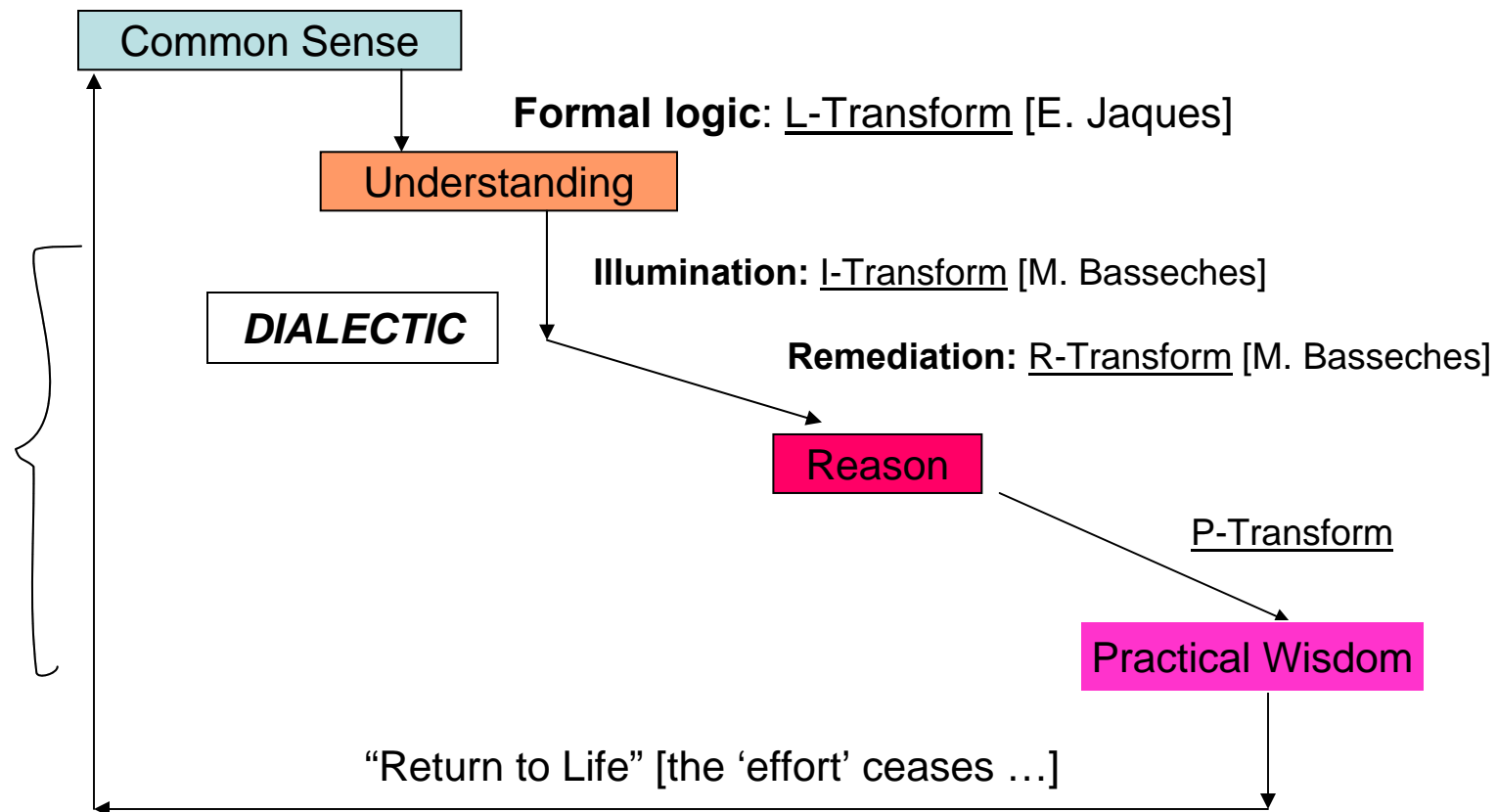
Dialectical Thinking: An Integral Part of Cognitive Development

Cognitive development leads from mastering formal logic in early adulthood to practicing post-formal or *dialectical* thinking in later adulthood, in four phases.

Vocabulary

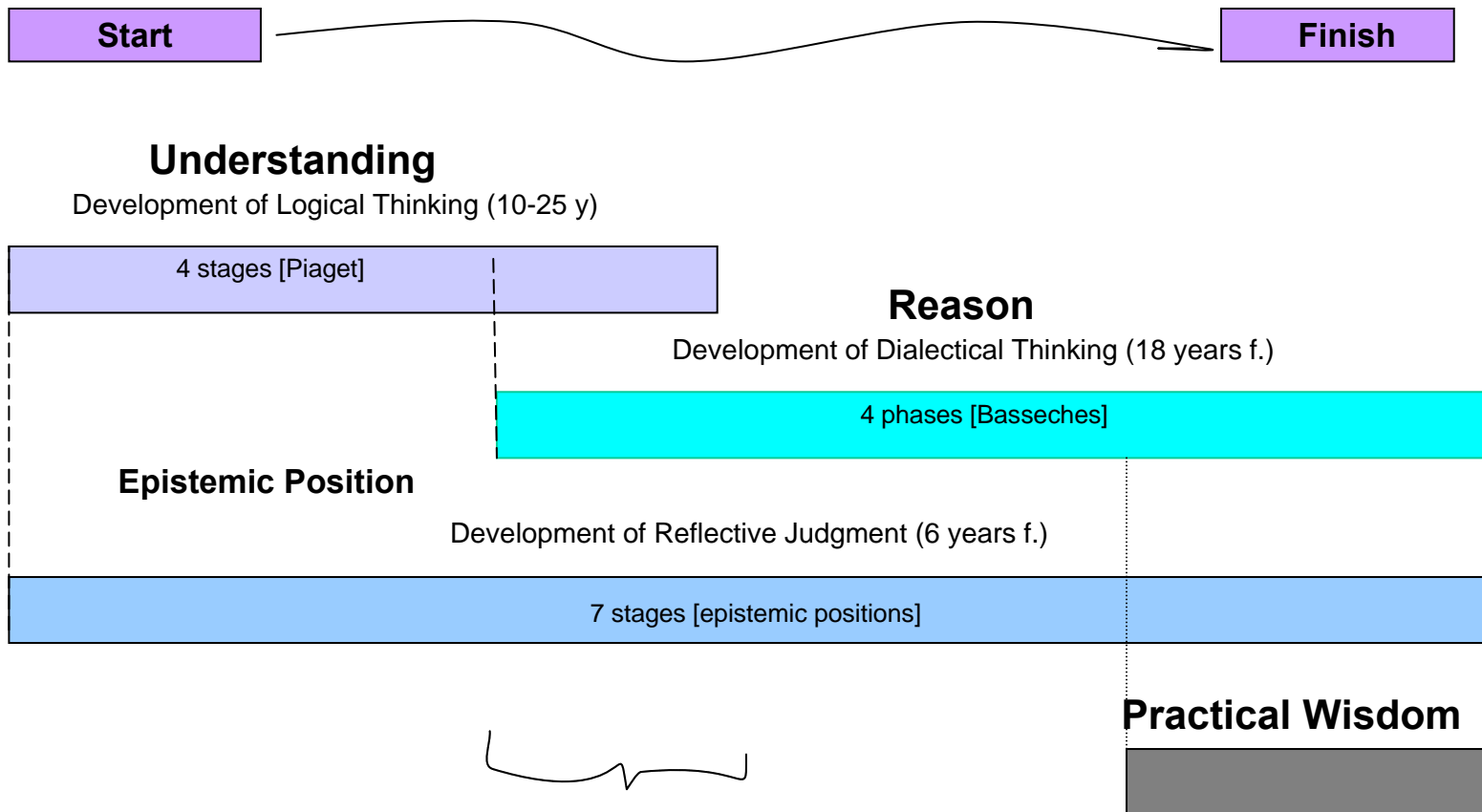
- A certain vocabulary is needed to understand dialectical tools:
 - Epistemic Position [view of 'knowledge' and 'truth']; Stance
 - Four Quadrants of Dialectic
 - Classes of Thought Forms; Tools
 - Individual Thought Form (TF) [Denkform; DF]
 - Dialectical Thinking
 - Phase of Dialectical Thinking
 - The Three Houses (Task-, Organizational, Self-House)
 - Guide Questions
 - Probe Questions

Four 'Eras' of Cognitive Development

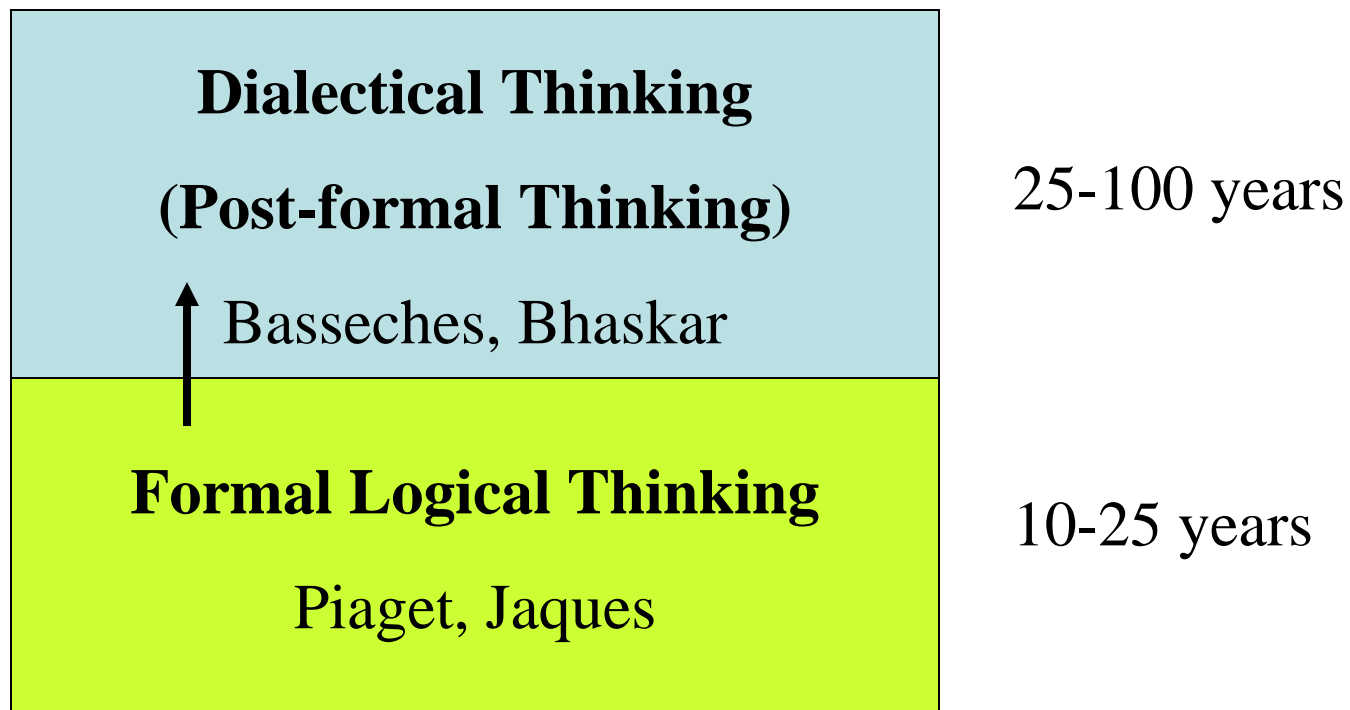


Adapted from Roy Bhaskar (1993, 21)

From Early Adulthood On, Logical and Dialectic Thinking Overlap



Two Dimensions of Logical Thought



Development of the Logic Transform (Piaget)

The Logic-Transform operates a revolution in human life in that it makes people transition from Common Sense – which knows of no contradictions – to Understanding in the form of formal logic where contradictions are “false.” Dialectic has an enlarged notion of contradiction as “food for thought”.

Stage	Age	Description
Sensorimotor	Age: 0-2	<ul style="list-style-type: none"> · Reflex base · Coordinate Reflexes
Preoperational	Age: 2-6 or 7	<ul style="list-style-type: none"> · Self-oriented · Egocentric
Concrete operations	Age: 6 or 7-11 or 12	<ul style="list-style-type: none"> · More than one viewpoint · No abstract problems · Consider some outcomes
Formal operations	Age: 11 or 12 up (to 25)	<ul style="list-style-type: none"> · Think abstractly · Reason theoretically · Not all people reach this stage

Alignment of Epistemic Position and Dialectical Phase with Organizational Strata

Epistemic Position [Phase of Dialectical Thinking]*	Strata within Orders of Information Complexity*	Fluidity Index measured by cognitive interview**
7 [Phase 4 of dialectical thinking]	VIII	>=50
	VII	
6 [Phase 3 of dialectical thinking]	VI	>30
	V	
5 [Phase 2 of dialectical thinking]	IV	>10<=30
	III	
4 [Phase 1 of dialectical thinking]	II	<=10
	I	

•Board Member (VIII); CEO (VII); Executive VP (VI); President (V), General Manager (IV), Unit Manager (III); First Line Manager (II); Shop & Office (I).

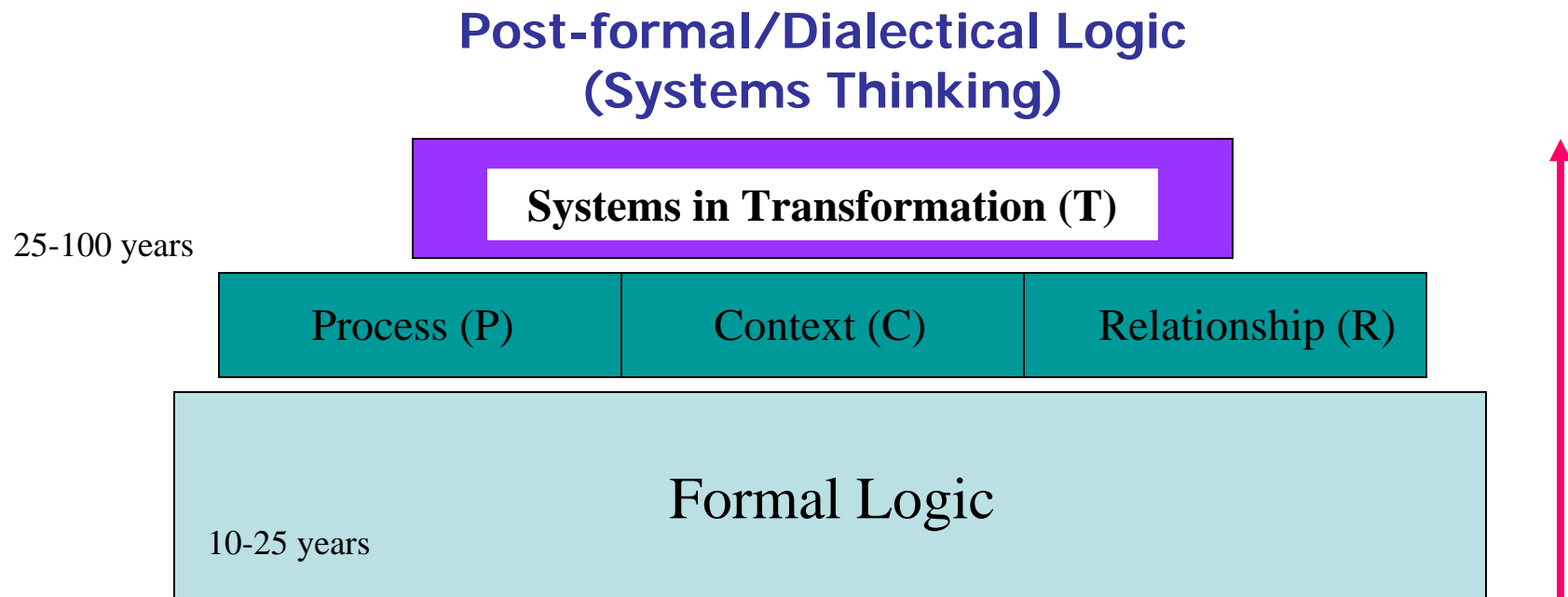
•• The Fluidity Index indicates overall fluidity based on total thought form use, without a consideration of specific classes of thought forms. This is in contrast to the Systems Thinking Index (see below).

Characteristics of the Four Phases

- Research in the late 1970s and early 1980s (Basseches) showed the following characteristics of the four phases (Benack and Basseches, 1989, 97):
 - Phase 1, Elementary: few thought forms available; separation of dialectical from formal-logical thinking difficult.
 - Phase 2, Intermediate: increase in the number of thought forms used, largely without coordination between them [thus without trans-formational thought forms]
 - Phase 3, Systemic: decisive turn to coordinating thought forms with simultaneous increase of uses; three clusters: (1) critical, (2) constructive, (3) value oriented
 - Phase 4, Meta-Systemic: fully transformational thinking; highest number of thought form uses and of thought form coordination.

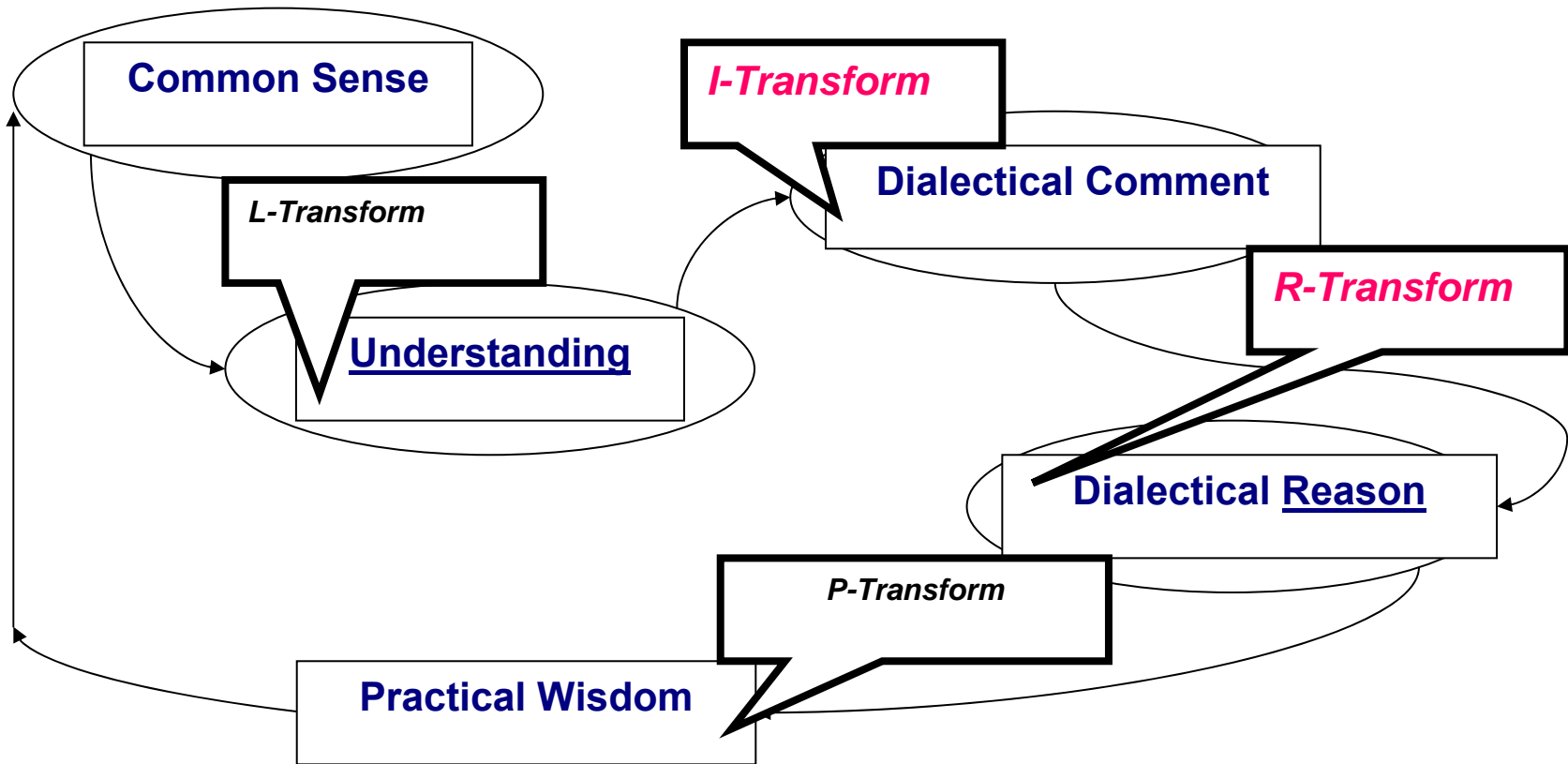
Steps Toward “Post-formal” or “Dialectical” Thinking

Formal logic is the basis of dialectic. Without formal logical thinking, contradictions cannot be ‘seen.’ Contradictions operate another revolution in human thinking since they broaden individual’s conceptual field. Dialectic takes advantage of this broadening, enhancing mental space. Mental space is measured in cognitive interviews by screening speech for four classes of thought forms: P, C, R, and T.



Thinking Requires Tools (Transforms)

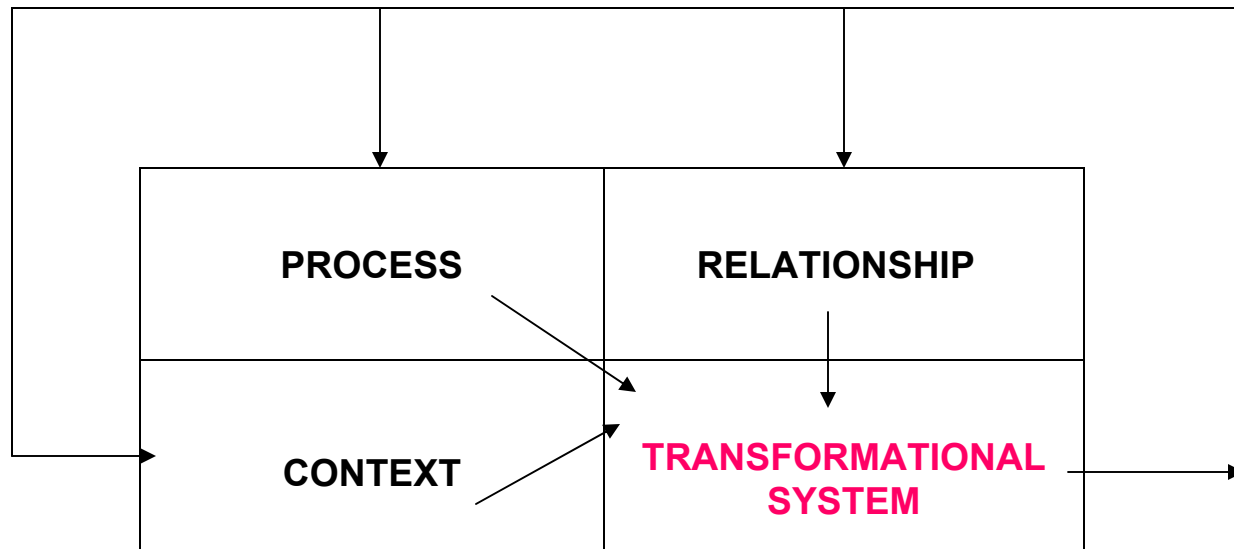
Commensurate with the four eras of cognitive development, we can distinguish four 'sets of tools' or Transforms. They 'transform' one way of thinking into another. In dialectics we speak of the 'Illumination' and 'Remediation' transform.



L=Logic, I=Illumination, R=Remediation, P=Practical-Wisdom

The Four Quadrants of Dialectic

In terms of human thinking, thought forms illuminating reality (C, P, R) are rooted in the transformational quadrant (T), as shown below. Taken by themselves, C, P, R are one-sided aspects of T.

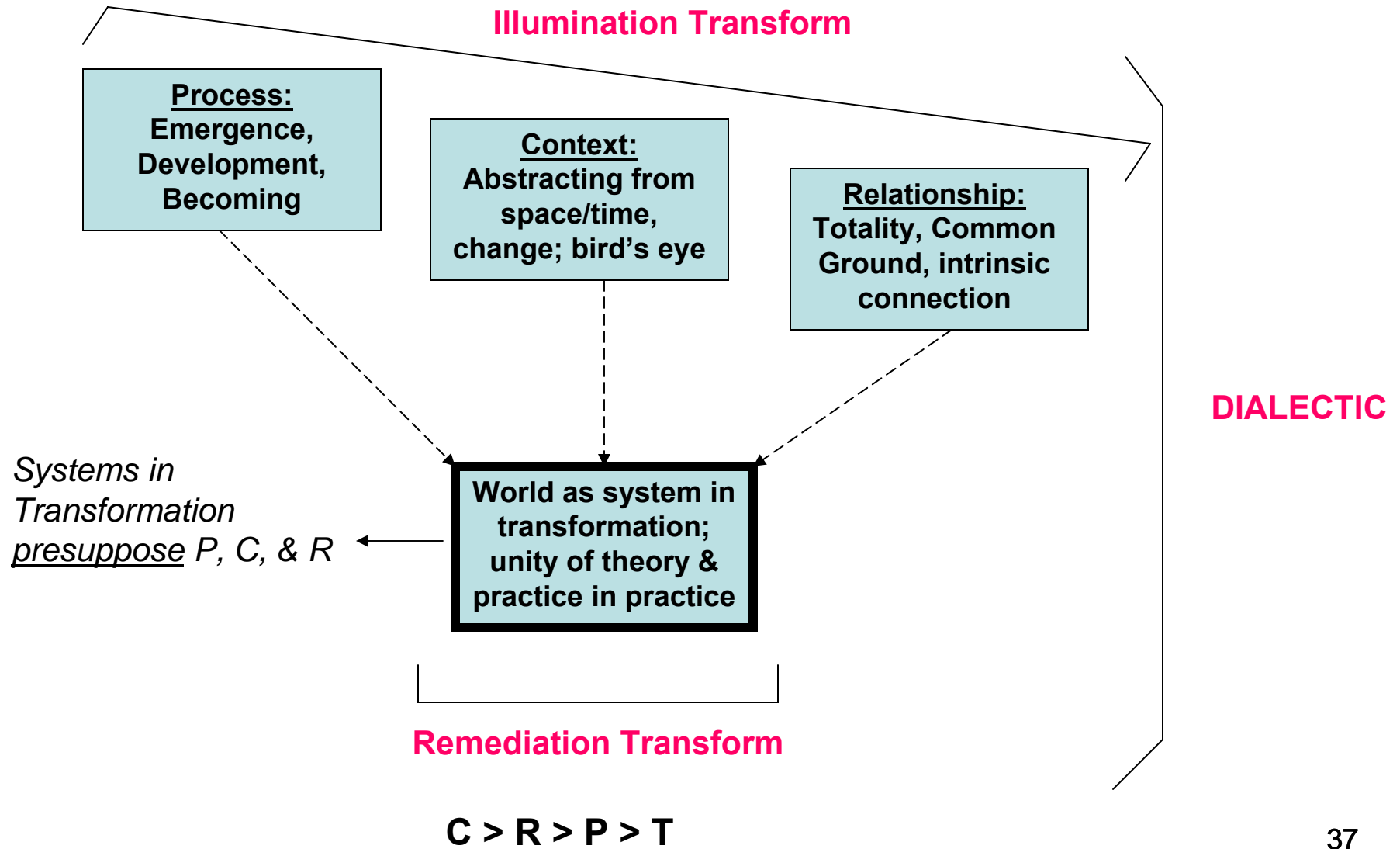


Legend:

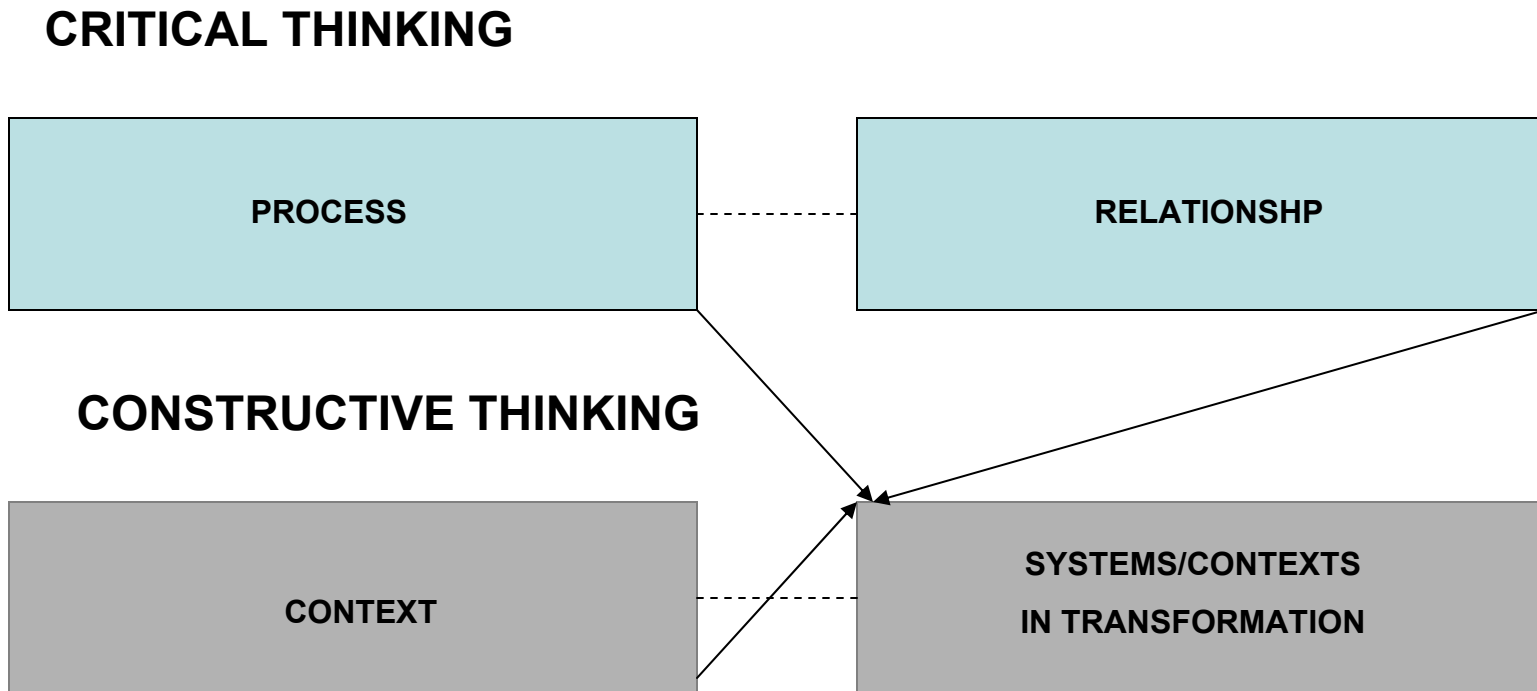
Upper quadrants: critical thinking.

Lower quadrants: constructive thinking.

Transformational Systems Presuppose Process, Context, and Relationship



Relationship Between the Four Classes



**Process and Relationship TFs enable *critical thinking*,
Context and Systems in Transformation TFs support *constructive thinking*.**

Critical versus Constructive Thinking

- **We can think of the “upper quadrants” (P, R) as grounding ‘critical,’ and the “lower quadrants” (C, T) as grounding constructive thinking.**
 - Critical thinking makes us aware of ways in which reality is in constant change, cannot be ‘pinned down,’ and is largely based on relationships between forms and processes (rather than simple cause-effect links)
 - Constructive thinking builds contexts and more stable configurations that withstand motion and change because of their structural, functional, historical, or developmental nature; they give the illusion of permanence and sameness. .
- **These kinds of dialectical thinking are complementary.**
- **However, their use in a particular individual may be imbalanced, favoring one quadrant over another.**
- **We then speak of *Cognitive Imbalance* (see details below).**
- **Imbalance means that the individual thinker turns a ‘deaf ear’ to one aspect of reality, and is therefore unable to grasp reality in systemic terms.**

The Four Quadrants and Classes of Thought Forms in Detail

While the Four Quadrants “run the world” (ontology), the four classes of thought forms are human tools for catching up with reality (epistemology).

Each Quadrant Focuses on a Particular Aspect of Reality

- Based on classes of thought forms, we can view any subject matter in terms of four different perspectives:
 - its **emergence** and vanishing in time (Process class of TFs)
 - its being part of a **bigger picture** together with other things variously differentiated from each other (Context class of TFs)
 - its sharing **common ground** with other things and thus being “related” to them (Relationship class of TFs)
 - its representing a **system in transformation** which emerges and vanishes at the same time that it maintains itself in a changed form – like any living organism does (Transformation class of TFs).

There is an order to these four aspects. First, things have to exist (C). They can then be seen as undergoing change (P) and being related to each other (R). Transformational systems (T) ‘pre-suppose’ this sequence: C, P, R. The presupposition sequence of the four quadrants thus is: C>P>R>T.

Main Aspects of the Context Quadrant

Things exist independently of human thinking. They are constellated in a variety of ways: dimensions, layers, strata, structures, functions, existing in equilibrium.

Dialectical image: *'big picture' in the sense of a whole encompassing parts and strata*

Figure: what appears as a stable, well-balanced form.

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

Relationship to System: pre-figuration of a system in a static form.

Scope: equilibrium of what exists.

Theme: multiplicity of entities and thoughts partaking in a common frame of reference.

Dialectics: parts of a whole shifting their balance, stratification, generative mechanisms.

Main Aspects of the Process Quadrant

Things are 'forms': they do not stay the same. They are constantly emerging from, and vanishing into, the void, including human life.

Dialectical image: *emergence (from a void)*

Figure: what is "not there" but is emerging through unceasing change

Ground: unified by the category of absence from which the whole circuit of the four quadrants derives

Relationship to System: always embedded in system

Scope: spanning negation, contradiction, critique

Theme: the presence of the past and future; motion in thought and reality

Dialectics: process, transition, interaction, opposition (including reversal).

Main Aspects of the Relationship Quadrant

As forms, things share common space and are rooted in common ground. This ground makes up their Totality. Forms are 'related' because they share common ground, sometimes to the point of existing only on account of common ground.

Dialectical image: *common ground (totality)*

Figure: what is “not there” other than as held within a totality of (possibly oppositional) links and connections

Ground: unified by the category of totality, thus of holistic causality

Relationship to System: living core of any system

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

Theme: unity in diversity, internal relatedness, illicit separation and fission, fixation on unrelated (isolated) elements and multiples

Dialectics: reciprocal, intrinsic, based on constitutive relationship (logically preceding parts of a whole) based on common ground.

Main Aspects of the Transformational Quadrant

Because what exists (C) is in a state of emergence with all forms related based on sharing common ground, reality is a transformational system. Thinking such a system requires 'thought forms' of class C, P, and R.

Dialectical image: *organism and/or beehive*

Figure: what is in constant transformation seeking equilibrium, through mental growth, shift, sudden reversal, collapse, breakdown, pain

Ground: unified by the social category of transformative praxis or agency

Relationship to System: itself under constant transformation

Scope: all of reality

Theme: stability through developmental movement, attention to problems of coordination and change in a developmental direction, multiplicity of perspective, acknowledgement of human agency as intentional causality in the cosmos

Dialectics: special affinity with Process as social change.

Overview of Thought Forms

(Thought Form numbers in brackets)

Process – everything is in unceasing motion

- Preserving fluidity in thought (3, 5)
- Attention to actual or potential processes of change (1, 4, 6-7)
- Describing movement as occurring via opposites (2)

Context– larger contexts remain stable across change

- Attention to organized and patterned wholes (8-9,14)
- Recognizing & describing systems as systems (10-13)

Relationship – intrinsic and external links hold things together

- Attention to relationships (15-18)
- Describing relationships as interactive and constitutive (19-21)

Transformational System (t)—systems reorganize through change

- Attention to the limits of stability of systems (change potential) (22)
- Describing transformation from one system to another (23, 27)
- Describing relationships among systems (25-26, 28)
- Describing the potential of systems to emerge (24)

Procedural Logic within the Four Classes

Thought Form	Procedural Emphasis*
#1-3	Pointing to process
#4-7	Addressing and describing process
#8-9	Pointing to context
#10-12	Addressing and describing context
#13-14	Moving toward relatedness
#15-16	Pointing to relationships
#17	Evaluating relationships
#18-21	Evaluative description of relationships
#22	Pointing to limits of separation of elements
#23-25	Evaluating systems and their emergence
#26-28	Explicating and explaining systems

* In short, there is a general progression from “pointing to” to “making explicit.”

Cognitive Process Consulting

- Using dialectical thinking in PC amounts to *triple loop learning* for the sake of enhancing clients' thinking, by enlarging their mental space to include contradiction, paradox, hidden dimensions, alternative ways of 'seeing' things, and acknowledging that no human concepts can ultimately exhaust the 'depth' of reality.

Cognitive Interviewing as Apprenticeship in Dialectical Thinking

- One of the best ways to learn dialectical thinking, or rather, to realize *the potential of one's thinking for taking a dialectical perspective on things real as*, is to learn *semi-structured cognitive interviewing*.
- Cognitive interviewing in the workplace, class room, or psychotherapy office requires learning the four classes of thought forms that represent the four quadrants of dialectic in human thinking.
- More than individual thought forms, it is the classes of thought forms that become 'prompts' based on which to shed light on the phase of developing dialectical thinking a client is presently in.
- While evaluating cognitive interviews expertly requires exquisite knowledge of the thought forms, interviewing is a splendid way of rehearsing them and making them one's daily practice.

Peculiarity of Cognitive Interviewing

- Piaget, Basseches, Jaques developed semi-structured cognitive interviews for their particular purposes.
- The “Professional Agenda Interview” used for purposes of CDF focuses on a client’s professional self, in contrast to the social-emotional interview which focuses on the client’s private self.
- The principal notion underlying the interview is that the interviewer inquires into the way in which an individual constructs his/her INTERNAL WORKPLACE, or frame of reference.
- This frame of reference will determine everything the client thinks, feels, and does on the job.
- The Three Houses derive from different theories of organization. They are comparable to Wilber’s quadrants, as shown below.

The Task of the Process Consultant

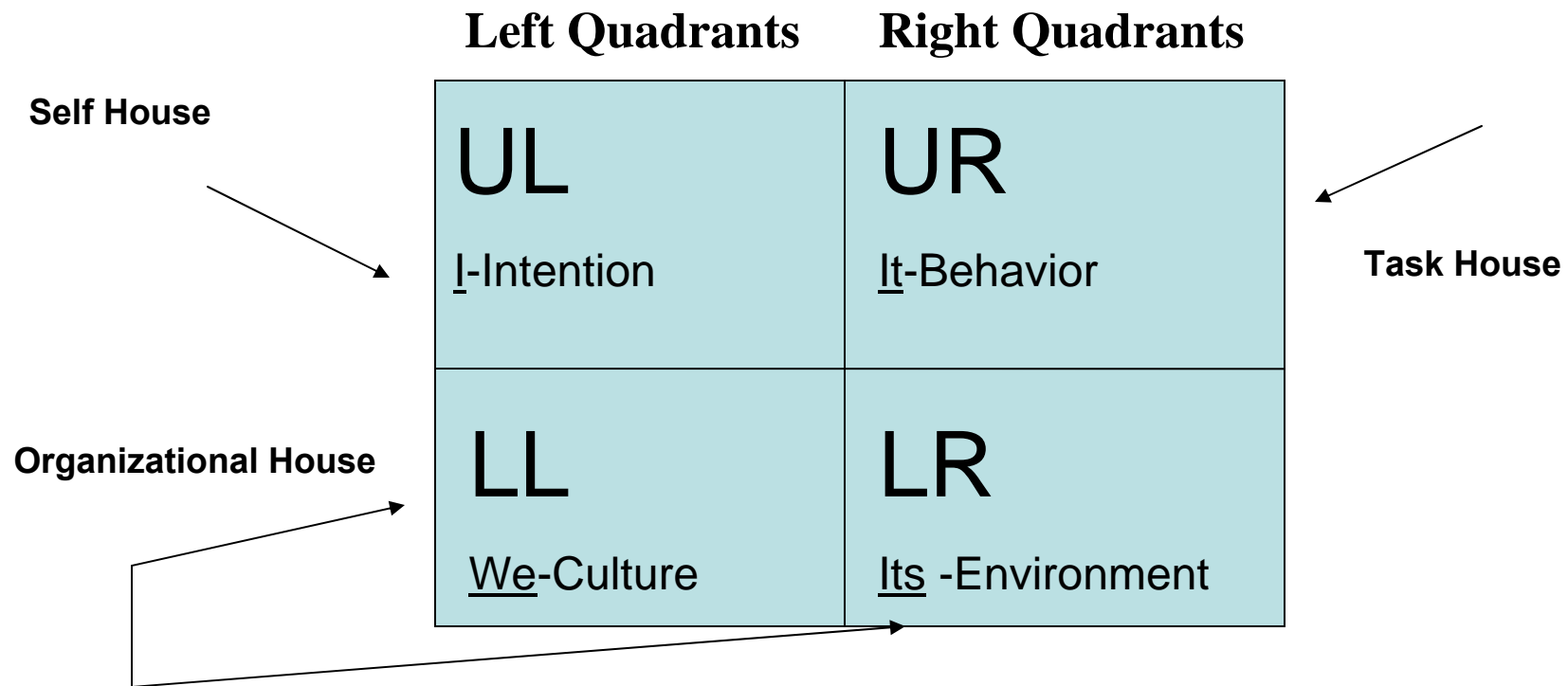
- The process consultant is in intense verbal, intellectual, and emotional interchange with his or her client, for whatever purpose.
- In cognitive process consulting, her attention is focusing on the way the client ‘thinks’ or constructs the world for herself at this time.
- Knowledge of the four quadrants of dialectic and associated classes of thought forms makes possible the use of two valuable tools:
 - probing for lack of systemic, holistic, and critical thinking
 - challenging the client to ‘think differently’, take multiple perspectives, become aware of own assumptions, and ‘re-think’ expectations.
- While this is different from “interviewing”, where no challenging, only probing occurs, the task requires a notion of “what is lacking” in the client’s thinking, and this is best learned in cognitive interviewing.

Task of the Process Consultant as Interviewer

- The cognitive interviewer is striving to obtain structural evidence about a client's present way of making sense of the world, or "thinking".
- For this purpose, the interviewer uses the metaphor of the Three Houses: Self House, Task House, and Organizational House, which gives structure to Guide Questions and facilitates asking further Probe Questions.
- The Interviewer needs to be familiar with the Four Quadrants of Dialectic, the four classes of thought forms, as well as the individual thought forms to do an expert job.
- The Interviewer employs "dialectical listening" as a way to discern classes of thought forms, and uses individual thought forms for probes into the complexity of the client's thinking.
- Like the "prompts" in the social-emotional interview, the Houses constrain what, at any moment, can be talked about.

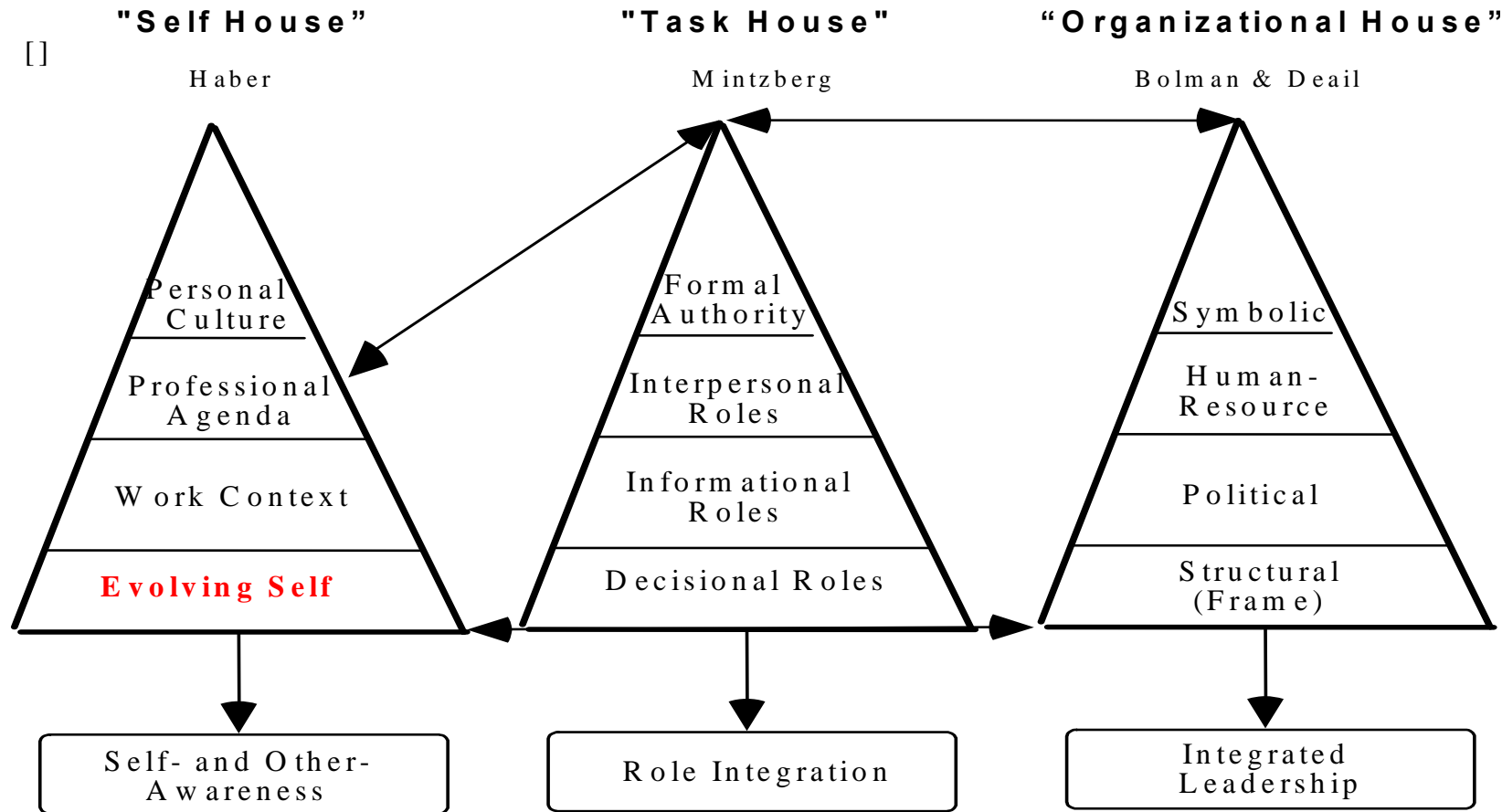
Structuring Process Consulting

Wilber's Quadrants



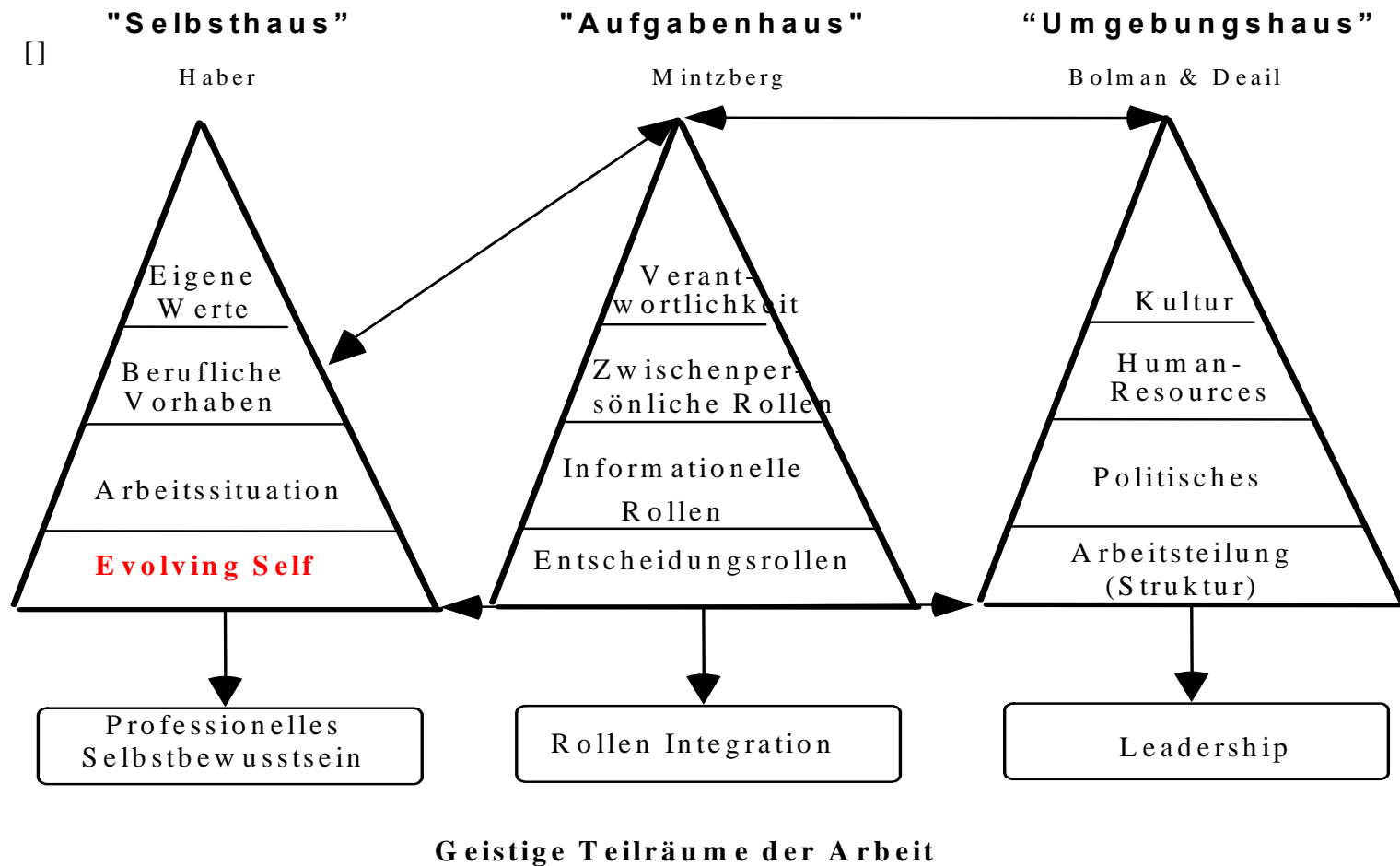
Legend: UL = upper left; LL = lower left; UR = upper right; LR = lower right

The Three Houses

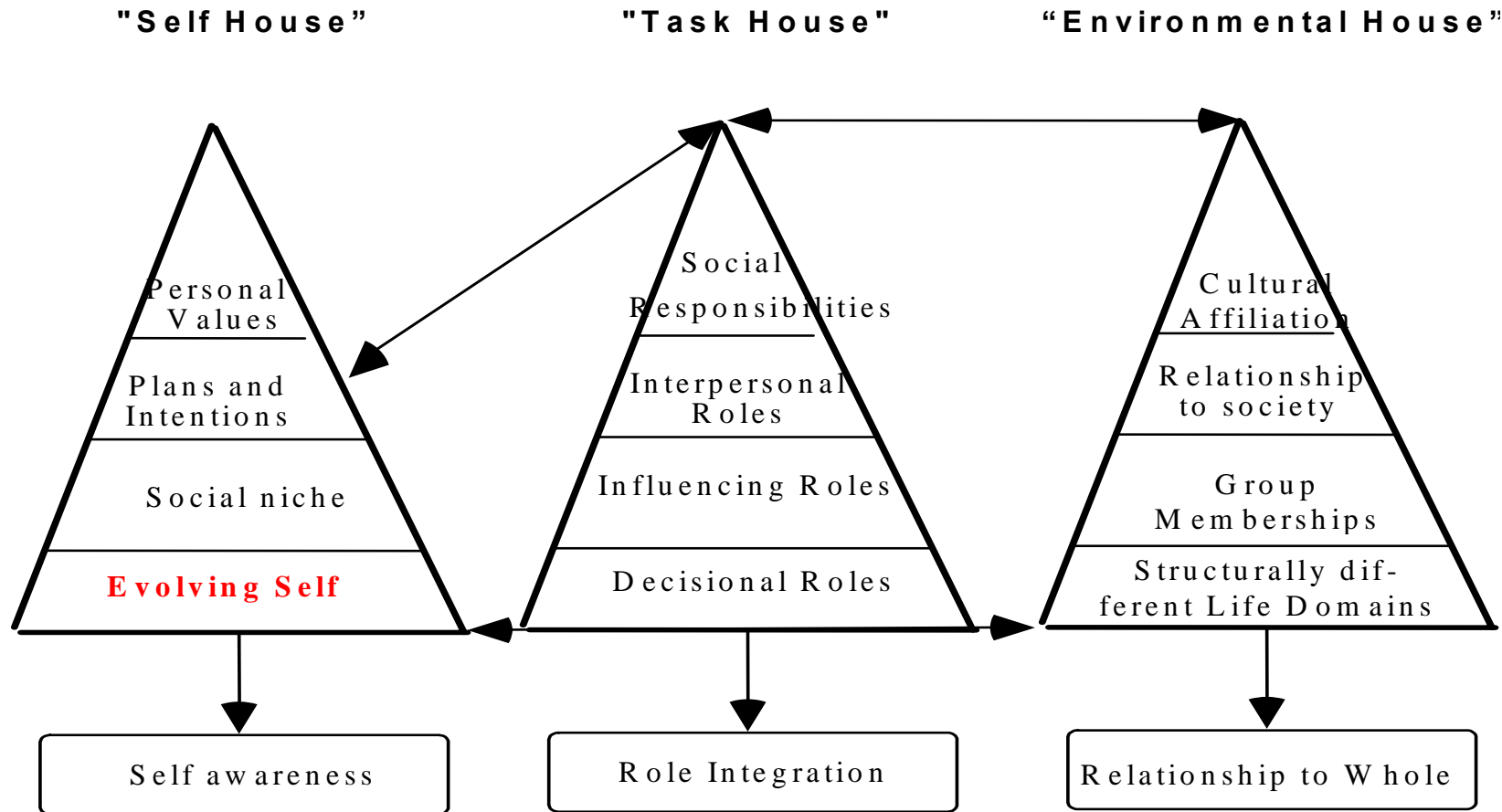


The mental space of coaching activity.

Drei Häuser Organisatorisch Gesehen

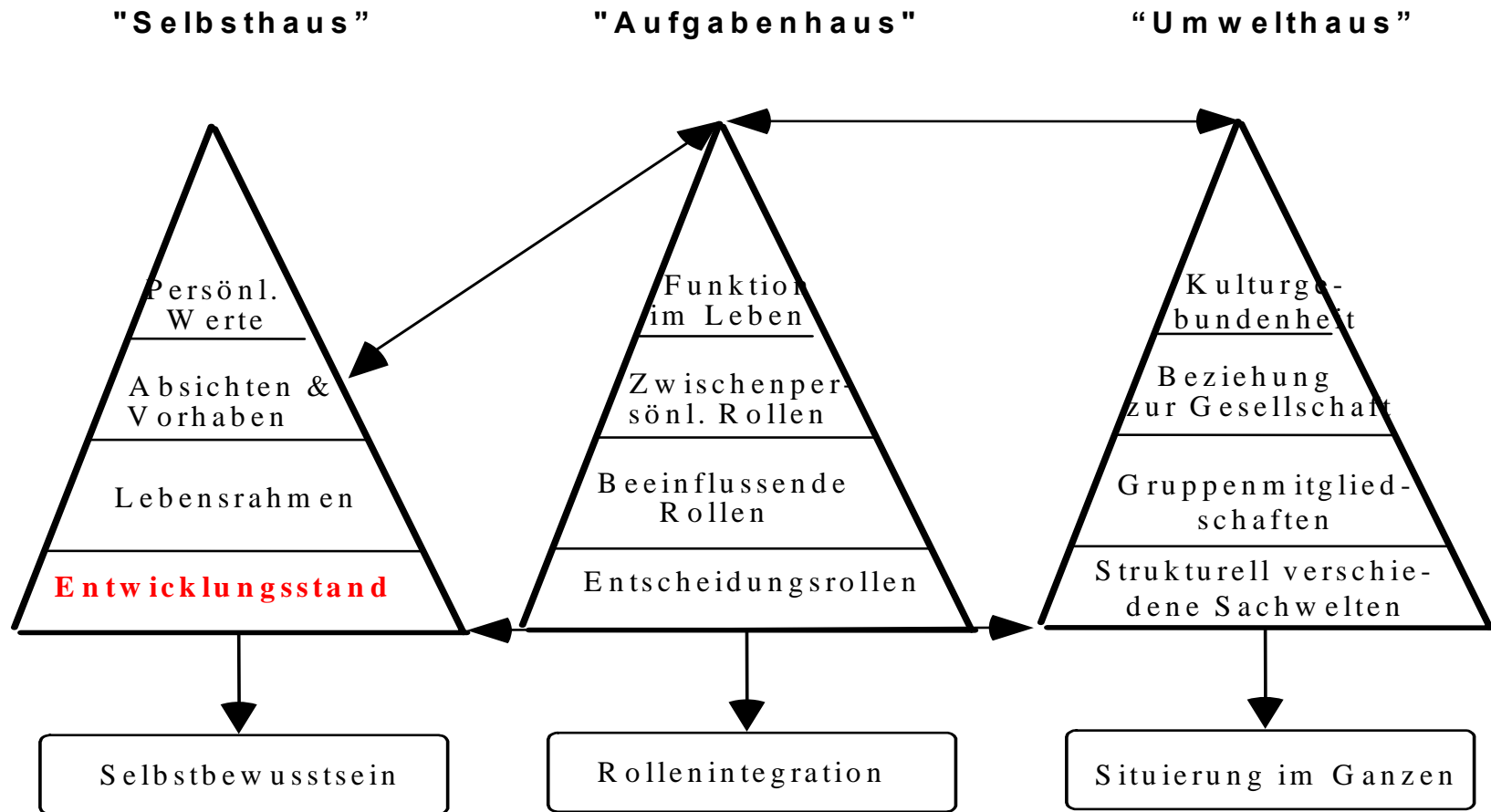


The Three Houses of Life



The Spiritual Space of My Life

Die Drei Häuser im Leben



Der Geistige Raum Meines Lebens

Houses as a Repertory of Concepts

- The Houses serve to structure the interview.
- Each House contains a limited number of concepts.
- In the interview, these concepts are treated as “cognitive prompts” around which to center the conversation.
- The smaller the set of concepts used, the more structured does the interview become.
- Over and above the concepts in the Houses, the labels underneath the Houses also serve as prompts, as do the four classes of thought forms – Process, Context, Relationship, System – however circumscribed to fit the conversation.
- In psychotherapy practice, it may be necessary to reformulate concepts in a social-emotional way; a dialectical thinker can do so without losing clarity.

See O. Laske, An integrated model of developmental coaching (1999), reprinted from Consulting Psychology Journal in R. Kilburg & C. Diedrich, The Wisdom of Coaching, APA, 217-236, 2007.

Anchoring in the Self House

- We can view the Houses as *internal partitions of the client's internal workplace which is projected into the external physical one.*
- People essentially 'go to work' in the inner, not the outer, workplace.
- From the perspective of each House, the environment they work in, organization or not, looks different.
- Since the Houses represent Wilber's quadrants (Self House = UL; Task House = UR; Organizational House = LL&LR), we need to think about them 'systemically', as interconnected.
- Essentially, "tell me how you construct your Self House, and I will tell you how you operate in the Task House and in the Environmental or Organizational House."

Logistics of the ‘Professional Agenda Interview’

- The interviewer asked questions suggested by the structure of the Houses; there are two kinds of cognitive interview questions:

- **Guide questions**
- **Probe questions**

- **Guide questions** are specific to the House or Floor (e.g.):
 - what is your present authority and status in this company?
 - how would you describe your professional agenda?
- **Probe questions** are *specific to the Class of Thought Form the interviewer is probing for, e.g.:*
 - considered over time, how stable, would you say, has your department been over the years? [P]
 - how would you define your agenda of working in this organization? [C]

Houses Are Composed of Floors

- The floors of the Houses are meant to help the interviewer define **GUIDE QUESTIONS** for the interview. They restrict the interview to a *few salient issues*.
- In the Self House, the floors name four rather independent issues which, conjunctively, give a picture of the client's professional self.
- In the Task House, the floors name two major issues, authority and roles from which tasks flow. The roles are typically strongly interrelated and are explored together. Here, the focus is on the client's ability to see relationships.
- In the Organizational House, the floors define a set of multiple perspectives on the organization that encourage thinking "in parallel." Here, the focus is on the client's ability to see one and the same situation/event from multiple points of view, and think systemically.

Interview Guide Questions

- **Task House:** Can you please elaborate on your present status and authority (in the company or administration).
- **Organizational House:** How, would you say, your work fits into the larger context of this environment?
 - a structural perspective
 - a political perspective
 - a human resource perspective
 - a cultural perspective
- **Self House:** Tell me a little bit about how you see your present work context and the professional agenda that grows out of it.

Interview Probe Questions

- Probe questions have the purpose of gauging the depth at which Thought Forms are used by the client.
- Keeping close to the “train of thought” of the client, the consultant chooses questions that are focused around a particular class of Thought Forms; s(he) reinforces Thought Form classes chosen by the client (P, C, R; T).
- Interview Probe Questions are structurally rooted in two Tables:
 - (1) Table of Questions regarding Thought Forms
 - (2) Table of Mind Openers

The first table lists questions you can ask YOURSELF when evaluating cognitive interviews, to ascertain the particular thought form class and/or individual thought form that has been used by the client in an interview for the sake of scoring.

The second table lists example questions useful during the interview and process consultation for “opening the client’s mind” to a broader conceptual field on some subject matter.

Evaluating Cognitive Interviews

The Cognitive Profile

- Evaluating a cognitive interview yields 4 different scores; 3 are derived from the first one:

- **Fluidity Score (F-score) – the most generic score**
- **Cognitive Score (C-score) – a more individualized score**
- **Systems Thinking Index (STI)**
- **Discrepancy Score (D-score)**

- The F-score is based on summing all ‘weights’ thought forms are given depending on their frequency of occurrence and/or degree of explicitness.
- The C-score is based on classifying the weights achieved in each class for all four classes, thus breaking ‘overall fluidity’ down according to TF classes.
- The STI is the fourth element of the C-score which shows the degree of systemic thinking a client can be credited with.
- The D-score is based on summing the weights given to thought forms by the interview evaluator separately for critical (P, R) and constructive thinking (C, T).

Evaluating Depth of Dialectical Thinking

- When evaluating a client's "thinking beyond formal logic", we distinguish three levels of thought form use:
 - weak use of dialectical thought forms (marked as '1')
 - moderate use of dialectical thought forms (marked as '2')
 - strong, explicit use of dialectical thought forms (marked as '3')
- Thought form uses are determined according to two criteria:
 - frequency of occurrence of a TF over the entire interview
 - degree of explicitness of use of a TF
- In most cases, using these criteria come to the same (weight =1).
- However, in exceptional cases a weight of '2' or even '3' can be assigned to an individual thought if it (very) well articulated.
- Having read the entire interview, we sum all weights to get the F-score, indicating overall "fluidity" of dialectical thinking.
- We then distinguish the weights accumulating in each of the four TF classes, to compute the C-score (which includes the STI).

The Cognitive Score

- **In evaluating a cognitive interview, we are not scoring individual TFs but the classes they belong to.**
- Although the F-score is a useful general index for fluidity in dialectical thinking, it is not fine-grained enough to evaluate the balance of the four TF classes of thought forms.
- In particular, it is not fine-grained enough to evaluate the degree of systems thinking in an individual since it does not specifically focus on use of thought forms in class 4, Transformational System.
- The F-score is also not specific enough to show the proportion of using critical and constructive thinking in an individual.
- Since the highest possible sum of weights in a particular TF class is $7 \times 3 = 21$, $21 = 100\%$ for determining the proportion of TF use in each of the four classes.
- Since the highest possible sum of weights in all four classes is $4 \times 21 = 84$, $84 = 100\%$ for determining fluidity (even STI) at the highest level.

Levels and Proportions

- In evaluating a cognitive score, we look for the absolute level (%) as well as the proportion between the four score components.
- The higher the % in a score, the more is the individual's focus of attention centered *in a particular class* (P, C, R or T).
- The more even the proportions between the four component percentages, the more is the individual's thinking *balanced* – equilibrated – between the four classes of thought forms.
- Where the STI [last %] is large in comparison with the other three classes, we speak of a “hollow STI,” meaning that, while thinking holistically and able to envision totalities, an individual is challenged when asked to spell out what these totalities concretely mean. There is a ‘transformational imbalance.’
- The assumption is that since the STI expresses the degree of coordination between component scores (thus, of thought forms used).

Relation of Cognitive to Social Emotional Scores

- Fluidity scores have a relationship to epistemic positions, and therefore to social-emotional scores, although no one-to-one alignment is reasonable to assume. The higher the level of meaning making, the higher thought fluidity can be expected to be. Based on this score, one can assign individuals different phases of the development of dialectical thinking, linked to the social-emotional score by way of epistemic position.
- Systems Thinking scores indicate the extent to which a client is coordinating different classes of thought forms (P, C, R, T), thereby showing an ability to think systemically in the dialectical sense of the term. There may be a considerable gap between social-emotional level, on one hand, and F-score or STI on the other, showing that either cognitive development is ahead of social-emotional development, or vice versa.

Cognitive Interview Scoring Sheet

PROCESS Weightings: 1=weak, 3=strong) *				CONTEXT			RELATIONSHIP			TRANSFORMATION									
	W= 1	W= 2	W= 3		W= 1	W= 2	W= 3		W= 1	W= 2	W= 3		W=1	W=2	W=3				
#1				#8			x	#15	x			#22							
#2				#9		x		#16	x			#23							
#3		x		#10			x	#17			x	#24		x					
#4	x			#11			x	#18			x	#25		x					
#5				#12		x		#19	x			#26			x				
#6	x			#13			x	#20			x	#27							
#7	x			#14			x	#21				#28		x					
Total		= 5		Total			= 19			Total			= 12			Total		= 9	

Scoring Sheet Summary

Fluidity ('f'-) score [all weights] = 45 =54% of optimum]		<u>Absent Thought Forms:</u> P: #1, 2, 5 C: R: #21 T: #22, 23, 27. <u>Preferred Thought Forms:</u> P: - C: 8, 10, 11, 13, 14 R: 17, 18, 20 T: 26
Systems Thinking Score = [5, 19, 12; 9]; <i>in %:</i> [24, 90, 57; 43%]; STI=43(%)	Discrepancy Score = [17: 28]	

Interpretation:

In the C-score, there is 'Process imbalance.' Thinking is focused on C and R, but mainly C (static systems). For that reason, the F-score is misleading (54%) in that does not reveal the absence of dialectical thinking in terms of Process. Because of the weights in C and R, the STI is high (43%) but does not indicate a balance between the four TF classes. The D-score shows predominance of constructive over critical thinking.

Reading Interview Transcripts

- Before reading an interview, review the Table of Questions regarding Thought forms. Keep in mind that the C-score refers to *classes of thought forms* (not individual thought forms), thus *emphasizes cognitive balance*.
- Read the interview transcript in its entirety. In the margin, make comments regarding the class of thought forms you think is involved in the text, specifying also the individual TF that might best express the interviewee's thought. *Check your suggestion against the Table of Questions*.
- When you have finished reading, review your suggestions and enter those you feel positive about into the Thought Form Selection Sheet *with a justification of your scoring*.
- Enter your findings into the Coding Sheet, to get the F-score, using $84=100\%$ to express it in %.
- Determine the number of thought form uses and their weight in each class, to get the C-score, and look at the proportion (in % of $21=100$), as well as the STI.

Linking Cognitive and Social Emotional Score

- The Score: 4(5) {4:7:3} & F: 6+5+2+4=17; [29, 25,11; 20 (%)] leads to the following questions:
 - What is the relationship between the social-emotional and cognitive score in terms of strata (accountability levels) [see next slide]?
 - What is your interpretation of the RCP?
 - Could the embeddedness in 4(5) signal *stuckness*, and if so, what might it be due to in cognitive terms?
 - Are social-emotional score and Fluidity Index commensurate in terms of accountability level (stratum)? How, therefore, can the developmental profile be characterized? [See the next slide].
 - How would you proceed as a cognitive coach given this score?

Fluidity and Stratum

Epistemic Position [CD Fluidity Index]	Strata*	Methods of Information Processing	Social-Emotional Stage (ED)
7 [>50]	VIII	C4[parallel]	5
	VII	C3 [serial]	5/4 – 5(4)
6 [>30]	VI	C2 [conjunctive]	4(5) – 4/5
	V	C1 [disjunctive]	4
5 [>10<30]	IV	B4 [parallel]	4/3 – 4(3)
	III	B3 [serial]	3(4) – 3/4
4 [<10]	II	B2 [conjunctive]	3
	I	B1 [disjunctive]	2/3 – 3(2)

* Typical organizational job titles are, from top to bottom: **Board Member, CEO, EVP, VP, General Manager, Unit Manager, First Line Manager, Operator/Staff.**

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