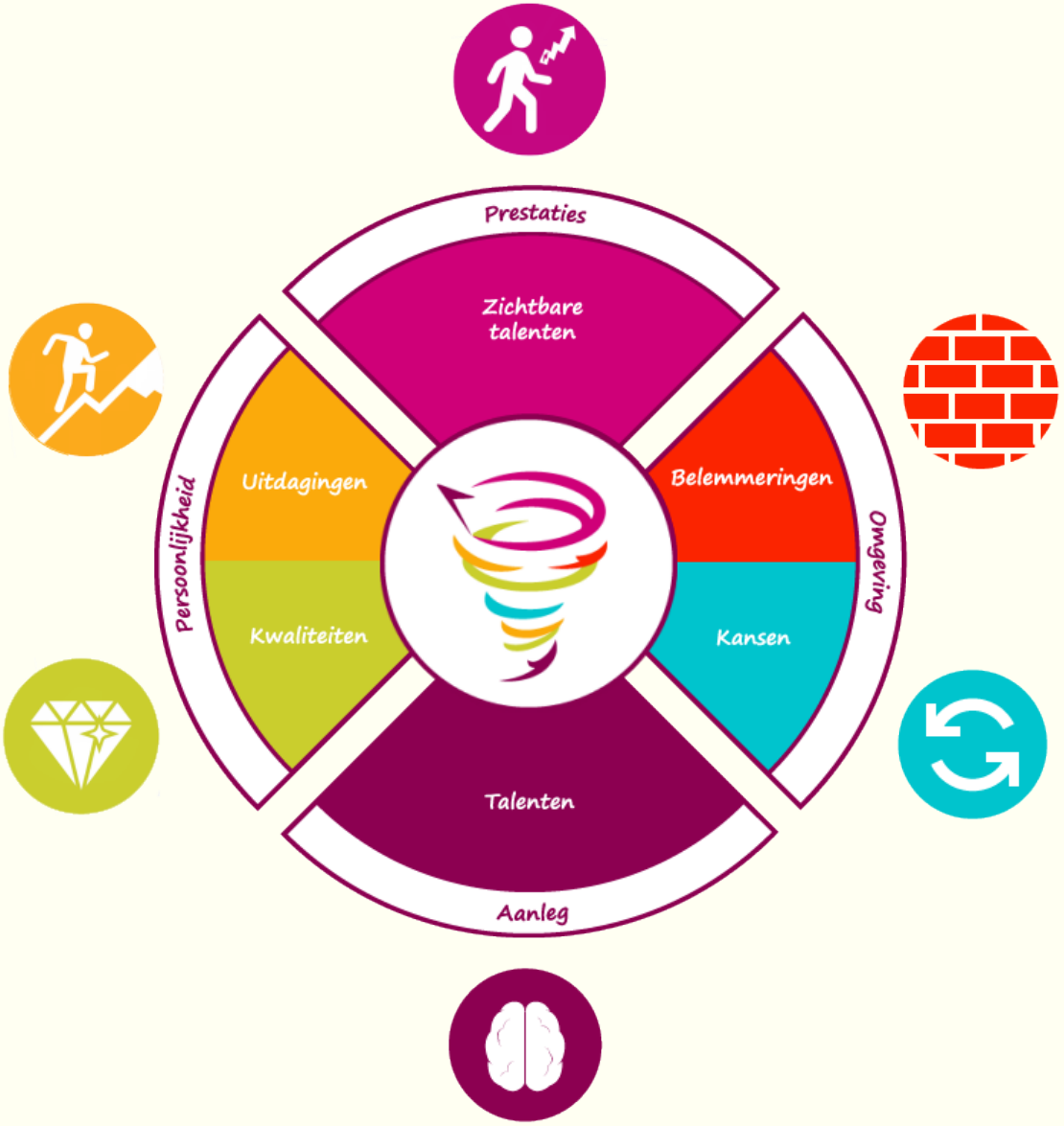

Prestaties
Zichtbare talenten
Uitdagingen
Belemmeringen
Persoonlijkheid
Omgeving
Kwaliteiten
Kansen
Talenten
Aanleg

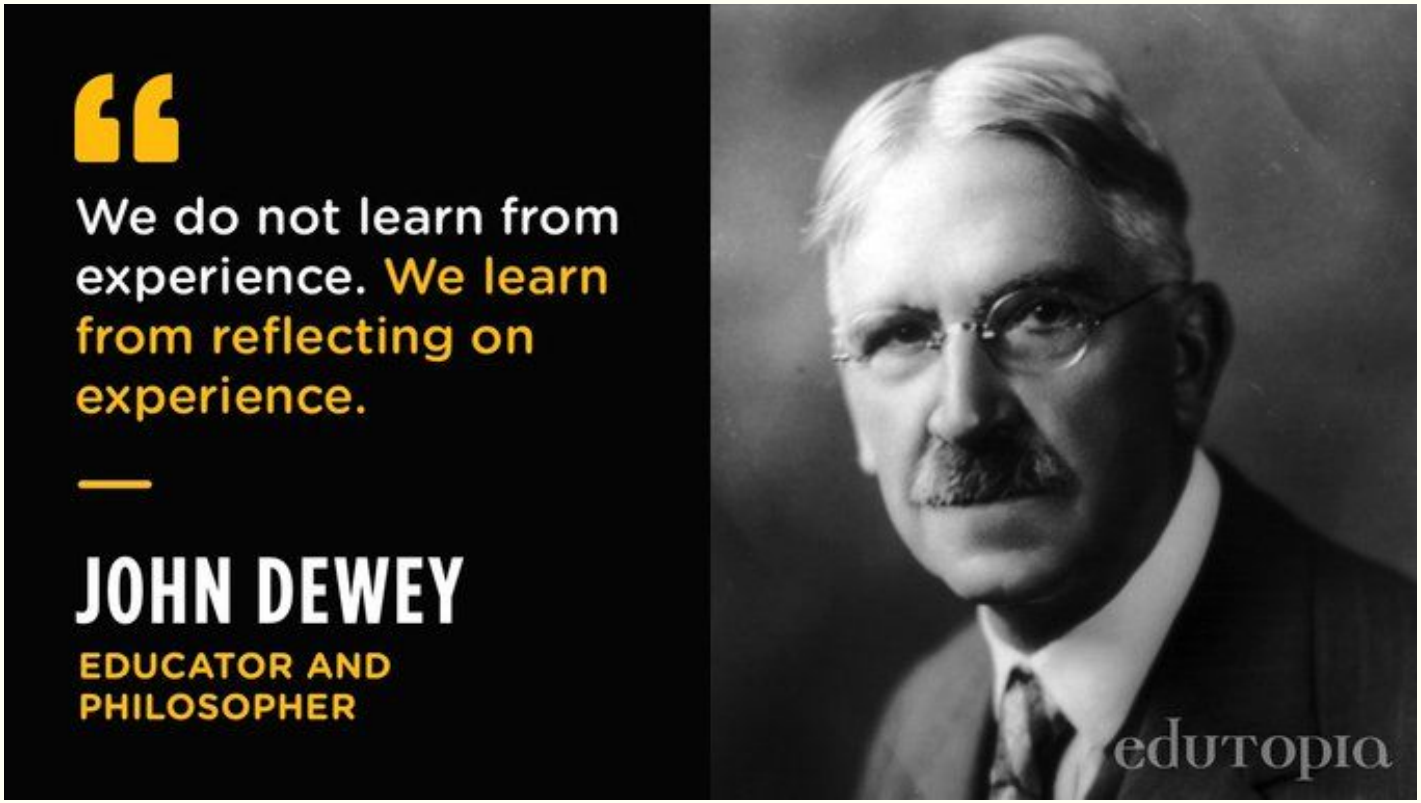
Talent in Development

Theory into practice

M.H.M. Cornelussen

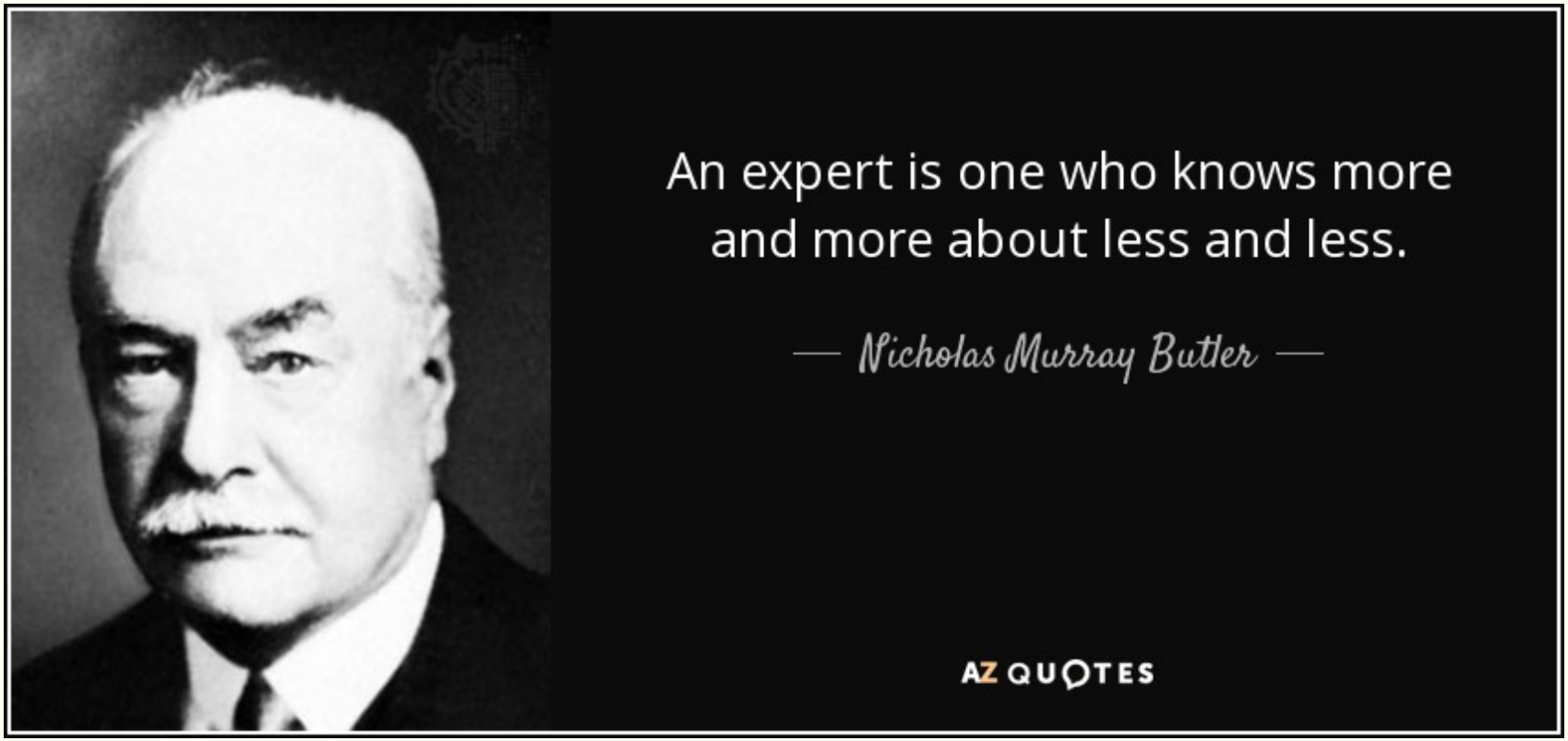
30 November 2023

The underestimated wisdom of John Dewey



Although this quote might be a fake one, it's in line with the philosophy of John Dewey. Fake or not, the quote certainly is an excellent guide to coaching.

A warning by Nicolas Murray Butler



Murray Butler is attributed with this quote in an essay written in 1927 as president of Columbia University (quoteresearch, 2017). He paraphrased a dozen predecessors using it.

A Benjamin Franklin quote or not his ...

Americans attributed this quote to Benjamin Franklin, but it origins lead to an ancient Chinese writing around the third century BC by a Confucian philosopher called Xunzi.

Career switches – 1

Academic career:

Molecular biology / pharmacology at Radboud University Nijmegen (full master degree), Research Associate position at Department of Plant Physiology at University of Wageningen

Interrupted by political and economic changes

ICT management career:

ITIL Incident and Problem Management Specialist, Team leader third line support team, Product Manager Security Services and Process Manager at Rabofacet

Interrupted by company re-organization

Career switches – 2

Educational career:

Started in secondary school (HAVO/VWO) as teacher in chemistry and general sciences. Was asked to teach and coach in high ability classes giving a combination of chemistry, physics, biology and technic called NWT using no books - just projects around a central theme.

Partially interrupted by political motivations and a curling parent

High ability specialist:

Had transformed my teaching to educating adolescents. Found guiding and coaxing student's abilities far more rewarding than just teach them chemistry or general sciences. Nowadays work partly as educator and partly as high ability specialist.

Partlially interrupted by heart attack


Reflecting on career switches

What did I learn about myself from these career switches?

- emergent talents are based on innate abilities
- a versatile mindset is required to see opportunities
- allow time to mourn about losses especially when they have a profound impact
- know yourself: what are your qualities and what not?
- team work will enhance everyone's abilities


Short overview

These topics that will be touched upon in this webinar:

Theoretical frameworks

1. Explore the Talent in Development (TiO) model
2. Look at some of the underlying academic development models
3. Have a short stop on educational theories
4. Pay attention to Wicked Problems
5. Introduce basic Systems Theory

Practical implementation

1. Use Core Quadrants as reflection tool
2. Observe student - teacher interaction
3. Address core beliefs
4. Question knowledge acquirement


Part I – Practice into theory


TiO at a first glance

- TiO shows four quadrants and two dividing axes

TiO at a first glance

- TiO shows four quadrants and two dividing axes
- Two quadrants are divided in half
- Icons are positioned next to six colored areas
- A spiral constructed with the same six colors is centrally positioned
- The top and bottom quadrants refer to talents
- The left quadrant refers to personality
- The right quadrant refers to surroundings

The quadrants more in depth

Bottom and top quadrants:

 – Natural abilities: those talents that come ”naturally” to you

 – Accomplishments: talents expressed and/or uncovered

Left quadrant (Personality):

 – Personal qualities: who you are and what you can do

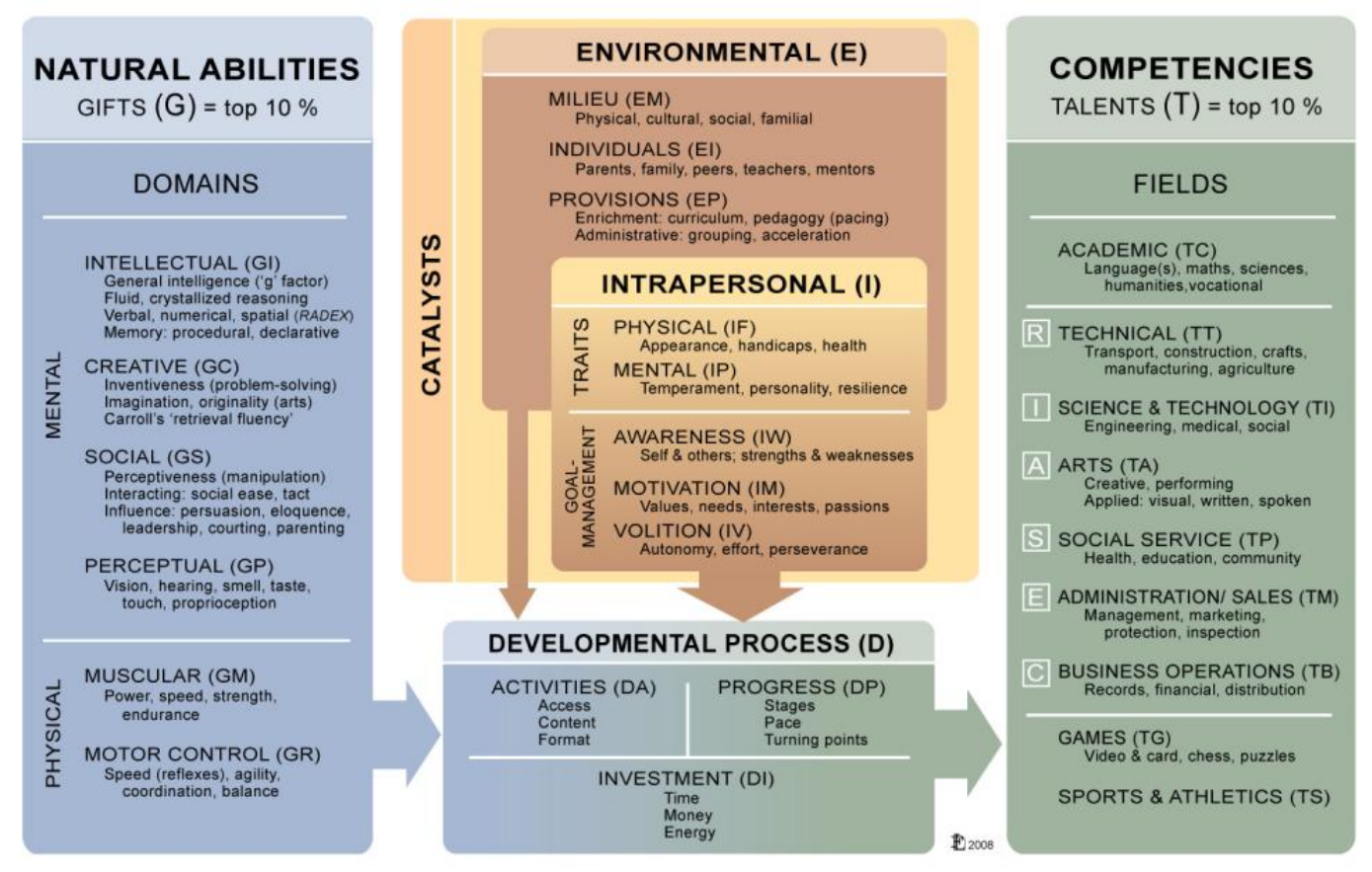
 – Challenges: working outside your comfort zone

Right quadrant (Surroundings):

 – Opportunities: seeing possibilities to move forward

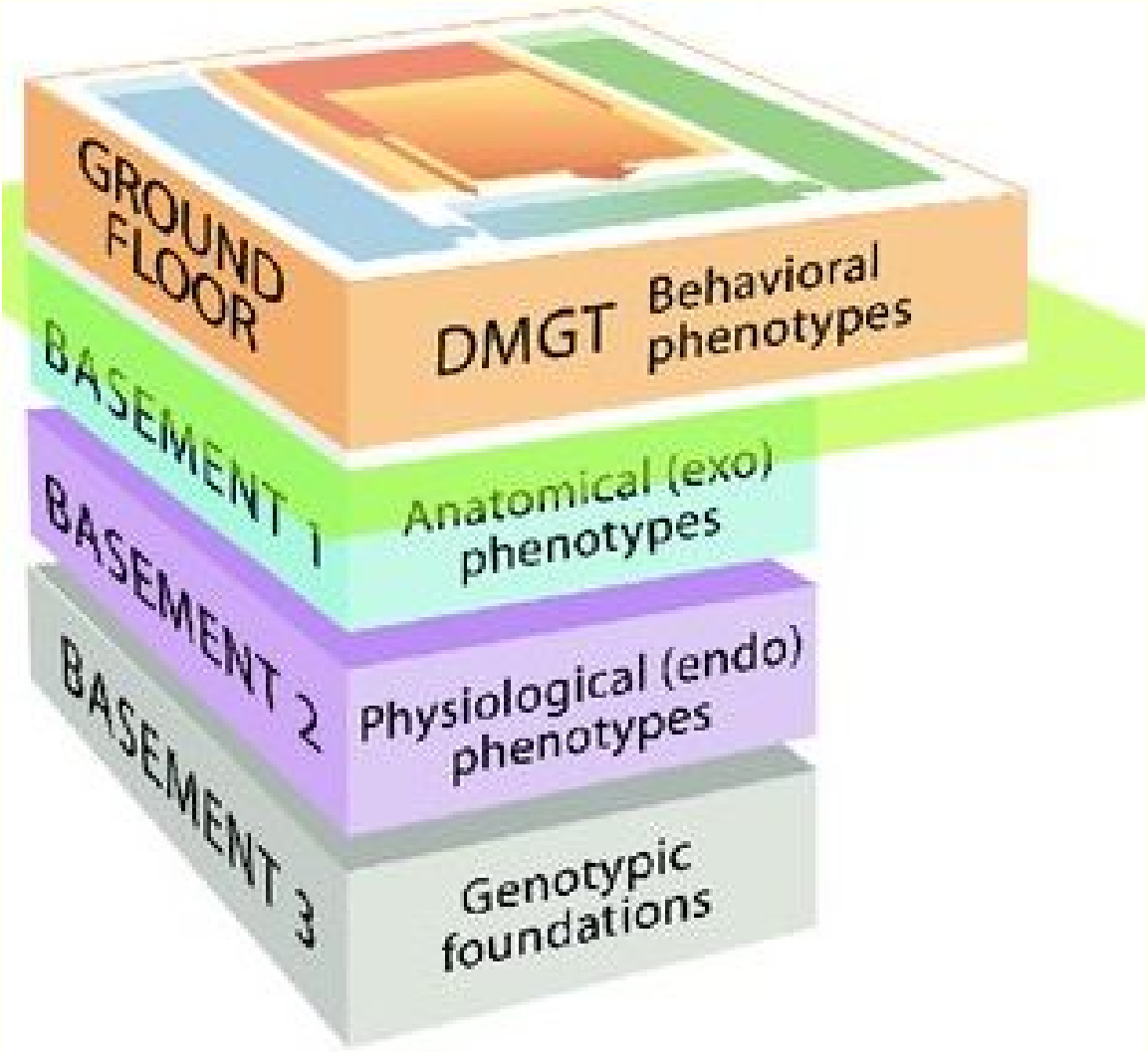
 – Constraints: situations restricting you to move on

Differentiated Model Giftedness and Talent



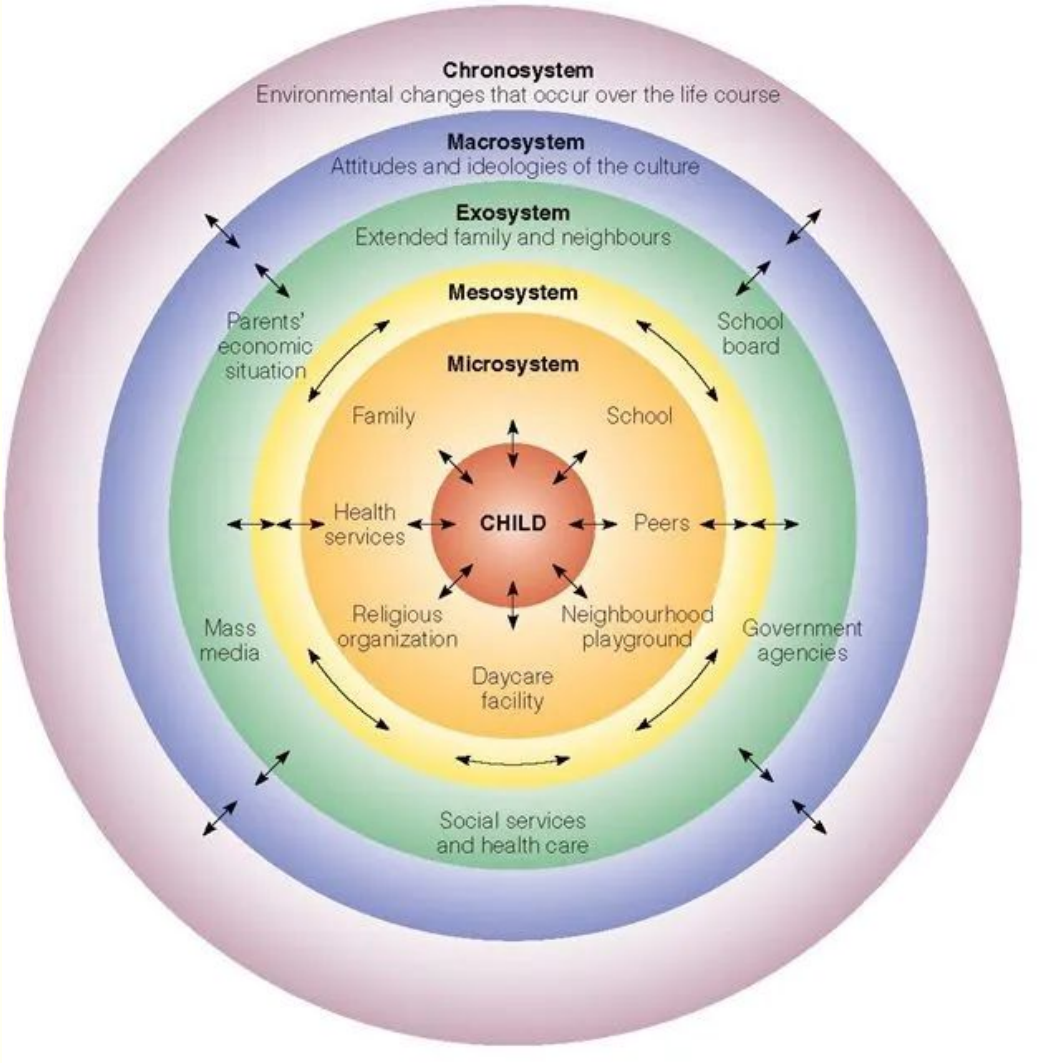
François Gagné proposed his DMGT framework initially around 2004 and kept updating the framework using contemporary academic insights in talent development (Gagné, 2010).

Comprehensive Model of Talent Development



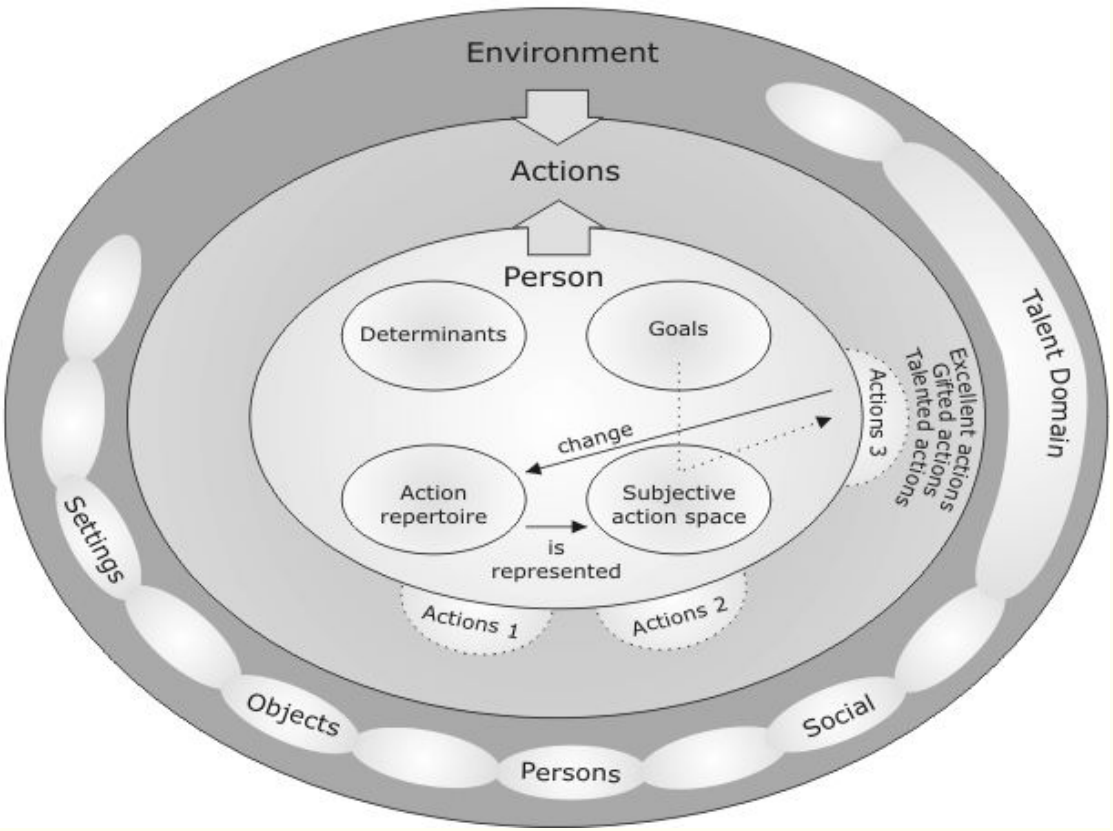
In 2015 Gagné added what he called a basement to his original framework in which he include the *nature* part of ability development. Initially his framework consisted mostly of *nurture* aspects of development (Gagné, 2015).

Ecological System Theory



In his blog Guy-Evans (2020) presents an introduction to the Ecological System Theory, introduced by U. Bronfenbrenner in the 1970's. In this drawing the adolescent is placed in concentric circles of influence and connections.

The actiotope approach to talent development



Another model based on systems theory is the ***actiotope model*** introduced by Ziegler (Chapter 23 in Sternberg & Davidson, 2005).

This approach states that talents are the result of choices from a set of actions in a certain domain.

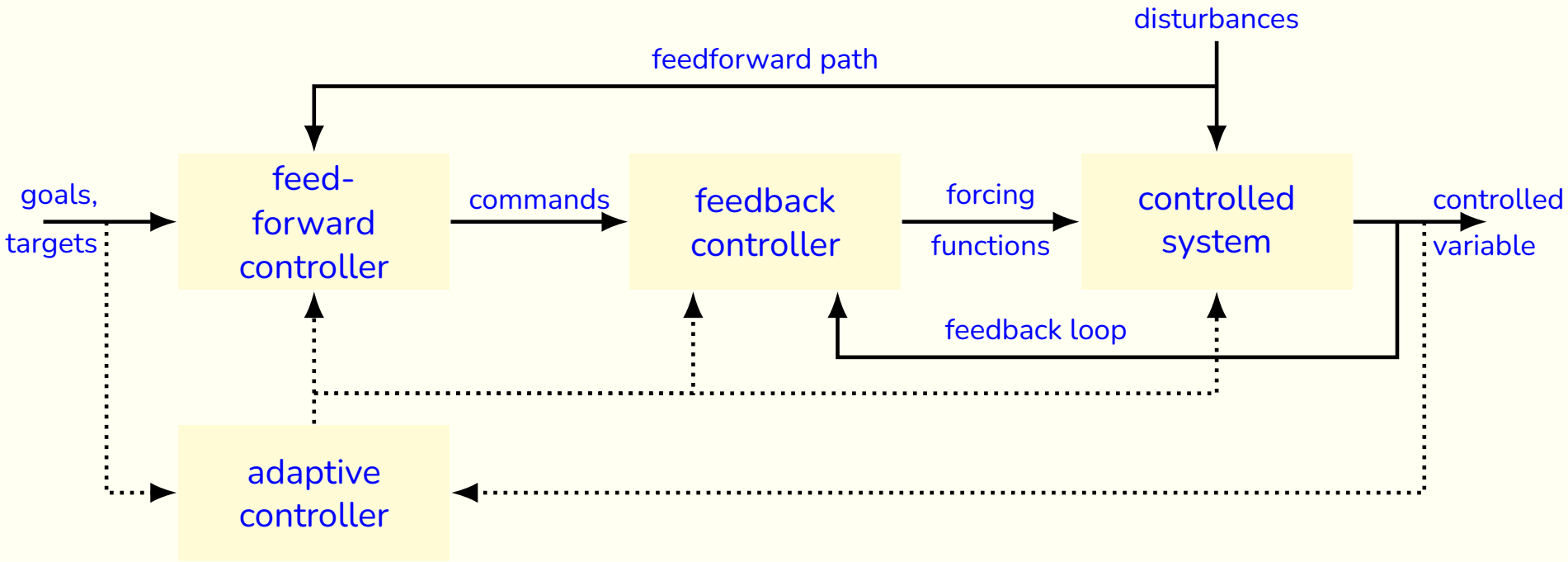
Ziegler's position on talent development

Ziegler and Phillipson (2012) argue that current gifted education (and research) is based on the erroneous view that individual components of giftedness like intelligence or motivation need to be understood.
They propose an alternative view that is based on a systems approach that comprises both the individual and its internal subsystems and the external environment of that individual.
This position is equivalent to the way the TiO coaching model is structured.

Wicked problems

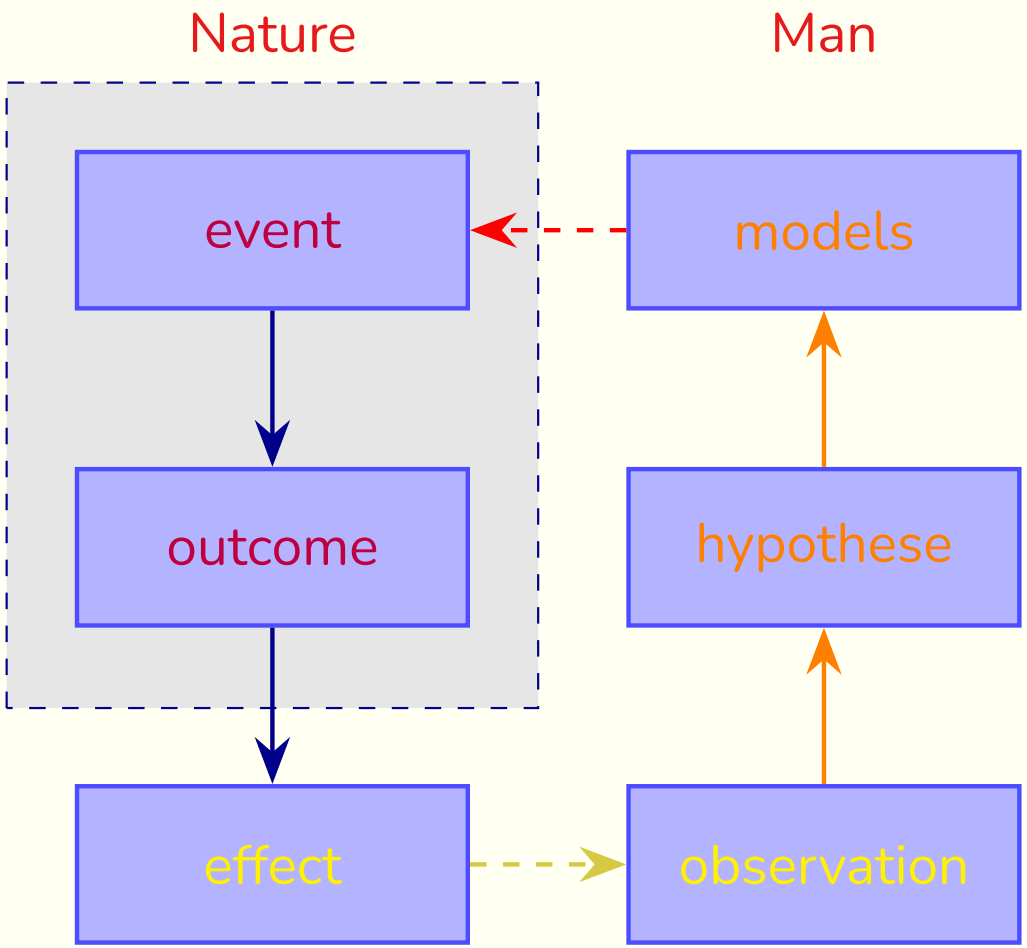
In 1973 Rittel and Webber (1973) published an essay about the complexity of finding solutions to some type of problems. There weren't any solutions, that didn't raise partial problems one way or another. Hence the term wicked problems.

A short introduction into systems theory



The figure above is redrawn from Houk (1988) to depict the basic components in systems theory. These components are slightly renamed by Ziegler in his actiotope framework.

Nature versus Man

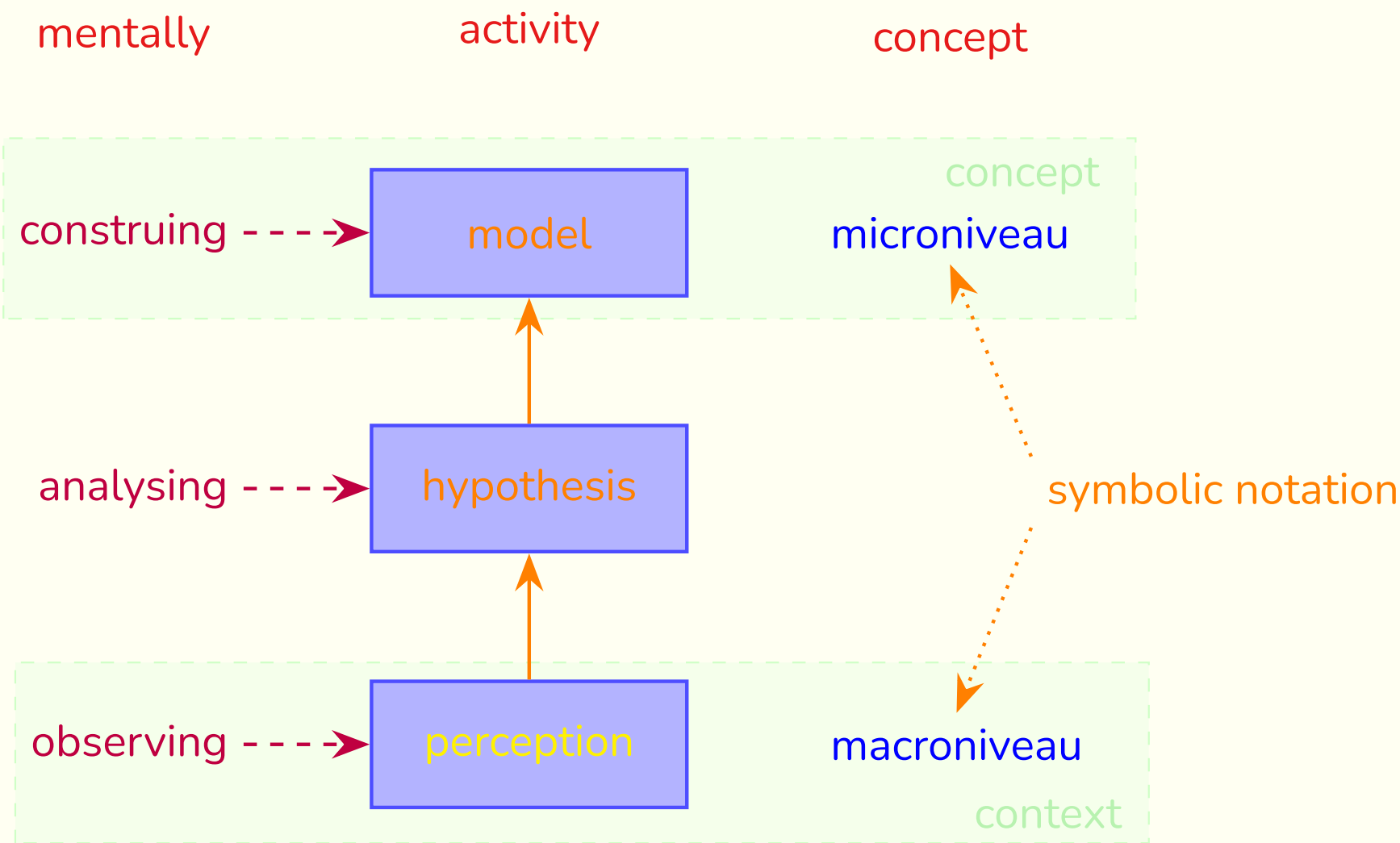


An event in Nature has an outcome, that results in an observable effect or response.

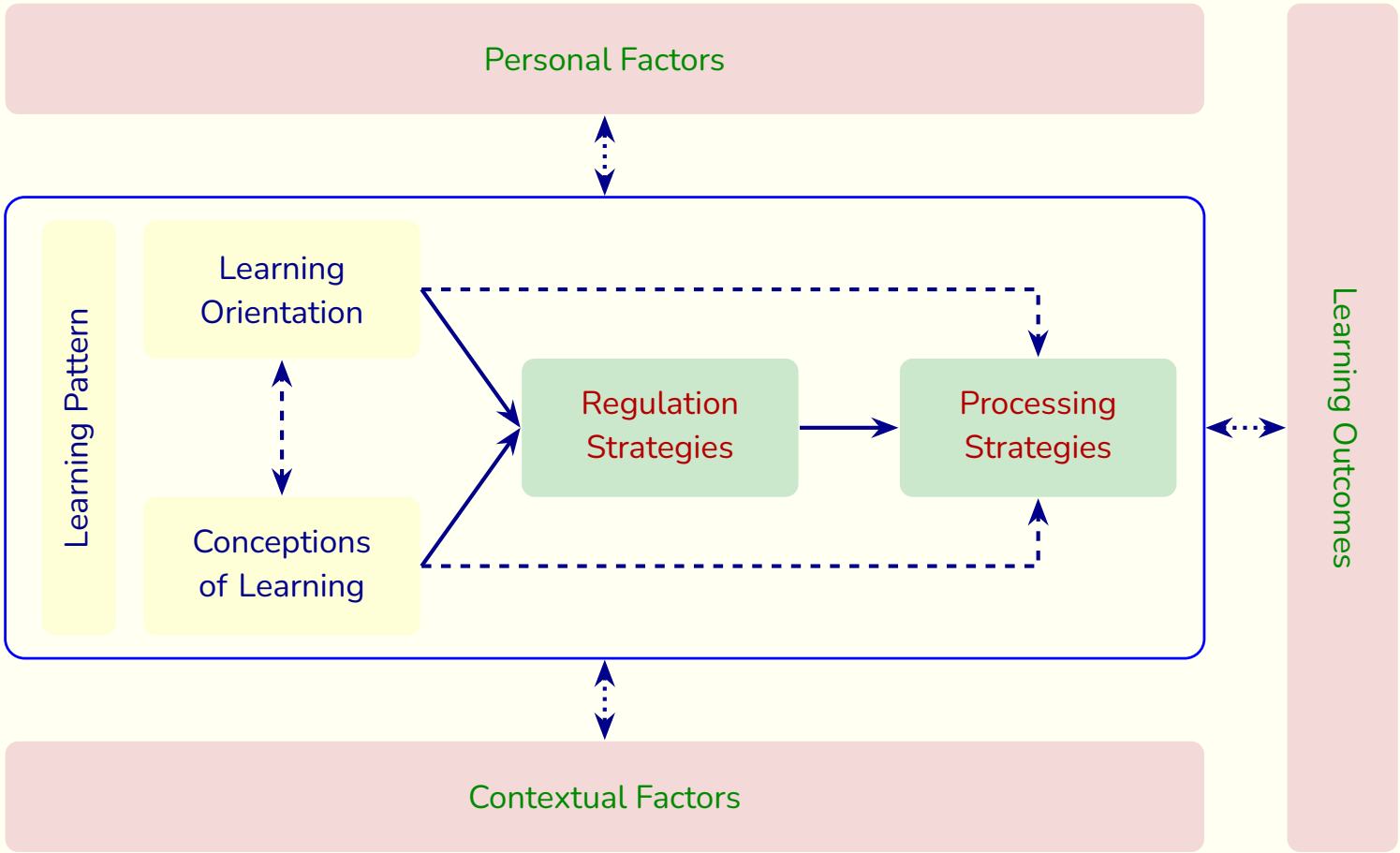
Researchers make observations of these phenomena, make assumptions about the origins of the outcome causing those phenomena and create models to explain these outcomes.

Both event and outcome are considered black boxes.

Schematic representation



Learning Pattern



The building blocks and adaptive factors that influence effective learning processes (outcomes). Redrawn from Vermunt and Donche (2017).

Components of learning patterns

Learning Orietation

Motivation-affection component of pattern, containing aim, goal, motives and worries about studying

Conceptions of Learning

metacognitive domain about beliefs and views about learning and teaching

Regulation Strategies

metacognitive activities used in planning, monitoring, adapting and evaluating learning processes

Processing Strategies

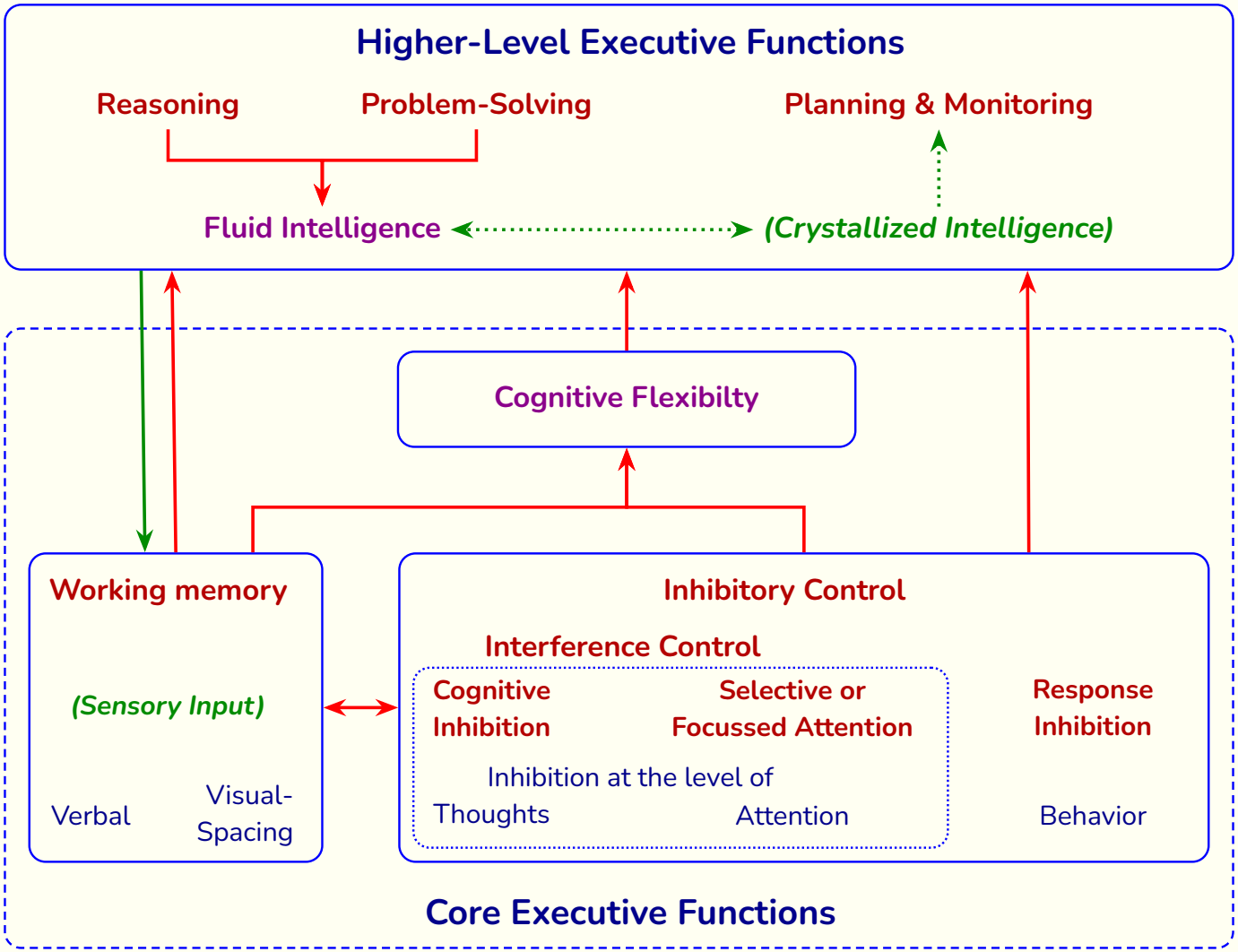
(meta)cognitive activities used to process learning about a subject / domain thet lead to changes in knowledge, understanding and skills.

Four established learning patterns

	Meaning directed	*Reproduction directed*	*Application directed*	*Undirected*
Cognitive processing strategies	Deep processing • Relating and structuring • Critical processing	Stepwise processing • Analizing • Memorizing	Concrete processing	Few processing activities
Regulation strategies	Self-regulation	External regulation	Self- / Exernal regulation	Lack of regulation
Learning orientations	Personal interest	Self-test oriented Certificate oriented	Vocation oriented	Ambivalent
Conceptions of learning	Construction of knowledge	Intake of knowledge	Use of knowledge	Cooperative learning

Adapted from Van Waes et al. (2010)

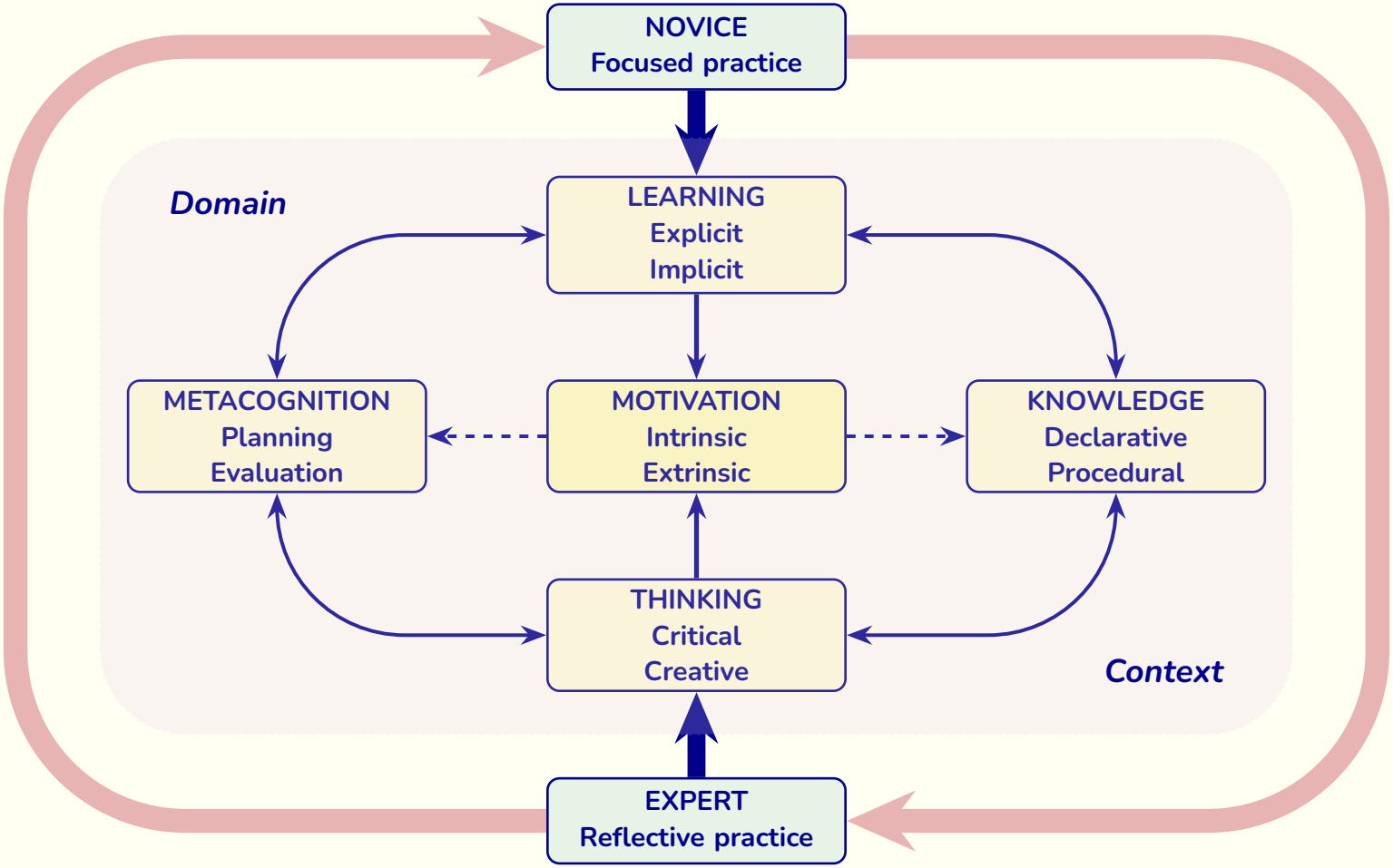
Executive functions and intelligence



Executive functions hierarchy as proposed by Diamond (2013).

Redrawn from Lemke and Scherpiet (2015).

Motivation: from being unaware to awareness



Motivation is connected to several processes and has a strong domain / context dependence.

Redrawn from Sternberg et al. (2004)

Part II – From theory to practice


Overview

Let's turn the theoretical idea's into practice. Snelbecker (1999) already mentioned the gap between the academic researcher's point of view and the everyday experiences of professionals in the field. Furthermore, Betts and Neihart (1988) presented a study how circumstances influence academic achievements. Three narratives addressing these two studies.

Case 1 Female adolescent - 16 years - choose the "easy profile". Or how a seemingly easy way turned out to be a hard route to graduation.

Case 2 Male adolescent - 14 years - refugee from Poland at age 11. The COVID-19 lockdowns strongly interfered with addressing his traumatic experiences blocking his academic progress.

Case 3 Male youngster - 10 years - skipped class in primary school, but was not yet ready for secondary school. Again largely due to COVID-19 lockdowns and his creative brightness.

Narrative 1

A short story about choices

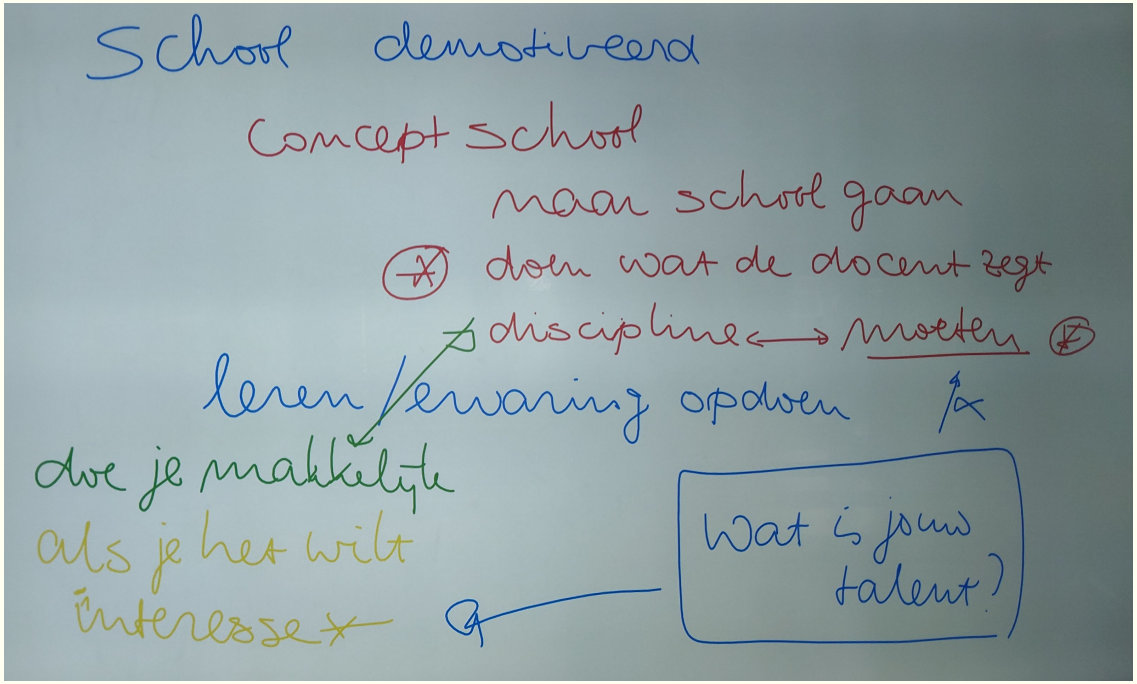
Easy way proved wrong choice

- Female adolescent (16 years) was labeled recalcitrant and about to drop out of school
- Angry about just everything and everyone
- Came into my chemistry class with a friend, listened to me addressing a question her friend asked and explained it to her again using her own words
- Had a long talk with her about choices made and options available
- She graduated six moths later in a CM (social/cultural) profile supplemented with chemistry
- She found a challenge in that extra course and proved scepticists wrong
- She pursued a career in legislation and jurisdiction (last I heard of)

Narrative 2

Coaching a young refugee from Poland

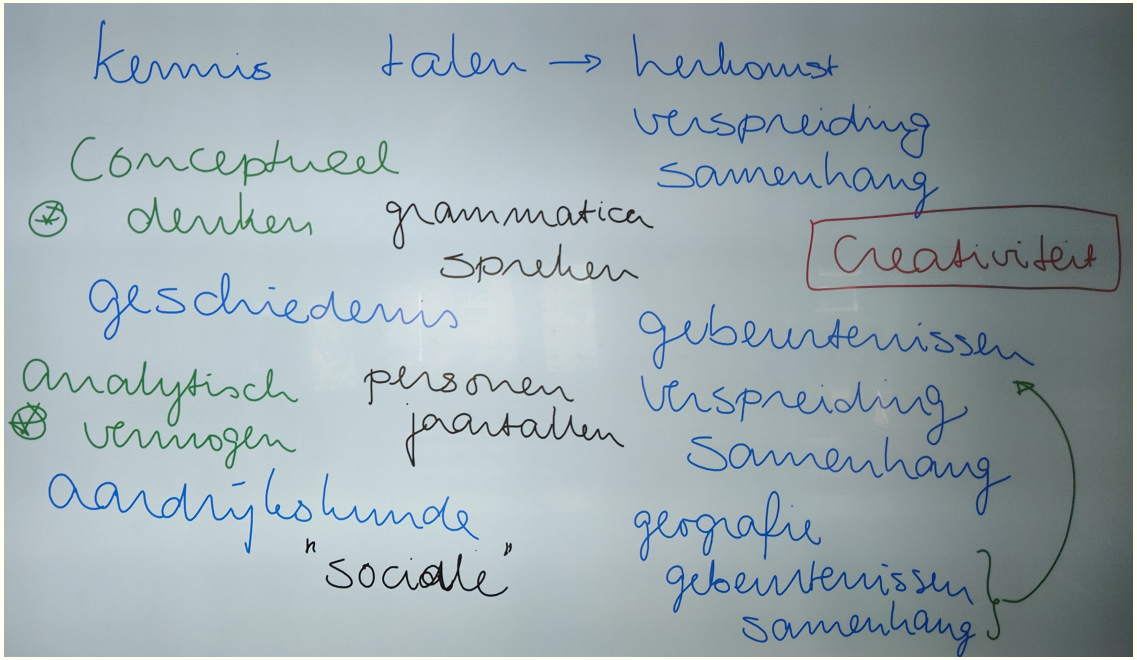
Smart but traumatized



- School was demotivating, dictating and disciplinary
- Teacher neglected personal interests
- Skipped classes, yet helped friends on their assignments

He learned Dutch within a year and was enrolled in primary education. Missed final testing due to COVID lockdown, but was accepted at Gymnasium anyway. There his traumatic experience and lack of scholarly abilities became evident and problematic.

What makes you tick? Exploring interests



- Very interested in languages and their origins
- Combines languages to geographic locations
- Partially connects that to historical events

Started intervention to estimate his abilities. He turned out to be a strong visual-spacial thinker, having good analytical skills and a creative, conceptual way of thinking.

Lockdowns, trauma and addiction

- Intervention was in between COVID lockdowns
- Despite interests in language project nothing much happened
- Former experiences in personal and contextual factors became strong obstacles in progression
- Game addiction further hindered progress and continuity
- Intervention of Social Services in home situation and changing schools to address his traumatic past were the best possible option

Narrative 3

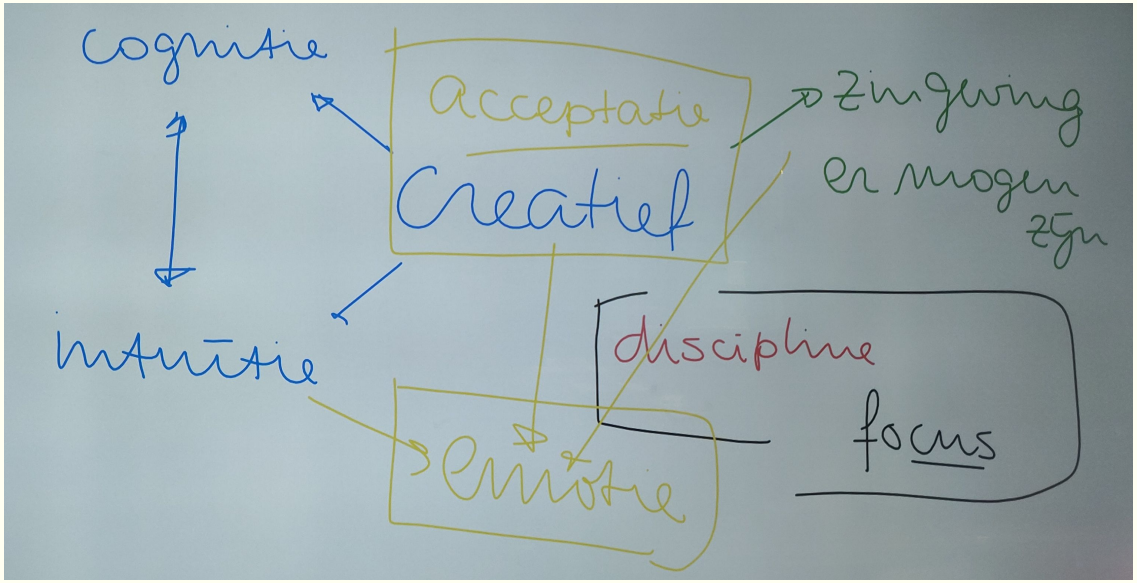
Gifted youth, but corona hindered development

Smart but not "schoolwise"

- Primary school was not really a challenge: skipped a year
- Arrhythmic was not automated and learning skills were nearly absent
- Played LARP with a group of friends as *warlock*

At the intake he showed a chaotic yet constructive way of thinking. We decided to explore how his brain worked. So we mapped keywords to cognitive and intuitive thoughts. Then put accents on the keywords that were important to find a balance.

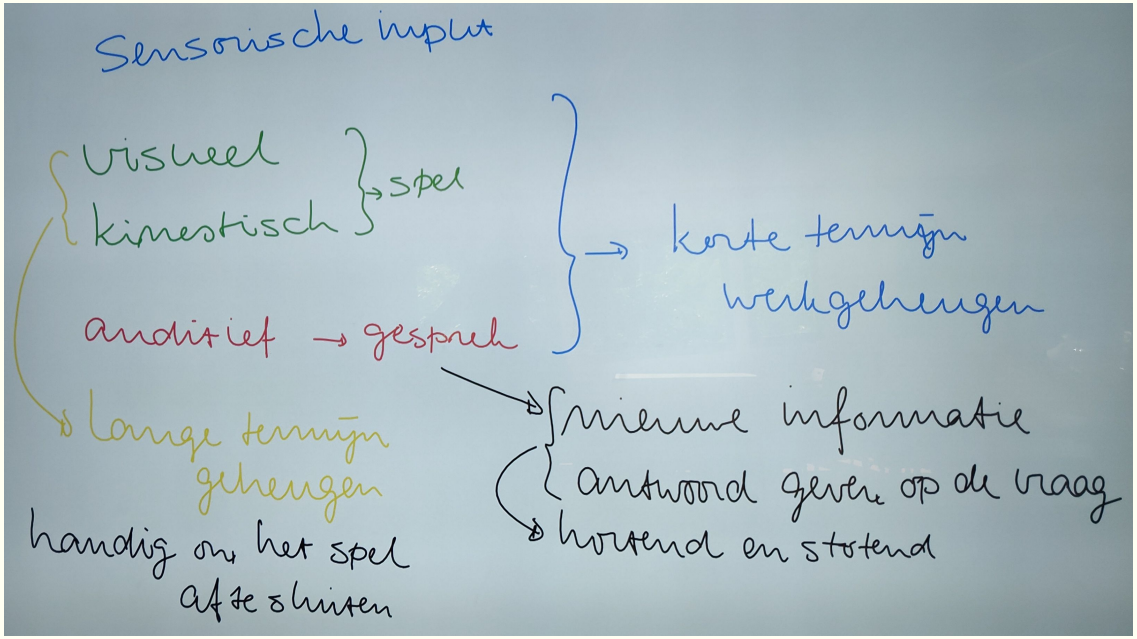
A talk about "being a creative person"



- Being creative implies associative thinking
- Being a very sensitive person implies a certain vulnerability
- Being an high ability person implies existential questions

We had an interesting exploration about being creative and its positive and negative sides. His perfectionism magnified some of these sides, especially acceptance and emotions.

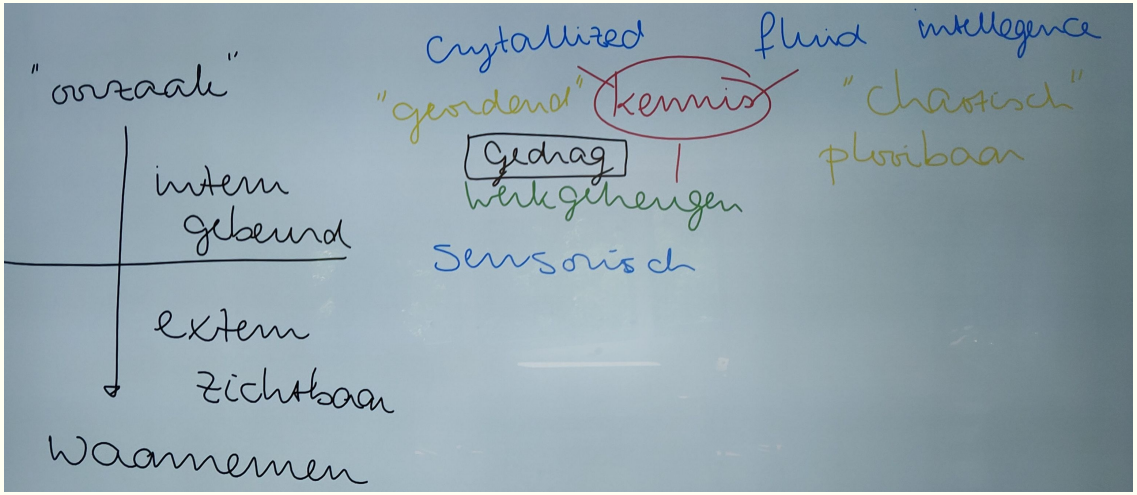
There is no such thing as multitasking ...



- Kept playing a game at the start of a session
- Wanted to finish the game and at the same time talk
- Forgot what was said, attention was mainly on game

His idea of being able to pay equal attention to both game and talk led to an interesting intervention session. So we talked about the core executive functions especially the way working memory functions. This lead to the conclusion: There is no such thing as multitasking ....

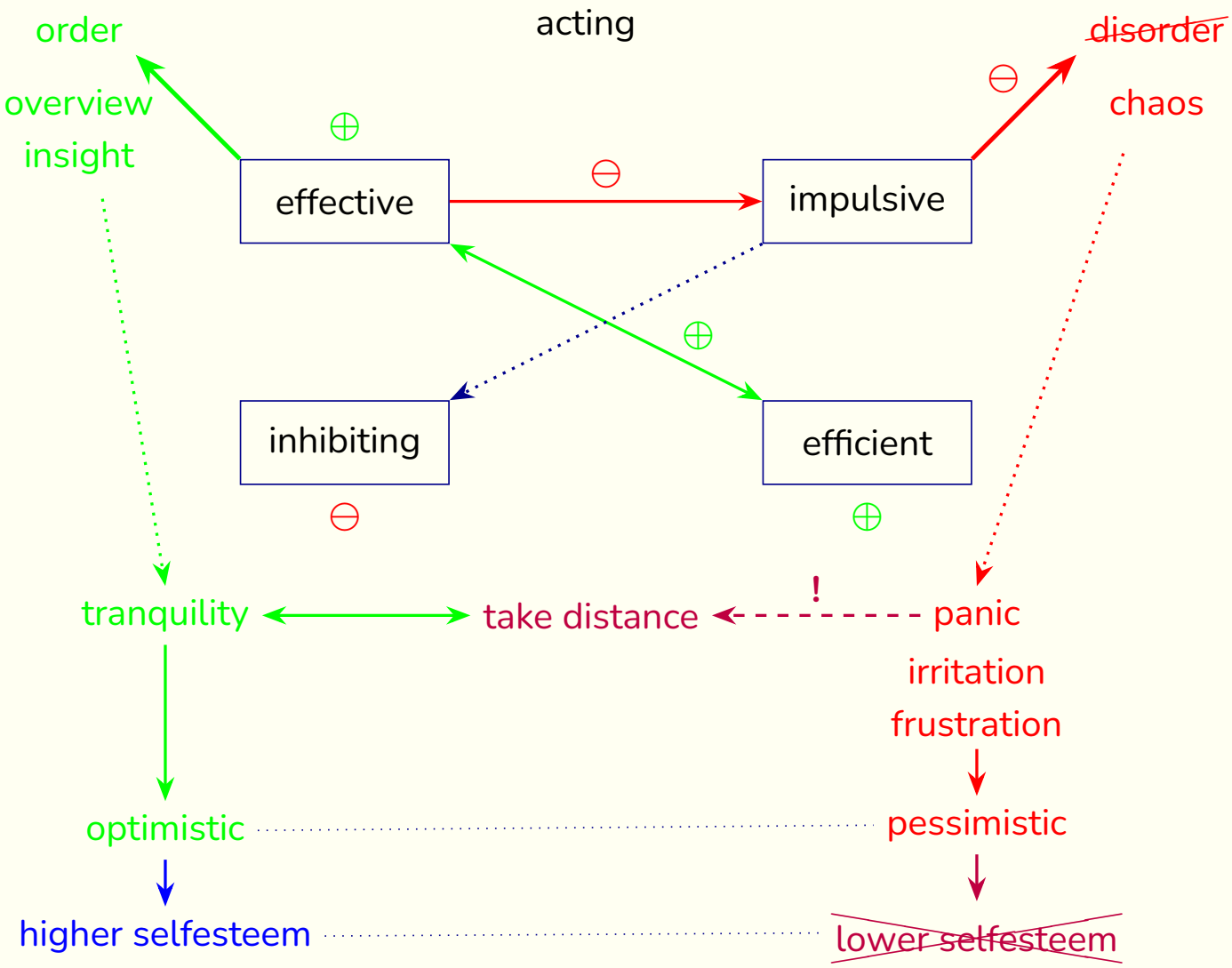
Connecting intelligence to knowledge



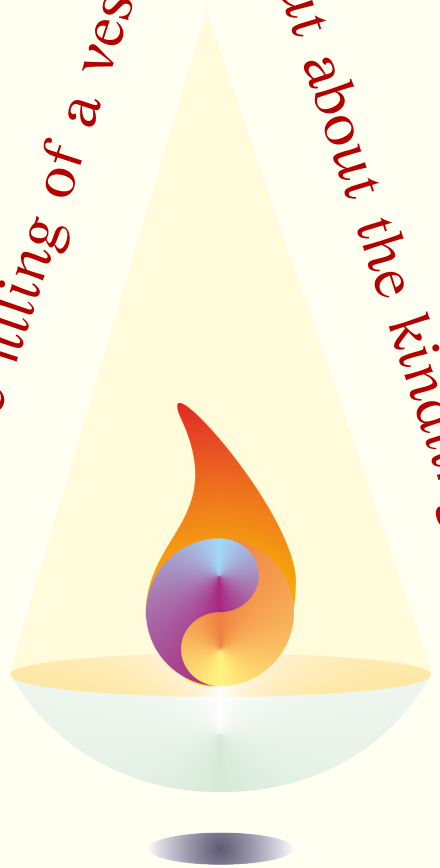
- Explaining internal episodes to external behavior
- Thoughts aren't visible to an observer, actions are

In the next session we explored the connection between core to higher order executive functions. I explained the working of his brain as it connects stored knowledge to solve issues or require new knowledge. In this I explained the triangle crystallized, fluid intelligence and working memory and how that affects behavior.

The resulting scheme



Concluding quote



after Socrates & Plutarch

Thank you for attending.

Contact information
LinkedIn or via email