Educational Evolution in relation to Osteopathic Evolution

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Fico Osteopathy Academy

OsEAN
Osteopathic European Academic Network

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HANDS with HEART

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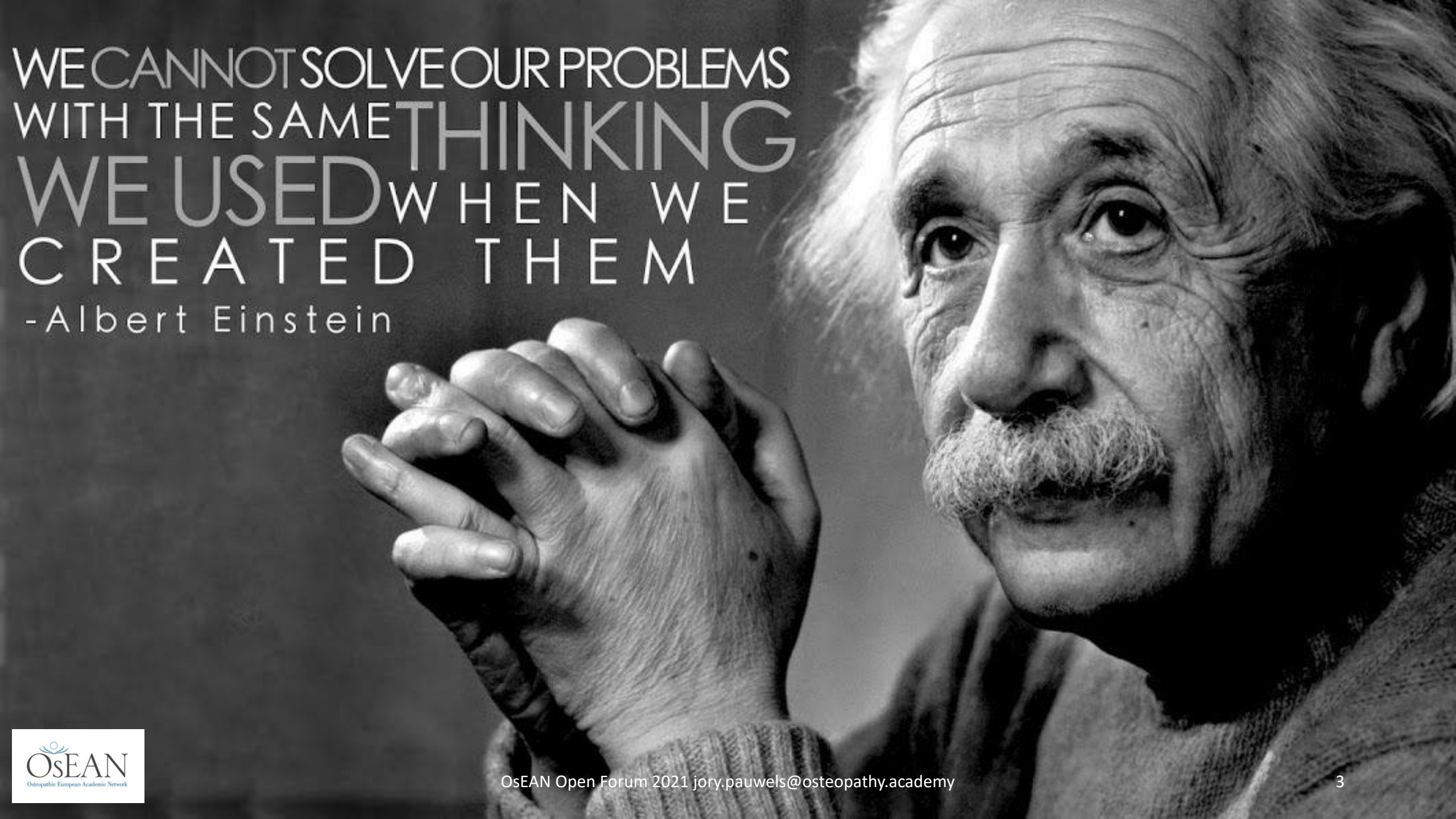
OSTEOPATHIC MEDICINE FICO-MUM

Welcome

jory.pauwels@osteopathy.academy


WE CANNOT SOLVE OUR PROBLEMS
WITH THE SAME THINKING
WE USED WHEN WE
CREATED THEM
-Albert Einstein

Overview

- Gameplan
- Teaching vs Tutoring, Push vs Pull
- Results
- Models of learning
- From didactics to the clinic
- Different therapeutic approaches
- Results
- Roles of the teacher through the ages
- Epilogue: Teacher - Therapist

Workshop game plan

- How does your educational past look like?
- Is there evolution?

- Hoe does your osteopathic therapeutical past look like?
- Is there evolution?

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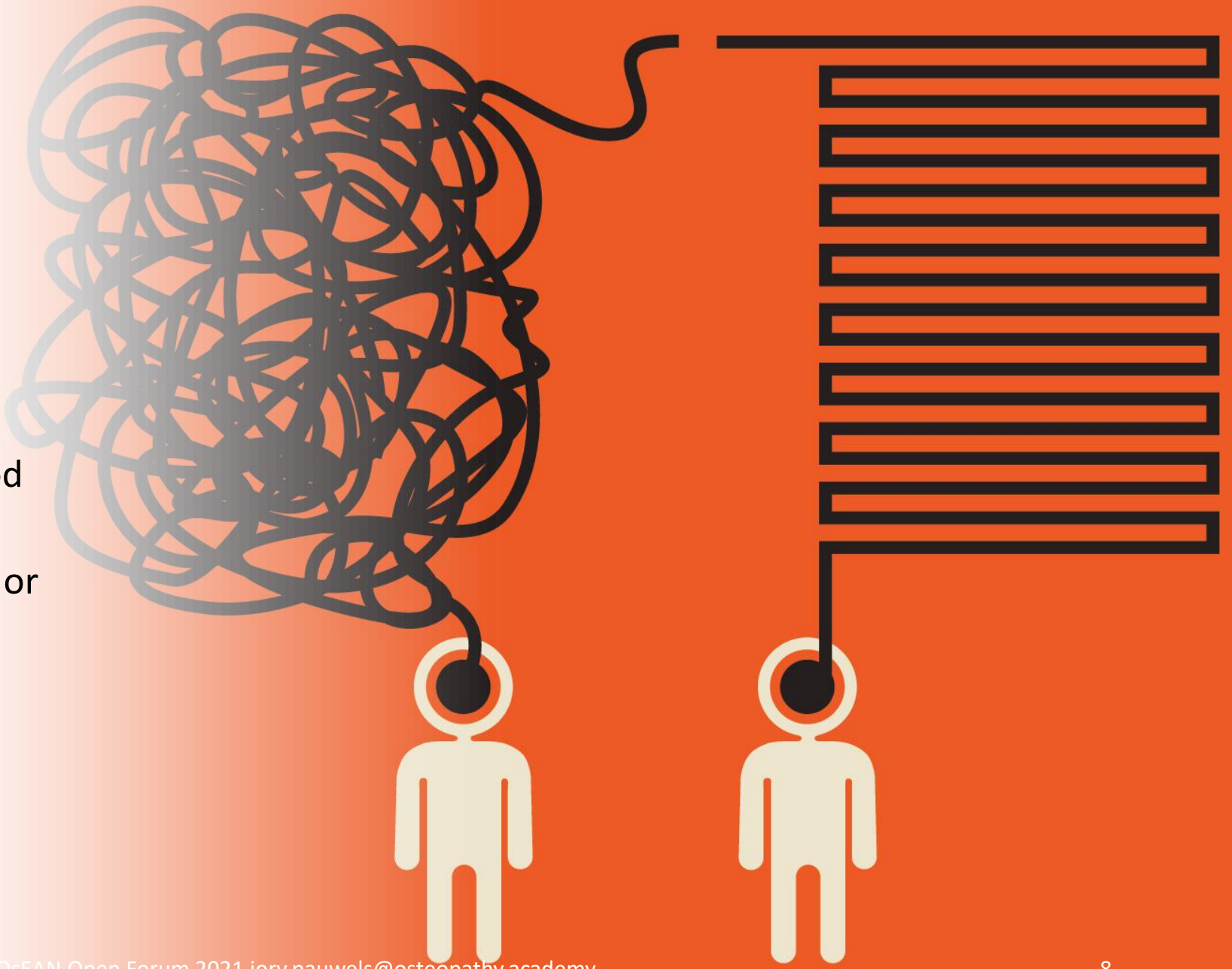
Your answers highlighted some of:

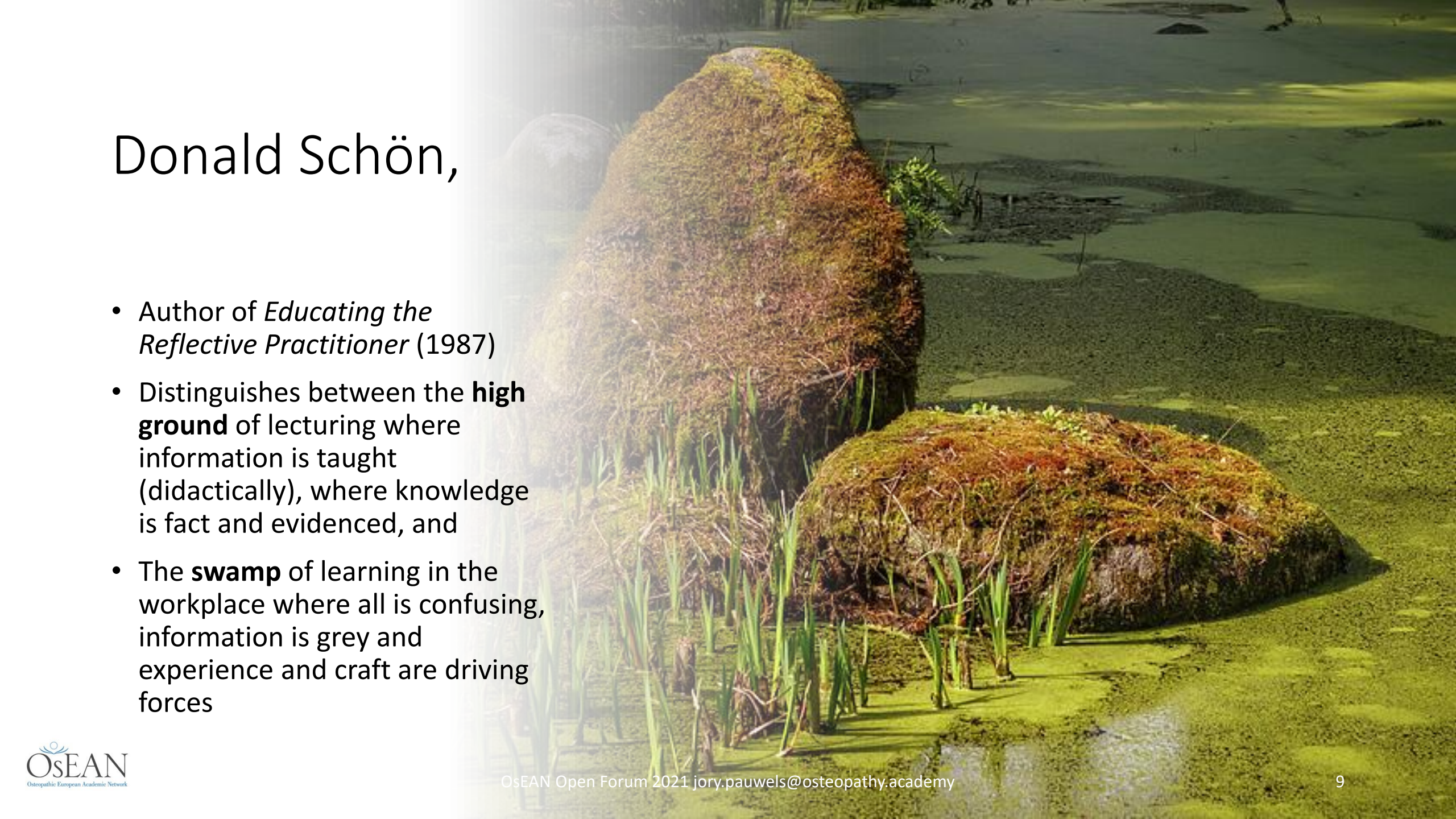
- Teaching v tutoring
- Osteopathy as empathy, teaching osteopathy as empathy

Teaching vs tutoring

- What do you prefer?
- What is the difference?
- Is a good teacher per se a good tutor?
- Chaos or order? Safe harbour or great ocean?



Donald Schön,



- Author of *Educating the Reflective Practitioner* (1987)
- Distinguishes between the **high ground** of lecturing where information is taught (didactically), where knowledge is fact and evidenced, and
- The **swamp** of learning in the workplace where all is confusing, information is grey and experience and craft are driving forces

Some perceived differences

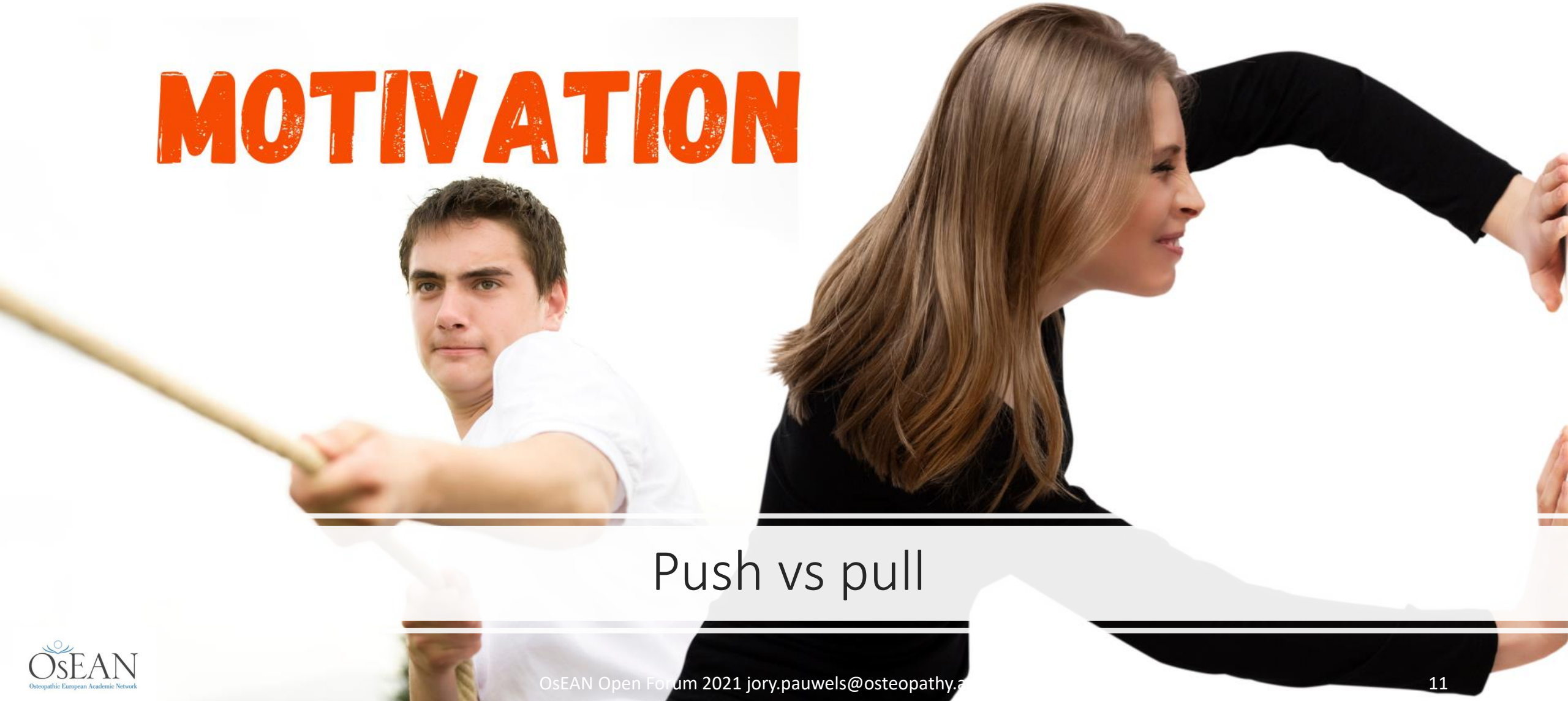
Lecture

- Swampy lowland
- Structured
- Boundaried
- Theoretical
- Logical progress
- Coordinated and controllable (ILO's)
- Progressive
- Objective

Tutoring

- Rocky high ground
- Often lacks structure (longitudinally)
- No boundaries
- Practical and goal driven
- Should be logical
- Haphazard, serendipitous
- Progress (educational) not clear
- Subjective

PUSH VS. PULL MOTIVATION



Push vs pull

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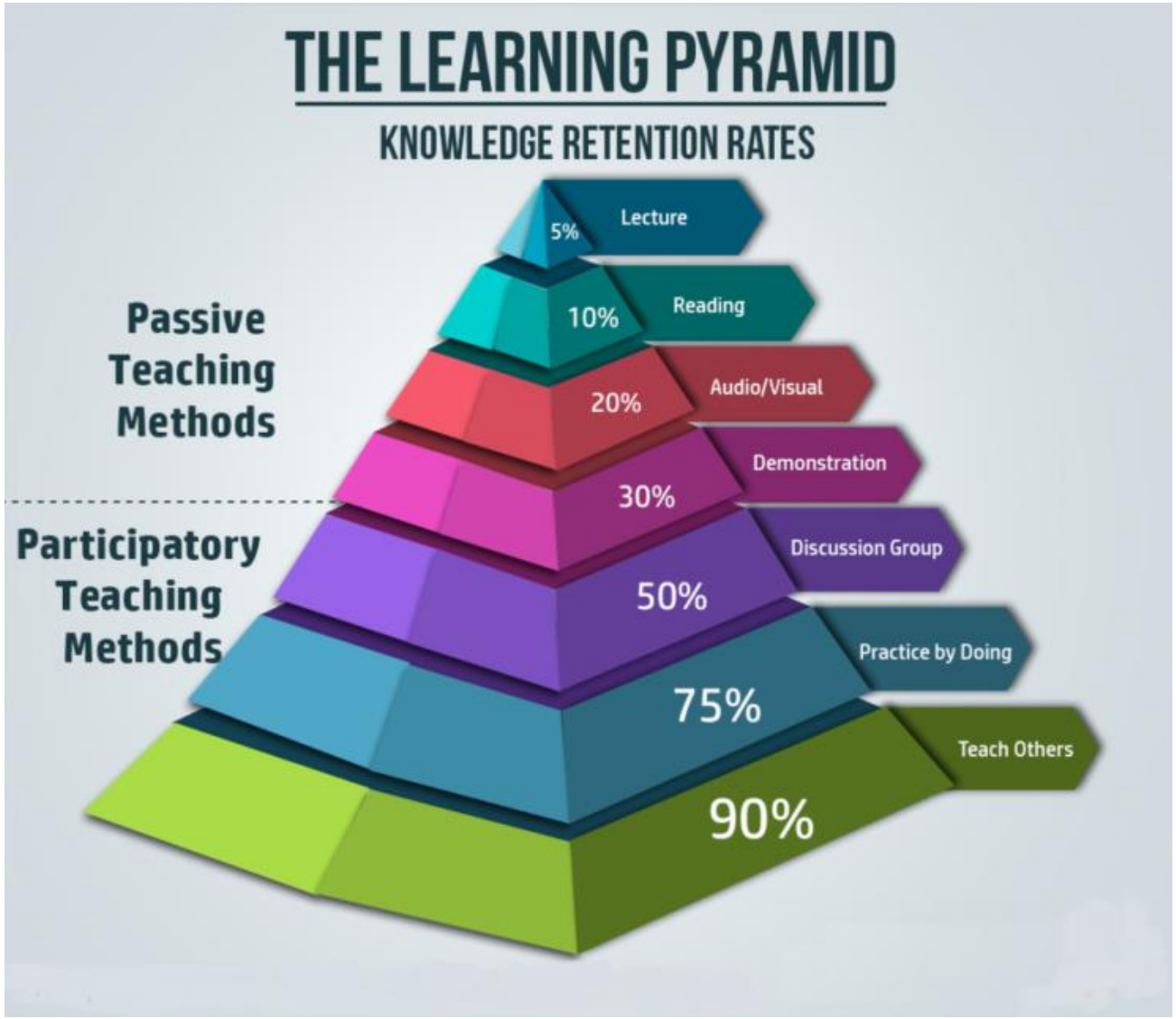
So, there are different teaching styles

What is the learning effect?

Brooks J., Brooks M. 1993

In Search of Understanding:

'The Case for Constructivist Classrooms'



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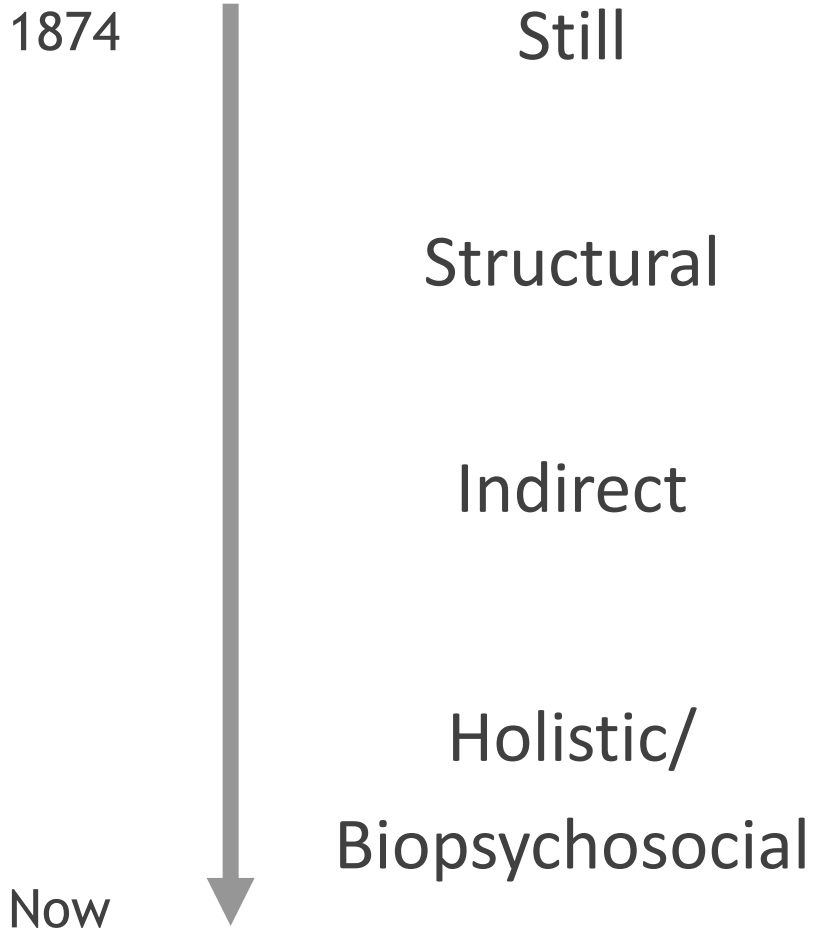
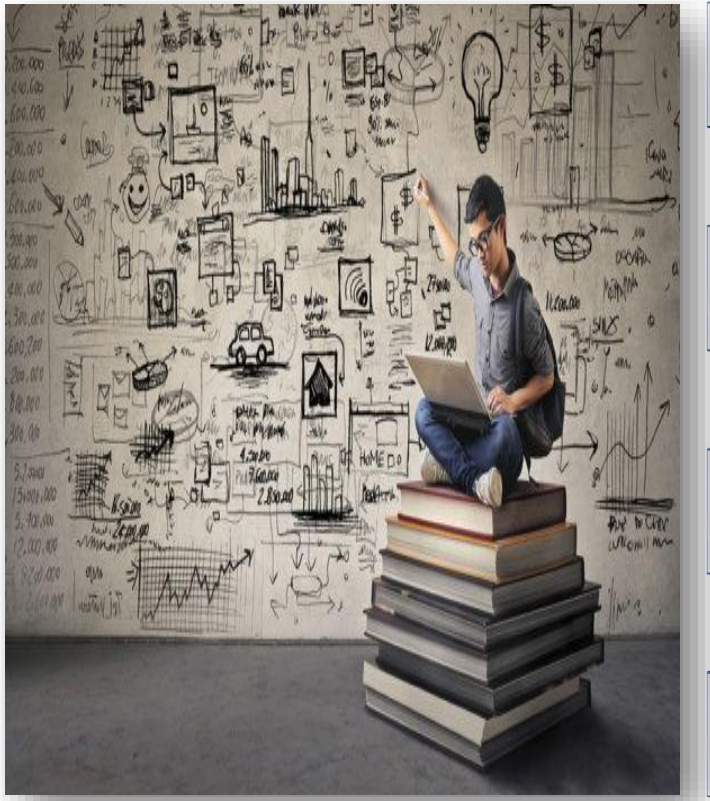
MODELS OF LEARNING

Theories

An osteopathic analogy



Education Evolution



- Behaviourist — 1910-20
- Cognitive
- Humanist
- Social constructivist — Present

Zeitgeist

Era	Osteopathic	Who does	Who one respects	Educational
1900	Direct	Have done to	Respect for others	**Behaviourist**
Pre war				
				Cognitive
Post war	Indirect	Doing for oneself	Respect for self	
				Humanist
2000	Holistic/ Biopsychosocial	Doing for society	Respect for the environment	**Social Constructivist /ecologist**

Behaviourist

- Ivan Pavlov
- (1849-1936), Russian physiologist,

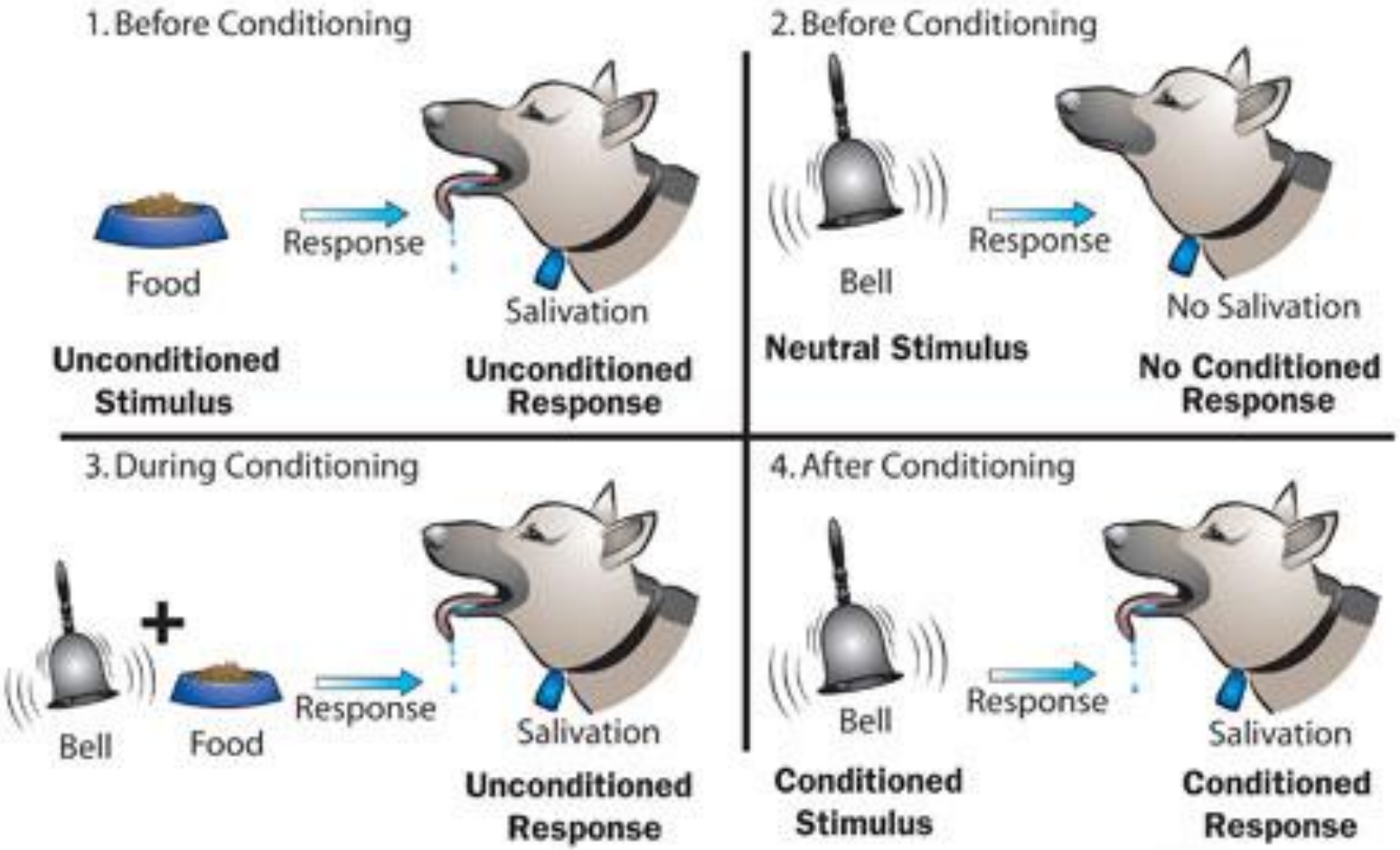
- Important contributors:
  - B.F. Skinner,
  - E. L. Thorndike
  - (connectionism),

Behaviorism

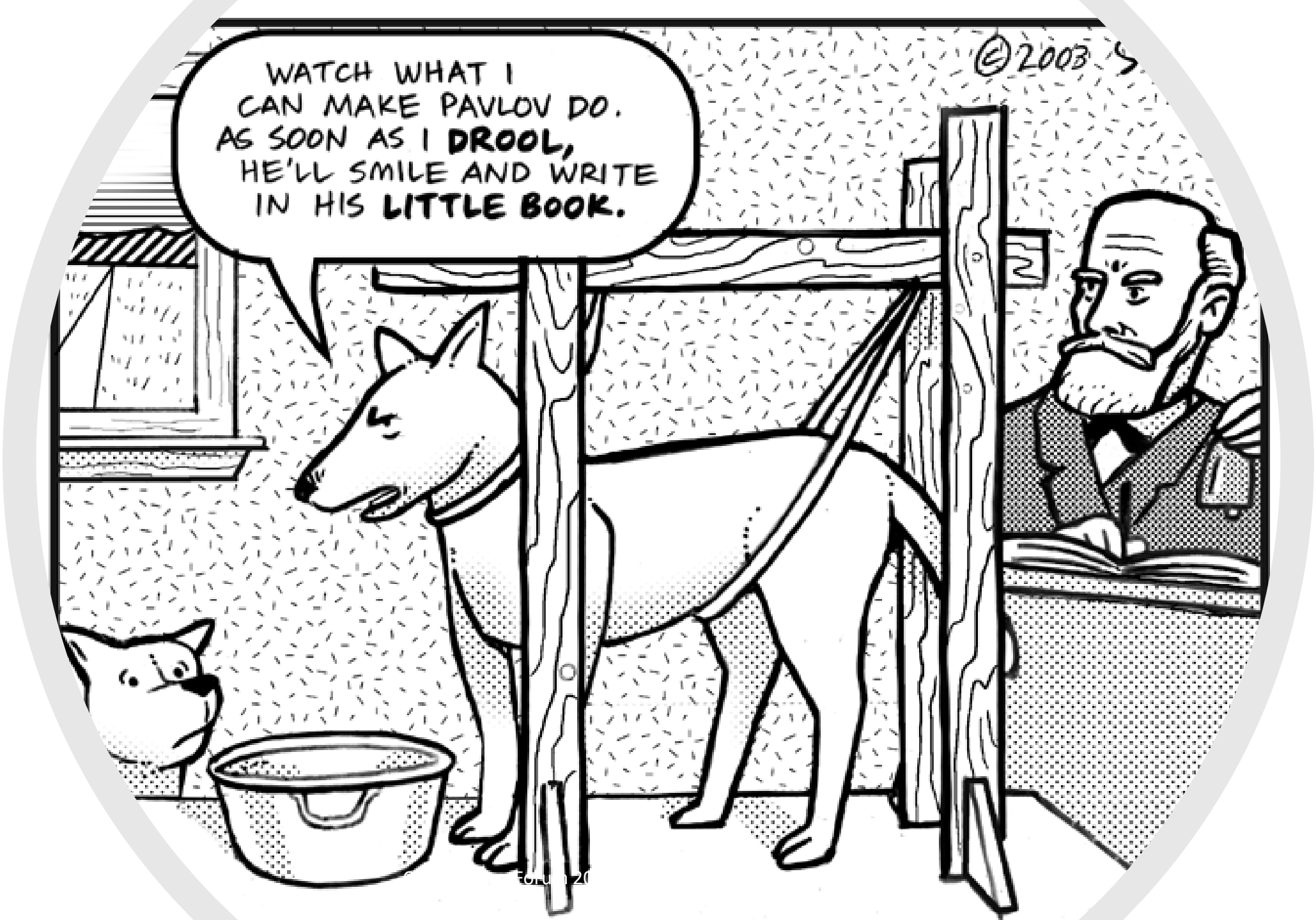
KEY ASSUMPTIONS

ASSUMES A LEARNER IS ESSENTIALLY PASSIVE, RESPONDING TO ENVIRONMENTAL STIMULI.

THE LEARNER STARTS OFF AS A CLEAN SLATE (I.E. *TABULA RASA*) AND BEHAVIOR IS SHAPED THROUGH POSITIVE REINFORCEMENT OR NEGATIVE REINFORCEMENT.



Pavlovian Conditioning


WATCH WHAT I CAN MAKE PAVLOV DO. AS SOON AS I DROOL, HE'LL SMILE AND WRITE IN HIS LITTLE BOOK.
©2003

Operant or Behavioral conditioning

Term created by Skinner

Is a method of learning that occurs through rewards and punishments for behaviour.

Through operant conditioning, an association is made between a behaviour and a consequence for that behaviour.

Skinner believed that **internal** thoughts and motivations could **not** be **used** to **explain behaviour**. Instead, he suggested, we should look **only** at the **external**, observable causes of human behaviour.

Skinner defined *operant* as any "active behaviour that operates upon the environment to generate consequences" (1953).

Skinner, B.F. (1953). Science and Human Behavior. New York: Macmillan.
http://psychology.about.com/od/behavioralpsychology/a/introopcond.htm

Operant conditioning can:

Increase behaviour, the promise or possibility of rewards causes a repetition of favourable behaviour

Decrease behaviour, the use of punishment can be used to decrease or prevent undesirable behaviours.

A reinforcer

- There are two kinds of reinforcers:
  - **Positive reinforcers** are favorable events or outcomes that are presented after the behaviour. In situations that reflect positive reinforcement, a response or behaviour is strengthened by the addition of something, such as praise or a direct reward.
  - **Negative reinforcers** involve the removal of an unfavourable events or outcomes after the display of a behaviour. In these situations, a response is strengthened by the removal of something considered unpleasant.
- In both of these cases of reinforcement, the behaviour **increases.**
- **http://psychology.about.com/od/behavioralpsychology/a/introopcond.htm**

Punishment

- There are two kinds of punishment:
  - **Positive punishment**, sometimes referred to as punishment by application, involves the presentation of an unfavourable event or outcome in order to weaken the response it follows (eg. verbal criticism or a slap).
  - **Negative punishment**, also known as punishment by removal, occurs when a favorable event or outcome is removed after a behaviour occurs.
  - Both cause a decrease in the behaviour they follow
  - http://psychology.about.com/od/behavioralpsychology/a/introopcond.htm

Behaviourists: Used currently

- What the behaviourists gave us:
  - Activity aids learning
  - Repetition and practice aids learning
  - Small steps aid learning
  - Reinforcement aids learning

Thought-Shower Moment

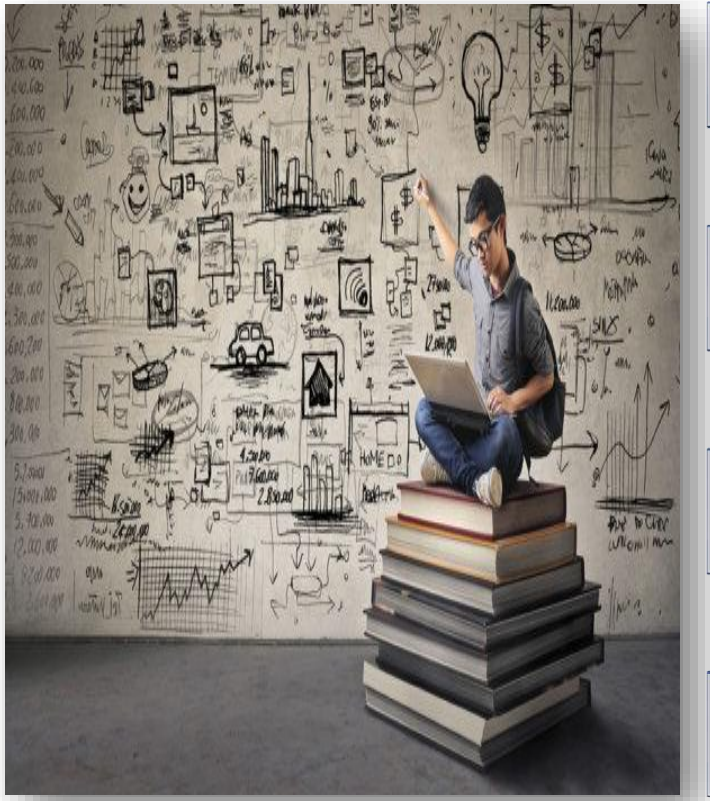
Does conditioning have a place in teaching?

Reflect on situations and where it has or could be used constructively and then destructively?

Do we possibly use it accidentally?

In what ways can we utilise it beneficially in our teaching?

Education Evolution



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Cognitivism

The Cognitivism replaced behaviorism in 1960s as the dominant paradigm.

Believes that people are not “programmed animals” that merely respond to environmental stimuli (behaviorism); people are rational beings that **require active participation** in order to learn, and whose **actions are a consequence of thinking**.

COGNITIVISM USES THE METAPHOR OF THE MIND AS computer: INFORMATION COMES IN, IS BEING PROCESSED, AND LEADS TO CERTAIN OUTCOMES.

WE CAN ASSESS THOSE OUTCOMES

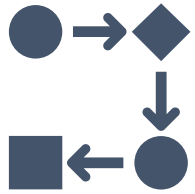
Cognitivists believe we learn by:

receiving information,

processing it,

storing it and

retrieving it



Processing the information means repeating it, using it, trying a number of formats. Hence giving a piece of information, then getting a class or group to work with it

Feedback is an integral part of cognitive theory

Robert Gagne
The Conditions of Learning 1965

Recognized individual differences

Gagne identifies five major categories of learning:

- verbal information,
- intellectual skills,
- cognitive strategies,
- motor skills and
- attitudes.

Gagne suggested that learning tasks for intellectual skills can be organized in a hierarchy according to complexity:

- stimulus recognition,
- response generation,
- procedure following,
- use of terminology,
- discriminations,
- concept formation,
- rule application, and
- problem solving.

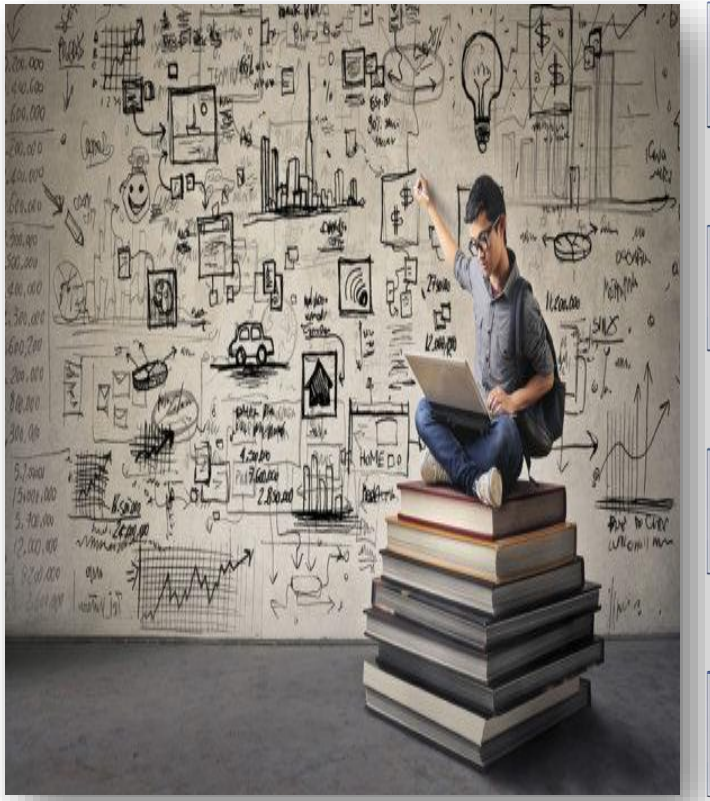
Learning hierarchies provide a basis for the sequencing of instruction.

1. Gain attention	Stimuli activates receptors
2. Inform learners of objectives	Creates level of expectation for learning
3. Stimulate recall of prior learning	Retrieval and activation of short-term memory
4. Present the content	Selective perception of content
5. Provide "learning guidance"	Semantic encoding for storage long-term memory
6. Elicit performance (practice)	Responds to questions to enhance encoding and verification
7. Provide feedback	Reinforcement and assessment of correct performance
8. Assess performance	Retrieval and reinforcement of content as final evaluation
9. Enhance retention and transfer to the job	Retrieval and generalization of learned skill to new situation

What the cognitivists gave us

- Learning comes from **understanding**
- Understanding comes from working with knowledge
- Organisation and structure of teaching aid learning
- Cognitive feedback aids learning
- Individual differences need to be taken into account

Education Evolution



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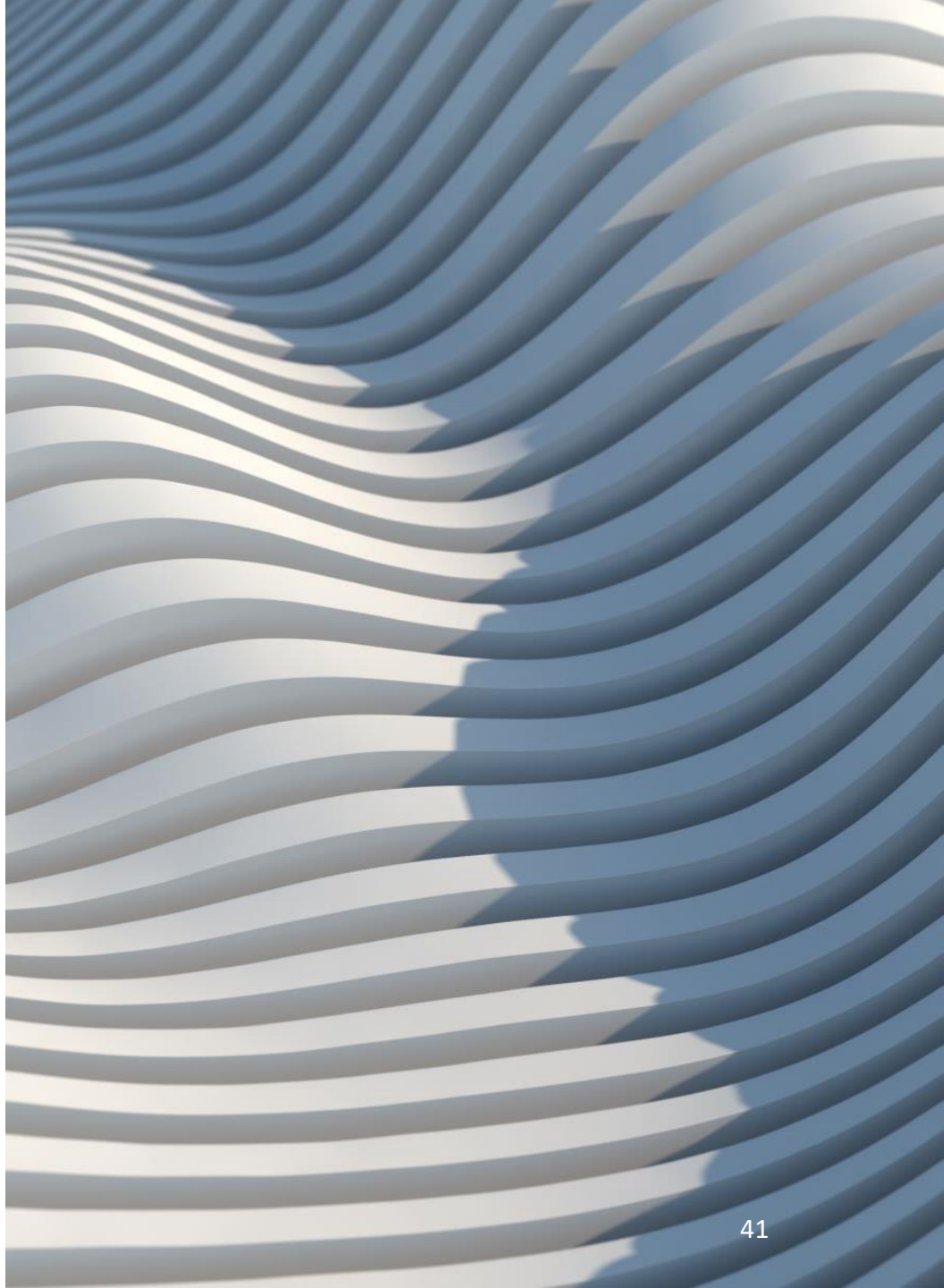
Humanism

Humanism is a paradigm/ philosophy/ pedagogical approach that believes learning is viewed as a personal act to fulfill one's potential.

It focuses on the human freedom, dignity, and potential



Humanism

Key proponents: Abraham Maslow, Carl Rogers, David A. Kolb Benjamin Bloom

Key terms: self-actualization, teacher as facilitator, affect

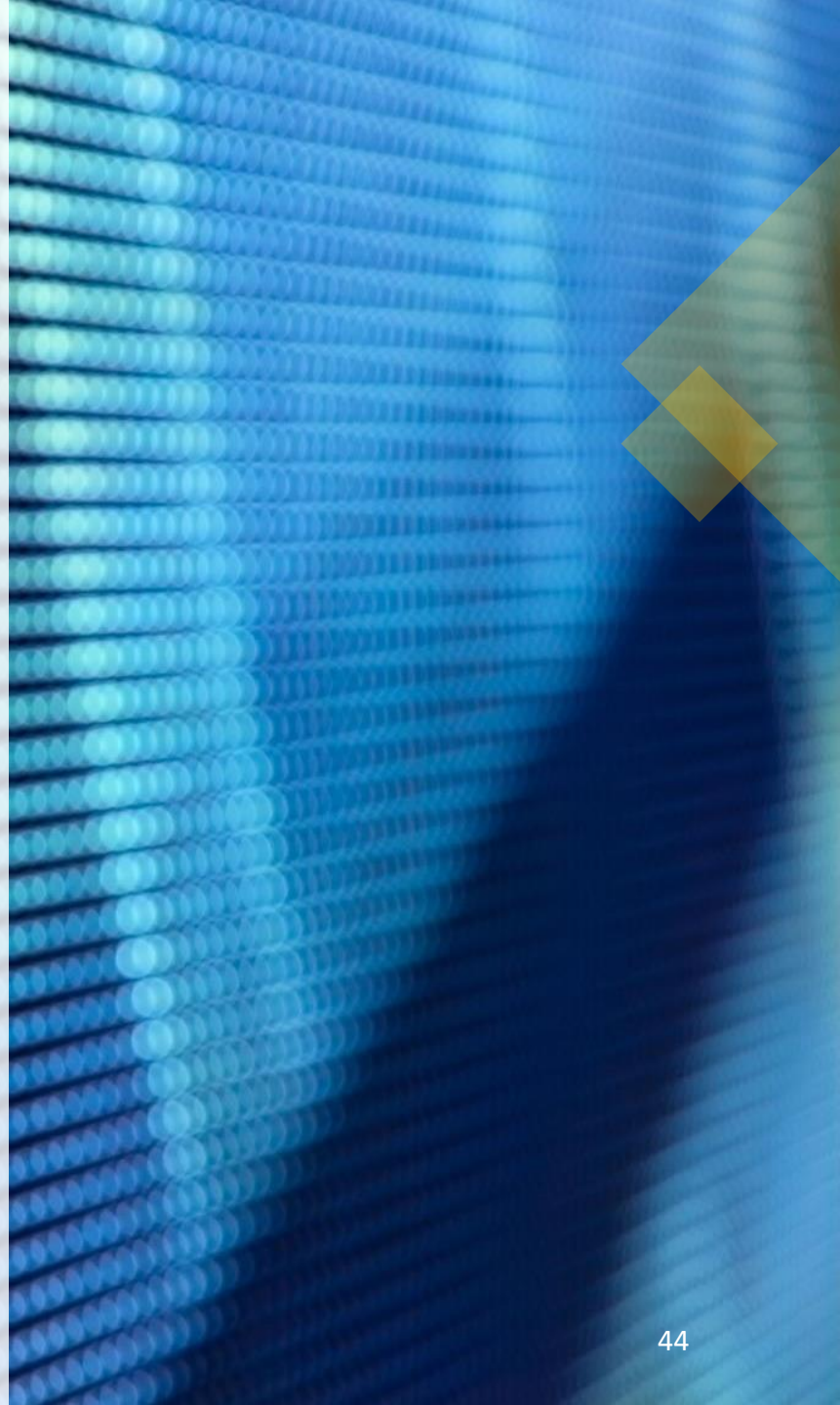
A central assumption of humanism is that people act with intentionality and values.

This is in contrast to the behaviorist notion of operant conditioning (which argues that all behavior is the result of the application of consequences) and the cognitive psychologist belief that the discovering knowledge or constructing meaning is central to learning.

Humanists also believe that it is necessary to study the person as a whole, especially as an individual grows and develops over the lifespan.

A primary purpose of humanism could be described as the development of self-actualized, autonomous people.

In humanism, learning is student centered and personalized, and the educator's role is that of a facilitator.



Maslow's Hierarchy of Needs

Further reading .ABC of Learning and Teaching – Educational Environment

Bloom's taxonomy of learning objectives

BLOOM B S (ed.) (1956) *Taxonomy of Educational Objectives, the classification of educational goals – Handbook I: Cognitive Domain* New York: McKay

Often used and identifies three domains.

cognitive (knowledge and understanding skills)

conative or psychomotor (practical skills)

affective (feelings, attitudes, ethics)

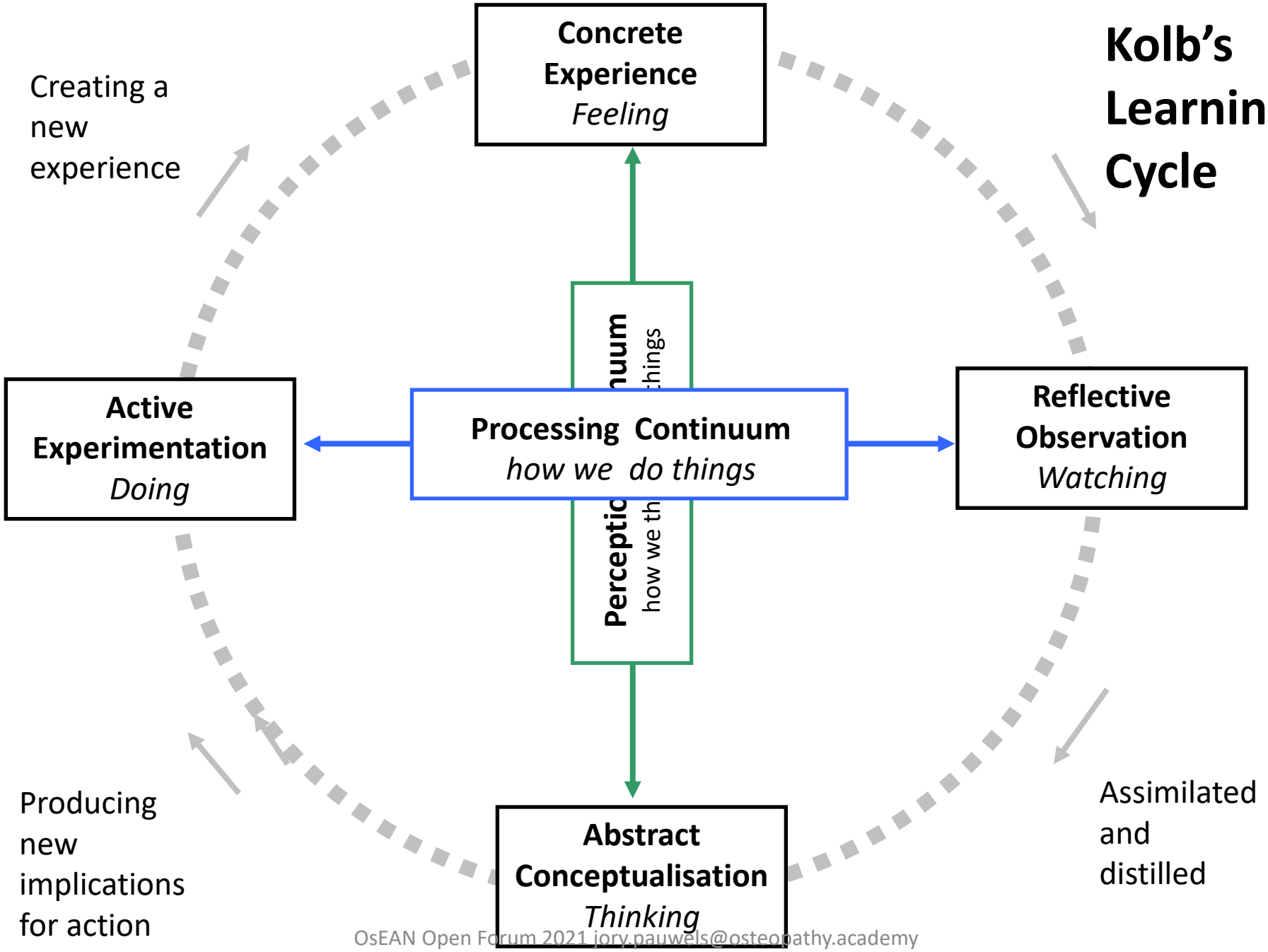
Cognitive (thinking)

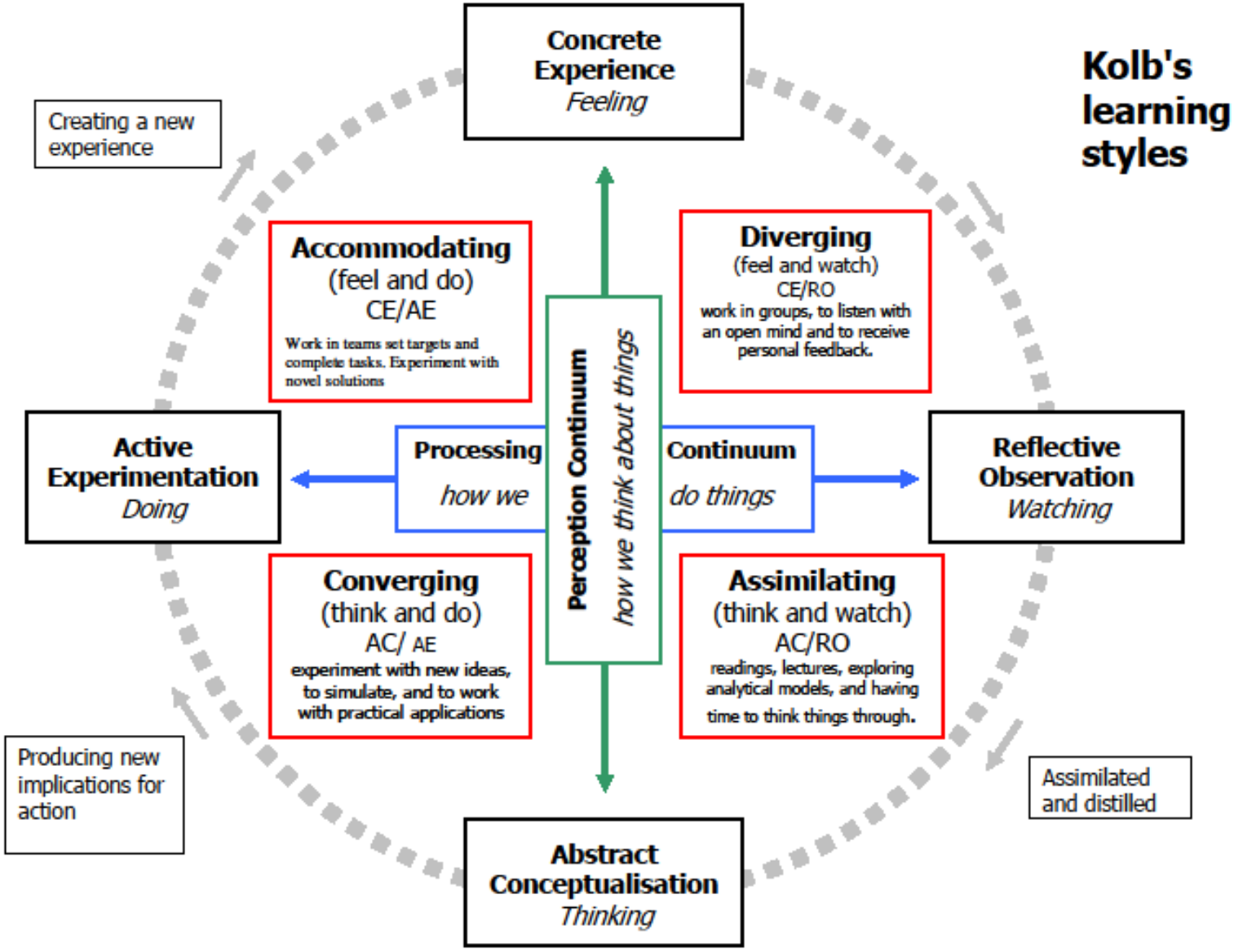
Affective (feeling)

Conative (doing)

www1.umn.edu/cic-lt/keynote/CIC_Keynote_Reeves_Nov06.ppt - Tom Reeves What Undergraduates Really Need to Learn: Technology and the Conative Domain

Kolb's Learning Cycle





© concept david kolb, adaptation and design alan chapman 2005-06, based on Kolb's learning styles, 1984
Not to be sold or published. More free online training resources are at www.businessballs.com, Sole risk with user.

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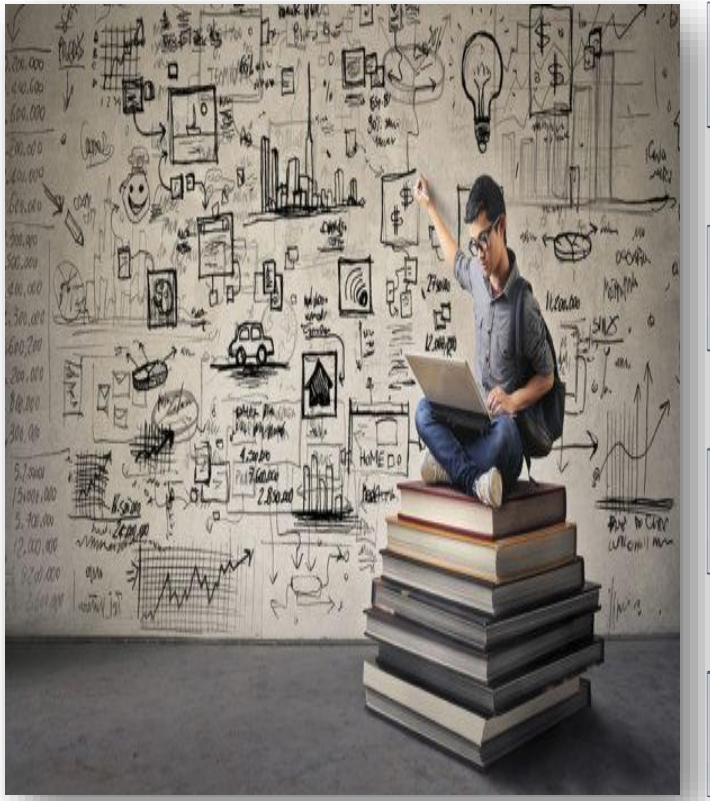

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Social Constructivism

Constructivism is a philosophy of learning founded on the premise that, by reflecting on our experiences, we construct our own understanding of the world we live in.

Each of us generates our own "rules" and "mental models," which we use to make sense of our experiences.

Learning, therefore, is simply the process of adjusting our mental models to accommodate new experiences.

Adapt?

- A major focus of social constructivism is to uncover the ways in which individuals and groups participate in the creation of their perceived social reality.
- It involves looking at the ways social phenomena are created, institutionalized, and made into tradition by humans.

There are several guiding principles of constructivism:

Learning is a **search for meaning**. Therefore, learning must start with the issues around which students are actively trying to construct meaning.

Meaning requires understanding **wholes** as well as parts. And parts must be understood in the context of wholes. Therefore, the learning process focuses on primary concepts, not isolated facts.

Holism?

In order to teach well, we must understand the mental models that students use to perceive the world and the assumptions they make to support those models.

The purpose of learning is for an individual to construct his or her own meaning, not just memorize the “right” answers and regurgitate someone else’s meaning.

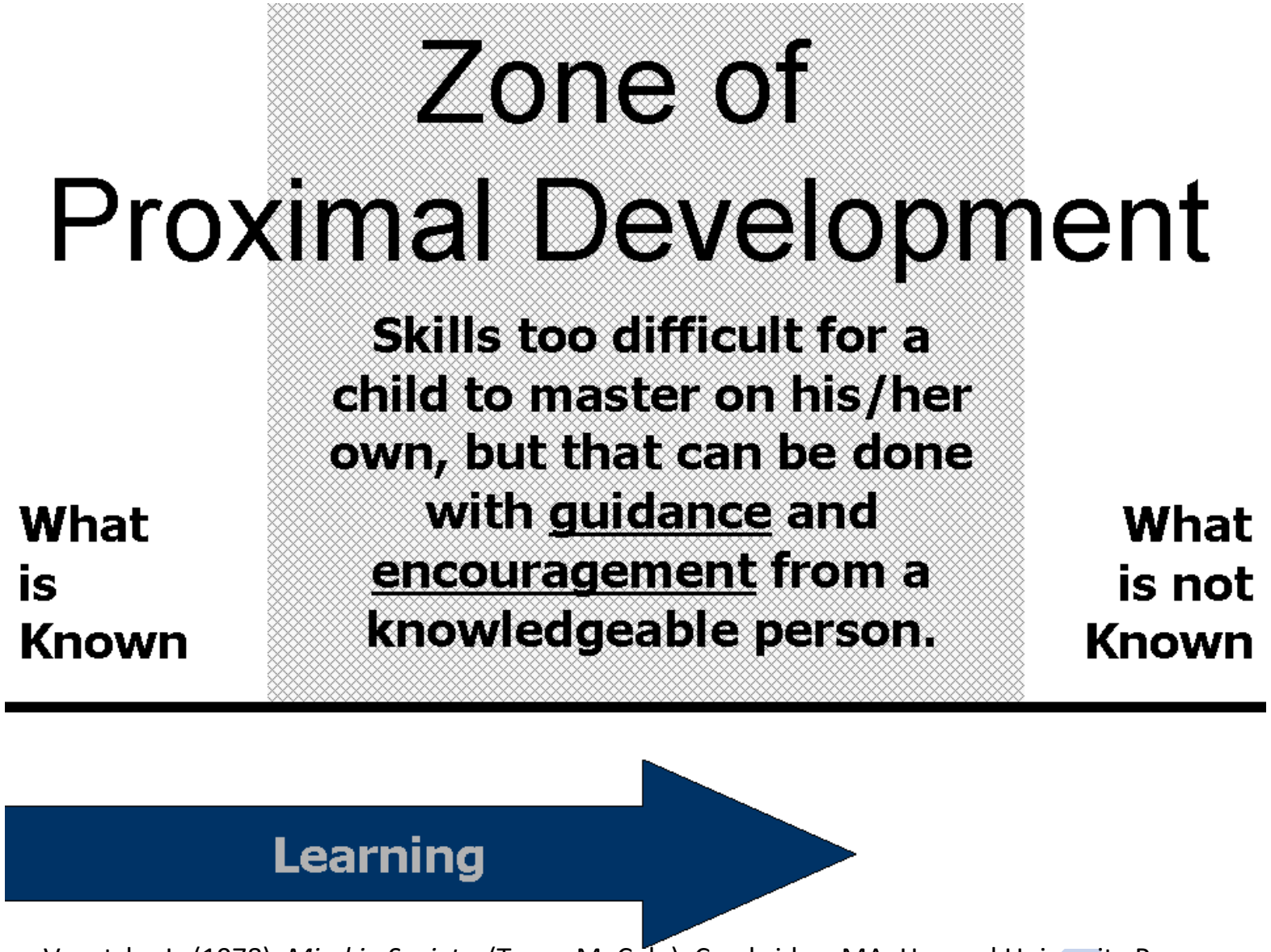
Vygotskian socio-cultural psychology

The overall goal of education according to Vygotsky is to "generate and lead development which is the result of social learning through internalization of culture and social relationships. “

"Psychology Applied to Education

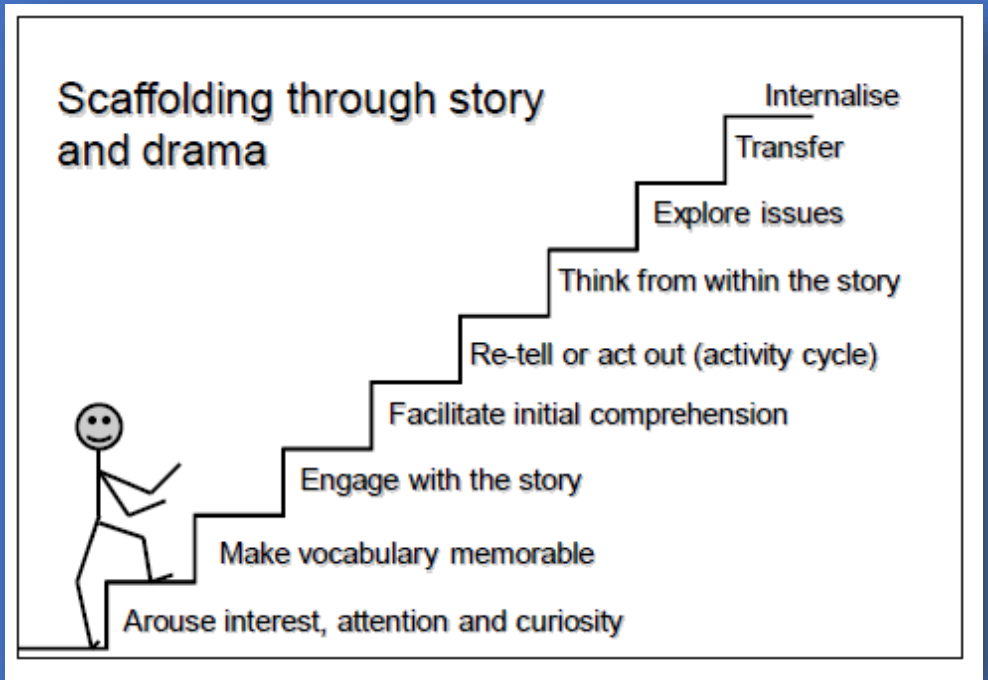
Lev. S. Vygotsky's Approach" C*ommuniquè* 25, no. 2 (1997), http://www.bgcenter.com/Vygotsky_Appr.htm.

Zone of Proximal Development



Vygotsky, L. (1978). *Mind in Society*, (Trans. M. Cole). Cambridge, MA: Harvard University Press.

Scaffolding



Scaffolding is a metaphor to describe and explain the role of adults or more knowledgeable peers in guiding children's learning and development

The zone of proximal development (ZPD) is commonly referred to as the theoretical underpinnings of scaffolding

It was introduced by Wood, Bruner and Ross (1976)

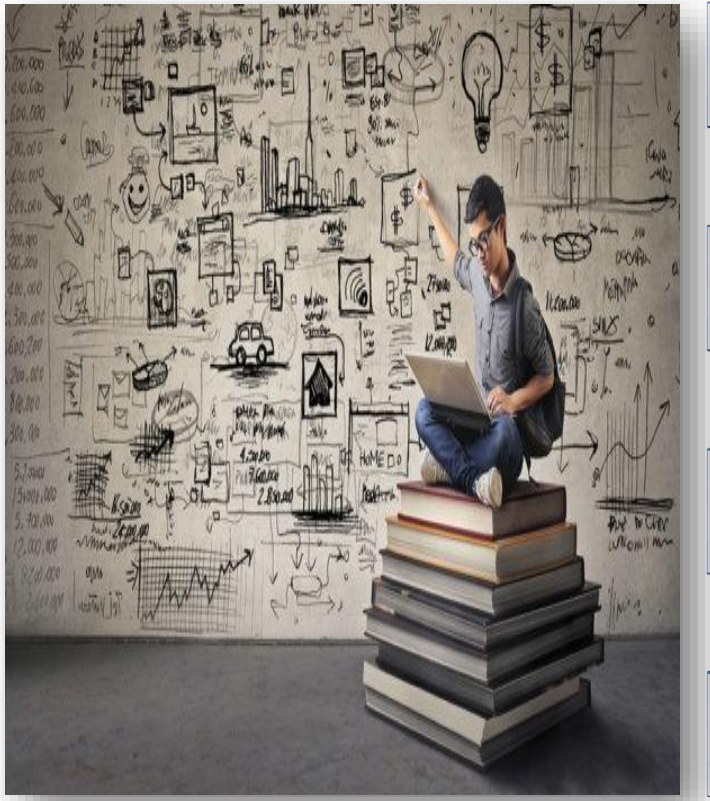
Wood, D., Bruner, J. & Ross, G. (1976) The Role Of Tutoring In Problem Solving, *Journal of Child Psychology and Psychiatry*, Vol. 17, pp. 89-100

Reflective Practice D. Schön

Reflection-in-action is the ability of a practitioner to ‘think on their feet’, (felt-knowing) by connecting with their feelings, emotions and prior experiences to attend to the situation directly.

Reflection-on-action is the idea that after the experience a practitioner analyses their reaction to the situation and explores the reasons around, and the consequences of, their actions. This is usually conducted though a documented reflection of the situation

Education Evolution



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From didactics to clinic

Different approaches in the clinic

The early days in your clinic

- How did you approach the patient?
- Which techniques did you use?
- What type of therapist were you and are you now?

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PTM	OMM
Increasing complexity	Increasing simplicity
Unity in multiplicity	Multiplicity in Unity
Treats patient as similar	Only one patient
Cartesian coordinates	Goethean participation
External to patient	Participates with patient
Mind body separation	Wholeness
Process of justification	Process of discovery
Ritualistic	Non-ritualistic
Theory-laden	Theory developing
Experiment	Experience
Method based	No method
Analytical	Intellectual intuition
One direction	Back and forth
Technique centered	Practitioner centered
Mimickary	Self-discovery
Dead body (Korperwelt)	Living person (Living world)

In therapy or in teaching?
Or both?

Difference in:

physical therapy mp

&

osteopathic mp

Logical

GARY'S
WEATHER FORECASTING STONE
CONDITION
Stone is Wet
Stone is Dry
Shadow on Ground
White on Top
Can't See Stone
Swinging Stone
Stone Jumping Up & Down
Stone Gone
FORECAST
Rain
Not Raining
Sunny
Snowing
Foggy
Windy
Earthquake
Tornado
FLIGHTSEEING

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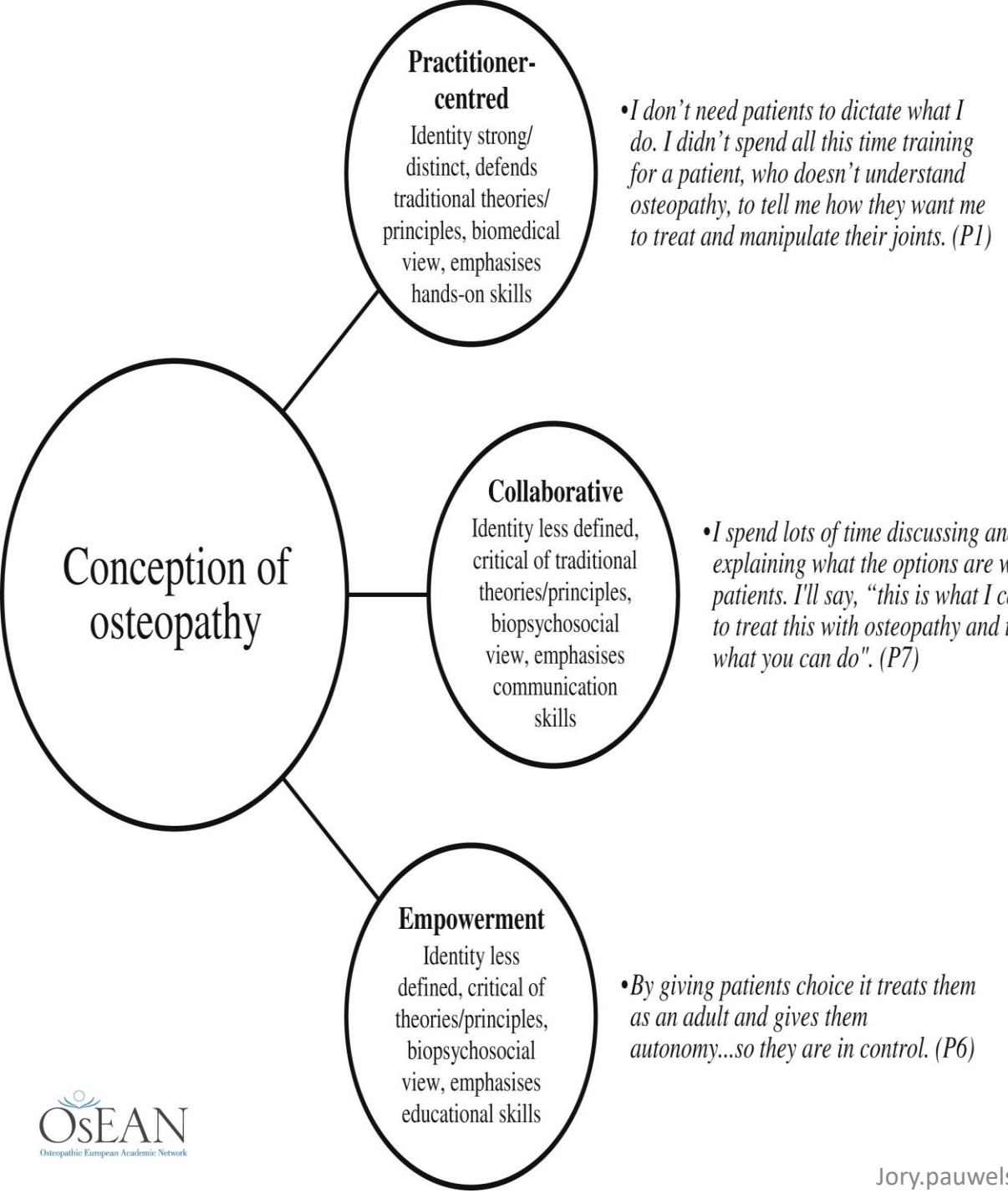
Uniqueness…



International Journal of Osteopathic Medicine (2014) 17, 146–159

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International Journal of Osteopathic Medicine

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RESEARCH REPORT

Osteopaths' professional views, identities and conceptions – A qualitative grounded theory study

Oliver P. Thomson [a,b,c,*], Nicola J. Petty [b], Ann P. Moore [b]

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…conception of practice

Manual Therapy 19 (2014) 44–51

Contents lists available at ScienceDirect

Manual Therapy

journal homepage: www.elsevier.com/math

Original article

Clinical decision-making and therapeutic approaches in osteopathy – A qualitative grounded theory study

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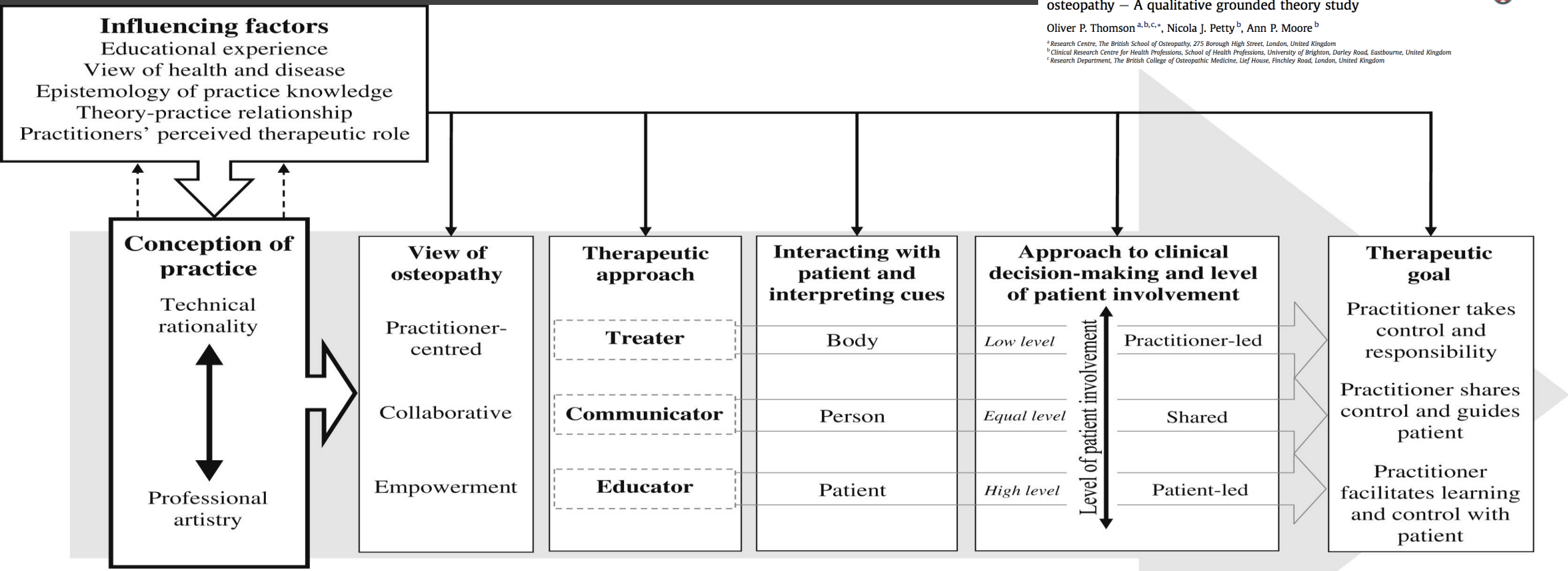

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So, there are different treatment styles

What is the therapy outcome?

What puts the adverse in 'adverse events? Patients' perceptions of post-treatment experiences in osteopathy – A qualitative study using focus groups (Manual Therapy, Volume 17, Issue 4, August 2012, Pages 305-311)

Patients commonly report effects post/R/, often regarded as **adverse events**

Study: used 3 group discussions (n=19) to explore patients' perspectives; 4 emergent themes (and 23 sub-themes). Analysis: to a **conceptual model EPOC**: Expectations; Personal investment; Osteopathic encounter; Clinical change, under an overarching construct, the 'global osteopathic experience'.

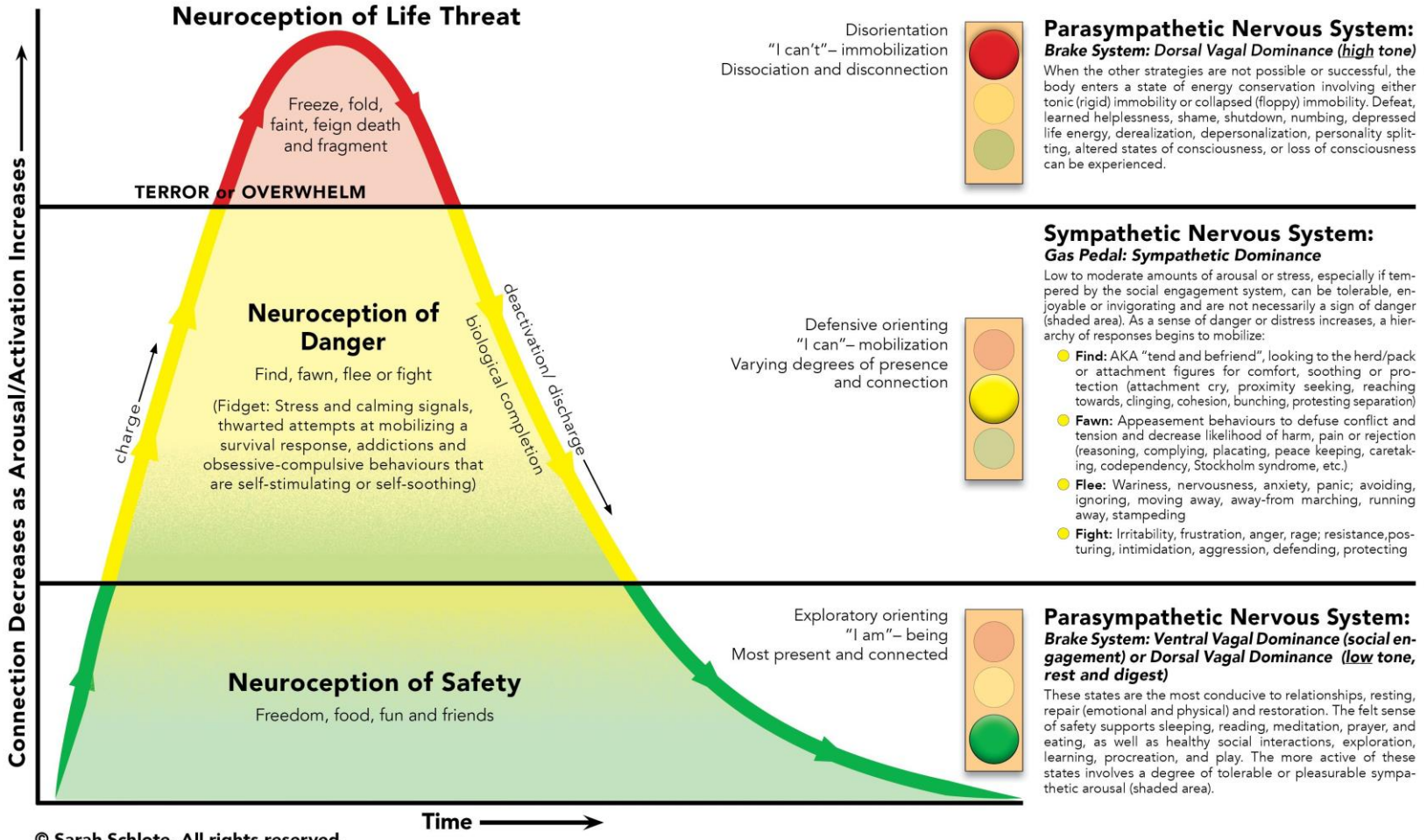
EPOC has a profound impact on a **patient**'s post-treatment **experiences and** their **perception of** what is **adverse**: disparity between patient perceptions and clinical definitions of adverse events; awareness by practitioners of this disparity is essential for effective clinical management.

What does the patient … expects?

- Treatment,
- explanation,
- click ‘no pop, no job’
- Something personal
- …

Who heals the patient?

The inner physician



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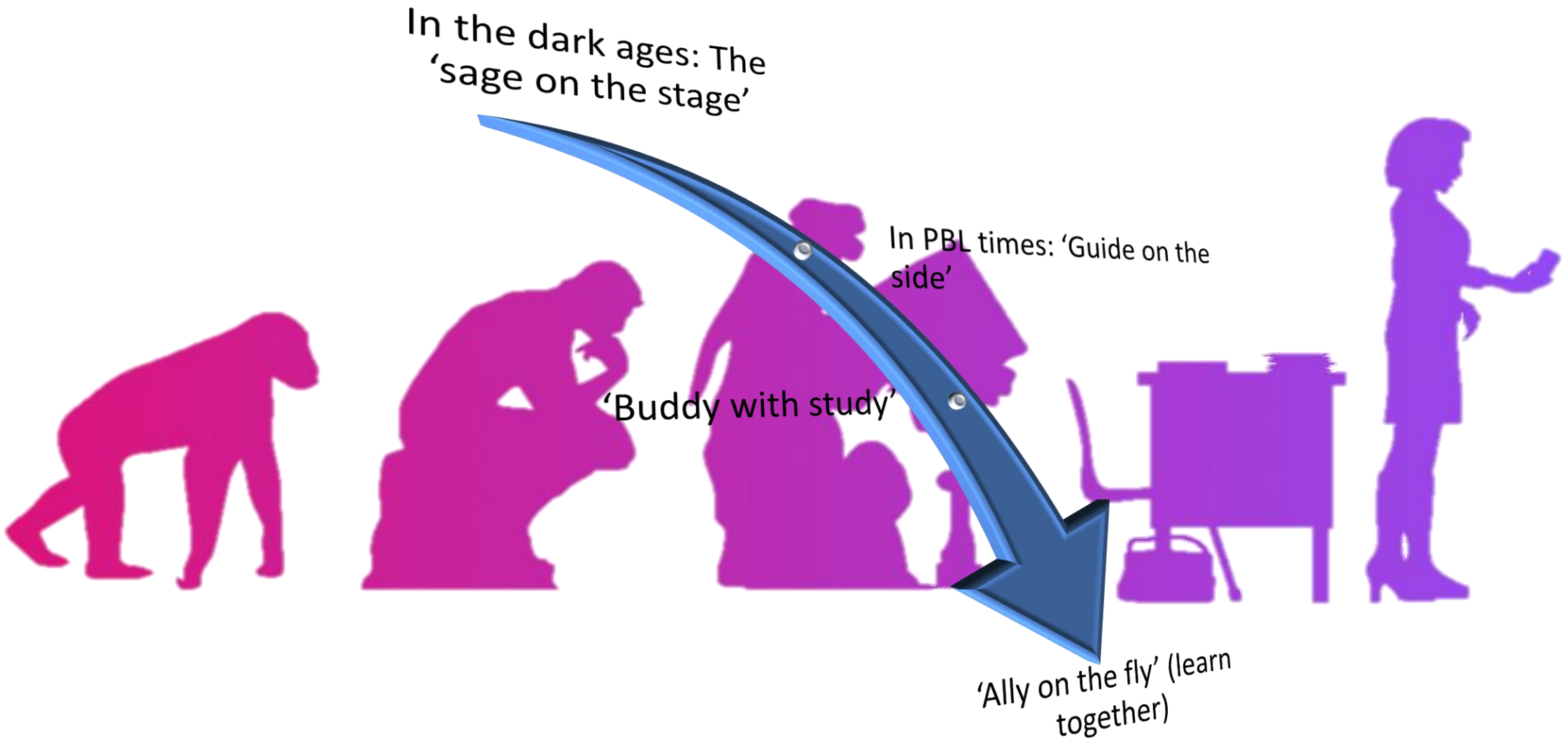
Adapted from Porges (2011, 2017), Levine (1997, 2010), Walker (2013), Hoskinson Consulting (n.d.), Draaisma (2018), Rees (2018), Schauer & Elbert (2010), Koslowska et al. (2015), and Payne & Crane-Godreau (2015).

The PS framework

Overview

- Gameplan
- Teaching vs Tutoring, Push vs Pull
- Results
- Models of learning
- From didactics to the clinic
- Different therapeutic approaches
- Results
- Roles of the teacher through the ages
- Epilogue: Teacher - Therapist

Roles of the teacher through the ages



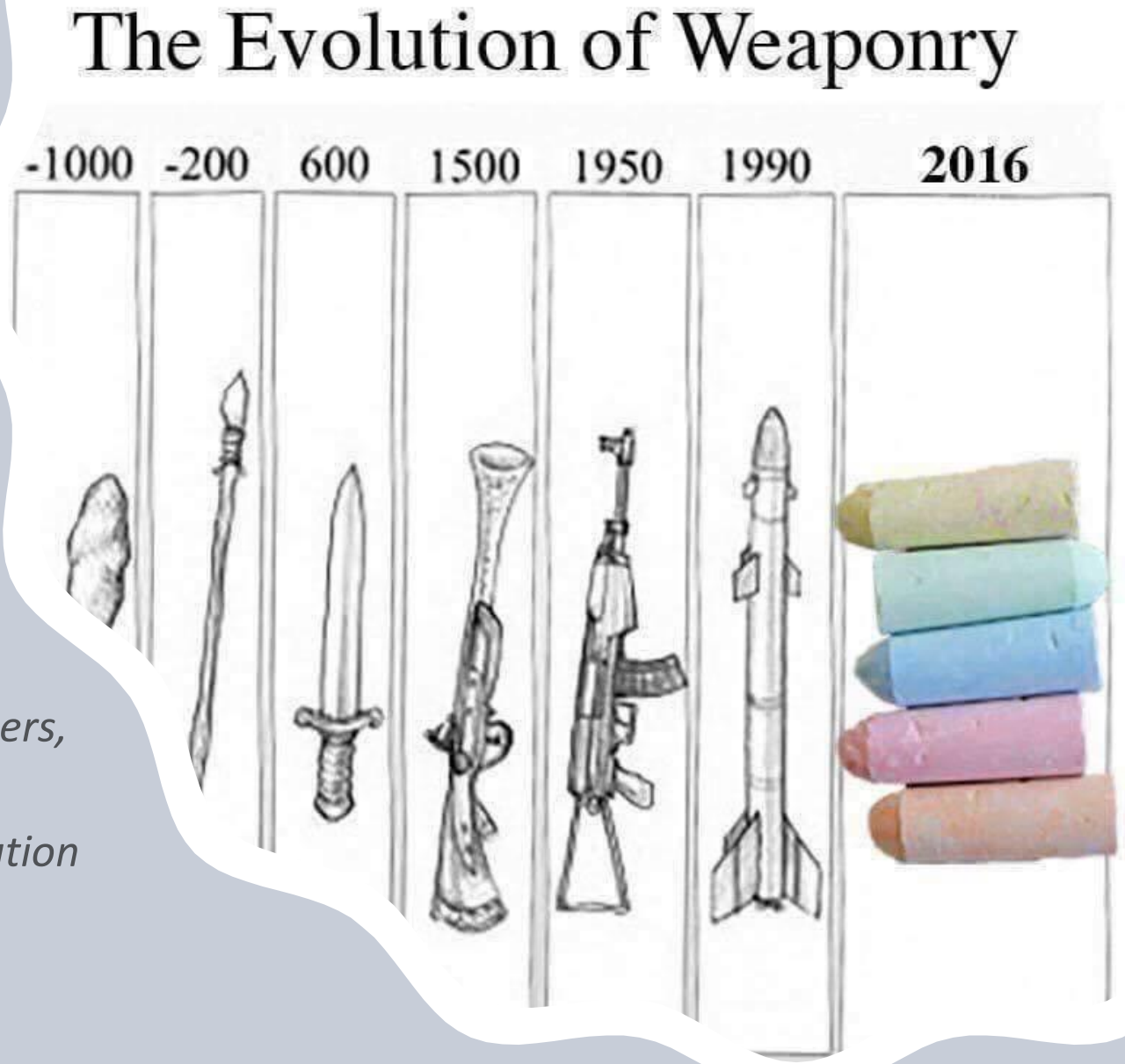
Roles of the teacher

- Teacher as decision maker
- Recourses' curator
- Learning opportunities co-creator (learning together)

To be a good teacher means you know all the answers, yes or no?

Yes? No, it's just the opposite, talk and find the solution together.

Tim Wilkinson (New Zealand)



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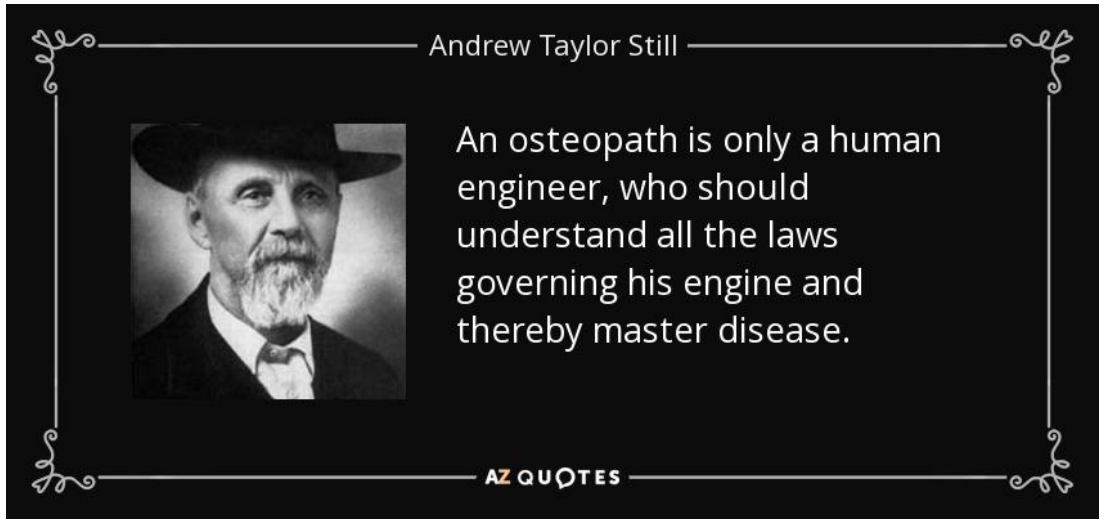
Therapist - Teacher

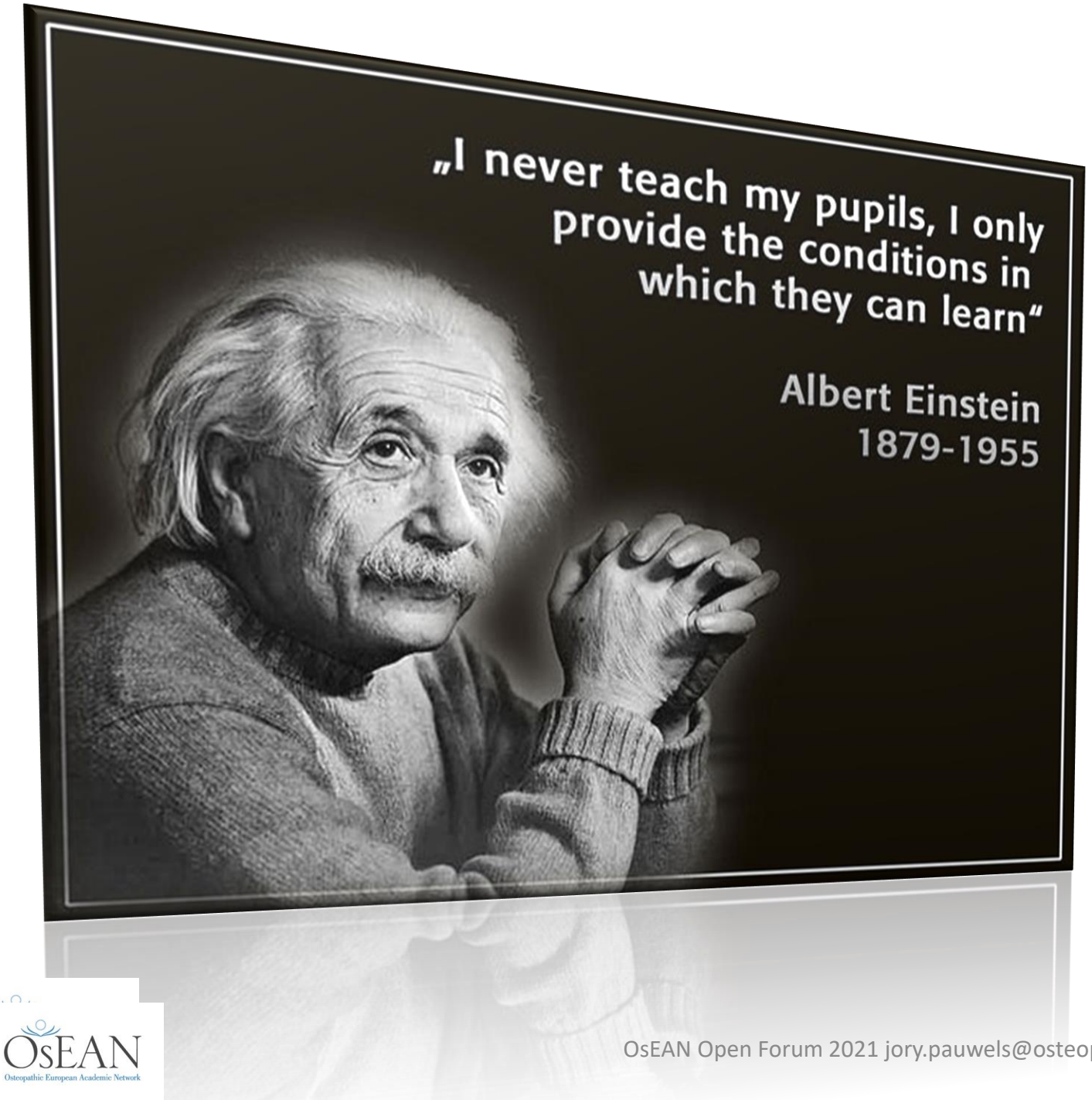
Shift to the clinic

- *“Releasing the obstructions to health in the least invasive manner “* Still already told us the uniqueness of osteopathy.
- *‘Those obstructions can be mind - too. Accepting the person, caring touch - encouraging optimism to help healing.’*

‘we partner with the person to bring them towards their best Full Health as a whole unit of body-mind-spirit.

Releasing the obstructions to health in the least invasive manner - using our hands. An osteopath can work with any person/patient wherever they are in health - any person can benefit. AT





Fascilitator

Student or InnerPhysician?

Brainstorm

Take home

- What did you learn?
- What are you going to practice?
- How will you implement your plan?
- What time frame?
- What reward?

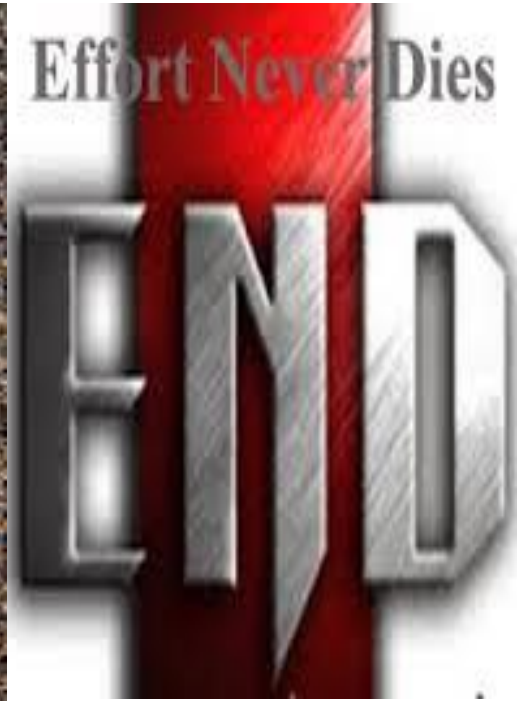
- Yourself

FAIL, NO & END

FAIL =

(F)IRST

(A)TTEMPT

(I)N

(L)EARNING