



Is Knowledge Enough?

MARTIN ROBINSON

ROB RIEMEN, FOUNDER: NEXUS INSTITUTE



- ...from the perspective of science and technology, ghosts and spirits do not exist. Which of course is true - for Mother Nature.
- Human nature and human society are, however, a different species. Science and technology will never be able to provide us with a complete understanding of the human being with his instincts and desires, virtues and values, mind and spirit.
- Every serious scientist knows this.

ONE AQUARIUM, MANY WINDOWS

- "human life [is] like an enormous, ill-lit aquarium which we... see... only through various small windows unevenly distributed around it... If we refuse to put together the data from different windows, then we can be in real trouble."



Child Centred Learning?

Bringing the Human Back In...

The knowing / questioning animal



ED Hirsch

Why Knowledge Matters

Only a well-rounded, knowledge-specific curriculum can impart needed knowledge to all children and overcome equality of opportunity.



COMPUTERS MADE OF MEAT



THE MYTHS WE LIVE BY.



- It is... often seen as scientific to talk as if people were... machines. This machine imagery has been so useful... that many people no longer think of it as a metaphor but as a scientific fact.

A SURVIVAL MACHINE.



- Computers are by far the best metaphor for lots of things... we are robot survival machines, and... These machines are programmed in advance.

Potentially Reductive...

Brain-Based Learning

Knowledge, Memory, Input-Output...
(Rosenshine...?)

Programming / Instruction / Measured
Outcomes...



Rosenshine's 17 Principles of Instruction

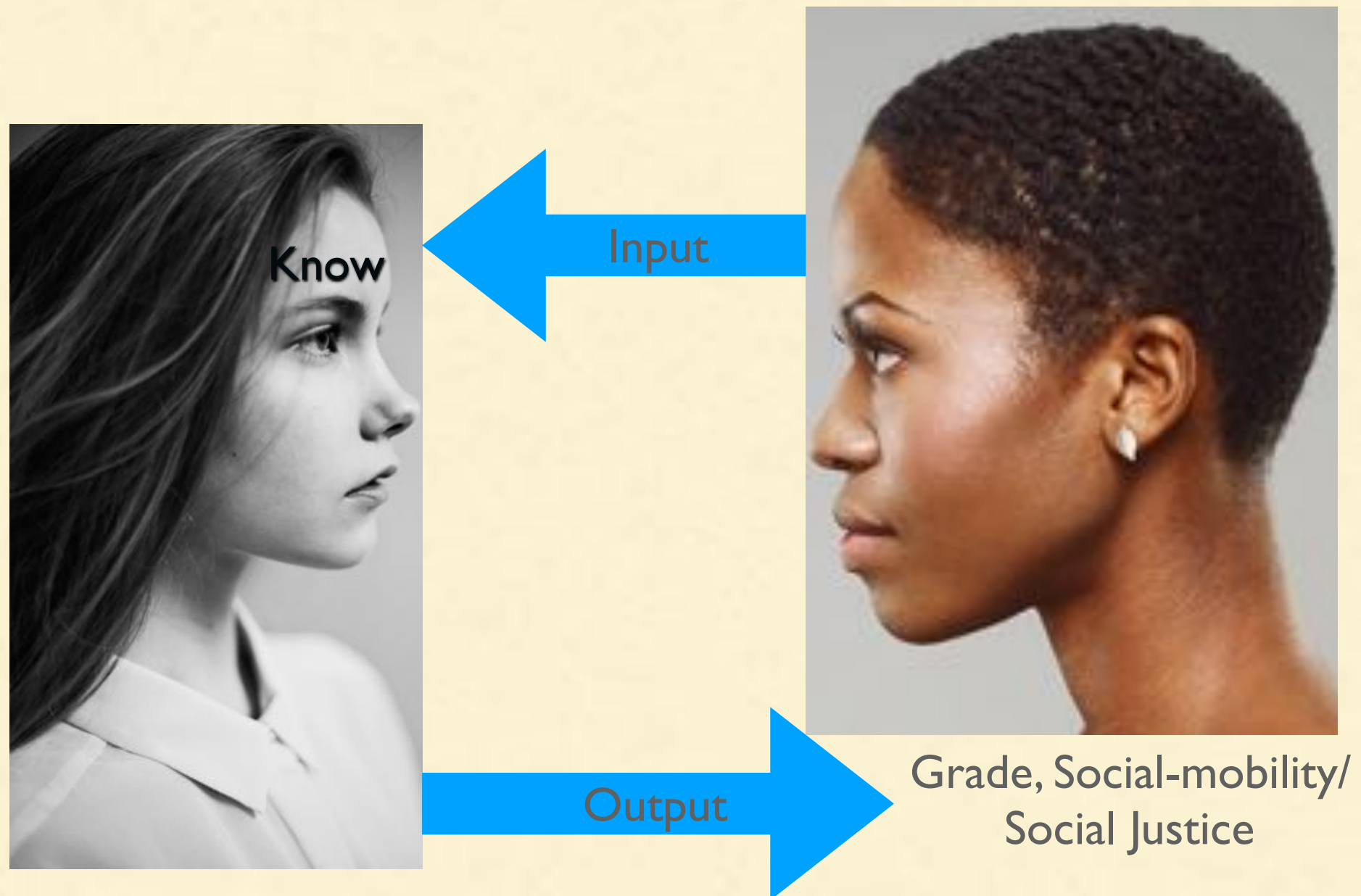
- ❖ Begin a lesson with a short review of previous learning.
- ❖ Present new material in small steps with student practice after
- ❖ Limit the amount of material students receive at one time.
- ❖ Give clear and detailed instructions and explanations.
- ❖ Ask a large number of questions and check for understanding.
- ❖ Provide a high level of active practice for all students.
- ❖ Guide students as they begin to practice.
- ❖ Think aloud and model steps.
- ❖ Provide models of worked-out problems.
- ❖ Ask students to explain what they have learned.
- ❖ Check the responses of all students.
- ❖ Provide systematic feedback and corrections.
- ❖ Use more time to provide explanations.
- ❖ Provide many examples.
- ❖ Reteach material when necessary.
- ❖ Prepare students for independent practice.
- ❖ Monitor students when they begin independent practice

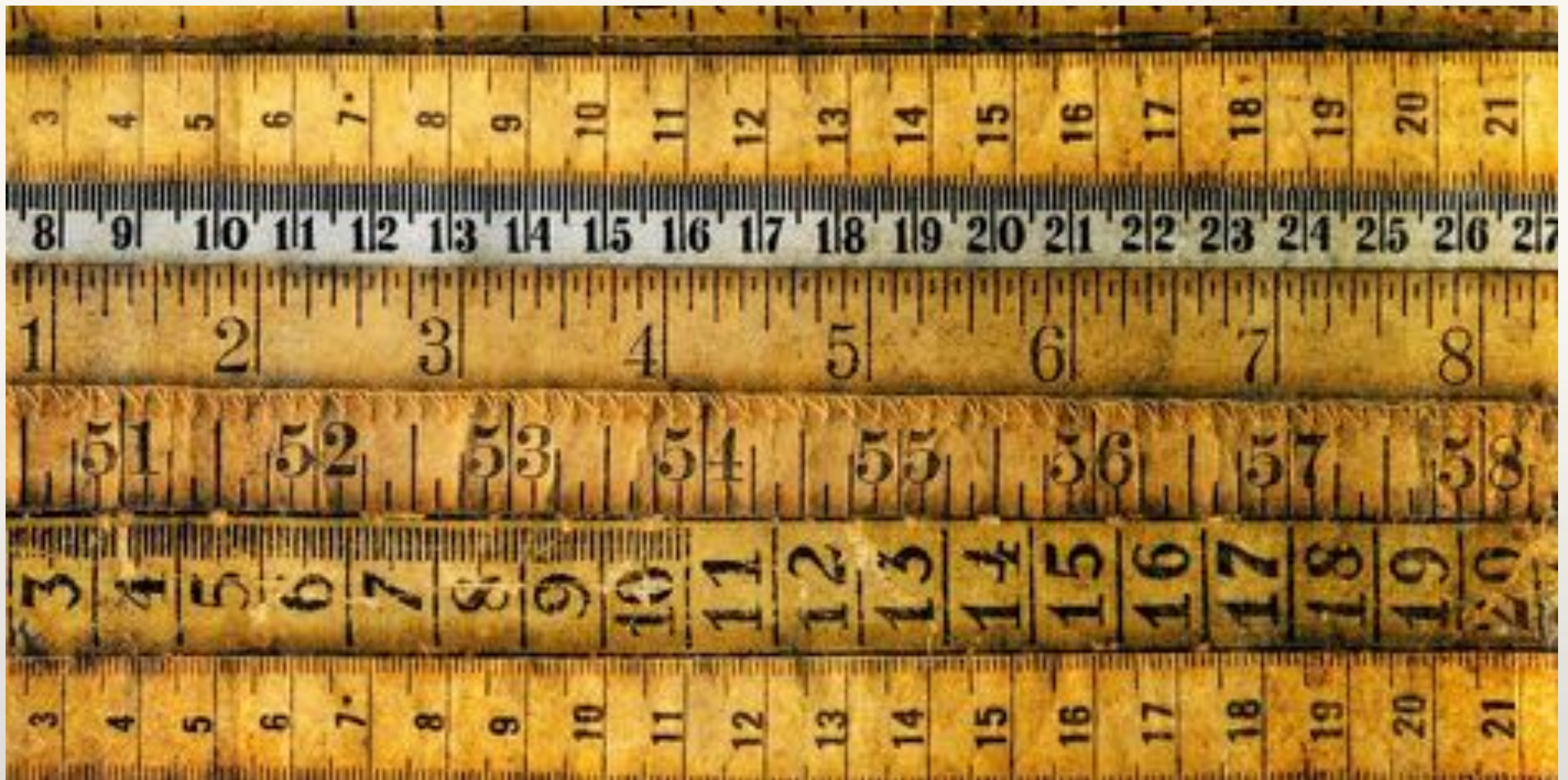
HOMO DEUS:

YUVAL NOAH HARARI

- When schools began assessing people according to precise marks, the lives of millions of students and teachers changed dramatically...
- ...the skills required to get high marks in an exam are not the same as a true understanding of literature etc. But when forced to choose between the two, most schools go for the marks.







Can schools make the necessary choices?

- Qualitative vs Quantitative
- Subjective vs Objective

ANDY CLARK

- The scientific study of mind... demands interdisciplinary effort... including those incorporating bodily, cultural, and environmental scaffolding.



CARLO ROVELLI: THE ORDER OF TIME



- Science aspires to objectivity... but we need to be wary about what we lose by ignoring the point of view from which we do the observing... Every glance that we cast towards the world is made from a particular perspective.



*Our knowledge of the world,
as embodied creatures, is
necessarily subjective rather
than objective.*

Jeremy Lent. The Patterning Instinct.

RAYMOND TALLIS

- There seems to be nothing in neural activity, understood as events in the world... to explain what it is like to be a creature with conscious experiences ... we can comprehend how the light comes into the brain, but not how the gaze looks out of it.



POLANYI

INTO EVERY ACT OF
KNOWING THERE ENTERS A
PASSIONATE
CONTRIBUTION OF THE
PERSON KNOWING WHAT IS
BEING KNOWN, AND THAT
THIS COEFFICIENT IS NO
MERE IMPERFECTION BUT A
VITAL COMPONENT OF HIS
KNOWLEDGE.



UNDERSTANDING:

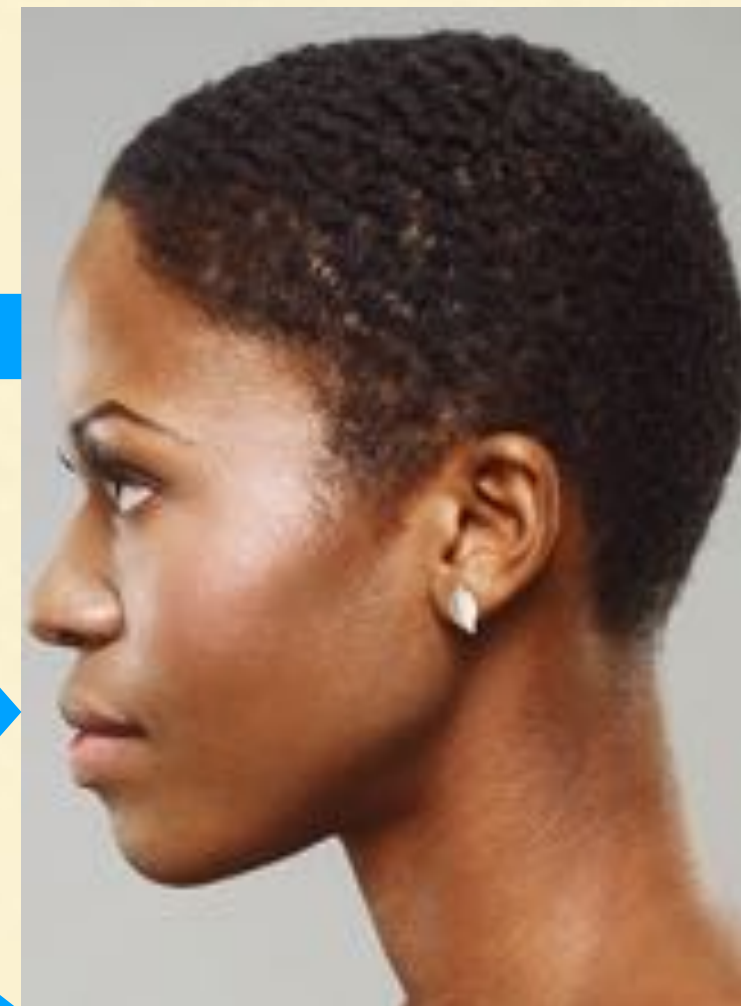
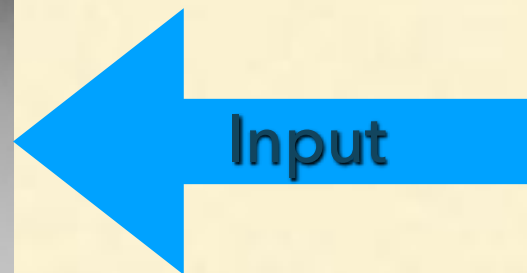
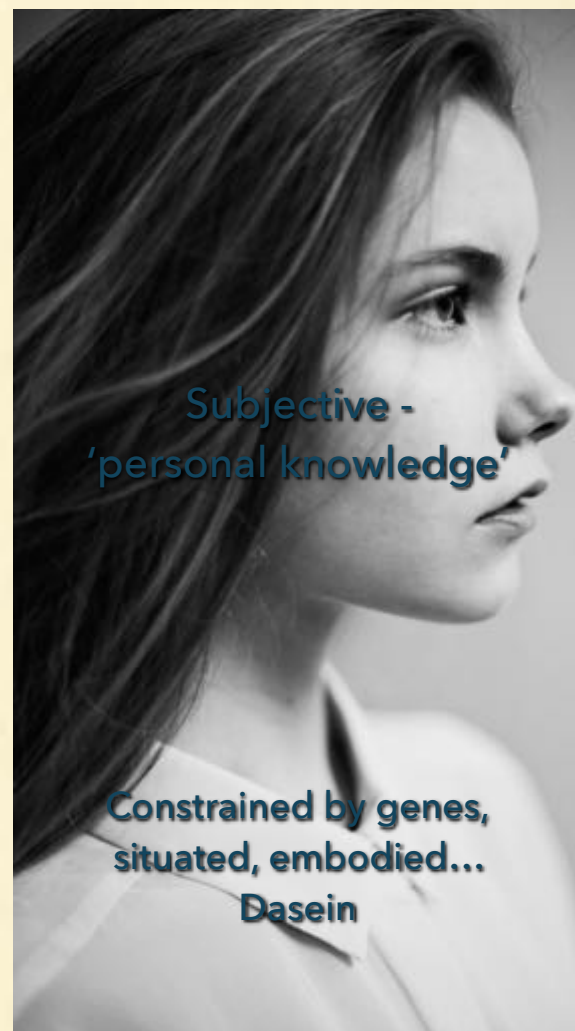


- Understanding... is a special case of applying something universal to a particular situation.
 - Understanding always involves something like applying the text to be understood to the interpreter's present situation
 - Gadamer.
-

Knowledge comes to us imbued by our way of knowing it.

Wisdom:

- the quality of having ***experience, knowledge, and good judgement***; the quality of being wise.
- the body of ***knowledge and experience*** that develops within a ***specified society or period***.

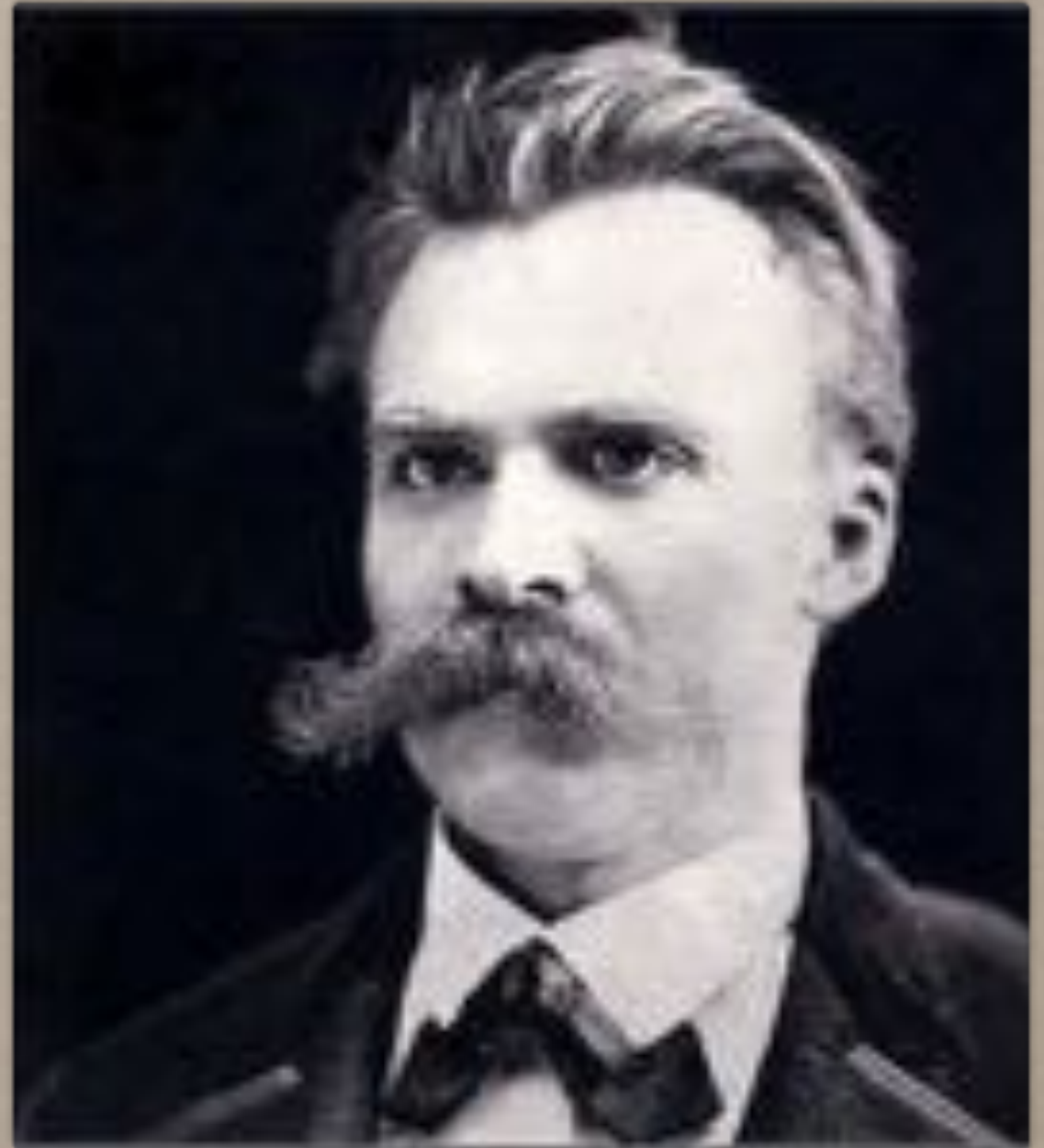


Pursuit of wisdom

Why does quality of knowledge matter? Because it helps form our very mind - embodied and situated in the wider community of minds in which we find ourselves.

FRIEDRICH NIETZSCHE

- There is only a perspectival seeing, only a perspectival knowing; and the more affects we allow to speak about a matter, the more eyes, different eyes, we know how to bring to bear on one and the same matter, that much more complete will our concept of this matter, our objectivity be.



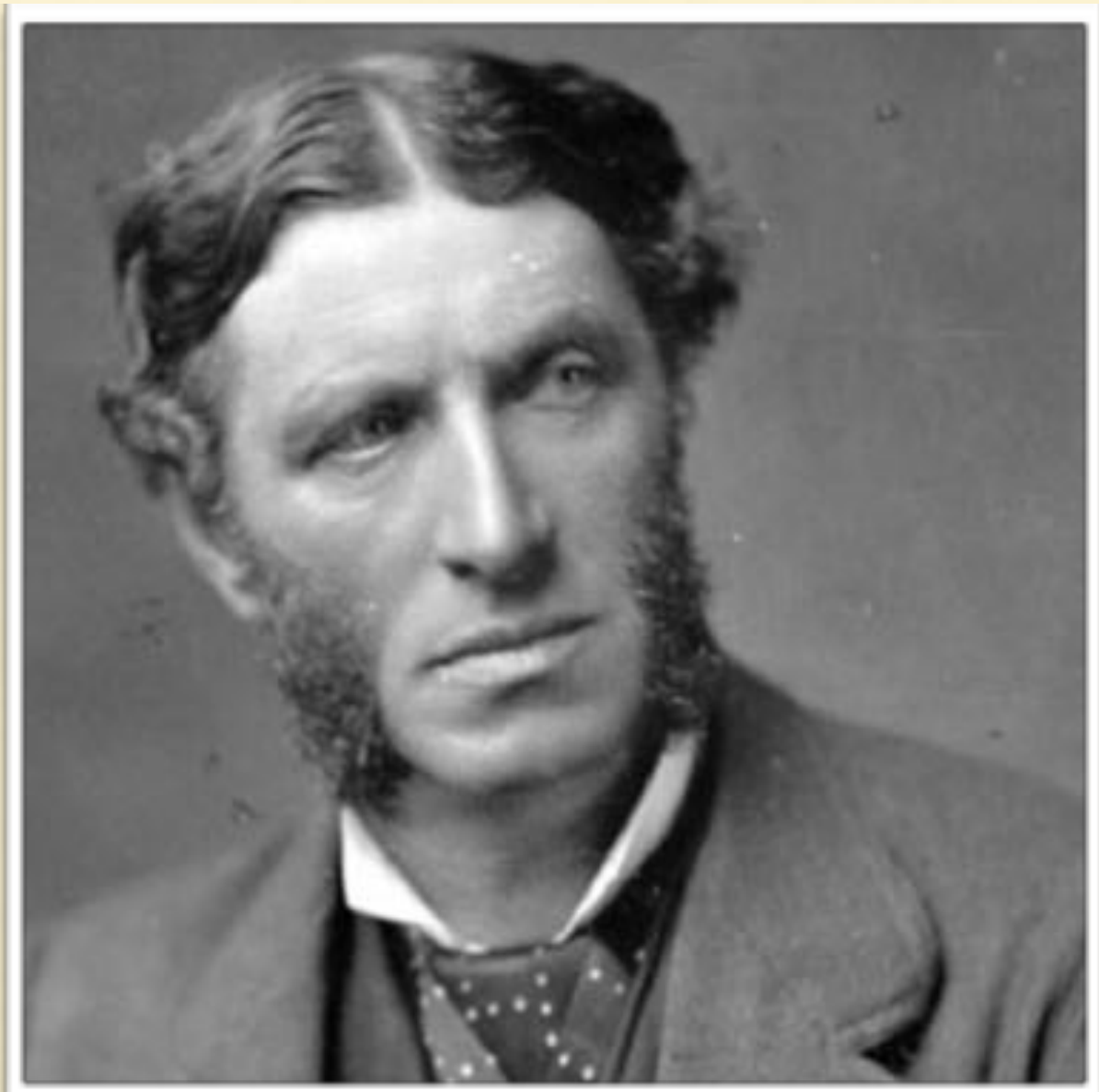
Fareed Zakaria:

- When we absorb great literature, we come face to face with ideas, experiences, and emotions that we might never otherwise encounter in our lifetime.
- When we read history, we encounter people from a different age and learn from their triumphs and traps.
- When we study physics and biology, we comprehend the mysteries of the universe and human life.
- And when we listen to great music, we are moved in ways that reason cannot comprehend.



Whose knowledge?

THE BEST (WHITE, MALE, STALE?):



- Culture, the acquainting ourselves with the best that has been known and said in the world, and thus with the history of the human spirit.
 - Culture is the endeavour to know the best and to make this knowledge prevail for the good of all humankind
-

CHIMAMANDA NGOZI ADICHIE

- Culture functions ultimately to ensure the preservation and continuity of a people.
- In my family, I am the child who is most interested in the story of who we are, in ancestral lands, in our tradition... But I cannot participate, because Igbo culture privileges men... If it is true that the full humanity of women is not our culture, then we can and must make it our culture.



CLR James, 'The Making of the Caribbean People'

Western Education Tradition:

I denounce European colonialism... but I respect the learning and profound discoveries of Western civilisation.



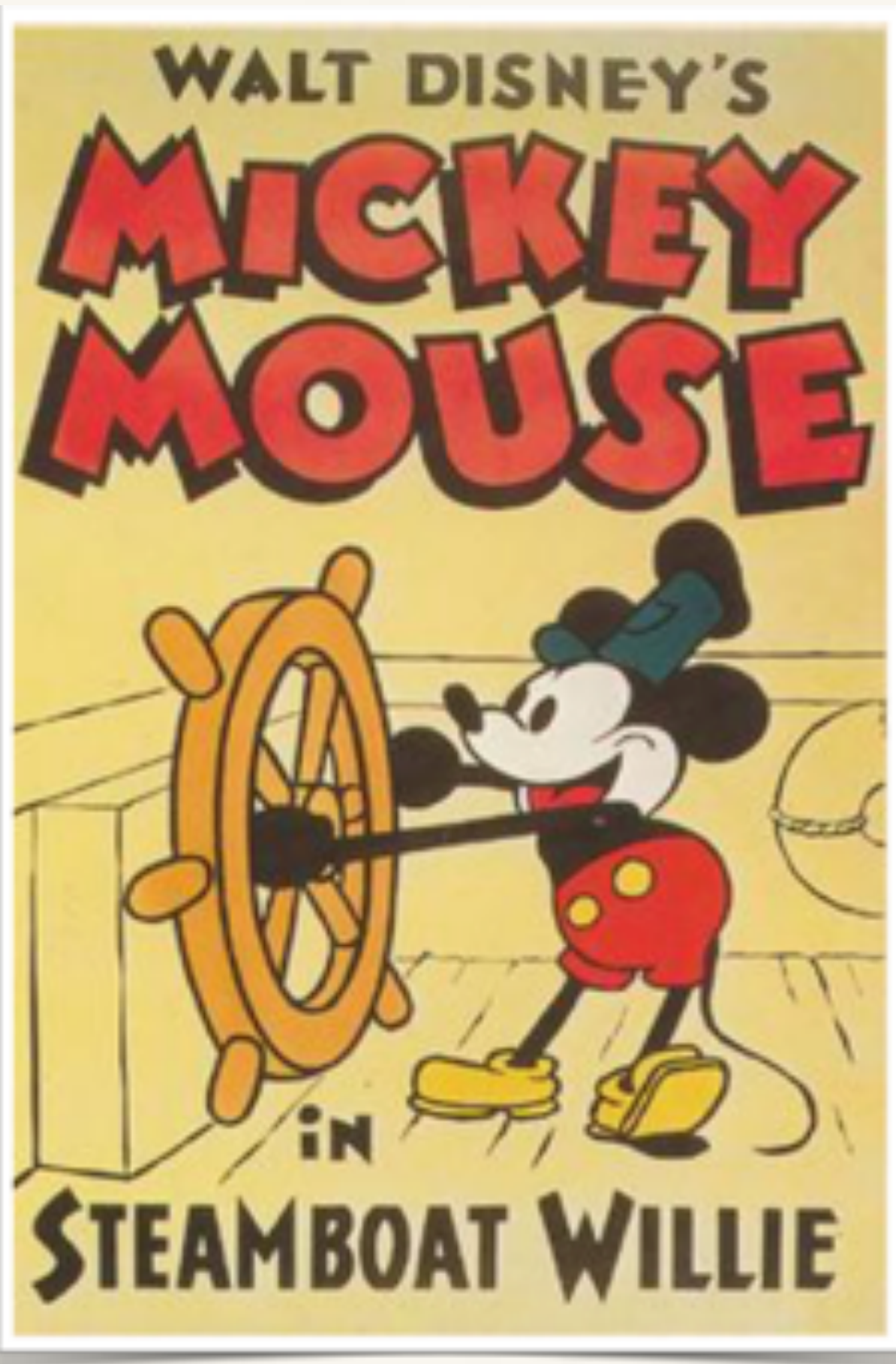
Qualitative judgements
Discrimination
Discernment
Argument
Intuition
Opinion
Taste...

Ode on a Grecian Urn

John Keats

Beauty is truth, truth
beauty - that is all Ye
know on earth, and all
ye need to know













Christopher Hitchens

Dialectics:

When there is a basic grasp of narration and evolution and a corresponding grasp of differing views of the same story...
we have the practice of teaching by dialectics



WHY DON'T STUDENTS LIKE SCHOOL?

STRUCTURING A LESSON PLAN AROUND CONFLICT CAN BE A REAL AID TO STUDENT LEARNING.

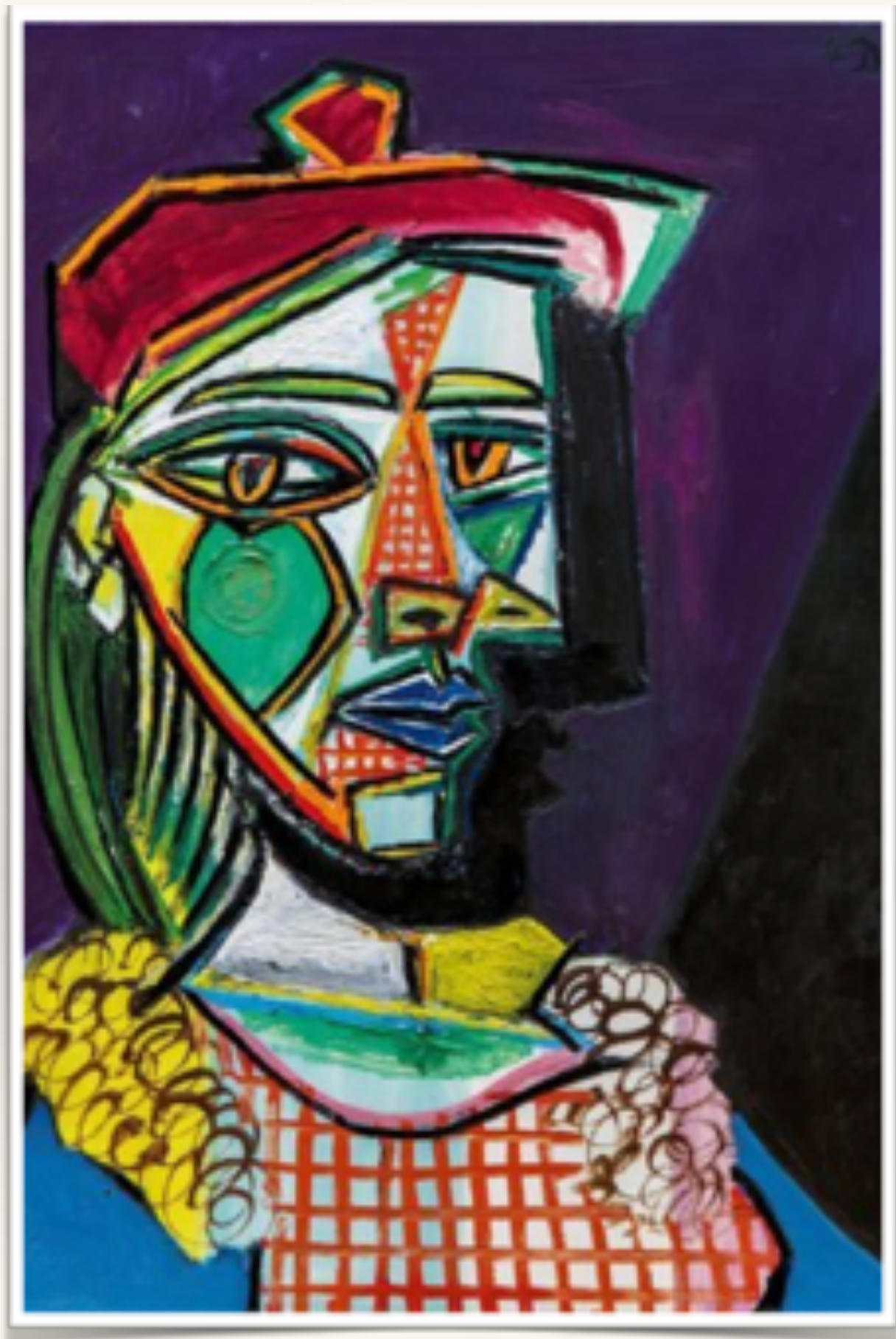
THE ADVANTAGE OF BEING VERY CLEAR ABOUT THE CONFLICT IS THAT IT YIELDS A NATURAL PROGRESSION FOR TOPICS.



INDUCTIVE LEARNING

- Forms of inductive learning include differentiating a Monet painting from a Picasso painting, or a cancerous cell mass from a benign one. The way to optimise this type of learning is... to study them intermixed with examples of other to-be-learned categories.

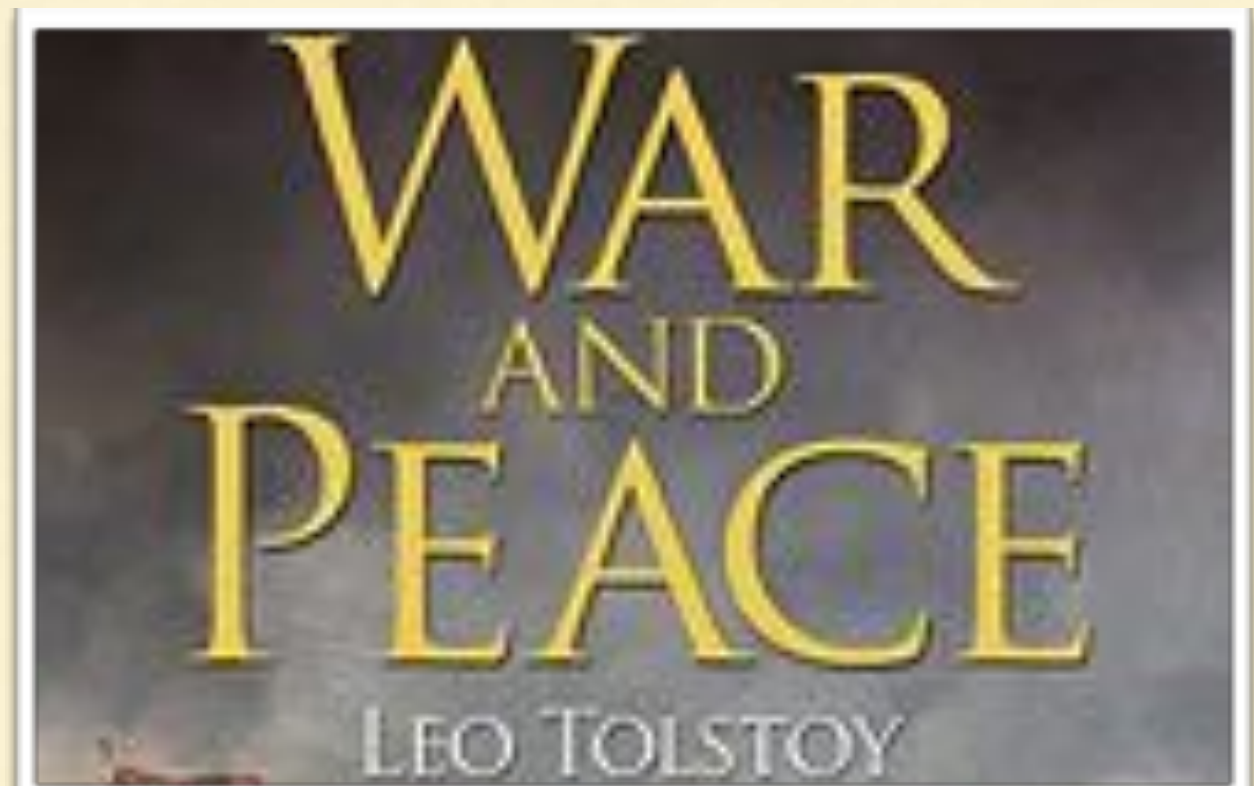
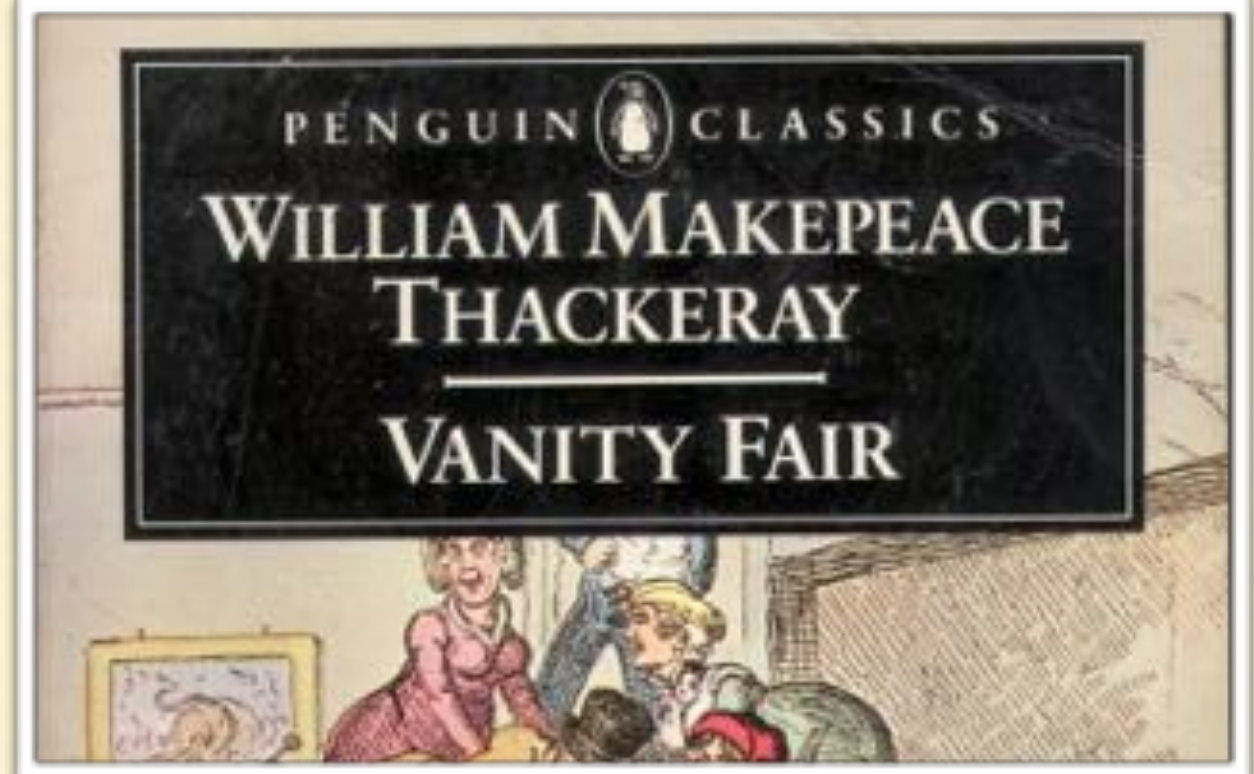




INTERLEAVING

- ... juxtaposition, which allows for discrimination processes, is more critical to inductive learning than simple temporal spacing... noticing commonalities and differences.







Is knowledge enough?

- Narratives, Values, Making-meaning, Pattern-recognition, Perspectives, Subjective, Truth-seeking, Interleaved, Dialectical, Judgemental, Discriminating...

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