



Epistemology

Dr David Rees. 2025

Meaning of a concrete noun

- Close your eyes
- Imagine a river
- What can you see around the river?
- Without sharing anything with other students, write a list of 5 adjectives to describe your river

River

- One by one, describe your river to the other students in your group.
- Tell them the adjectives you used to describe your river.
- What differences are there among your rivers?
- Rain – positive or negative?
- How can we communicate if words mean different things to different people?

Example



Rain in Brussels

- negative
- depressing
- miserable

Rain in the Algarve

- positive
- time to sow crops
- end of the dry season
- time to play!



Epistemology

Epist os - knowledge / science

Logos - word / discourse

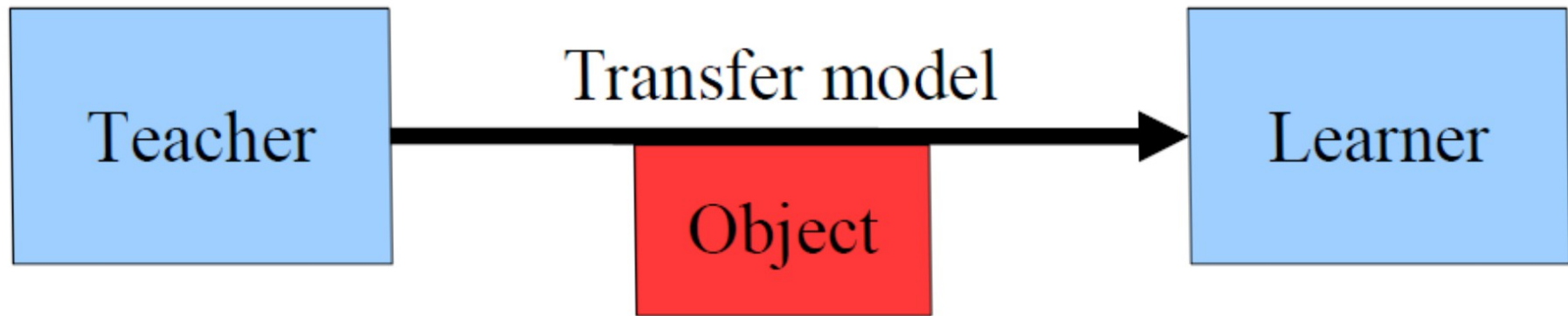
- * What is knowledge?
- * How is knowledge acquired?
- * What do people know?
- * How do we know what we know?

Abstract political nouns

- Democracy – group 1
- Capitalism – group 2
- Oligarchy – group 3
- Monarchy – group 4
- Aristocracy – group 5
- Socialism – group 6
- Communism – group 7
- Totalitarianism – group 8
- Utopia – group 9

***10 minute group discussion
to define the
political word/concept.
Appoint a group
Spokesperson.
No cellphones or laptops.***

Pedagogy



How can I 'transfer' something if we have different meanings and opinions about a word like 'socialism'?

How can I convince you (an atheist) that God exists ?

Conceptual Framework

- ***Some things can only be understood if the 'receiver' of the information has the sufficient conceptual knowledge***

Learn the following

Dérivée d'une fonction composée

$$x \mapsto y = u(x) \mapsto z = v(u(x))$$

$$\frac{dz}{dx} = \frac{dz}{dy} \times \frac{dy}{dx} \Rightarrow t'(u(x)) = y'(u) \times u'(x)$$

Conséquence : dérivée de la fonction inverse

$$x \mapsto y = f(x) \mapsto x = f^{-1}(y)$$

$$\frac{dx}{dx} = 1 = f^{-1}(y) \times f'(x) \Rightarrow f^{-1'}(y) = \frac{1}{f'(x)}$$

L'intégration est un opérateur linéaire

$$\int_a^b f' \times dgx = [f \times g]_a^b - \int_a^b f \times g' dx$$

Economic and Historical Conceptual Framework

Explain the following (from the French radio)

“The dollar interest rate has been reduced following the credit crisis; as a result the price of oil is at a record high and the euro has strengthened”

Which is true?

"In July 1974 Turkish troops illegally invaded the independent country of Cyprus"

"In July 1974 Turkish liberation forces legally entered Cyprus in order to protect Turkish citizens"

Physical Conceptual Framework

- In each group form pairs
- Name one person 'A' and the other 'B'

Physical Conceptual Framework

- 'A' can see colour
- 'B' has never seen and cannot see colour. Everything is black and white and shades of grey.
- 'A' should explain to 'B' what colour is and try to explain the difference between Red, Green, Yellow and Blue.

Scientific Conceptual Framework

- Scientific Paradigms
- We see and understand the world through current scientific and cultural paradigms. It is difficult (or even heretical) to challenge the 'current' paradigm.
- Copernicus and Galileo and a helio-centric universe
- Darwin and the theory of evolution instead of creationism
- Continental shift instead of a static geography
- From Newton, to Einstein to black matter

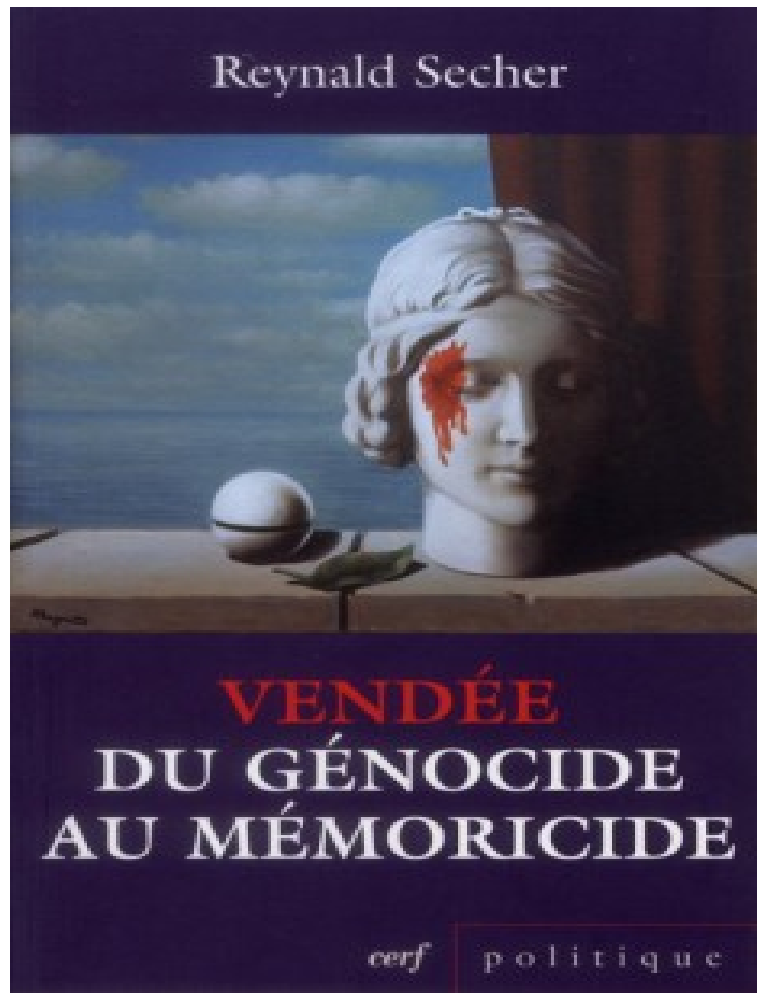
Recommended reading. Thomas Kühn. The Structure of Scientific Revolutions.

- See a [video](#) on Paradigm Shift

Educational Conceptual Framework

- Your education comes from your family, your social environment and your educational institutions.
- Turkish students at ESSCA refused to even investigate / check data demonstrating the Armenian genocide.
- Many French citizens refuse to investigate / read about the genocide of the Vendéen people
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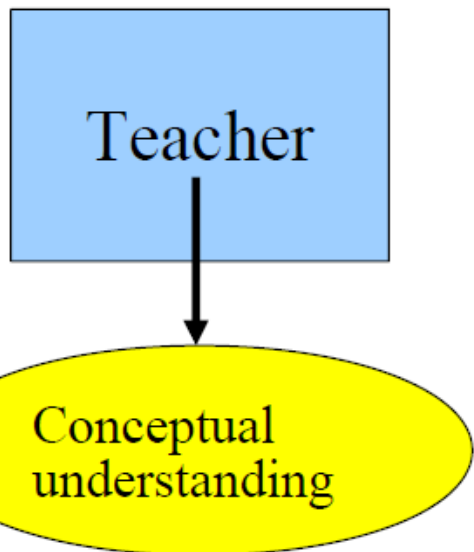
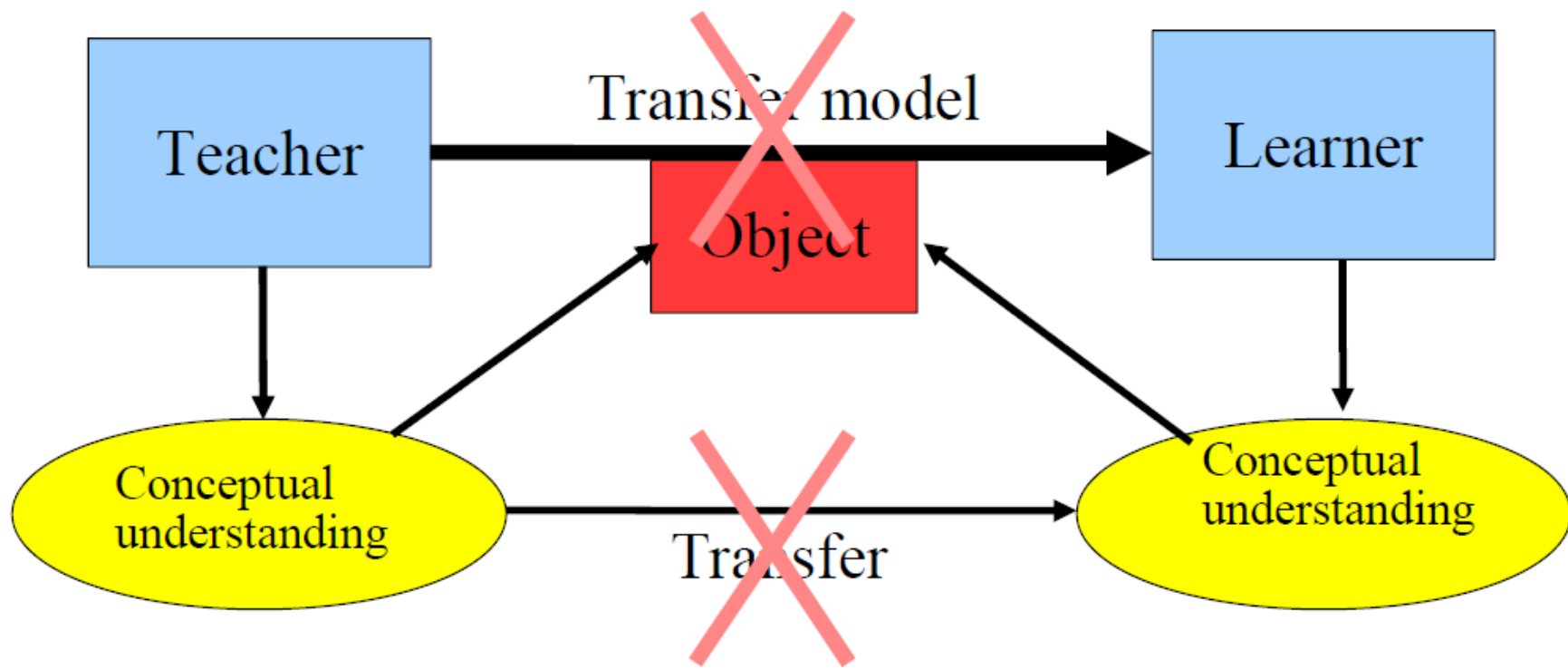
Educational Conceptual Framework



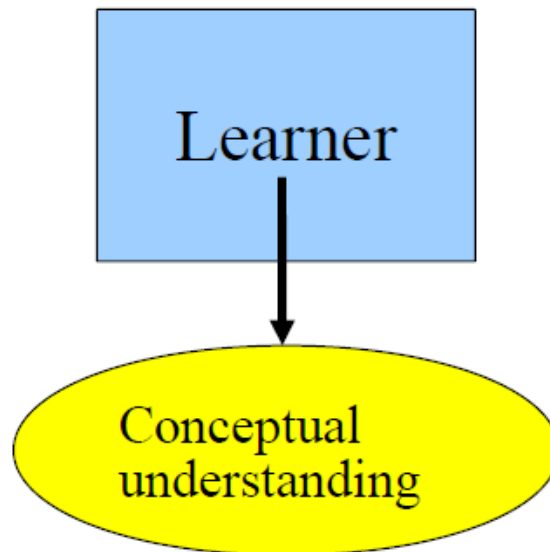
Reynald Secher.
Vendée.
Du Génocide au Mémoricide

Theological Conceptual Framework

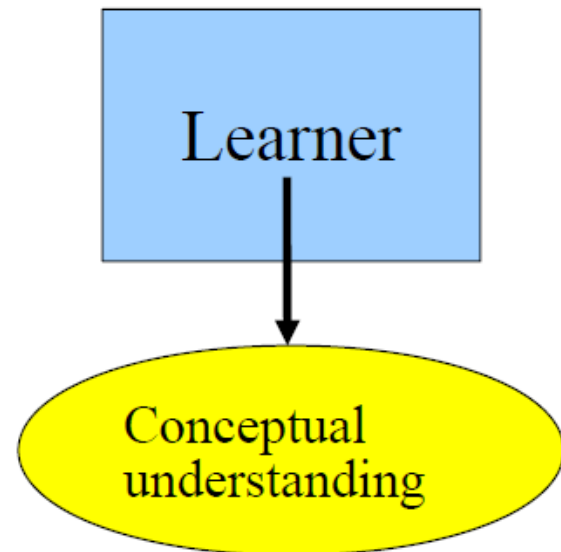
- How do I 'see' the world if I think it
 - 1. Came from an accident and evolution
 - 2. Came from an outside agency (God)
- How do I understand 'death' if
 - I am an atheist
 - I am a Catholic
 - I am a Protestant
 - I am a Jew
 - I am a Buddhist
 - I am a Muslim
- How easy is it to explain my faith / beliefs to someone else ?



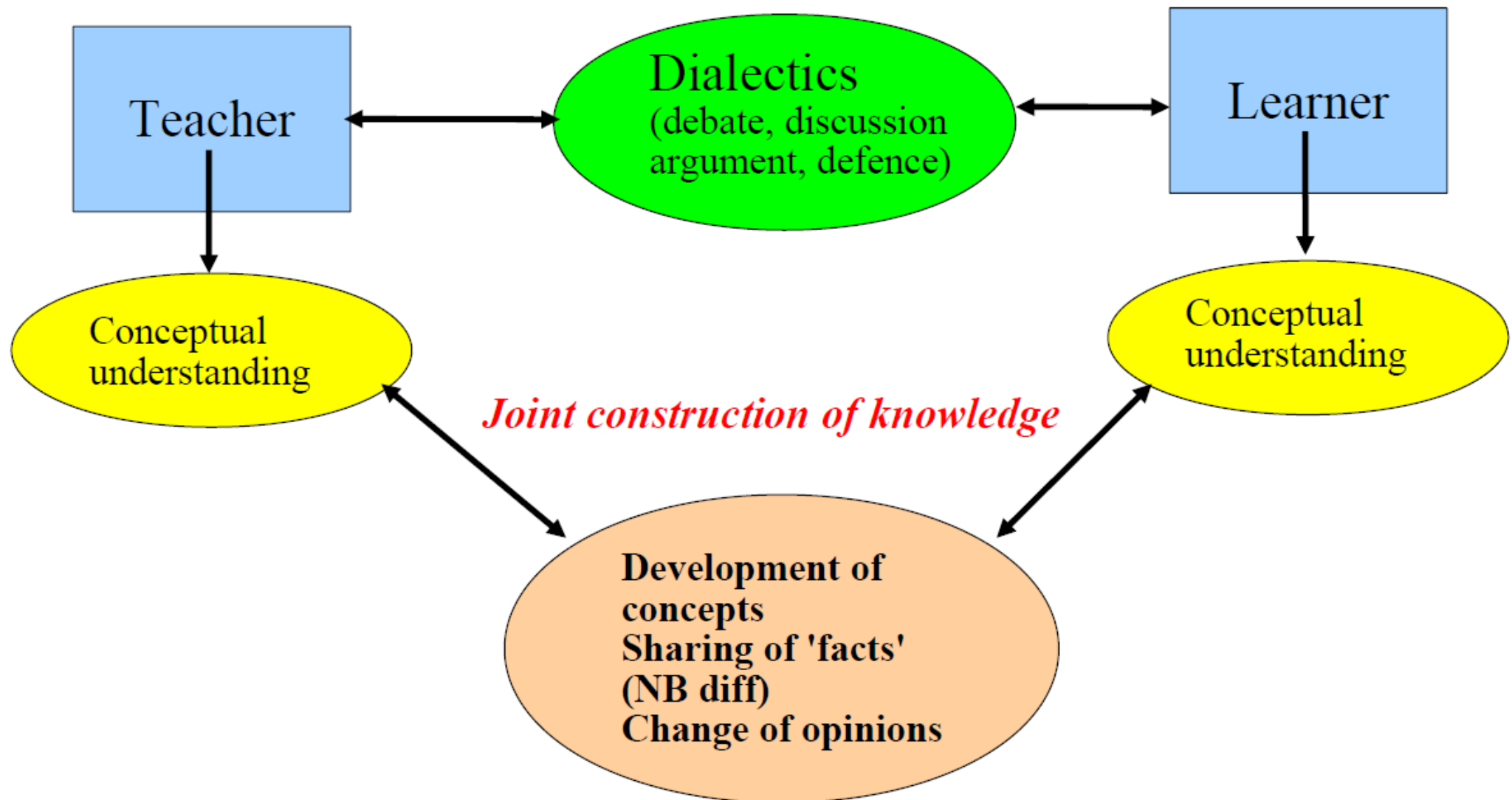
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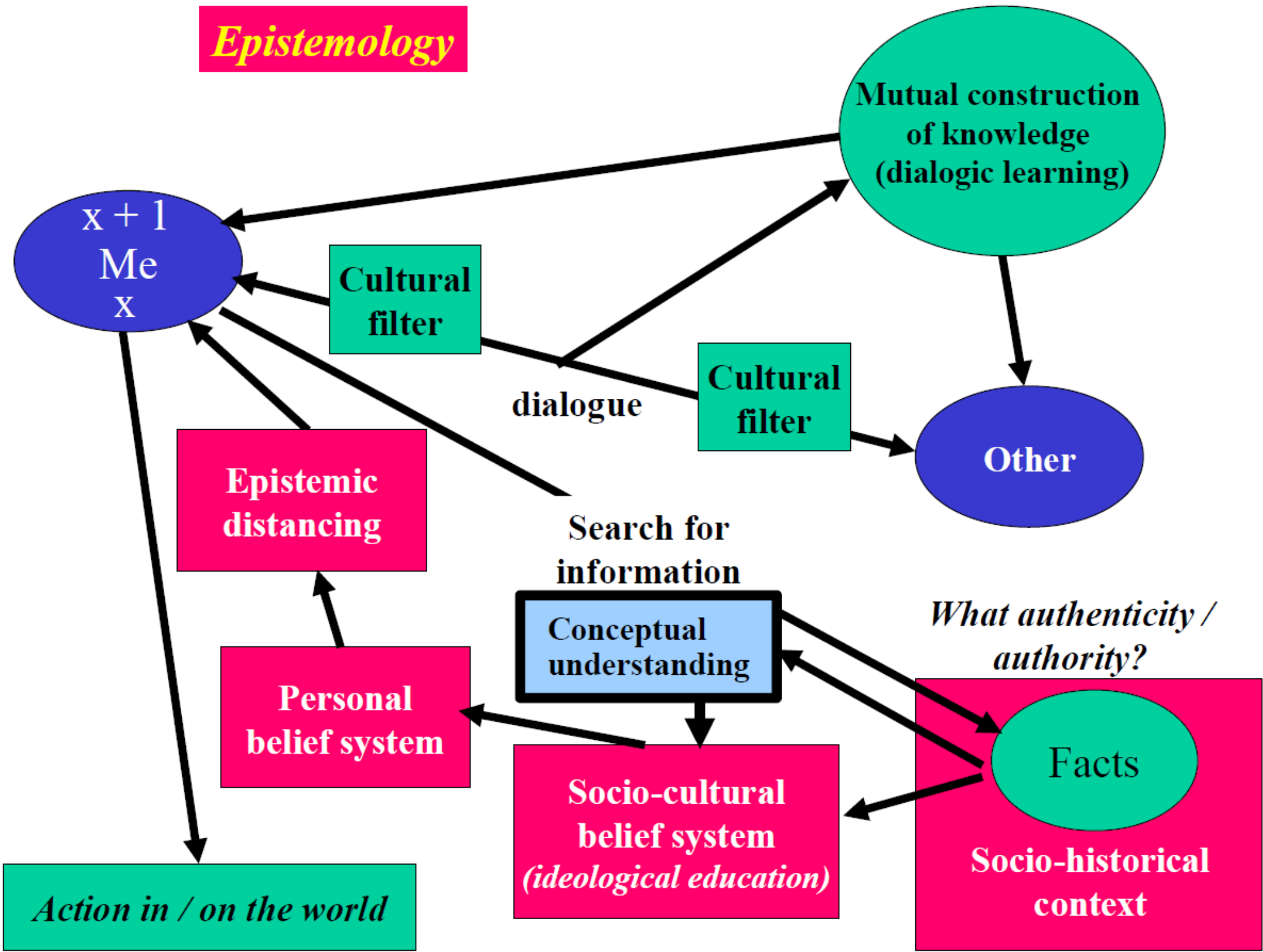
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The mutual construction of knowledge



Epistemology



Vygotsky's Zone of Proximal Learning

From your first steps

to this



requires several stages. You can only go from one step to the next, not jump from a beginner to a champion. The same thing exists in Politics and Economics (history, concepts etc.)

Introduction to Political Economy

This module is designed to help you move on from where you are to where you are going :-)

- The great thing is that economics and politics are based on beliefs, ideas, theories, opinions and there is no 'truth' to sell!

