

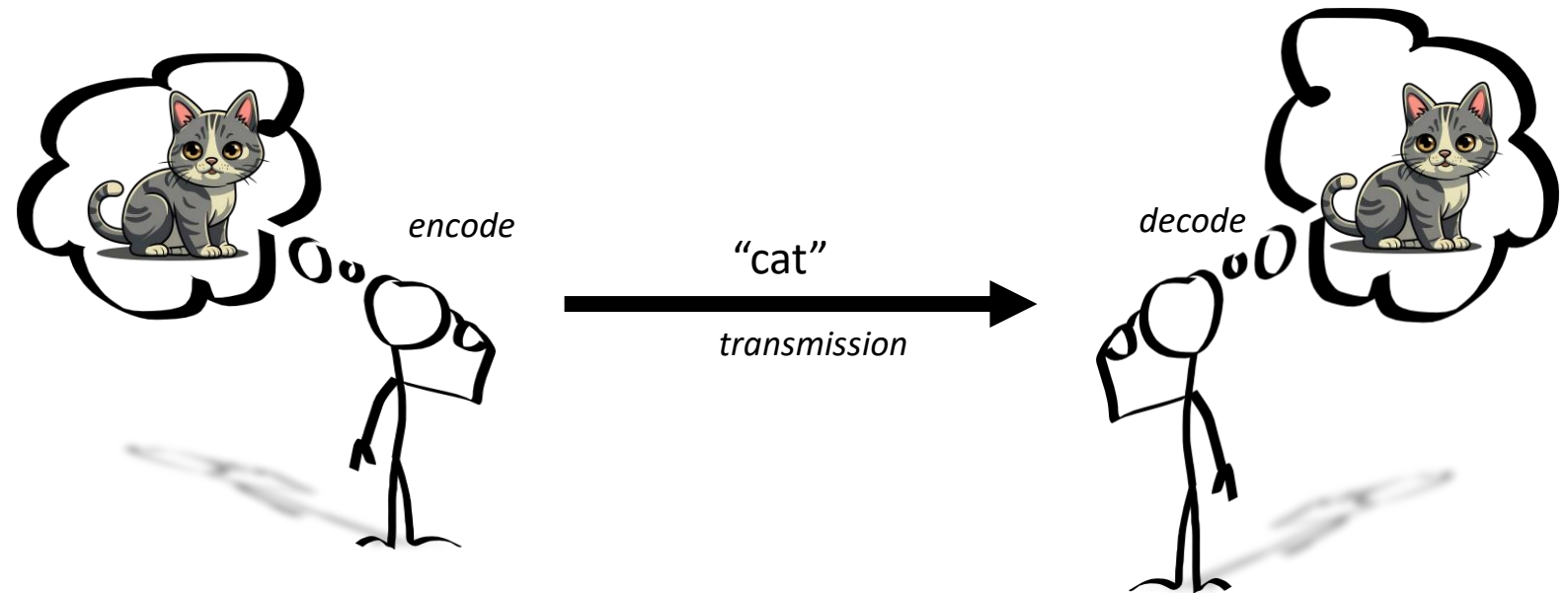


Introduction to Social Constructivism

- Stephen Downes
- November 16, 2023
- Maskwacis Cultural College Online Microlearning Series
- <https://www.downes.ca/presentation/576>

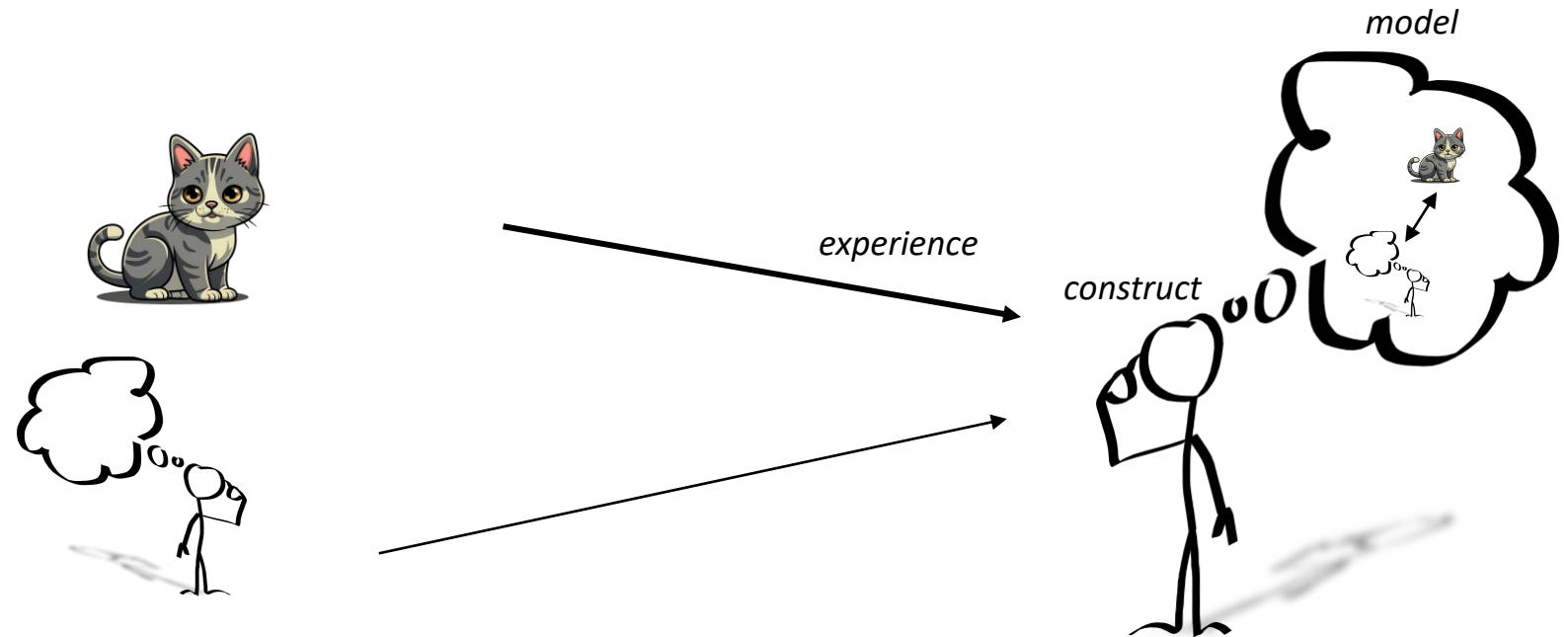
Constructivism

- Individuals or learners do not acquire knowledge and understanding by passively perceiving it within a direct process of knowledge transmission



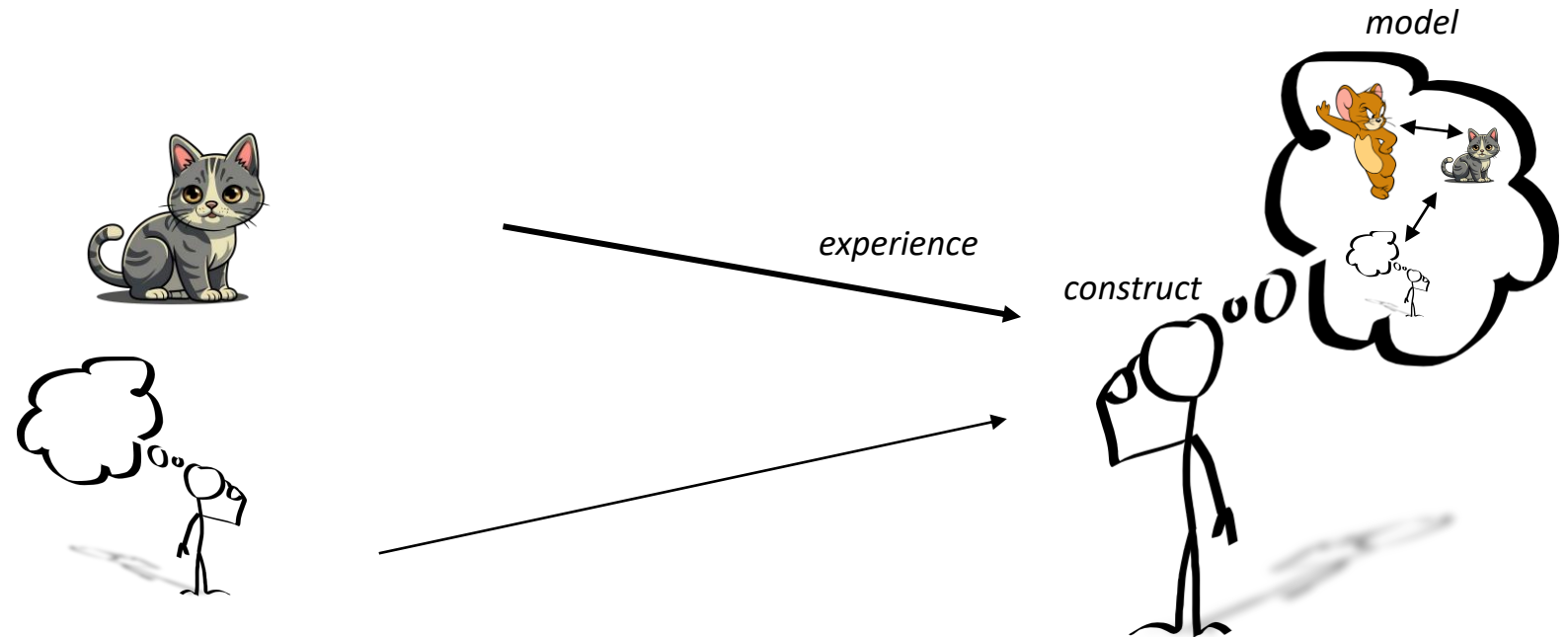
Constructivism

- Instead, they construct new understanding and knowledge through experience and social discourse



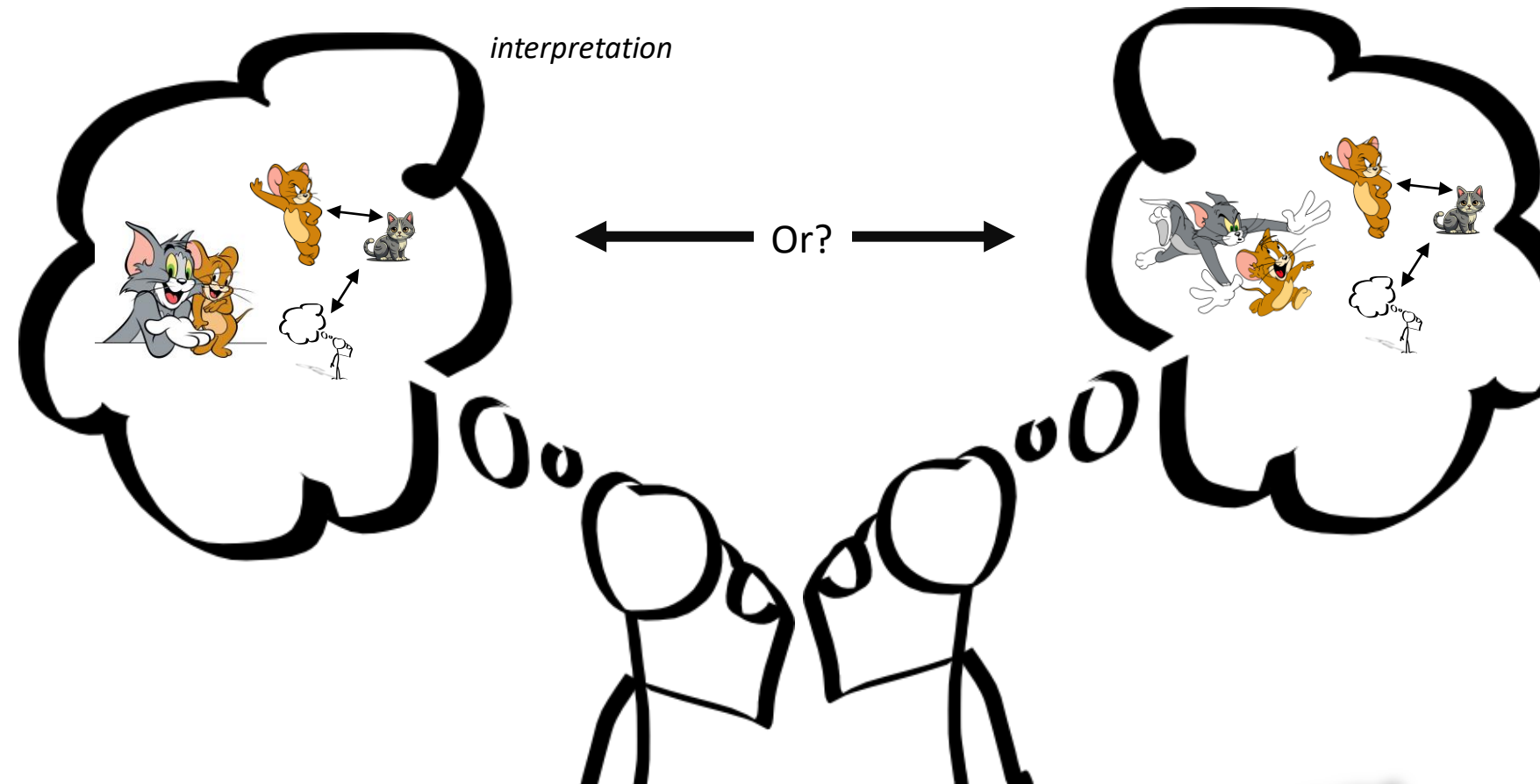
Constructivism

- New knowledge is integrated into what is already known and thereby extended



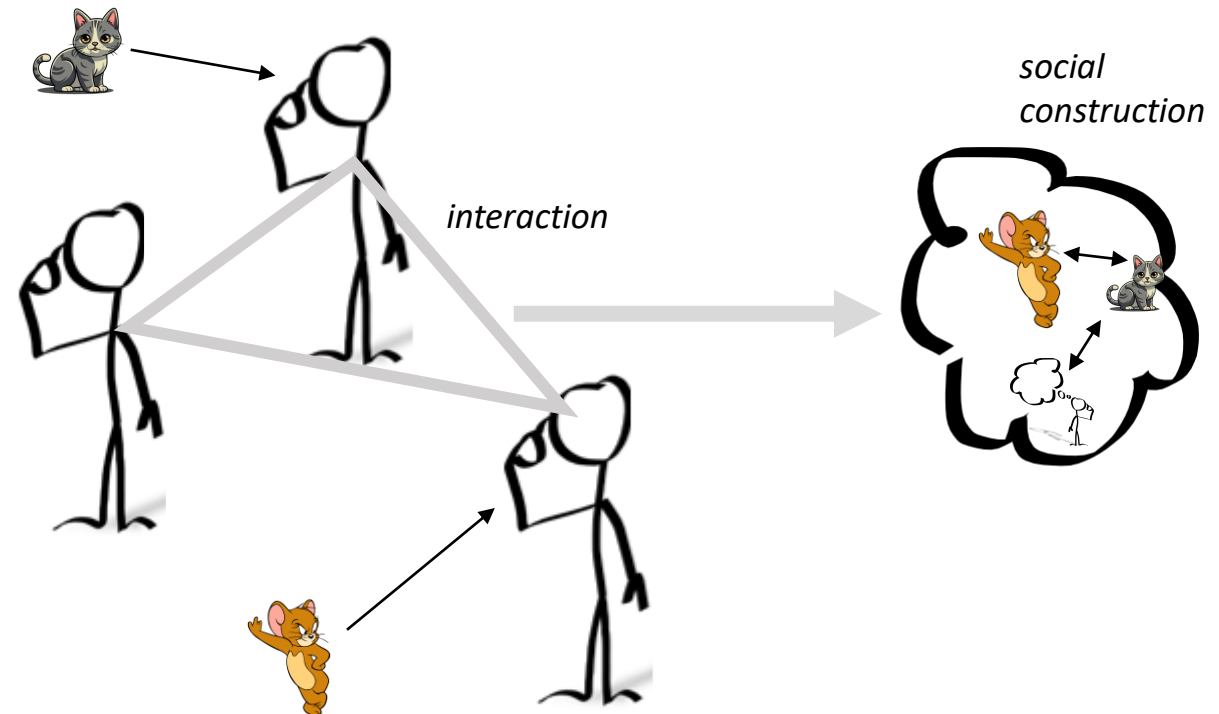
Constructivism

- How new knowledge is integrated is a matter of interpretation



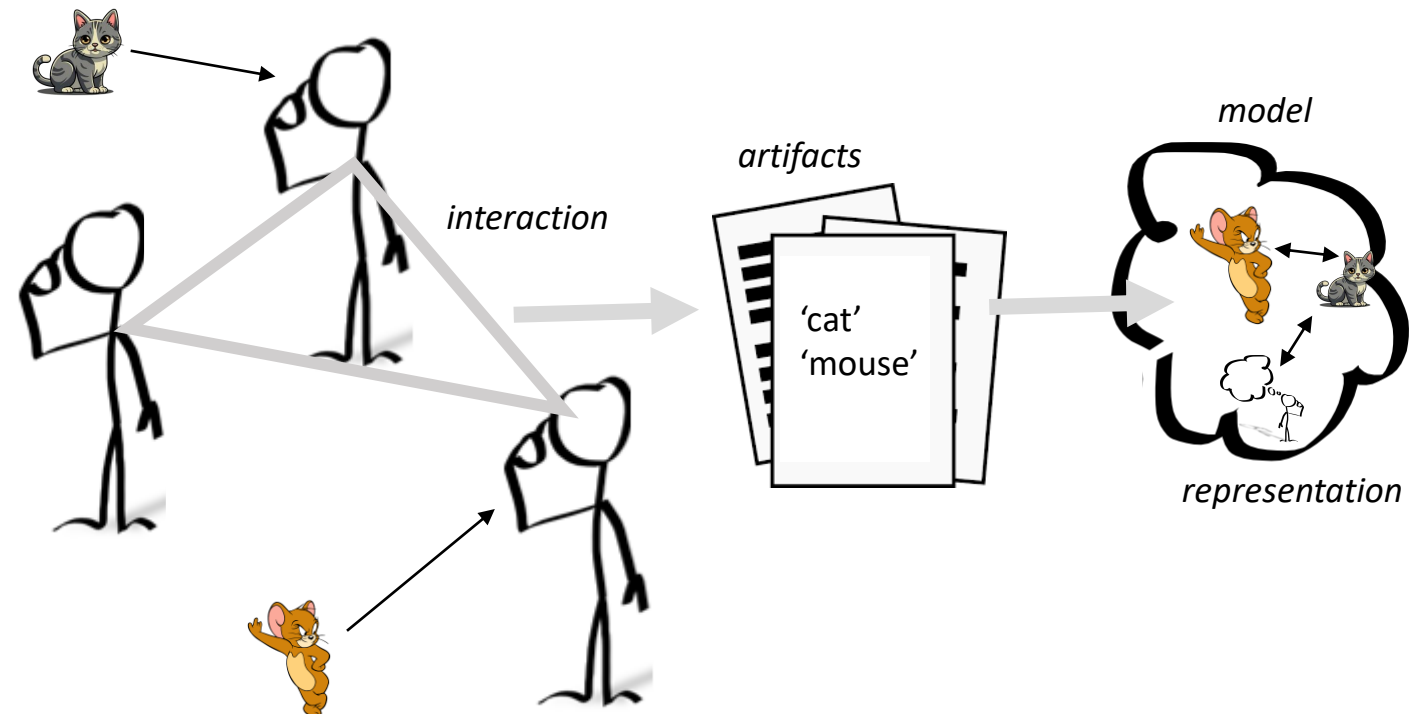
Social Constructivism

- Human development is socially situated, and knowledge is constructed through interaction with others.



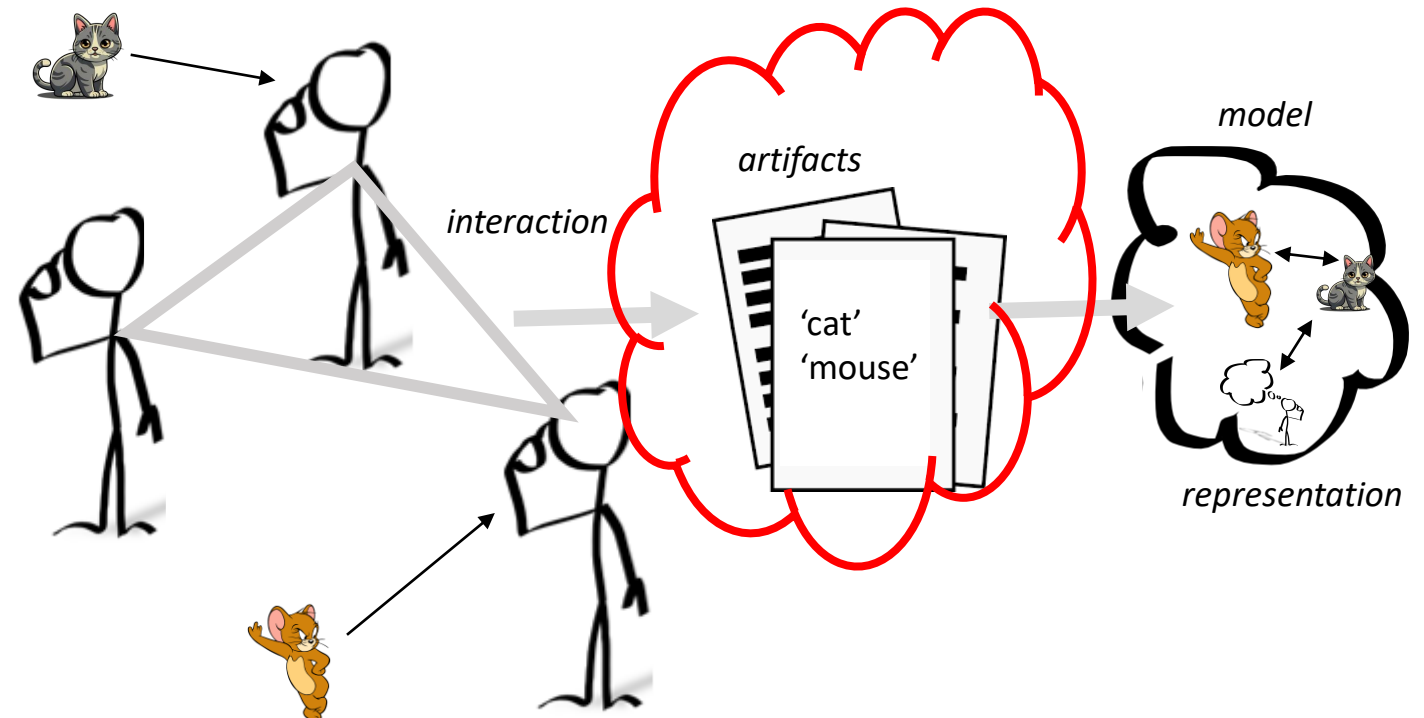
Social Constructivism

- People work together to actively construct artifacts that represent or stand for the socially constructed models



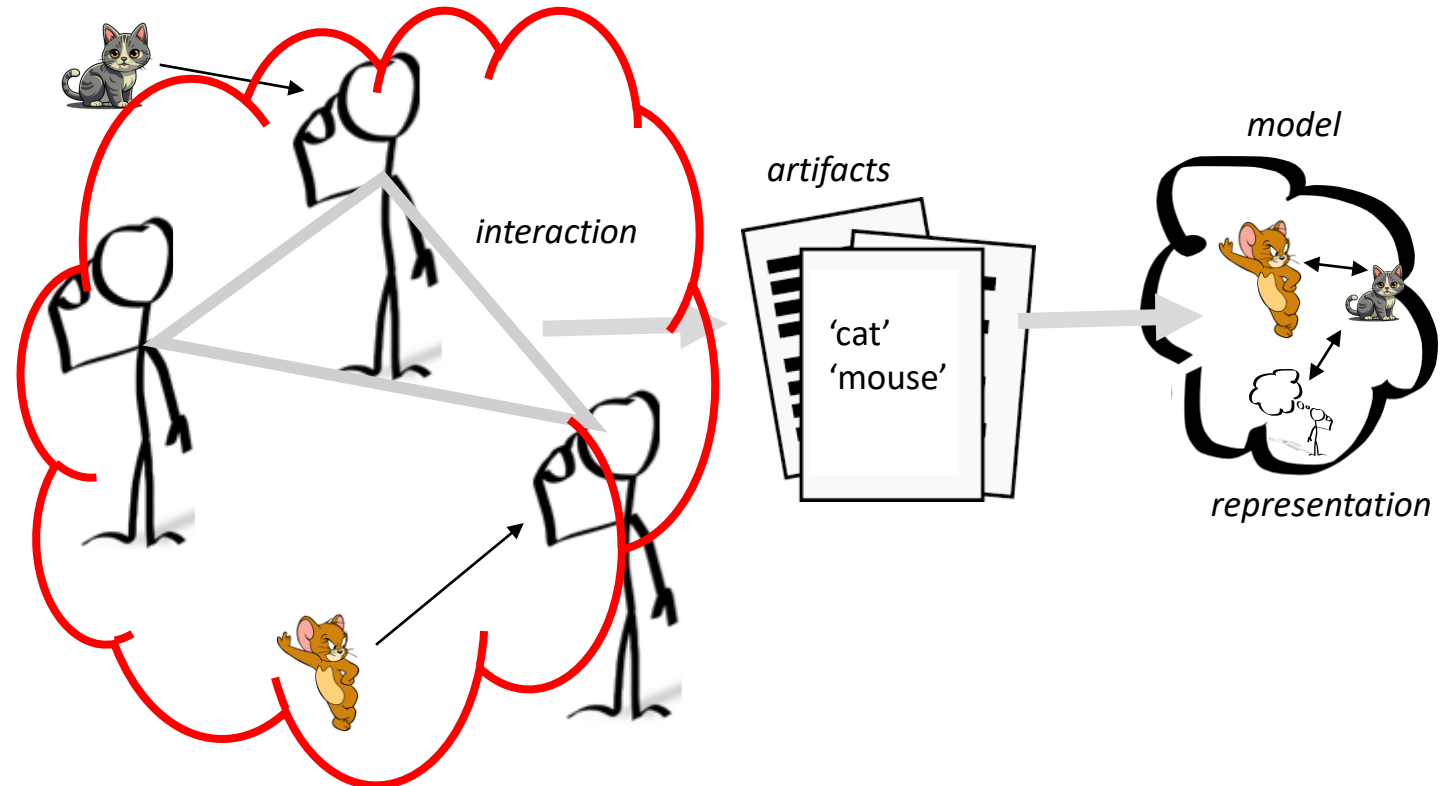
Social Constructivism

- Social **constructivism** focuses on the artifacts (constructs) that are created through social interactions



Social Constructionism

- Social **constructionism** focuses on the artifacts (constructs) that are created through social interactions



Building an Ontology

OWLGrEd Home Get Started **Visualize Online** Notation Extensions R&D Success Stories Users About Us

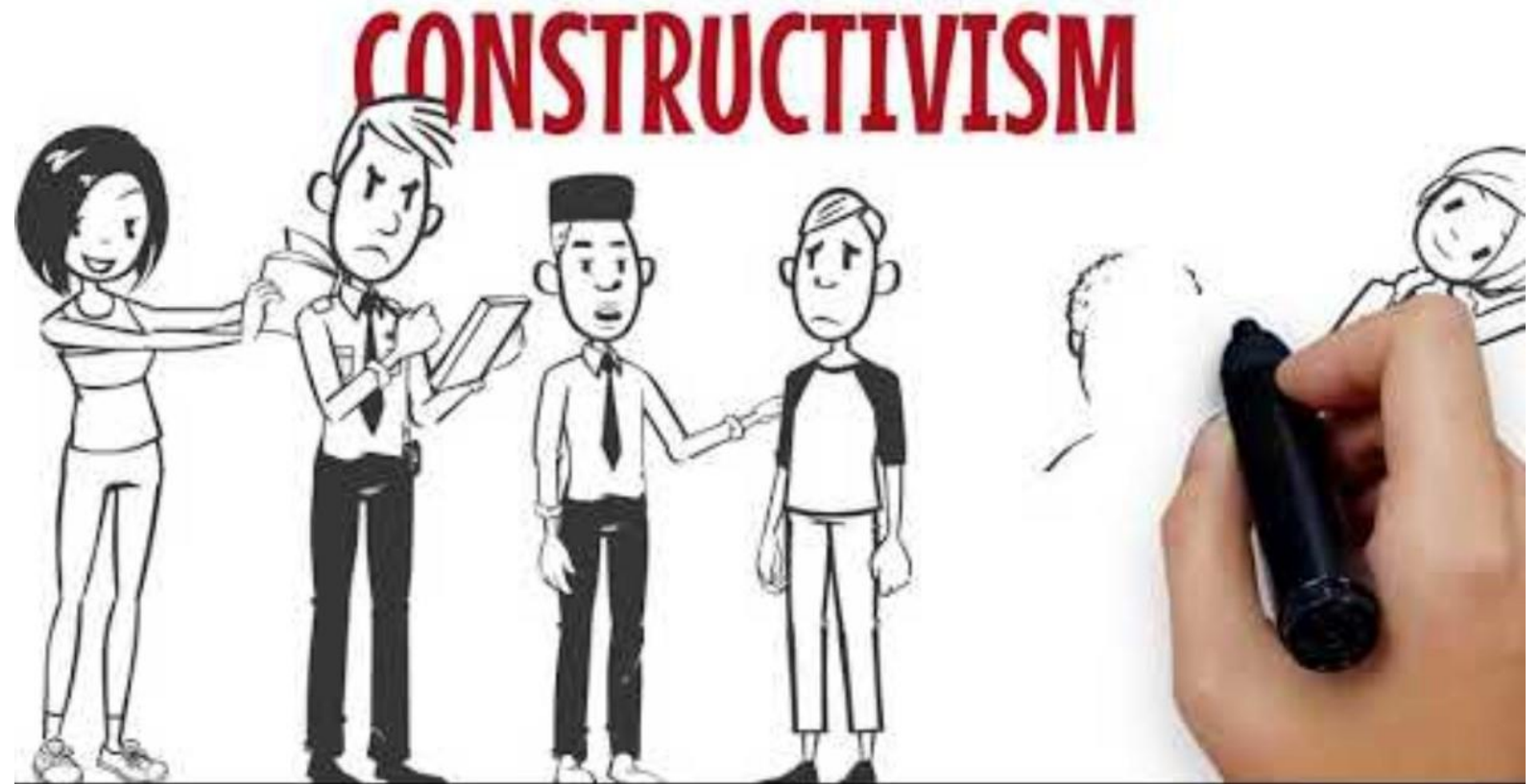
Try our ontology visualization
Look up our [graphical notation](#) for ontologies.
Currently best results with moderate size ontologies. Diagram will show only the direct ontology.
Please share your impressions and suggestions to owlgred@lumii.lv.

Enjoy our examples or Visualize your ontology then Share the link
<http://protege.stanford.edu/plugins/owl/owl-library/koala.owl#> koala.png

The diagram illustrates an ontology structure. At the top level is 'Thing'. It branches into 'Gender' and 'Degree'. 'Gender' has subclasses 'Female' and 'Male'. 'Degree' has subclasses 'BA', 'BS', 'PhD', and 'MA'. 'Animal' is a subclass of 'Thing' and has subclasses 'Habitat', 'Marsupials', and 'Parent'. 'Habitat' has subclasses 'Forest' and 'DryEucalyptForest'. 'Marsupials' has subclasses 'University' and 'Person'. 'Parent' has subclasses 'Person' and 'DryEucalyptForest'. 'Person' has subclasses 'Student', 'TasmanianDevil', and 'Quokka'. 'Student' has subclasses 'Graduate Student' and 'Male StudentWith3Daughters'. 'Koala' is a subclass of 'Person' and has subclasses 'TasmanianDevil' and 'KoalaWithPhD'. 'Quokka' is a subclass of 'Person' and has subclass 'KoalaWithPhD'. 'DryEucalyptForest' is a subclass of 'Habitat' and has subclass 'Rainforest'. The diagram also shows relationships like 'hasGender', 'hasHabitat', and 'hasDegree' between classes and their instances.

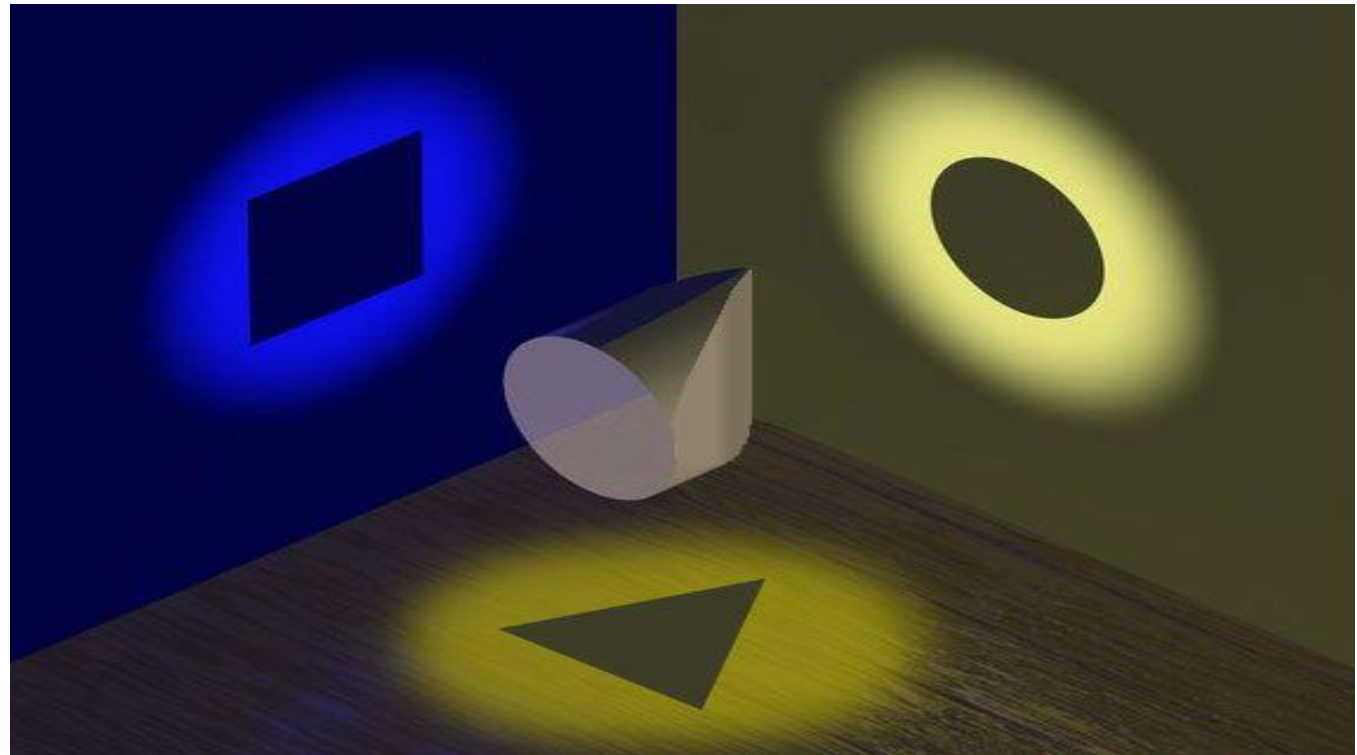
- http://owlgred.lumii.lv/online_visualization

Constructivism and Reality



Constructivism and Reality

- There is no inherent contradiction between constructivism and realism



Constructivism and Reality

The Logician Perspective

- There are objective principles of fact and reason, for example, mathematics and logic
- Kant: necessary *a priori* and the philosophy of rationality
- Chomsky: syntactic structures and the philosophy of language
- Stages of development and transformations: Piaget

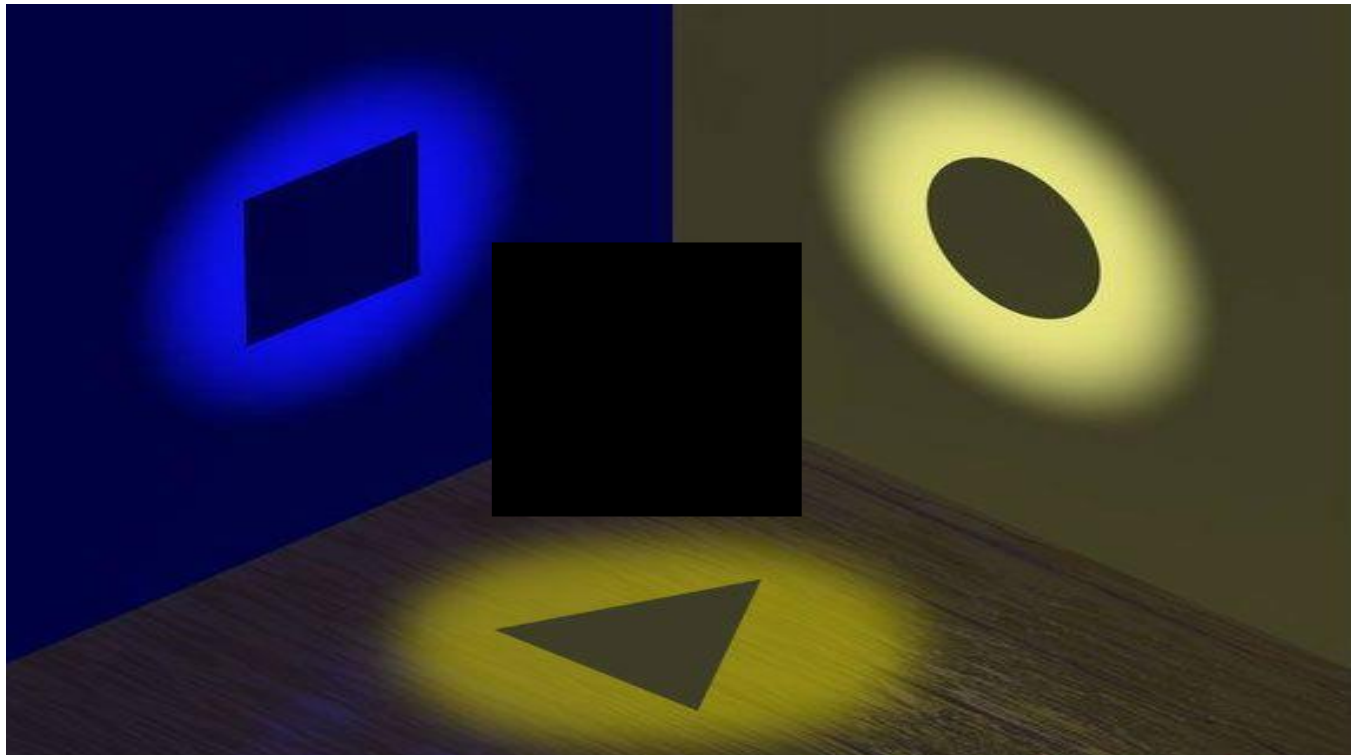
Constructivism and Reality

The Scientific Perspective

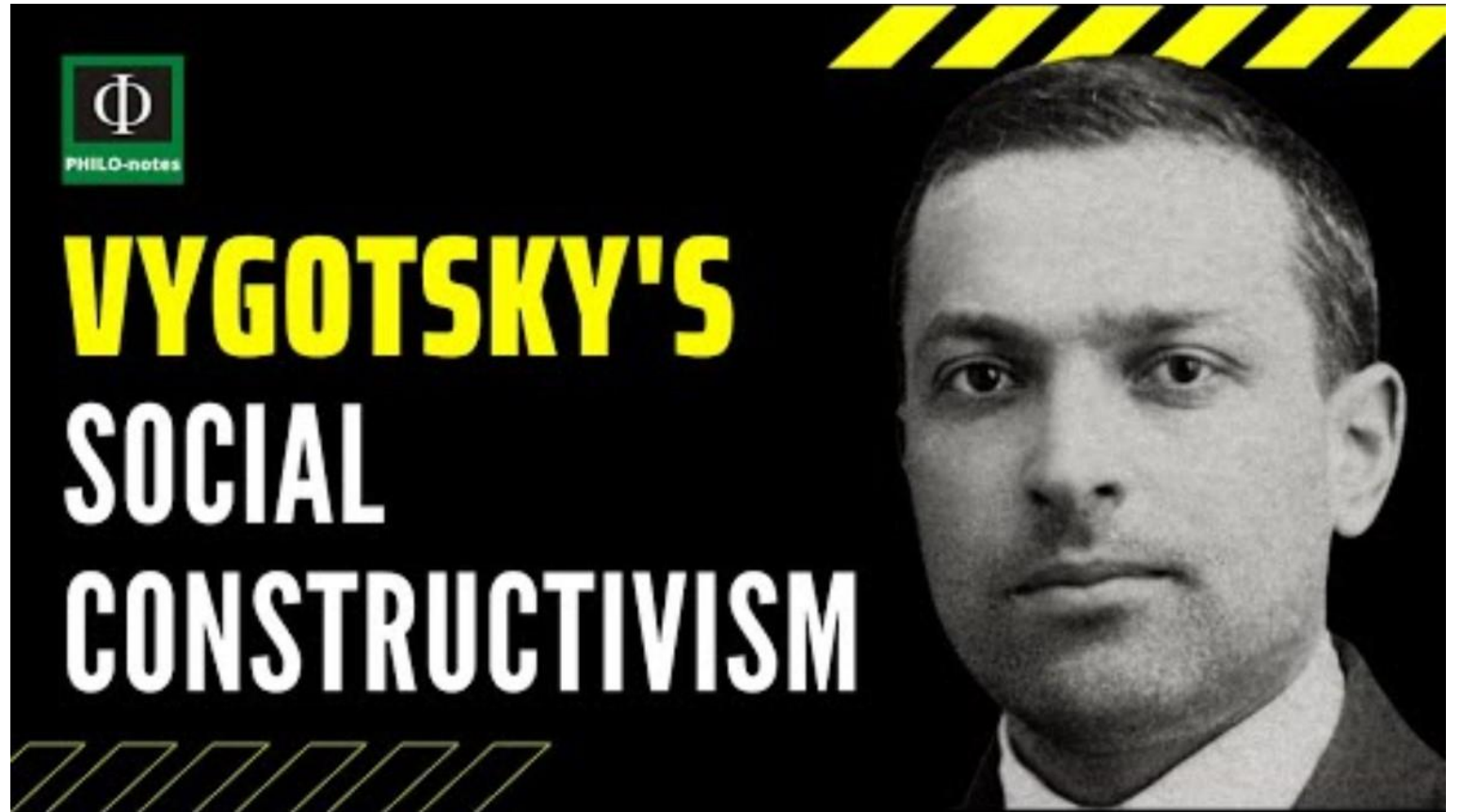
- Science is a social process that subjects models (composed of theory and observation) to testing and confirmation
- Popper and the logic of falsification
- Van Fraassen and constructive empiricism

Radical Constructivism

- Even if there is an objective reality, it is beyond our reach.



Social Cultural Learning



Two Views of Theory

Critique of Traditional Theory

- The natural sciences attempt to descriptively mirror a given set of facts or establish law-like generalizations
- However, traditional theories fail to analyze the broader social context in which they are embedded

Quoted from <https://plato.stanford.edu/entries/critical-theory/#CritTheoVersTradTheo>

Two Views of Theory

Critical Theory

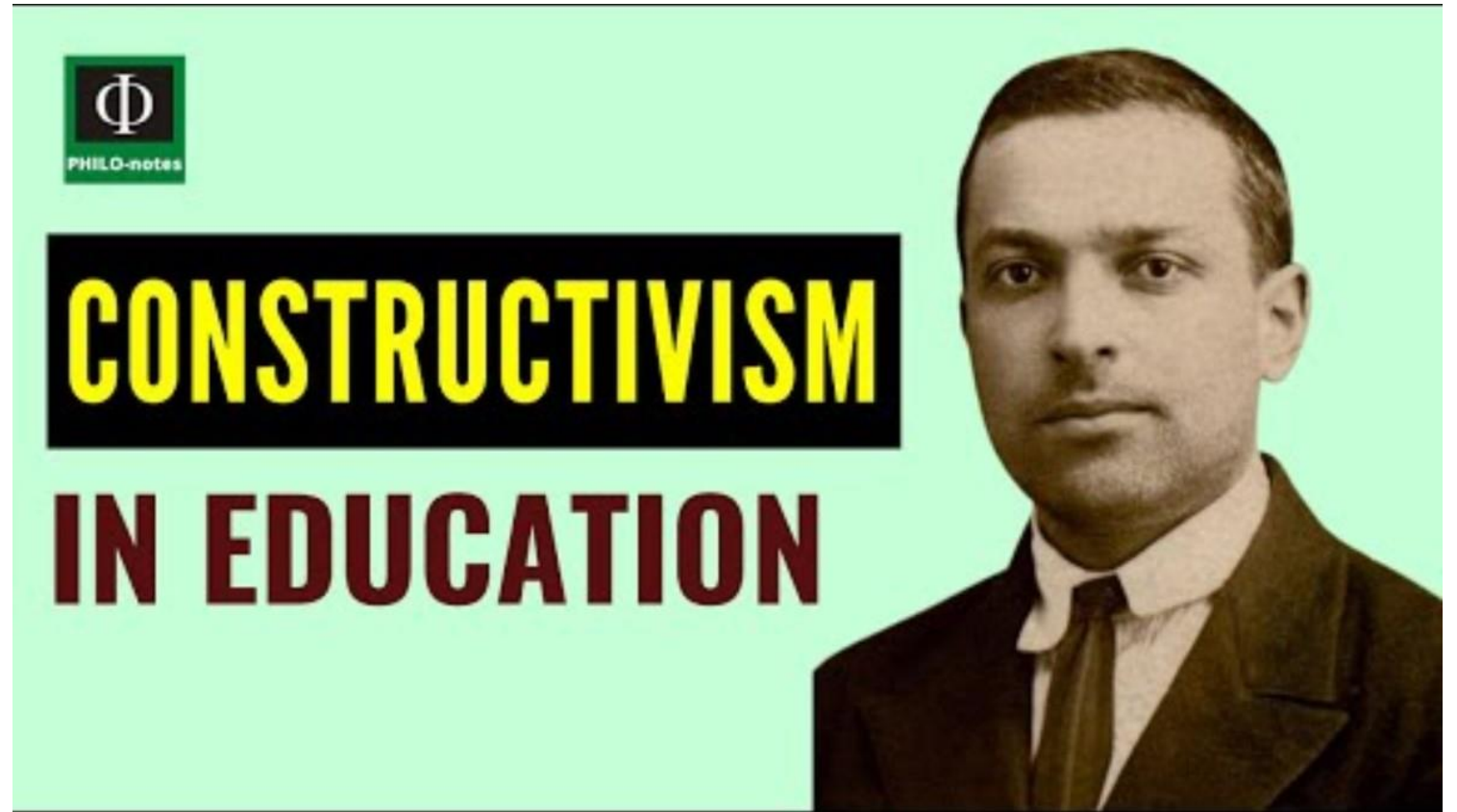
- Reflects on the context of its own origins and aims to be a transformative force within that context.
- Aims to find insights into the forces of domination operating within society in a way that can inform practical action and stimulate change

Quoted from <https://plato.stanford.edu/entries/critical-theory/#CritTheoVersTradTheo>

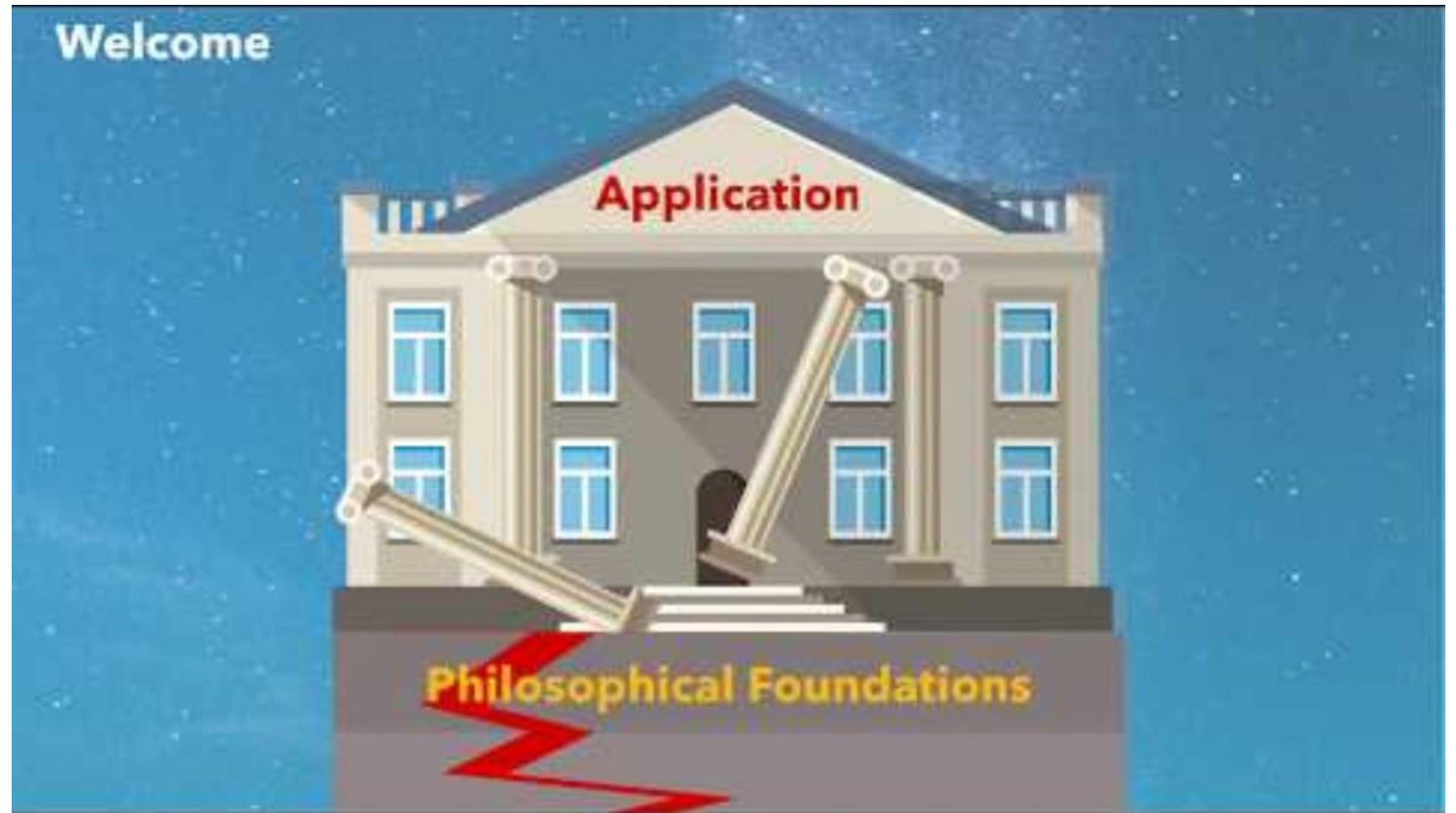
Constructivism and the Classroom

- Teachers are not instructors so much as facilitators
- Need to learn about students in order to facilitate experiences
- Shared authority and responsibility for learning
- Focus on interaction, especially in small groups

Constructivism and the Classroom



Criticisms of Constructivism



Constructivism Redux

- Do our experiences tell us how or why something works?
- Knowledge can't be transmitted through language?
- The potential for novices to uncritically digest false knowledge?
- The assumption that truth will prevail is especially dubious in constructivist classrooms?

Constructivism and Learning Redux

- Is all knowledge is subjective we can't differentiate between science and pseudoscience?
- The problem of peer pressure
- The phenomenon of cognitive load

Stephen Downes

<https://www.downes.ca>

