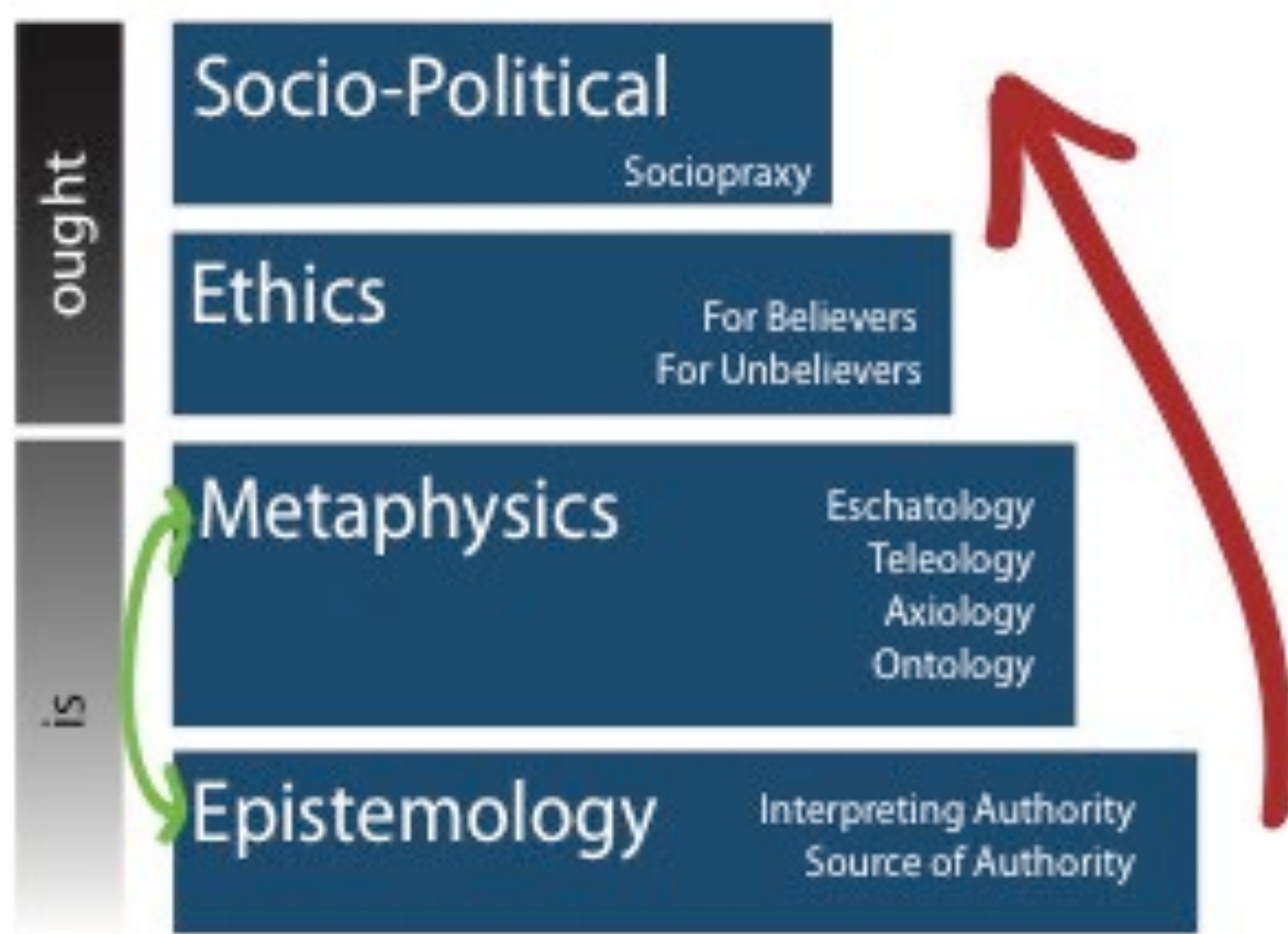# Transformative Learning and Teaching
Part 2

Teaching for Growth

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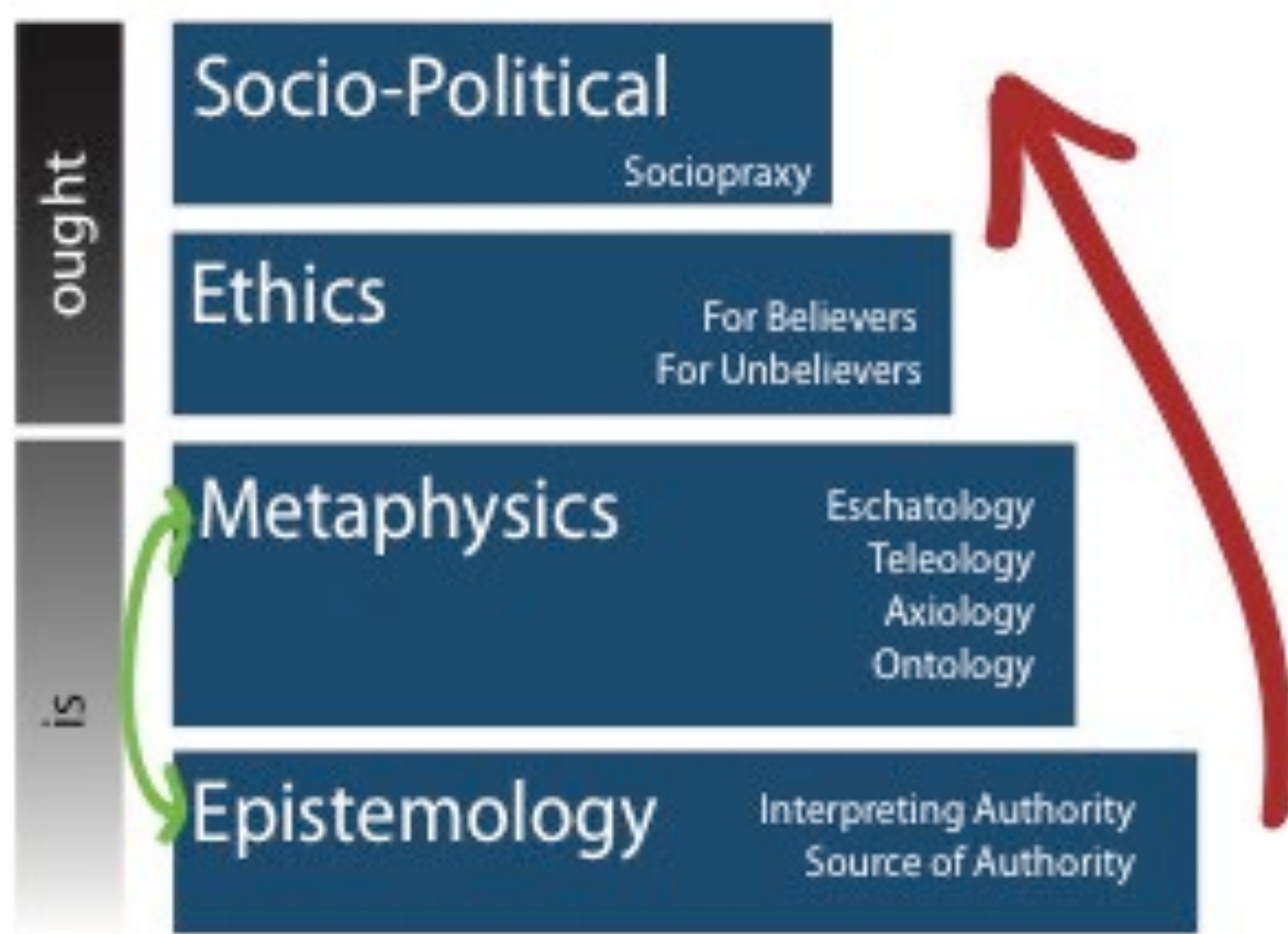www.drcone.com

CORE CONFERENCE

1. **Some Preliminary Questions**
2. Learning Theories
3. Curricular Design

Some Preliminary Questions

- **How do we determine which learning theory to trust, and on what basis (epistemology)?**
- **What is a person, and how do they learn (metaphysics)?**
- **How should we engage others to help them to learn (ethics)?**
- **What are implications of how we answer these questions (socio-political)?**

CORE CONFERENCE

Some Epistemology Questions

- **Who do we trust for answers about what matters in education?**

- **How do we determine which learning theories (if any) are correct?**

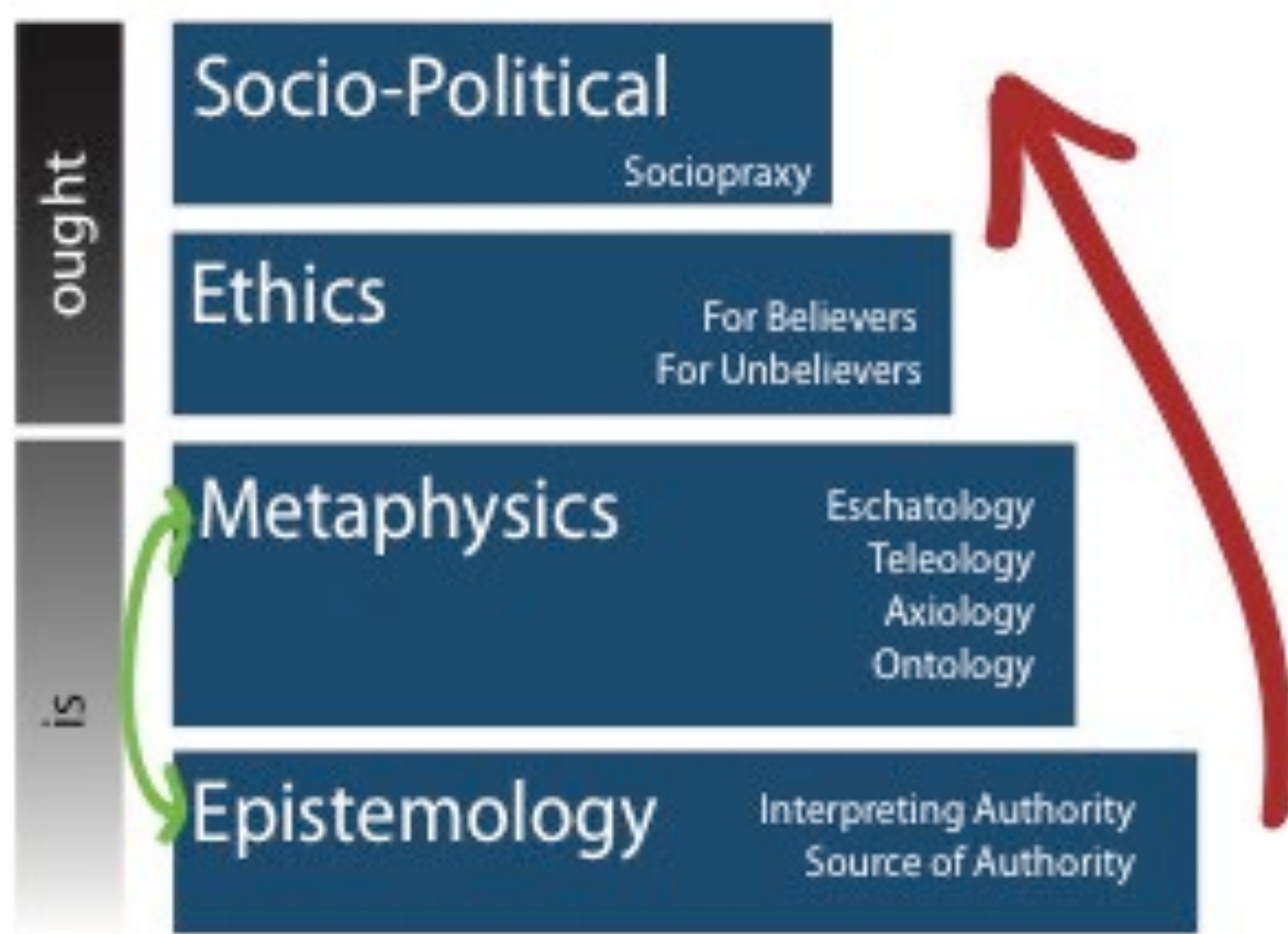- **On what basis will we make decisions at each step of the way?**

CORE CONFERENCE

- **What is a person?**
- **What is good for a person?**
- **What is the design for a person?**
- **What is the future of a person?**
- **How does a person grow?**

Some Metaphysics Questions

- **How should we help others learn?**
- **What is the teacher's responsibility?**
- **What is the learner's responsibility?**

Some Ethics Questions

CORE CONFERENCE

- **How do we expect to impact community with the teaching?**
- **What are implications if we teach well?**
- **What are implications if we teach poorly?**

Some Socio-Political Questions

CORE CONFERENCE

1. Some Preliminary Questions
2. Learning Theories
3. Curricular Design

Behaviorism
B.F. Skinner (1904-1990)

- Operant conditioning
  - E.g., Skinner Box
- Relies on external stimuli to shape behavior
- Epistemology: empiricism
- Metaphysic: matter and energy
- Ethic: shape behavior by shaping conditions
- Socio-political: implications?

CORE CONFERENCE
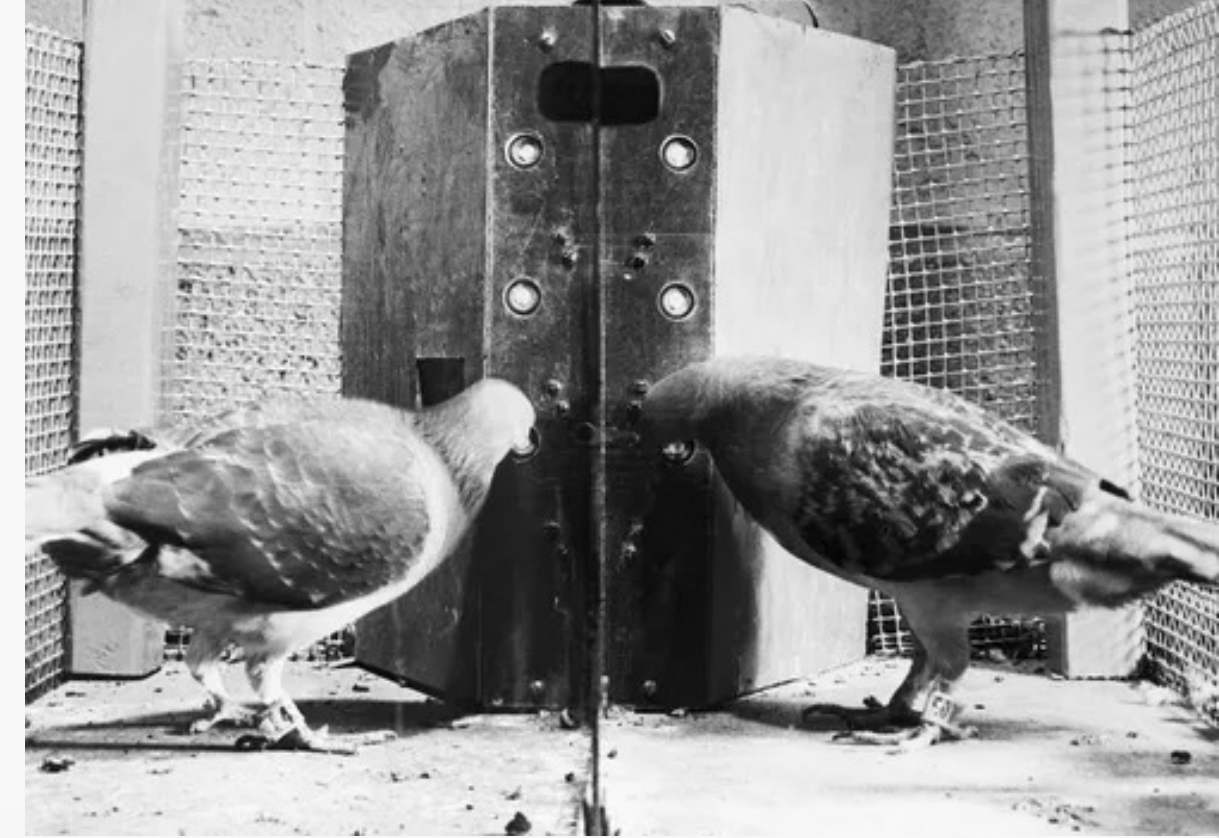
Cognitivism
Jean Piaget (1896-1980)

- Relies on internal stimuli (thinking processes) and external stimuli for learning

- Growth based on stages:
  - Sensorimotor – 0-2 – object permanence, etc.
  - Preoperational – 2-7 – symbolic thought
  - Concrete Operational – 7-11 – cause and effect
  - Formal Operation – 12+ – thinking hypothetically, assuming responsibilities, etc.

CORE CONFERENCE

Constructivism

- Learner synthesizes old and new information to construct new learning.
- Learners actively create their own new learning, building upon prior learning.
- Accommodation and assimilation

Humanism
Abraham Maslow (1908-1970)

- Learner (not material or content) is central, facilitating potential is the goal

- Motivation based on hierarchy of needs

- Human actions directed toward goal attainment

  - (Maslow, A. H. (1943). A theory of human motivation. Psychological review,50(4), 370.)

CORE
CONFERENCE

Connectivism

George Siemens (1970-)
and
Stephen Downes (1952-)
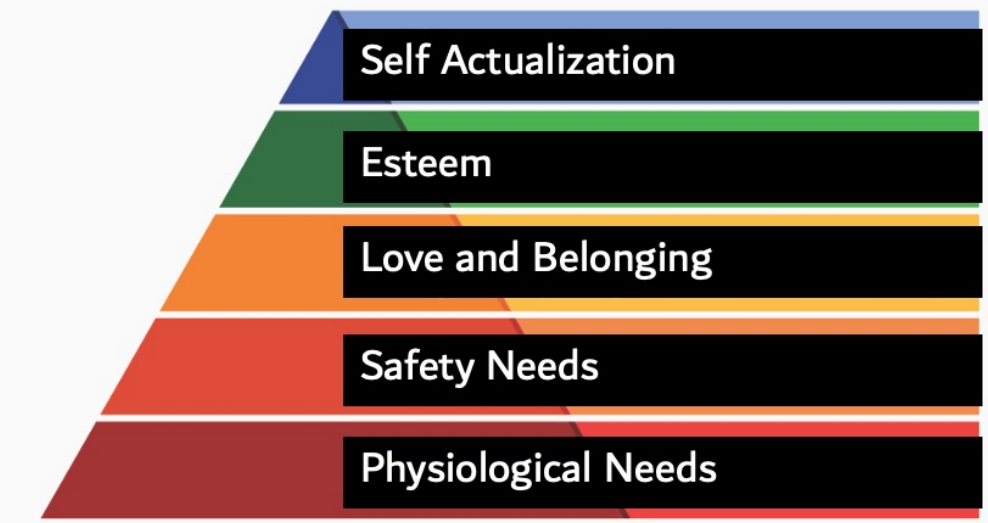
- Learner identifies gaps, actively sources and updates new learning; Learning how and where to learn (find info) is just as important as the content of learning. 8 Principles:

1. Learning and knowledge rests in diversity of opinions.

2. Learning is a process of connecting.

3. Learning may reside in non-human appliances.

4. Capacity to know more is more critical than what is currently known.

5. Nurturing and maintaining connections is needed for continual learning.

6. Ability to see connections between fields, ideas, and concepts is a core skill.

7. Accurate, up-to-date knowledge is the aim of all connectivist learning.

8. Decision-making is a learning process. What we know today may change tomorrow. The right decision today may be the wrong decision tomorrow.

- https://insider.fiu.edu/connectivism-future-learning/
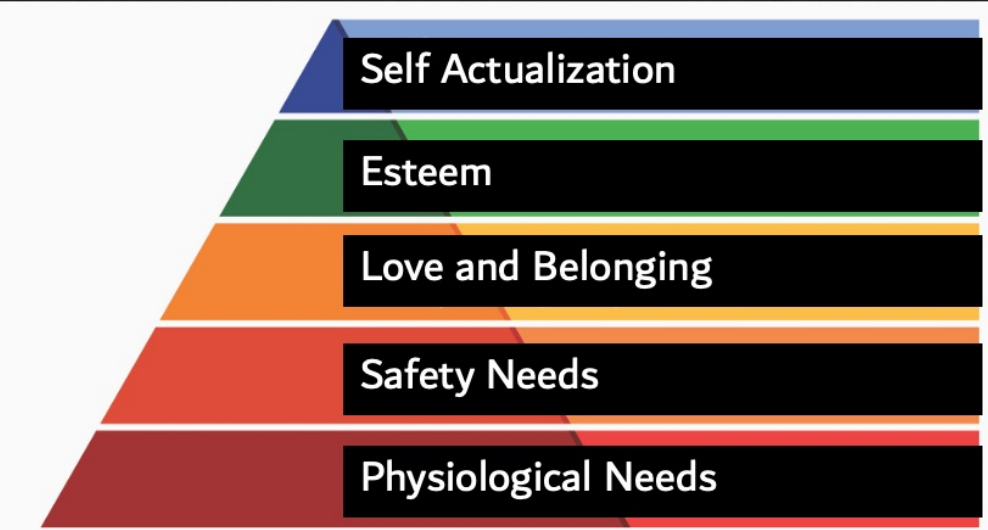
CORE
CONFERENCE

Transformative
Jack Mezirow (1923-2014)

- Critical reflection and review creates transformation of worldview; Interpretation and reinterpretation for transformed understanding

- 10 Stages:
  1. A disorienting dilemma
  2. Self-examination of assumptions
  3. Critical reflection on assumptions
  4. Recognition of dissatisfaction
  5. Exploration of alternatives
  6. Plan for action
  7. Acquisition of new knowledge
  8. Experimentation with roles
  9. Competence building
  10. Reintegration of new perspectives
  - (Mezirow, 1991)

CORE CONFERENCE

Transformative
(Biblical)

- True learning results in growth, not just changed thinking or changed behavior.
- The basis of authority – 1 Cor 2:1-13

    1. The natural person – 2:14

    2. The spiritual person – 2:15-16

    3. The fleshly person – 3:1, 3

    4. The infant – 3:1

- The source of growth – 1 Cor 3:4-23, Eph 4:14-16, 1 Pet 2:1-3, Rom 12:1-2

Self Actualization
Esteem
Love and Belonging
Safety Needs
Physiological Needs

Physiological Needs – Mt 6:32
Safety Needs – 1 Cor 6:19
Love for Others – Jn 15:12
Design Fulfillment – Eph 2:10
Divine Relationship – Jn 17:3

CORE
CONFERENCE

1. Some Preliminary Questions
2. Learning Theories
3. **Curricular Design**

CORE
CONFERENCE

Curriculum Elements

- Objective –expected outcome (e.g., competency based)
  - Pedagogy – child learning
  - Andragogy – adult learning

- Focus – learner centered, content centered, or problem centered

- Scope – extent of the learning experience

- Sequence – order of the learning experience

- Repetition – how often concepts are engaged

- Activity/Passivity – how is the learner engaged
  - Traditional/Banking (Friere) – lecture
  - Blended/Hybrid
  - Flipped
  - Heutagogy – self determined learning

- Integration – the cogency and balance with other aspects of curriculum

CORE
CONFERENCE

Behavioral Curriculum

- BF Skinner
  - Skinner Box
  - Operant Conditioning

- Edward Thorndike
  - Behavior is changed by doing.
  - Law of Effect – Learning is developed by the learner *doing* something.
  - Puzzle Box

- Learning based on routines and reinforcement
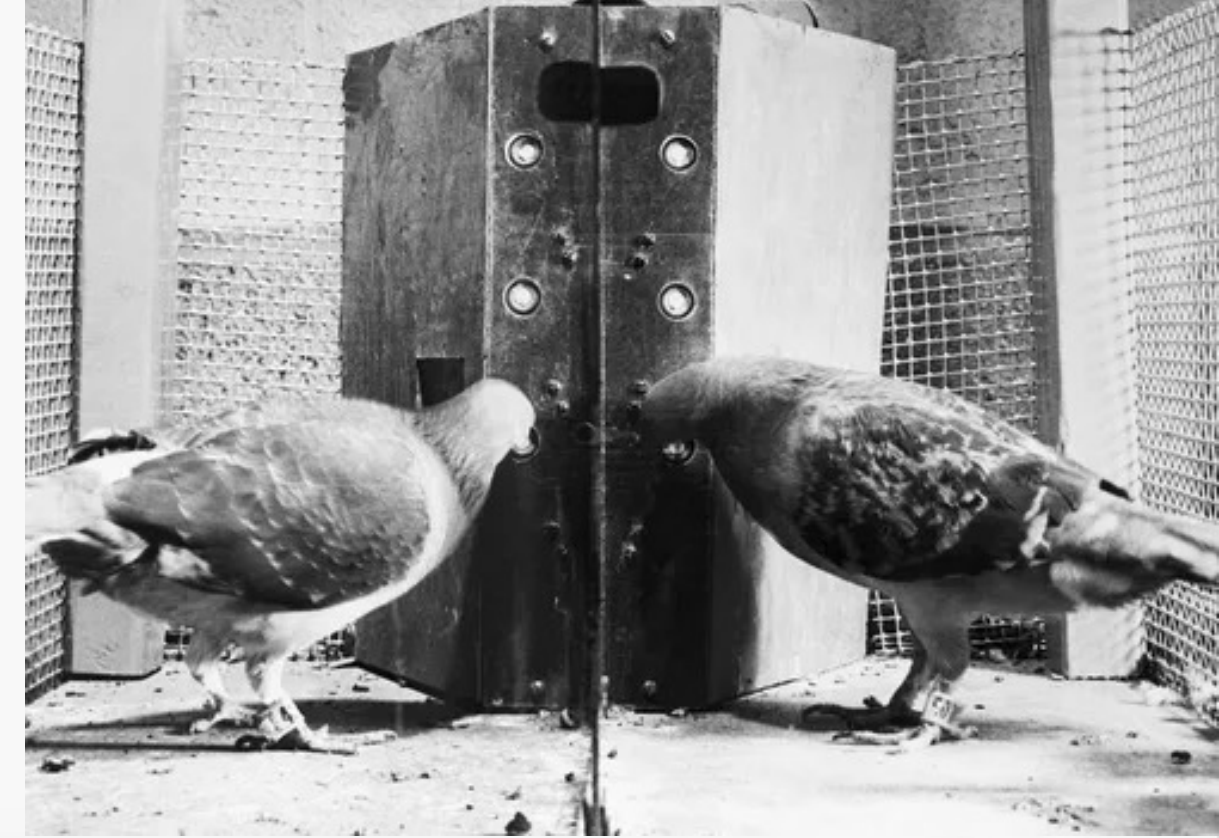
- Hilda Taba: 7 steps to curriculum development
  1. Teacher diagnoses needs.
  2. Objectives formulated on basis of society needs, etc.
  3. Select content to match objectives.
  4. Organize content based on student levels.
  5. Select learning experiences.
  6. Organize learning experiences to be systematically advancing.
  7. Determine what to evaluate and how.

CORE CONFERENCE

Cognitive Curriculum

- Stage appropriate learning experiences:
  - Sensorimotor –0-2 – object permanence, etc.
  - Preoperational – 2-7 – symbolic thought
  - Concrete Operational – 7-11 – cause and effect
  - Formal Operation – 12+ – thinking hypothetically, assuming responsibilities, etc.

- Learning = organizing information.

- Instruction should be understandable and meaningful.

- Retention and recall is facilitated by organizing material.

- Teachers provide instruction and tools designed to help learners process information.

Cognitive Curriculum

- Learner synthesizes old and new information to construct new learning.
- Learners actively create their own new learning, building upon prior learning.
- Curriculum reflects teachers' understanding of learners' current knowledge.
- Curriculum facilitates learner discovery of current limitations of knowledge.
- Curriculum focuses on active learning tasks.

Humanist Curriculum

- Learner (not material or content) is central, facilitating potential is the goal.

- Motivation based on hierarchy of needs.

- Human actions directed toward goal attainment (Maslow, A. H. (1943). A theory of human motivation. Psychological review,50(4), 370.).

- Inspires self-motivated learning

- Emphasizing choice

- Holistic learning (intellectual and emotional)

CORE
CONFERENCE

- 8 Principles:
  1. Learning and knowledge rests in diversity of opinions.
  2. Learning is a process of connecting.
  3. Learning may reside in non-human appliances.
  4. Capacity to know more is more critical than what is currently known.
  5. Nurturing and maintaining connections is needed for continual learning.
  6. Ability to see connections between fields, ideas, and concepts is a core skill.
  7. Accurate, up-to-date knowledge is the aim of all connectivist learning.
  8. Decision-making is a learning process. What we know today may change tomorrow. The right decision today may be the wrong decision tomorrow.
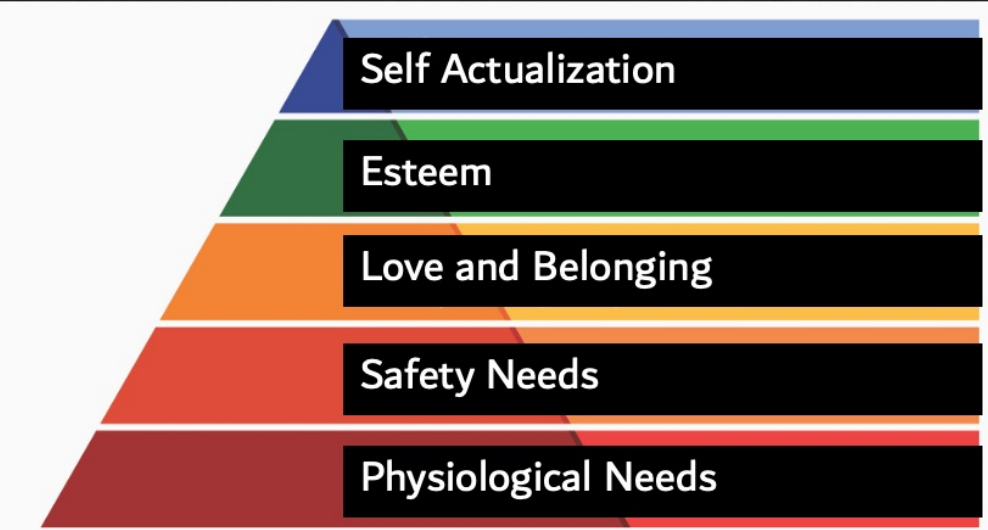
Connective Curriculum
George Siemens (1970-)
and
Stephen Downes (1952-)

CORE
CONFERENCE

Transformative Curriculum

- Critical reflection and review creates transformation of worldview; Interpretation and reinterpretation for transformed understanding

- 10 Stages:
  1. A disorienting dilemma
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  9. Competence building
  10. Reintegration of new perspectives
  - (Mezirow, 1991)

CORE CONFERENCE

Transformative (Biblical Curriculum)

- True learning results in growth, not just changed thinking or changed behavior.
- The source of growth – 1 Cor 3:4-23, Eph 4:14-16, 1 Pet 2:1-3, Rom 12:1-2
- Transformation by renewing of the mind (new thinking, recognizes new being and undergirds new doing)
- Prioritized curriculum based on biblical hierarchy of needs
- Implies processing some aspect of Scripture as part of every transformative learning experience

1. Understand the worldview of each learning theory.

2. Choose learning theory that aligns with accurate worldview (truth).
   - Evaluate the value of theories and techniques from within other worldviews insofar based on alignment with truth, include as warranted.

3. Understand the learner.

4. Understand how the learner learns. (<u>What is learning???</u>)
   - The UX (user experience) should be all about what facilitates learning, as institutional functions should contribute to the mission.

5. Understand how to know the learner has learned.
   - If the goal of education is *learning*, then teaching hasn't successfully been fulfilled until learning occurs.

6. Design, build, and organize objectives, content (active and passive), assessments that promote the worldview's prescribed outcome(s) for the learner, and evaluations of the curriculum for continual improvement.

Some Curricular Design Models

- Instructional System Design (ISD)

  - ADDIE (Analysis, Design, Development, Implementation, Evaluation)

- Robert Gagne's Nine Events of Instruction

  1. Gain attention.
  2. Communicate objectives.
  3. Recall prior learning.
  4. Present content.
  5. Guide learner.
  6. Practice/performance.
  7. Provide feedback.
  8. Assess performance.
  9. Apply knowledge to job.

- OCAE Design (my term)

  - Objectives, Content, Assessments, Evaluations

Be transformed by the renewing of your mind ...