The source of conflicts about education

"One must first uncover the source of error otherwise hearing the truth won't help us" (Ludwig Wittgenstein).

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Brief history of education 1

- 200,000 years ago; women's pelvis size and walking speed.
  - Babies with immature brains, and the oddity of early human learning = **component 1**

- Educational researchers—from observing and copying to "mimetic" generativity (Merlin Donald)—inventing and shaping customs, games, skills, and representations.

Brief history of education 2

- 75,000 yrs. ago : plains of Africa, Past tense and subjunctive, cognitive toolkits = **component 2**.

- Educational researchers:
  - Pass on norms, values, and conventions.
  - Need to remember -- poetics of memory--Rhyme, rhythm, meter; Vivid images; Stories

- Chuang Tzu: "How I wish that I could meet a man who has got beyond words, so that I might have a word with him." We are *idiots savants* of symbol use.

Brief history of education 3

- 3,500 yrs. ago: Thot, Thamus, + the curse of writing = **component 3**.

"The discovery of the alphabet will create forgetfulness in the learners' souls, because they will not use their memories; they will trust to the external written characters and not remember of themselves. Your invention is not an aid to memory…you give your disciples not truth, but only the semblance of truth; they will be the hearers of many things and they will learn nothing…" *Phaedrus.*

Educational researchers: Access to knowledge and emotional meaning

Brief history of education 4

- 2,5000 yrs. ago : Plato and the truth about reality
- The curriculum that leads to the truth; Prisoners of the cave; Truth in geometry and morals alike; Skepticism of conventions
- The dynamic: privileged knowledge that forms the mind = **component 4**
- Educational researchers: Reason and courage

Brief history of education 5

- 250 yrs. ago : Rousseau, minds, bodies, and nature.
- Distinguishes development from learning, making the latter dependent on the former: "Leave childhood to ripen in your children…Fix your eyes on nature, follow the path traced by her."
- The dynamic: natural, internal development--to which knowledge must be made to conform = **component 5**
- **Educational researchers: stages of development, "science" of learning, development, motivation, etc.**

Incompatibilities:

Socialization - initiate into norms, conventions, beliefs

Plato - skepticism of norms, conventions, beliefs

Socialization - initiate into society as fully as possible

Rousseau - hold society at bay - "mass of folly and contradiction"

Plato - dynamic = knowledge. Time-related, epistemological

Rousseau - dynamic = internal development. Age-related, psychological

Recapitulating recapitulation

20 yrs. ahead: Recapitulation.

- Logical - sequence of knowledge recapitulates historical order (somehow)
- Psychological - hairy monkey-thugs become upright, gleaming people

- Vygotsky - understanding mediated by the intellectual tools we deploy, whether today or long ago. Different tools imply somewhat different kinds of understanding: oral language, literacy, theoretic thinking, ironic reflexiveness = **component 6**

Overcoming conflicts

- **Cognitive toolkits:**
  - **Somatic** - discovery of the body
  - **Mythic** - oral language
  - **Romantic** - literacy
  - **Philosophic -** theoretic abstraction
  - **Ironic** - extreme reflexiveness

Somatic Understanding

- understand experience in a physical, proto-linguistic way

Somatic: the body's toolkit

- Bodily senses
- Emotional responses & attachments
- Humor & expectations
- Musicality, rhythm, & pattern

"little factories of understanding"

Ted Hughes

bodily senses

- Minds and bodies--rather than enminded body and embodied mind.
- Mind spreads into senses
- Games that bring them together--plops, clicks and touch
- Basis for further understanding--Einstein and light waves; Taliban education minister.

emotional attachments & orientation

- Orientors to knowledge throughout life
- Fundamental organizers of our cognition
- Expectation and frustration, or satisfaction
- “perfinkers”
- Setting us in a network of love & care

humour & expectations

- The smile appears early in children everywhere, even deaf/blind
- Peek-a-boo
- The unexpected and incongruous
- Affectionate communication nets

musicality, pattern & rhythm

- Singing Neanderthals (Steven Mithen)
- Rhythm tracking
- Walking, marching, and dancing
- We are a musical animal
- Meaning in pattern

Mythic Understanding

- understand experience through oral language

The toolkit of oral language

- Story
- Abstraction and emotion
- Opposites and mediation
- Affective images generated from words
- Jokes and humour
- Metaphor
- Sense of mystery and wonder

Cognitive tools: Story

- **a narrative that fixes our affective orientation to the elements that make it up**

- **a beginning in which anything is possible, a middle which circumscribes possible meanings, and an end that clarifies the affective meaning of the story**

- **"He shot Tom"**

Cognitive tools: Abstraction and emotion

The structure of children's fantasy:

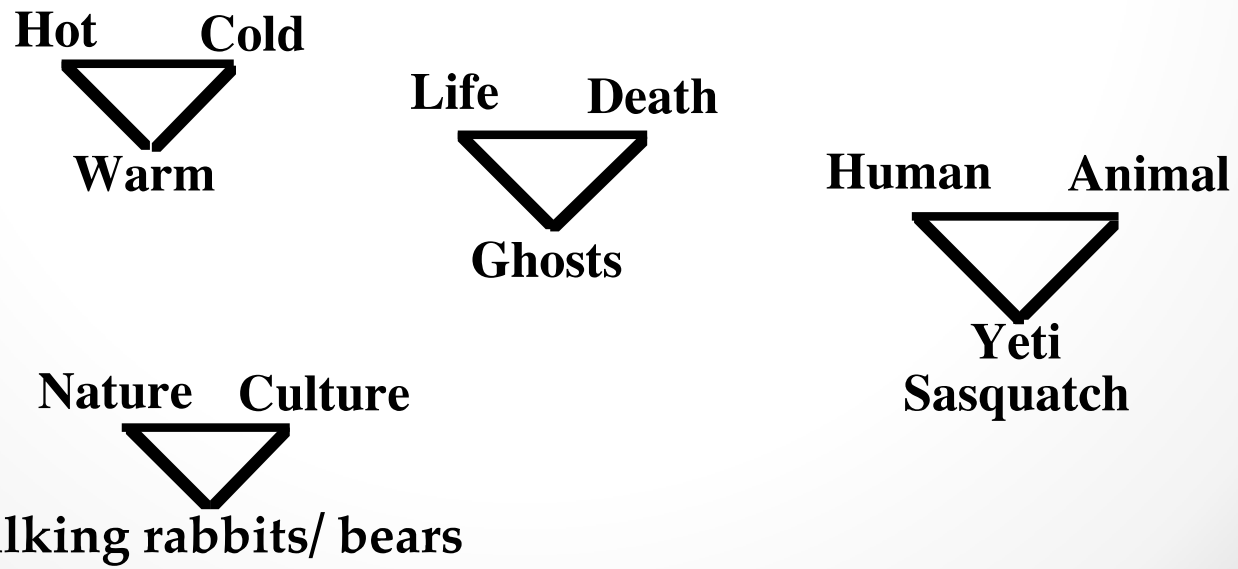
- articulated on binary oppositions;
- abstract;
- affective.

Concrete content requires abstract concepts.

Cognitive tool: Opposites and mediation

Mythic understanding

Talking middle-class rabbits



Cognitive tools:

Affective images generated from words

- Teacher and Japanese garden
- Image and concept in teaching
- Image and emotion

Cognitive tools: Jokes and humour

- When is a door not a door? What do you call a bear with no ear? Why did Lucy cross the playground?
- Observing language as an object, not just a behaviour
- Vivifies thought and language, and, incidentally, gives pleasure to life

Cognitive tools: Metaphor

- Tool that enables us to see one thing in terms of another
- Lies at the heart of human inventiveness, creativity and imagination
- Maintaining children's metaphoric capacity

Cognitive tools:

Sense of mystery and wonder

- Isaac Newton as an old man
- Representing the world as known, and rather dull.
- What a wonderful adventure!

From cognitive tools to planning teaching

1. Locating importance
2. Shaping the lesson or unit
   - 2.1. Finding the story
   - 2.2. Finding binary opposites
   - 2.3. Finding images
   - 2.4. Employing additional Mythic cognitive tools
   - 2.5. Drawing on tools of previous kinds of understanding
3. Resources
4. Conclusion
5. Evaluation

Examples: Mythic understanding

- Teaching “properties of the air”
- Teaching place value / decimalization

Cognitive tools so far:

- Story
- Abstract and affective binary opposites
- Affective mental images
- Jokes and humour
- Metaphor
- Mystery and wonder

Romantic Understanding

- understand experience through written language

Literacy as a cultural acquisition and the learning tools it can provide

From oral to literate culture

- Cinderella to Superman: Peter Rabbit to Hazel and Bigwig
- ‘win’ in ‘window’ : ‘at’ from ‘cat’ : stop and watch the stopwatch
- White bears on Novaya Zemla; Blue shamrocks on Sirius 5.

Cognitive tools:
Extremes and limits of reality

- **the discovery of reality and its autonomy**
- **beginning with reality's limits**
- **the exotic and the everyday**
- **the self within contexts**
- **hobbies and collecting**

Cognitive tools: associating with the heroic

- **the threatened ego**
- **transcendent qualities**
- **objects of association - best able to transcend the constraints of the everyday world**
- **the affective connection**

Cognitive tools: matters of detail

- **obsessive collecting and hobbies**
- **the scale of reality**
- **a sense of limits, exhausting possibilities**

Cognitive tools: humanizing knowledge

- learning, memory, books, and computer storage
- seeing the world and experience through human intentions and emotions
- imagination and others' lives, access to content through others' feelings

“Romantic” planning framework

1. Identifying “heroic” qualities

2. Shaping the lesson or unit

- **2.1. Finding the story or narrative**
- **2.2. Finding extremes and limits**
- **2.3. Finding connections to human hopes, fears, and passions**
- **2.4. Employing additional Romantic cognitive tools**
- **2.5. Drawing on tools of previous kinds of understanding**

3. Resources

4. Conclusion

5. Evaluation

Examples

- Teaching about eels
- Teaching “interior opposite angles in a parallelogram are congruent”

Underlying principle

- All knowledge is human knowledge; it grows out of human hopes, fears, and passions. Imaginative engagement with knowledge comes from learning in the context of the hopes, fears, and passions from which it has grown or in which it finds a living meaning.

Romantic cognitive tools so far:

- The literate eye
- Extremes and limits of reality
- Romance, wonder, and awe
- Associating with the heroic
- Maters of detail
- Humanizing knowledge

Philosophic Planning Framework

1. Identifying powerful underlying ideas

2. Organizing the content into a theoretic structure
2.1. Initial access
2.2. Organizing the body of the lesson or unit

3. Introducing anomalies to the theory

4. Presenting alternative general theories

5. Encouraging development of the students' sense of agency

6. Conclusion

7. Evaluation

Ironic Understanding

- Irony and Socrates
- “’ Tis all in peeces, all cohaerance gone” (“alienating”)
- More inclusive irony (“sophisticated”)
- Modulator of other kinds of understanding and cognitive toolkits

Contact us

Please feel free to contact us to give us your feedback, to join our online community, or to receive more information.

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