Multiple Approaches to Educational Research: The East vs. the West

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Content

- Backgrounds
- Eastern and Western Habits of Mind
- Holistic vs. Analytical Thinking of Education
- Dialectical vs. Logical Thinking of Education
- Integrating the Eastern and Western Styles
- Conclusions and Implications
Re-Shape Educational Research in the West and East

- Educational reform calls for better education research
- Evidence-based movement in the US: scientifically-based research? (Feuer, Towne, & Shavelson, 2002; Berliner, 2002; Erickson & Gutierrez, 2002; Maxwell, 2003).
Educational Research in China and the Western World

**China**
- **History**: Import
- **Language**: Chinese
- **Researchers**: Univ. professors, governmental agencies, teachers
- **Contexts**: Stronger political control

**The West**
- Indigenous growth
- English (an international language)
- Univ. professors (Zhao et al., 2006)
- Weaker political influence

(Hayhoe, 2001; Yang, 2005; Zhao et al., 2006).

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My Focus

- How are the two communities approaching educational research differently, rooted in different philosophical traditions?
- Can we both benefit from an integration of the two perspectives? How?
Eastern and Western Habits of Mind

Sunrise in Easterners’ and Westerners’ Eyes
Holistic vs. Analytical

Easterners
- Holism
- Attending more to contexts and relationships
- Broader attribution to a net (objects + contexts)
- Committed to reasonableness

Westerners
- Reductionism
- Attending more to objects
- Narrower attribution to properties of objects
- Committed to reasonableness

(Nisbett, 2003)

Dialectical vs. Logical

Easterners
- Experience and context-boundedness
- Both/and: A middle way approach to contradictions
- Compromise

Westerners
- Formal logic; decontextualized, rule-based reasoning
- Either/or: Truth resides in one side
- Debate

(Nisbett, 2003)
The Chinese Way of Knowing

- Broad learning, deep questioning, careful thinking, clear clarification, and faithful action.

Holistic vs. Analytical Thinking of Education
## Research Types

### China
- Holistic reflection on macro issues, mainly rooted in epistemological / philosophical foundations
- Educational psychology as psychology

### West
- Analytic investigation of micro issues, mainly based on psychological foundations
- “Psychologization of educational research” as a tradition stemming from Pestalozzi, Froebel, Herbart, and Thorndike)

## Research Focus: Articles in JYYJ and AERJ

<table>
<thead>
<tr>
<th></th>
<th>JYYJ</th>
<th>AERJ</th>
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<tbody>
<tr>
<td>Curriculum</td>
<td>7.8%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Learning</td>
<td>5.0%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Leadership and policy</td>
<td>14.2%</td>
<td>5.2%</td>
</tr>
</tbody>
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(Zhao et al., 2006)
### Article Styles: JYYJ and AERJ

![Bar chart showing article styles distribution](image)

(Zhao et al., 2006)


![Line graph showing number of articles](image)

Data source: Zheng & Cui (2001)
Non-Empirical Articles

- comparative
- cross-cultural
- historical
- review and interpretation
- philosophical
- policy

Data source: Zheng & Cui (2001)

Adaptation of Experiments

- The Experiment on the New Curriculum
- New Basic Education Experiment
- Agency Development Instructional Experiment
- Rural Educational Reform Experiment

Data source: Zheng & Cui (2001)
Adaptation of Experiments

Educational experiment is more understood as an enterprise than a method

- A broad focus
- The goal is to improve practice and generate theory
- No testable hypotheses and rigorous designs
- Researchers co-work with teachers to create “model” practice that others can follow
- In the contexts of such practice, researchers gain new insight

“Research-Based Innovative Practice” as an Indigenous Approach

(“—–æø–‘±%¥Ô¥Ô 2004)

- Educational practice integrating research and targeting educational change and teacher development;
- Theory-penetrative;
- Researchers and teachers work together to create, sustain, reflect on, and reshape innovation, leading to new theories and practices
Dialectical vs. Logical
Thinking of Education
Argumentory Structure Based on Logical Thinking

- **Data** → **Claim**
- **Warrants**
- **Back ing**

(Toulmin, 2003)

Typical Rhetoric in Line with Logical Thinking (Western)

- Background
- Problem
- Hypothesis or proposed proposition
- Means of testing
- Evidence
- Argument as to what the evidence means
- Refutation of possible counterarguments
- Conclusion and recommendation

(Nisbett, 2003)
Dialectical Discourse

- Unity of opposites within the same whole (Markova, 1990)

Idea A ↔ Idea B

\[\downarrow\]

Idea C

Typical Rhetoric in Line with Dialectical Thinking (Eastern)

Œ (ask)
- Topic
- Combing different ideas
  - Perspective A
  - Perspective B
  - Perspective C
  - ...

¬ (learn)

À (think)
- Dialectical analyses (Key contradictions and relationships)
- “My understanding”

± (clarify)
- Elaboration, and establishing the reasonableness

¬ (act)
- Implications
An Example: How Chinese Researchers Recreate Constructivism

- Prefer a moderate version of constructivism
  - Student-as-agent, teacher-led (He, 2003)
  - A dialectical view of knowledge construction
    - Chen & Zhang, 1999; Zhang et al., in press

Integrating the Eastern and Western Styles
How to Judge the Value of Various Approaches

- Criteria? (Siegel, 2006)
- Progress/improvement! (Popper, 1972; Kuhn, 1970; Thagard, 1989)

Progress!

- Progressive discourse committed to knowledge advancement (Bereiter, 1994, 2002)
  - Ideas as objects of discussion
  - Formulating improvable ideas
  - Expanding the basis of discussion (accepted facts/ideas)
  - Openness: Selective criticism based on knowledge-advancement goals; Nonsectarianism
- Accumulative selection of knowledge (Dawkins, 1996)
A Synthesis of Knowledge-Progress

An accumulating base of facts
Diverse ideas

"Accepted" theories;
Data from practice

Selective retention and rising-above
Dialectical idea complexes

An Example of Selective Retention and Rising-above

- Cognitive Flexibility Theory (Spiro et al., 1995)

Well-structured domains
Introductory knowledge acquisition
Traditional teaching methods

Ill-structured domains
Advanced knowledge acquisition
Constructivist methods
Dialectics in Dialogues

- Conceptual synthesis emerging from contradictions is a device for emergence of novelty (Valsiner & Veer, 2000)

Analytical and Logical Thinking (Western)

Selective retention and rising-above

Dialectical idea complexes

"Accepted" theories
Data from practice

An accumulating base of facts

Diverse ideas

Idea

Idea
Holistic and Dialectical Thinking (Eastern)

An accumulating base of facts
Diverse ideas
Selective retention and rising-above
“Accepted” theories
Data from practice
Dialectical idea complexes

Surface vs. Deep Dialectics

Surface Dialectics:
- Jump to a Middle Way before carefully examine the opposites
- Leading to comments merely, or a very vague, unimprovable idea

Deep Dialectics:
- Carefully examine the alternatives together with their evidence and contexts (What’re the ideas and what are they really about?) before achieving a synthesis
- Leading to a clear, improvable idea

(Zhang et al., in preparation)
An Example of Deep Dialectics

- Structure-Orientation Instructional Theory (Feng, 1992, 1998)

  Bruner’s Theory: Develop cognitive structures through discovery learning experiences
  - Transferable but slow

  Soviet psychology: Internationalizing intellectual skills through a guided/oriented process
  - Efficient but hard to transfer

  Structure-Orientation: Construct cognitive structures through an oriented process

How Can Dialectics Go Deep?

- Set out the idea elements that make up the alternative theories—analytical thinking is needed

- Critically examine the strengths and weaknesses of the component ideas in light of accumulated evidence and theories—logical thinking is needed

- Selectively integrate component ideas from different perspective into a new complex—a dialectical whole
Conclusions and Implications

Epistemological Diversity

- The Western and Eastern cultures have shaped different epistemologies, leading to distinct approaches to educational research.
- Researchers from the two communities should understand and engage each other’s perspectives and pursue deeper conversation (Pallas, 2001).
For Western Researchers…

- Learn from a holistic and dialectical way of thinking in order to understand education as a complex system
- Debate advances knowledge when it is dedicated to achieving a synthesis that superordinates both sides (Bereiter, 2002)

For Eastern Researchers…

- Build on our holistic and dialectical style of thinking
- Enculturate the analytical and logical way of thinking, so that the holistic and dialectical thinking can really go deep
- This is more than research method training, but a way of thinking, talking, and doing.
My Experiences of Integrating the Two Styles of Thinking

- Socio-cognitive dynamics/dialectics (Zhang et al., in press)
  - The known vs. Unknown
  - Individual vs. Community knowledge
  - Empirical practices vs. Conceptual work
  - Local understanding vs. Societal knowledge

Toward a holistic understanding: From conversation threads to inquiry threads

(Zhang et al., in press)
Bridging the Two Cultures through the Knowledge Society Network (KSN)
(http://ikit.org/ksn.html)

- **A bold design experiment**: use new knowledge media to maximize society’s knowledge resources and the effective and equitable mobilization of knowledge
- **Cross-cultural**: 12 nations (inc. mainland China, Hong Kong, Taiwan, Singapore, Japan)

(Teo et al., submitted)

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Monthly Virtual Meetings in the Knowledge Society Network

- #14 from Hong Kong: "Bootstrapping to knowledge building."
- #15 from Singapore: "Fostering Knowledge Building Communities - Potentials and Challenges."
- #24 - "Instructional Design and Teacher Roles."
- #27 - "Development of Knowledge Building Communities across the Knowledge Society Network."

More at http://ikit.org/calendar.html

Western researchers and practitioners

Researchers and practitioners from Asia

• More concerns with contextual factors
  • Dialectical thinking (e.g., Teacher’s role)
Thanks!

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http://ikit.org