Mind the Gap: Knowledge, Power, and Tacit Assumptions in the Research-Practice Gap

American Evaluation Association Conference, Minneapolis, Minnesota
Session 742 – Thursday, October 25th, 2012

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overview

I. Introduction: Old and new debates in biomedicine and beyond

II. Rethinking the gap: Questioning tacit assumptions

III. Theoretical and methodological ways forward

IV. Conclusion: The values of epistemic and methodological plurality

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old and new debates

- Ascendancy of evidence-based programs (EBPs) and emergence of translational research (TR)

- To "bridge the research-practice gap" and focus resources on doing "what works" in the "era of accountability"

- What counts as credible evidence of effectiveness is a contentious political issue
  - randomized controlled trials (RCTs), "the gold standard," "scientifically-based evidence"

old and new debates

DEPARTMENT OF EDUCATION

RIN 1890–ZA00

Scientifically Based Evaluation Methods

AGENCY: Department of Education.
ACTION: Notice of proposed priority.

SUMMARY: The Secretary of Education proposes a priority that may be used for any appropriate programs in the Department of Education (Department) in FY 2004 and in later years. We take this action to focus Federal financial assistance on expanding the number of programs and projects Department wide that are evaluated under rigorous scientifically based research methods in accordance with the Elementary and Secondary Education Act (ESEA) as reauthorized by the No Child Left Behind Act of 2001 (NCLB). Establishing the priority on a Department-wide basis would permit any office to use the priority for a program for which it is appropriate.
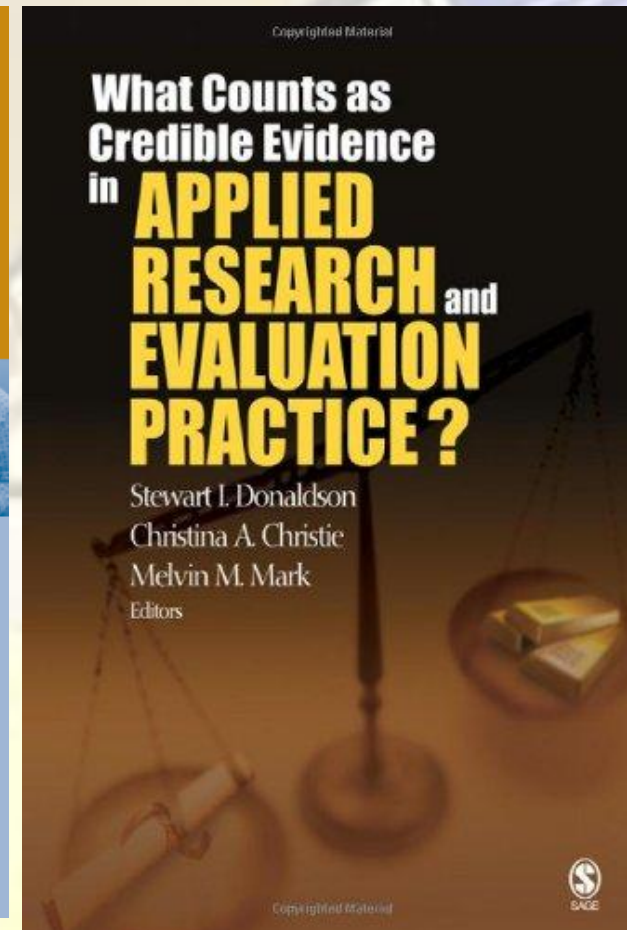**DATES:** We must receive your comments on or before December 4, 2003.

IDENTIFYING AND IMPLEMENTING EDUCATIONAL PRACTICES SUPPORTED BY RIGOROUS EVIDENCE: A USER FRIENDLY GUIDE

U.S. Department of Education
Institute of Education Sciences
National Center for Education Evaluation
and Regional Assistance

December 2003

What Counts as Credible Evidence in APPLIED RESEARCH and EVALUATION PRACTICE?

Stewart I. Donaldson
Christina A. Christie
Melvin M. Mark
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old and new debates

- Rekindling "the paradigm wars," "the science wars," and century-old questions about the status of science

- Origins in biomedicine—"borrowed knowledge"

  - Evidence-based medicine is "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients, … [integrating] individual clinical expertise with the best available external clinical evidence from systematic research"

  - It "is not restricted to randomised trials and meta-analyses. It involves tracking down the best external evidence with which to answer our clinical questions" (Sackett, Rosenberg, Muir & Brian, 1996, p. 71).

old and new debates

- A needless neologism, an act of intellectual poverty, a governmental management strategy to cut health care costs, and a scientistic oversimplification of professional health practice (Couto, 1998; Shahar, 1998).

- "Outrageously exclusionary and dangerously normative with regards to scientific knowledge … a good example of microfascism at play in the contemporary scientific arena" (Holmes, Murray, Perron & Rail, 2006, p. 180).

old and new debates

SCIENTIFIC RESEARCH IN EDUCATION

NATIONAL RESEARCH COUNCIL

- "A statement that risks being read as endorsing both the possibility and the desirability of taking an evidence-based social engineering approach to educational improvement nationwide" (Erickson & Gutierrez, 2002, p. 21)

- A narrow definition of "science as positivism and methodology as quantitative. These definitions are made possible by the outright rejection of postmodernism and the rejection by omission of other theories including queer, feminist, race, postcolonial, critical, and poststructural theories" (St. Pierre, 2002, p. 25)

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questioning tacit assumptions

- The RCT has "essentially zero practical application to the field of human affairs" (Scriven, 2008, p. 12).

- "The real 'gold standard' for causal claims is the same ultimate standard as for all scientific claims; it is critical observation" (p. 18).

- "This issue is not a mere academic dispute, and should be treated as one *involving the welfare of very many people*, not just the egos of a few" (p. 24).

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questioning tacit assumptions

- Biesta (2007) on the nature of the gap and the nature (and purposes) of research

- The need for critical distance between researchers and practitioners

  – researchers and practitioners bring different strengths, weaknesses, objectives, expertise, and responsibilities to the evaluation table

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questioning tacit assumptions

- Aristotle's *episteme*, *techne*, and *phronesis*
  - Episteme "concerns universals and the production of knowledge which is invariable in time and space" (Flyvbjerg, 2001, p. 55).

  - Techne is "craft and art, and as an activity it is concrete, variable, and context-dependent" (p. 56).

  - Phronesis is "prudence" or "practical common sense" and involves ethics and "deliberation about values with reference to praxis. [It is] pragmatic, variable, context-dependent" (p. 57).

questioning tacit assumptions

- Epistemological assumptions
  - Representational epistemology: true knowledge as accurate representation of how 'things' are in 'the world'
  - Transactional epistemology: knowledge about the world in function of our interventions
  - "What we observe is not nature itself, but nature exposed to our method of questioning" (Heisenberg, quoted in Law & Urry, 2004, p. 395)

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questioning tacit assumptions

- Ontological assumptions
    - "Talk about 'what works' ... operates on the assumption of a mechanistic ontology that is actually the exception, not the norm in the domain of human interaction" (Biesta, 2010, p. 497).

    - Efficacy is made remotely possible only through "complexity reduction"—a process that is social and political, not natural

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questioning tacit assumptions

- Praxeological assumptions
  - "To think of the impact of modern science on society in terms of the application of scientific knowledge … at least misses important aspects of what makes the application of such knowledge possible (particularly the work that is needed to transform the outside world so that knowledge becomes applicable) and perhaps even serves as an ideology that makes the incorporation of practices into particular networks invisible" (Biesta, 2010, p. 499).
  - Bruno Latour on how techno-science succeeds

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theoretical & methodological ways…

- Epistemic justice (or cognitive justice)
  - "The constitutional right of different systems of knowledge to exist as part of dialogue and debate" (Visvanhathan, 2005, p. 92).
  - It "has to do with the coexistence of many knowledges in the world and the relation between the abstract hierarchies which constitute them and the unequal economic and political power relations which produce and reproduce increasingly more severe social injustice" (Toulmin, 2007, p. xv)
  - Boaventura de Sousa Santos (2007); Linda Tuhiwai Smith (2012)
  - "One has to realize that epistemology is not a remote, exotic term. *It determines life chances*" (Visvanhathan, 2005, p. 84).

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theoretical & methodological ways…

- ## Regimes of truth

  - "Each society has its regime of truth, its 'general politics' of truth: that is, the types of discourses which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true" (Foucault, 1980, p. 131).

  - "A question of what governs statements, and the way in which they govern each other so as to constitute a set of propositions which are scientifically acceptable, and hence capable of being verified or falsified by scientific procedures" (p. 112).

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theoretical & methodological ways...

- Object conflicts and ontological politics
    - ..."have to do with the way in which 'the real' is implicated in the 'political' and vice versa" (Mol, 1998, p. 74).
    - Rather than the plurality of realities granted in perspectivalism or constructivism, ontological politics involve the multiplicity of realities that exist through intervention and performance.
    - When thinking this way, the "stories professionals might tell have lost their self-evidence" (p. 85).
    - Helps describe "the institutional structures, epistemological hierarchies, and expert skills that momentarily stabilize multiple enactments of [an 'object']" (Langwick, 2011, p. 23).

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conclusion

- The values of epistemic and methodological plurality

- The need for empirical philosophy (Mol, 1992, p. 108)

- Hopefully, a contribution to attempts to promote more equitable and effective responses to the problems which EBPs and TR are purported to solve

Thank you!

This material is based upon work supported by the National Science Foundation under Grant No. 0814364.