Looking Back to Move Forward: Campbell's "Experimenting Society" Reconsidered

Thomas Archibald

Virginia Tech

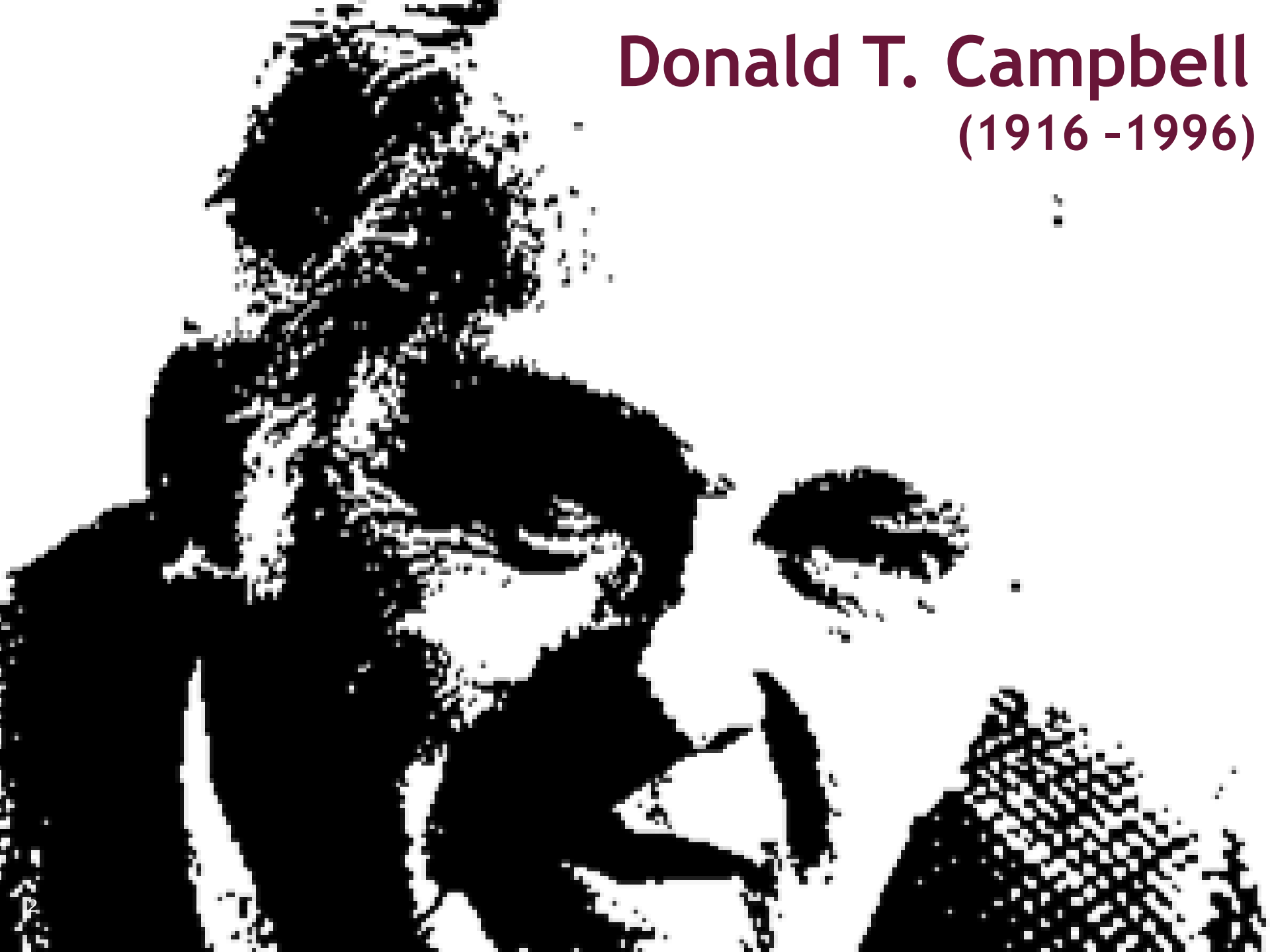
40th Annual Conference of the Eastern Evaluation Research Society

April 4, 2017

VirginiaTech
Invent the Future

Donald T. Campbell

(1916 -1996)



Thesis

The current zeal for experimental evaluation misinterprets Campbell's vision and does a disservice to the richness of his legacy

- at best ***incomplete*** and at worst ***misguided***
- on issues of ***validity***
- on ***the experimenting society***
- on ***evolutionary epistemology***

e.g.

I have often wondered why there were no hostile logical-positivist reviews of Campbell and Stanley, accusing us in this paper of undermining scientific standards. We failed to get one as far as I know. It is with mixed pride that I note we are now regularly being used as an exemplar of logical positivism, and of the mistaken effort to import into the social sciences the inappropriate methods of the physical sciences. (Although I am grateful for every citation, I think this is a misreading, as will be argued.)* (p. 134)

* Campbell, D. T., and Stanley, J. C. (1966). *Experimental and quasi-experimental designs for research*. Boston: Houghton Mifflin.

e.g.

- **Definitional operationalism** is an *"**unmitigated disaster**"* imported from logical positivism, *"which persists long after the substantial revision or rejection of positivism within the philosophy of science.* ***It persists most perniciously in social policy science, in the accountability movement, or in managerial control efforts employing single explicit quantitative criteria***" (1984, p. 18)
- *I define my own position as completely "constructivist"* …. (p. 189)
- Importance of external validity ***(proximal similarity)*** as well as internal validity ***(local molar causal validity)***

RCT wars, etc.

- National Research Council (NRC.). (2002). *Scientific research in education*. Washington, DC: National Academy Press.
- Coalition for Evidence-based Policy (CEBP). (2003). *Identifying and implementing educational practices supported by rigorous evidence: A user friendly guide*. Washington, DC: U.S. Dept. of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.
- U.S. Department of Education. (2003). Notice of proposed priority: Scientifically based evaluation methods (RIN 1890-ZA00). Federal Register, 68(213), 62445–62447.
- Donaldson, S. I., Christie, C. A., & Mark, M. M. (Eds.). (2014). *Credible and actionable evidence: The foundation for rigorous and influential evaluations* (2nd ed.). Los Angeles: SAGE.

RCT wars, etc.

- 3ie
- J-PAL (MIT)
- What Works Clearinghouse (Institute of Education Sciences)
- ***Campbell Collaboration***
- Coalition for Evidence Based Policy (CEBP)
- OMB Memos on evidence
- Tiered evidence
- AEA Evaluation Policy Task Force
- Friends of Evidence, Center for the Study of Social Policy
- Commission on Evidence Based Policy (CEP)

the experimenting society

- A society which will *"vigorously try out proposed solutions to recurrent problems, which will make hard-headed and multidimensional evaluations of the outcomes, and which will move on to try other alternatives when evaluation shows one reform to have been ineffective or harmful"* (1991, p. 223)
  - An active, evolutionary, learning society; committed to action research
  - An honest society, committed to reality testing and self-criticism
  - *We who now specialize in thinking about The Experimenting Society should be the first to decide that it is unworkable or in the net undesirable, if indeed it is and if this can be ascertained in advance of trying it. (p. 18)*

the experimenting society

- *The enforcement of assigned treatments also violates the egalitarian and voluntaristic ideas of The Experimenting Society.* (p. 25)
- *But when test scores become the goal of the teaching process, they both lose their values as indicators of educational status and distort the educational process in undesirable ways.* (p. 33)
- A disputatious community of “truth seekers”
- Popper; Merton’s “organized skepticism”
- A hypothetically normative naturalistic theory of science
- A sociological theory of validity-enhancing scientific belief change

the experimenting society

Thus, we applied social scientists need not only randomized experiments and strong quasi-experiments but also ***case studies, ethnography, participant observation, gossip collection from informants, hermeneutics****, and so forth. Ideally, these materials will be used to provide the context necessary for valid estimation of the seriousness of the threats to validity and for the valid interpretation of the results of formal experimentation, but* ***if need be they may be used alone****.* (p. 115)

the experimenting society

We applied social scientists, methodological servants of The Experimenting Society, are like any profession (see Ivan Illich) in danger of becoming a self-serving elite. It becomes in our best professional interest ***to make program evaluation an esoteric art*** *[see Scriven (2008)] requiring our services, computers, and complex statistical adjustments that make our conclusions immune from criticism, even from well-placed, competent observers who saw the program in action. We are also apt to become* ***unwittingly coopted into a pervasive bias*** *in favor of the already-established governmental and extragovernmental powers, who, after all, will usually be the sources of our past and future salaries.*

To avoid such biases, we must devise ways that are readily comprehensible to the participating staffs, recipients, and other well-placed observers for them to collect, formulate, and summarize their estimations of program effectiveness (Campbell, 1978). ***We must recognize that such summaries may have a validity comparable to the statistical analysis of more formal measures****.* (p. 37)

the experimenting society

*We need "**large numbers of decentralized local innovators and independent adopters, independently making the many ad hoc decisions about implementation and measurement**. For a new program or policy, give up the demand for a nation-wide, once and for all, uniform evaluation, delegated to a single evaluation contractor. Substitute instead **support for a heterogeneity of programs**, each evaluating themselves until they feel they have a package worth others borrowing, and support those who borrow to cross-validate the efficacy: That is, adopt a **'[contagious] cross-validational model of program dissemination and validation**.'"* (1984 p. 19)

the experimenting society

- Rather than awarding a single contract, split into two or more independent experiments; heteromethod replication
- Involve adversarial stakeholder participation in the design of each pilot experiment or program evaluation and again in the interpretation of results
- Encourage and fund competitive reanalysis of data from big studies
- Legitimize dissenting-opinion research reports from members of the research team, a la “whistle blowing”
- Conduct longitudinal studies

evolutionary epistemology

- Not a metaphor
- Part of his deep engagement with the (radical constructivist) philosophy and sociology of scientific knowledge
- Blind variation and selective retention
- …

next steps

- Tiered evidence?
- Scriven's GEM and Modus operandi
- BetterEvaluation page on understanding causes
- Innovative participatory approaches

Who – what?

Adinda Van Hemelrijck – PIALA (Participatory Impact Assessment and Learning Approach)
Participatory mixed-methods approach for evaluating systemic impact at a medium to large scale, developed with IFAD and piloted in three countries.

Steff Deprez – SenseMaker
Methodology for large-scale story collection and software-based analysis of patterns, developed by Cognitive Edge and piloted in various contexts

Stefano D'Errico (IIED) – Process tracing and Bayesian Updating
Approach for reconstructing systemic impact pathways and assessing confidence in light of new evidence, used in a case of poverty and conservation learning in Uganda.

Marina Apgar (IDS) – PAR-based ToC modelling
Complexity aware approach for planning and M&E focused on systemic learning, developed with the Aquatic Agricultural Systems CGIAR Research program and piloted in five countries

thank you

Thomas Archibald

tgarch@vt.edu