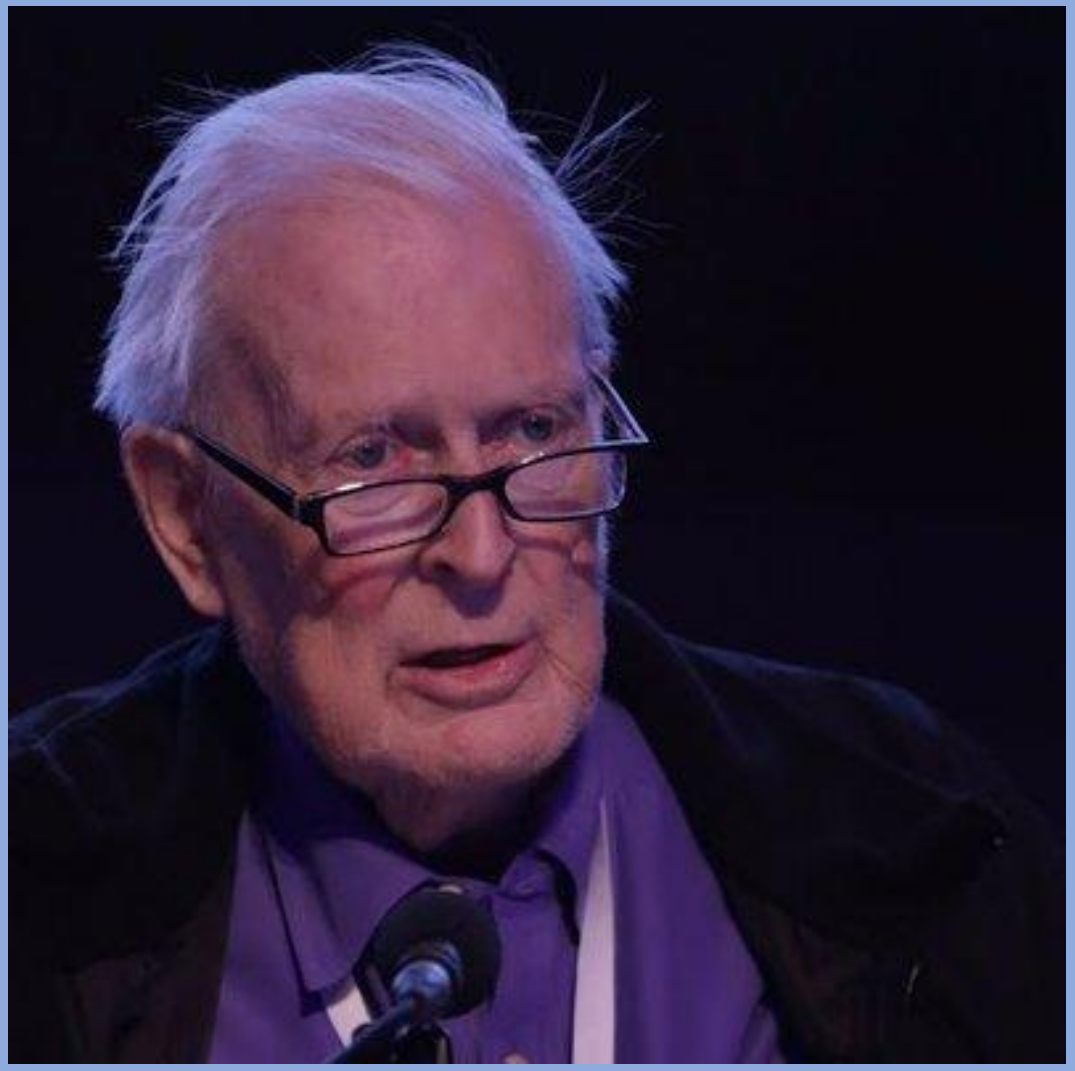
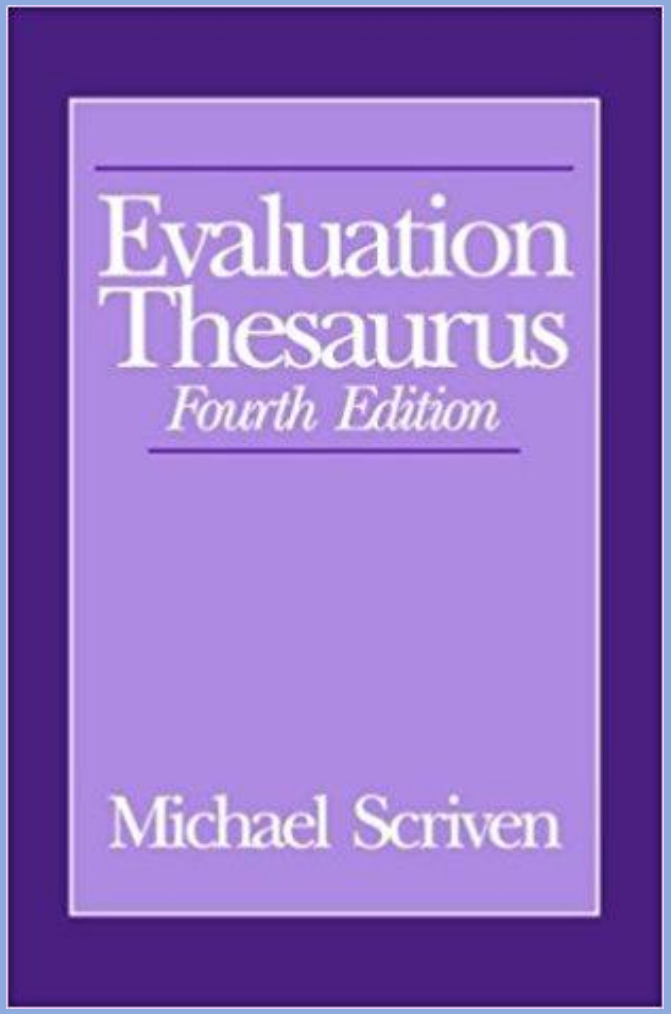

EVALVOICES
FOR EVALUATORS
BY EVALUATORS
15 JULY 2025 | 1400 - 1500 (CET) | SESSION 01
EVALUATION SCIENCE
FOUNDATIONS & FUTURE DIRECTIONS
with Michaël Potar [Eval4Just] and 10 others
MICHAEL QUINN PATTON
INDEPENDENT ORGANISATIONAL DEVELOPMENT & PROGRAMME EVALUATION CONSULTANT

Proliferation of evaluation approaches

101 and counting…

What kind of evaluator are you?




Evaluation
Thesaurus
Fourth Edition
Michael Scriven

MARCH FOR SCIENCE

On April 22, 2017, millions marched for science in 600 cities worldwide (NY Times, 2017).

The American Evaluation Association was one of 270 partner organizations that supported the March for Science

Evaluation Science

- Science is systemic inquiry into how the world works and why.

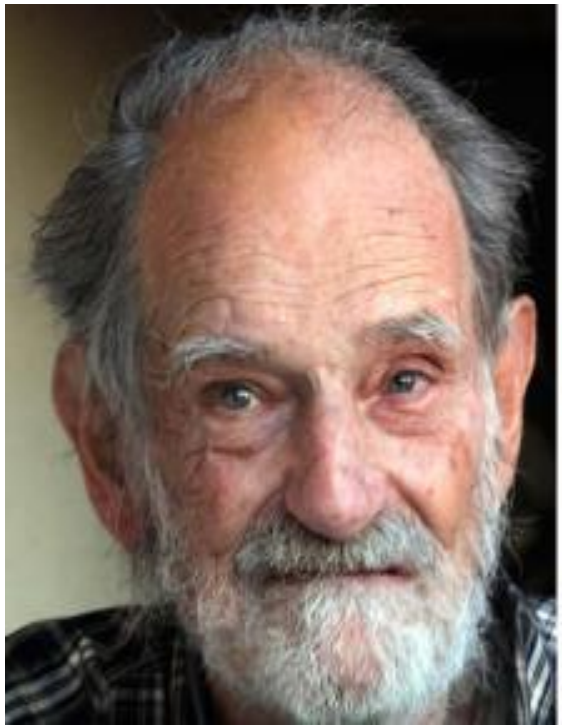
- Evaluation science is systematic inquiry into how, whether, and why interventions to change the world work.

Evaluation Science

"I am an evaluation scientist."

Scientific wisdom from Nobel Prize laureates

Roth and Shapley Won the 2012 Nobel Economics Prize for Matching Theory



Match-making

How to pair doctors with hospitals,

students with schools,

kidneys with transplant recipients and even men with women in marriage.

Key evaluation question:

What works for whom in what ways under what circumstances with what results?

Matching question: Situational analysis

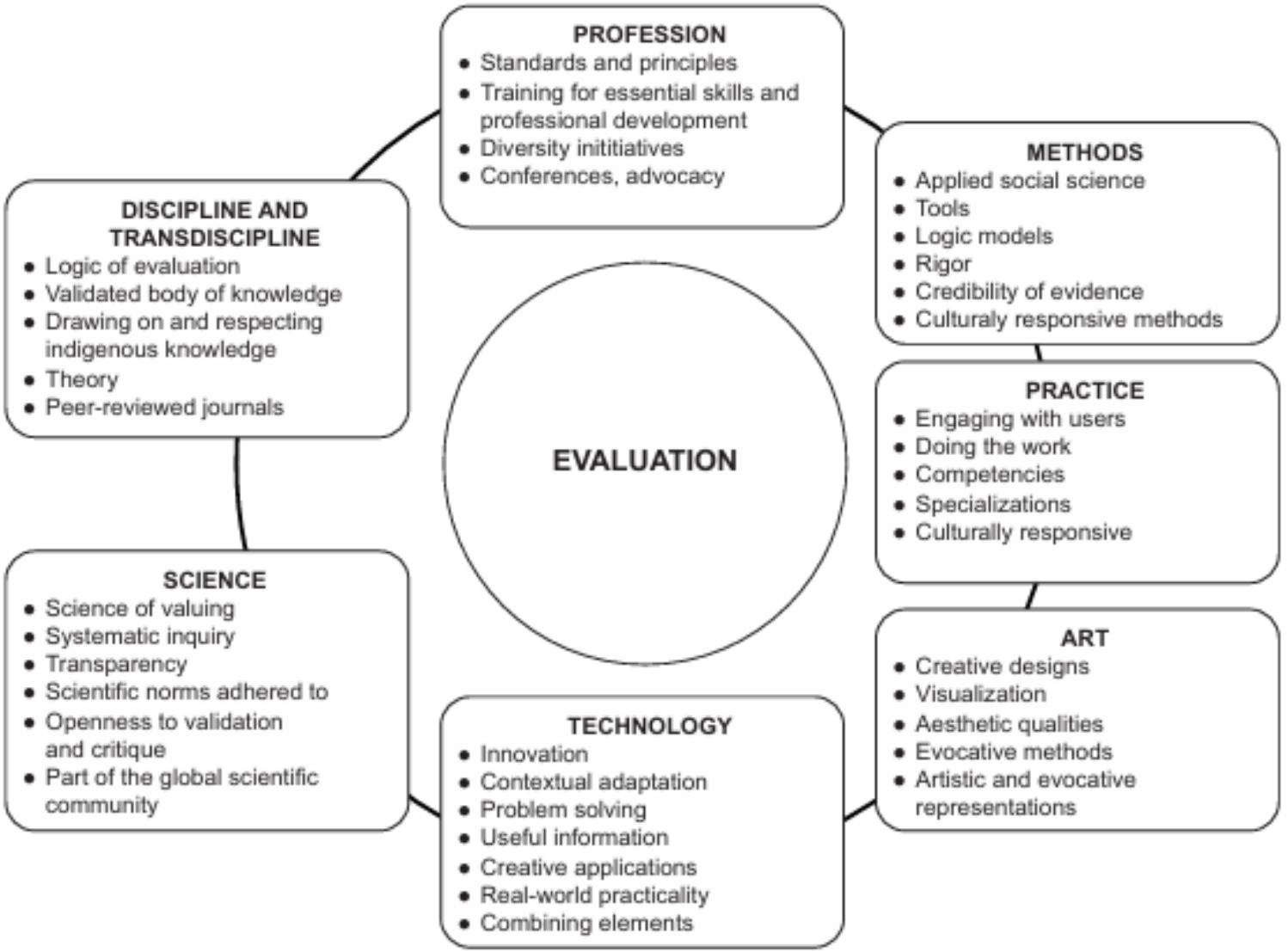
When it is useful and appropriate to position what we do as

Evaluation Science

and ourselves as…

Evaluation Scientists

Evaluation Kaleidoscope


PROFESSION
• Standards and principles
• Training for essential skills and professional development
• Diversity inititiatives
• Conferences, advocacy
METHODS
• Applied social science
• Tools
• Logic models
• Rigor
• Credibility of evidence
• Culturaly responsive methods
DISCIPLINE AND TRANSDISCIPLINE
• Logic of evaluation
• Validated body of knowledge
• Drawing on and respecting indigenous knowledge
• Theory
• Peer-reviewed journals
EVALUATION
PRACTICE
• Engaging with users
• Doing the work
• Competencies
• Specializations
• Culturally responsive
SCIENCE
• Science of valuing
• Systematic inquiry
• Transparency
• Scientific norms adhered to
• Openness to validation and critique
• Part of the global scientific community
ART
• Creative designs
• Visualization
• Aesthetic qualities
• Evocative methods
• Artistic and evocative representations
TECHNOLOGY
• Innovation
• Contextual adaptation
• Problem solving
• Useful information
• Creative applications
• Real-world practicality
• Combining elements


EVALUATION
SCIENCE

Let’s try this…

Positioning

Evaluation as Science

I'm a theoretical evaluator.

Meaning you develop evaluation theory, or you just consider yourself an evaluator in theory?

freshspectrum

Evaluation Science: 5 stances

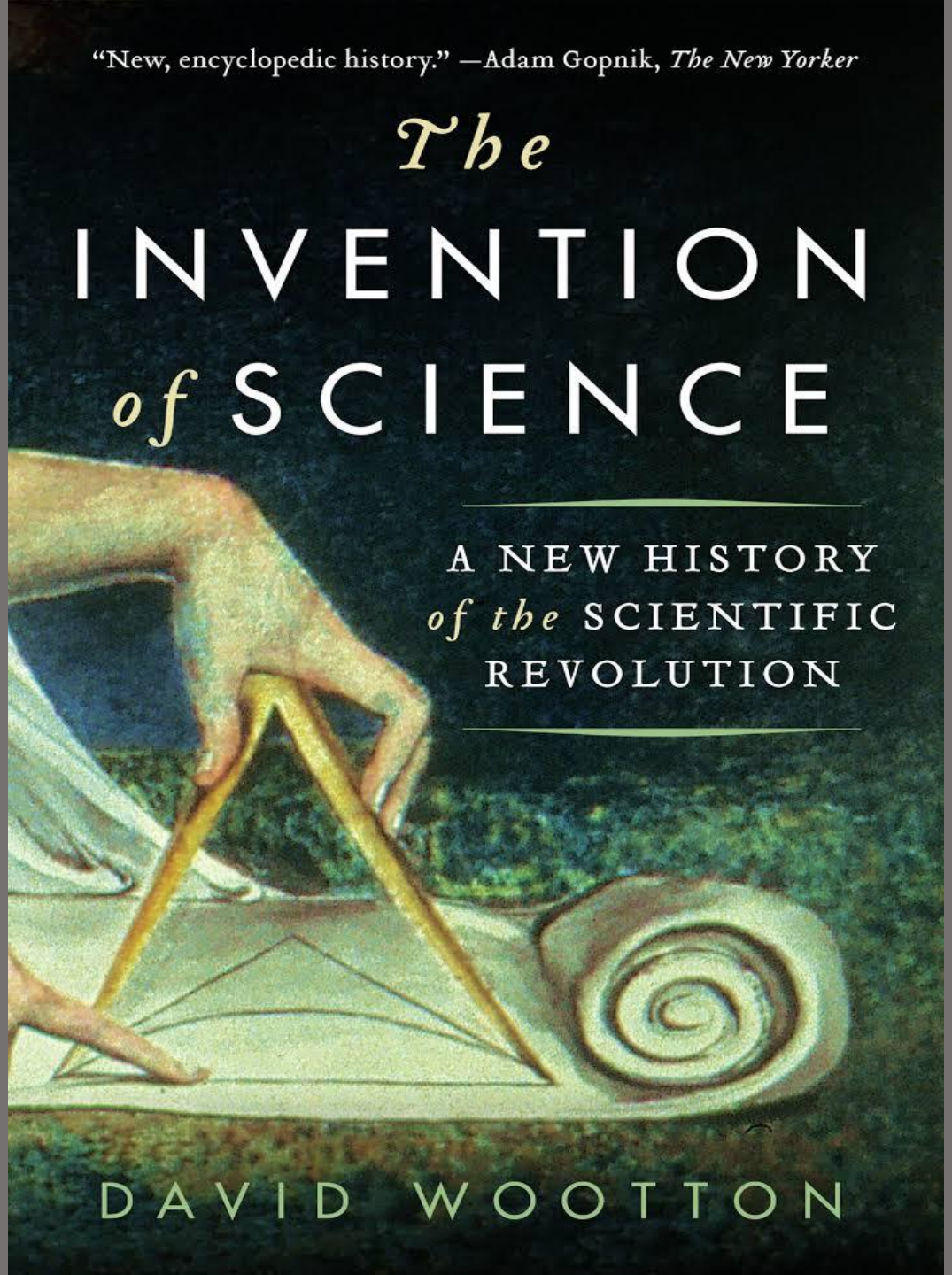
1. Definitional stance: Certain kinds of, approaches to, and uses of evaluation constitute science.
2. Nature of inquiry stance:

   Evaluative thinking is scientific thinking, and vice versa

3. Body of knowledge stance: What we know
4. Trend and credibility stance:

   Emergent and innovative directions in Science

5. Political stance: Making common cause with other scientists in support of Science

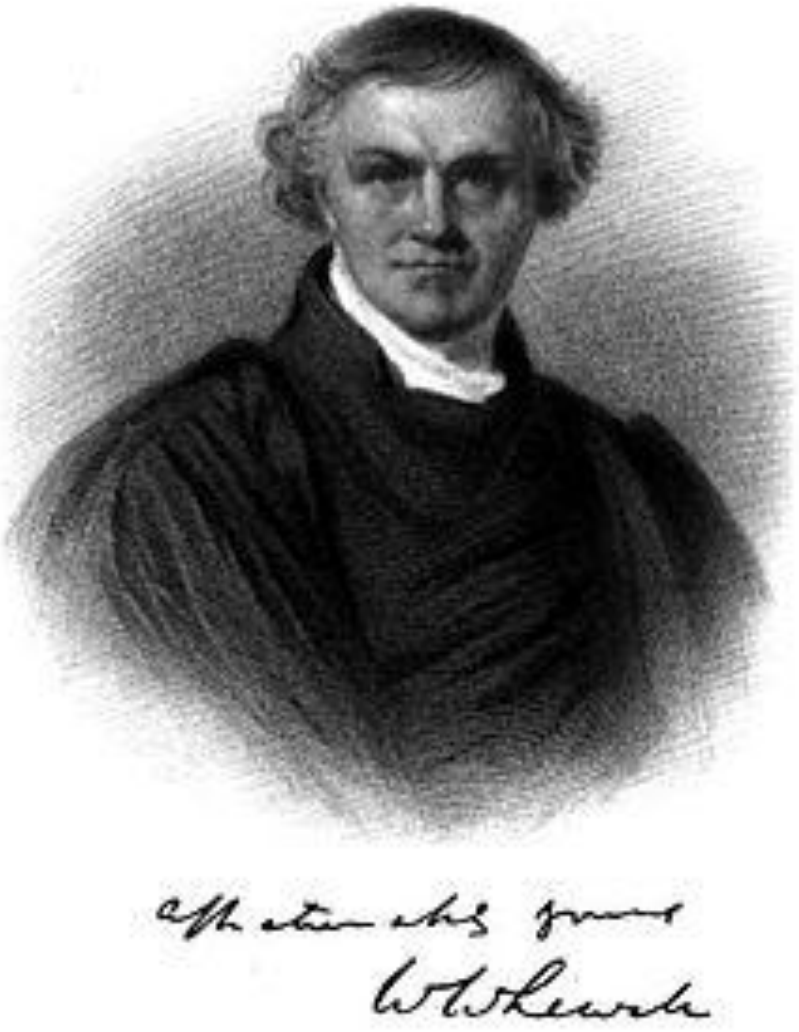

"New, encyclopedic history." —Adam Gopnik, The New Yorker
The
INVENTION
of SCIENCE
A NEW HISTORY
of the SCIENTIFIC
REVOLUTION
DAVID WOOTTON

Science Defined

Principles of science are…

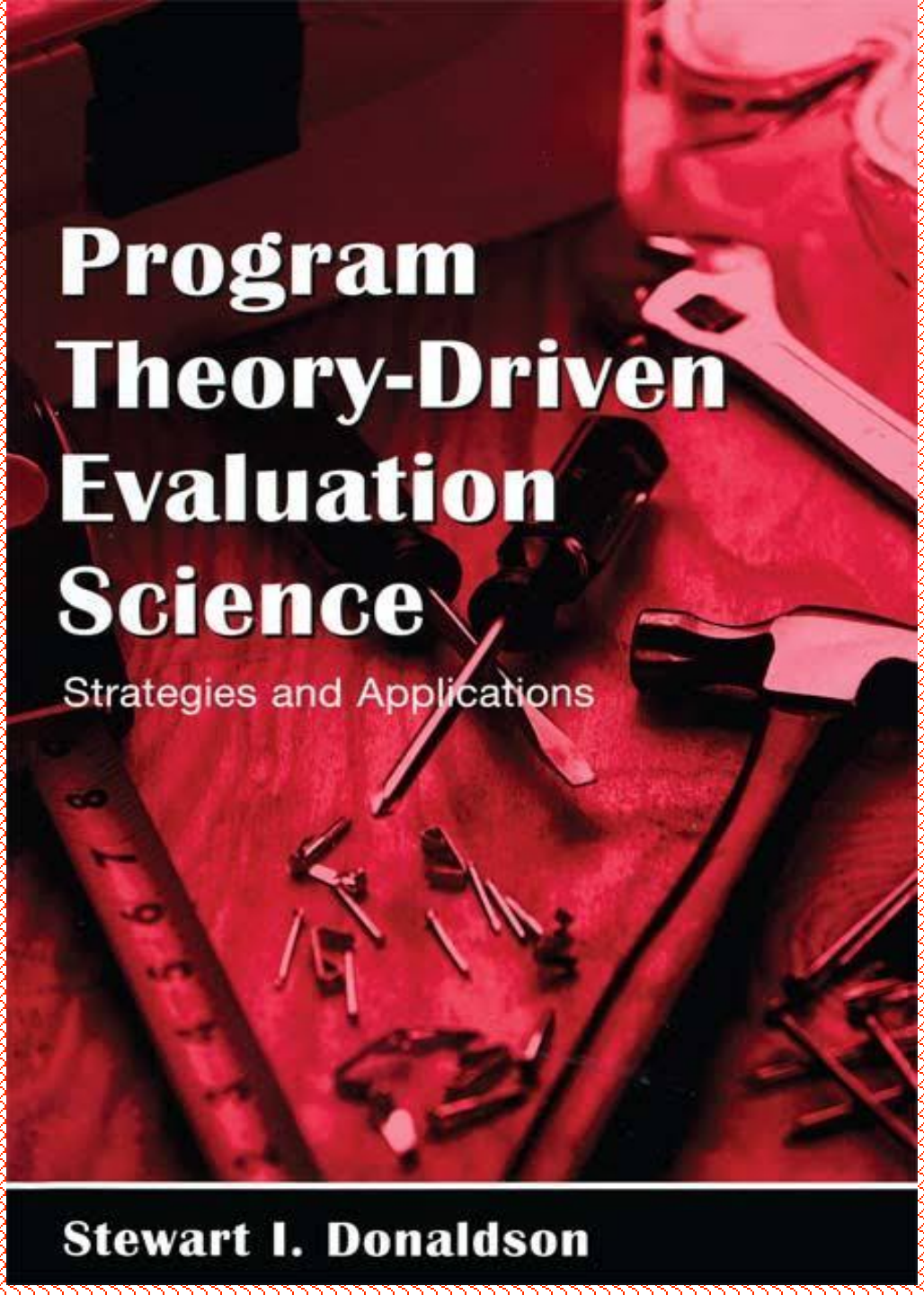
- **Openness to the world as it is**
- **Systematic inquiry**
- **Transparency of methods**
- **Sharing of findings for review by peers**
- **Cumulative knowledge**

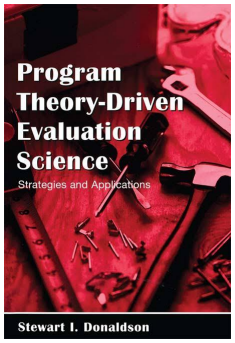
Reverend William Whewell



"Scientist"

1833

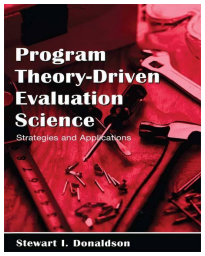

Program
Theory-Driven
Evaluation
Science
Strategies and Applications
Stewart I. Donaldson



Evaluation science

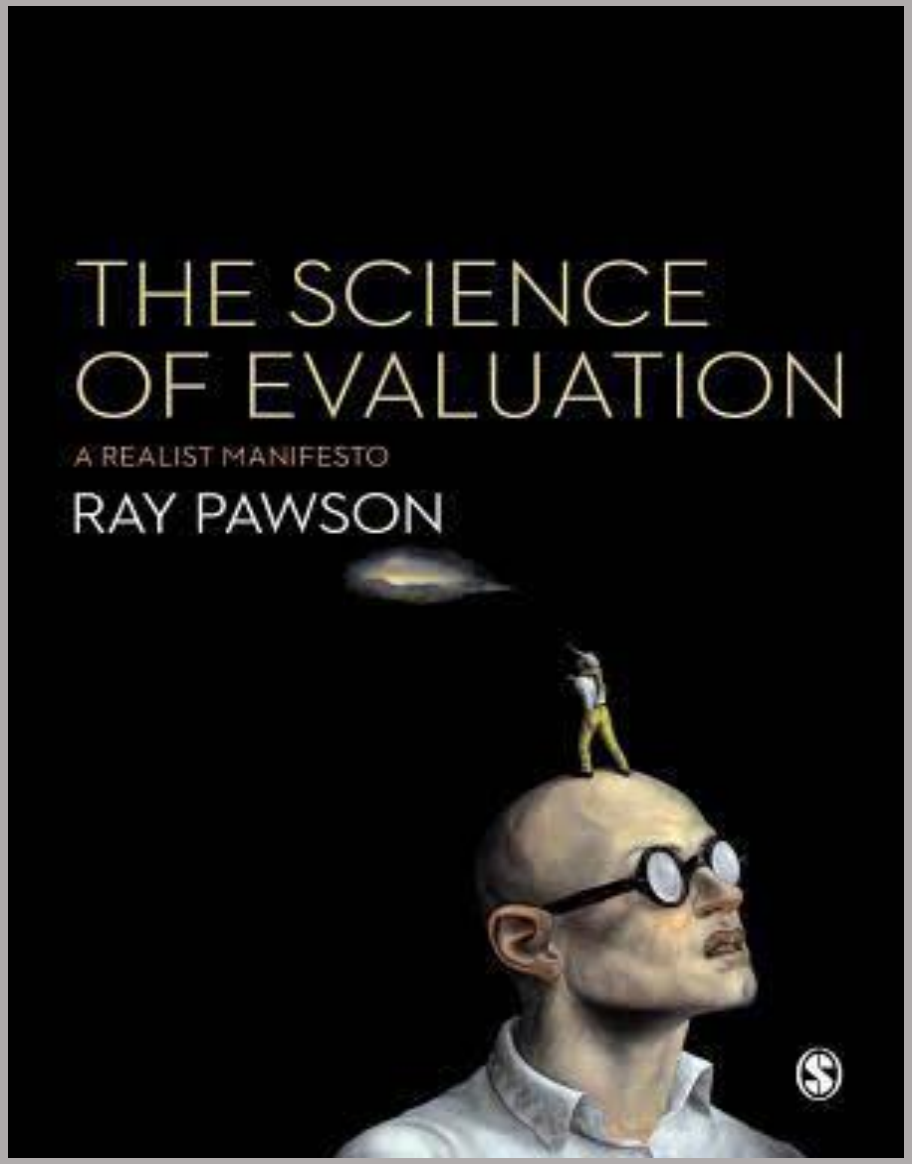
(instead of evaluation)

is intended to underscore the use of rigorous scientific methods (i.e., qualitative, quantitative, and mixed-method designs) to attempt to answer valued evaluation questions.



The term *evaluation science*

signals the emphasis placed on the guiding principle of systematic inquiry (Guiding Principles for Evaluators, 2004) and the critical evaluation standard of accuracy (joint committee on standards for educational evaluation, 1994). (Donaldson, 2007, p. 11; emphasis in the original)


THE SCIENCE OF EVALUATION
A REALIST MANIFESTO
RAY PAWSON

The Territory Ahead
AEA,1999

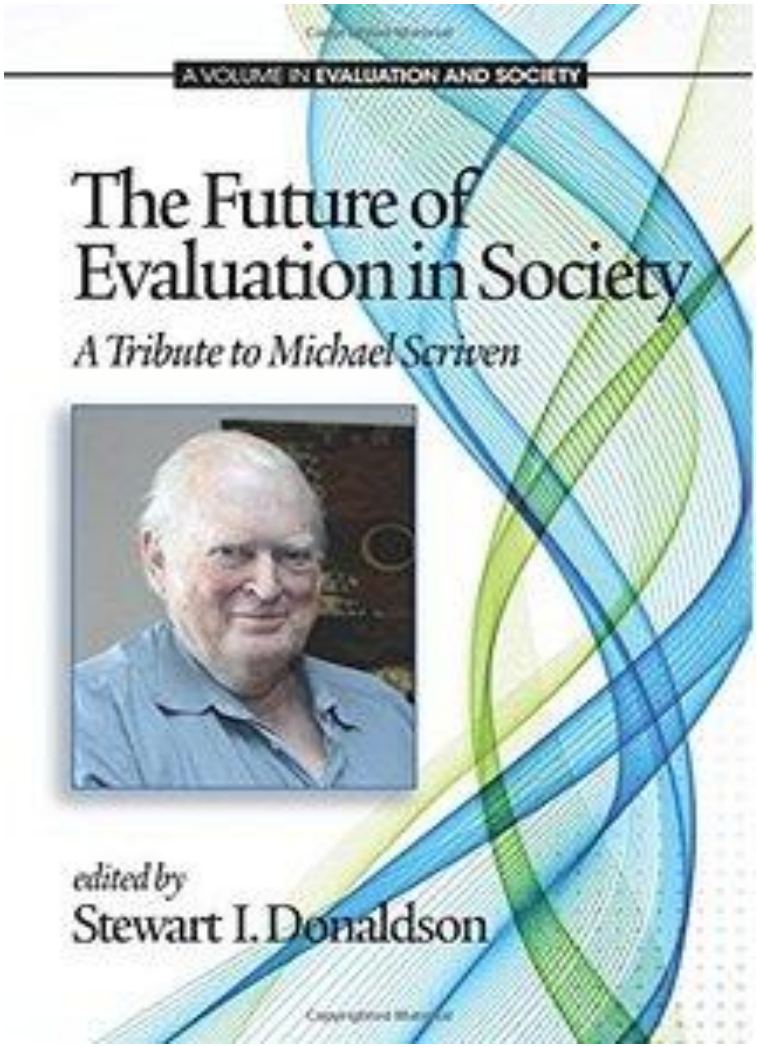
Evaluation as
the Science of Valuing

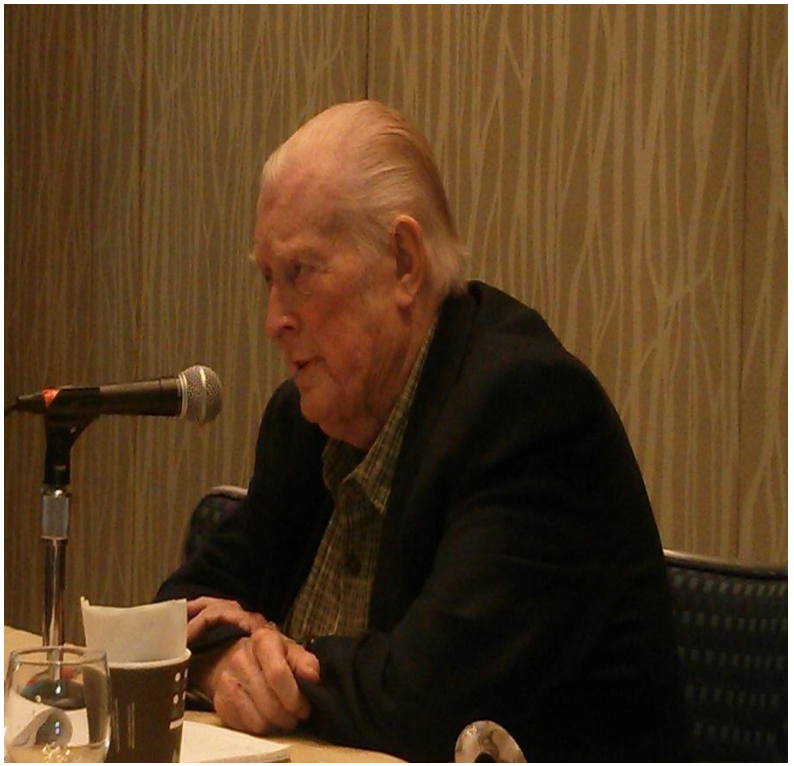
“Future Tense,” AJE, 2001

[T]here is no science without evaluation, because without evaluation one could not distinguish science from pseudo-science, let alone good science from poor science. And distinguishing good science from bad science (e.g., in work submitted for publication, graduation, course grades, or promotion, and in one’s own work) is an essential part of being a competent scientist.

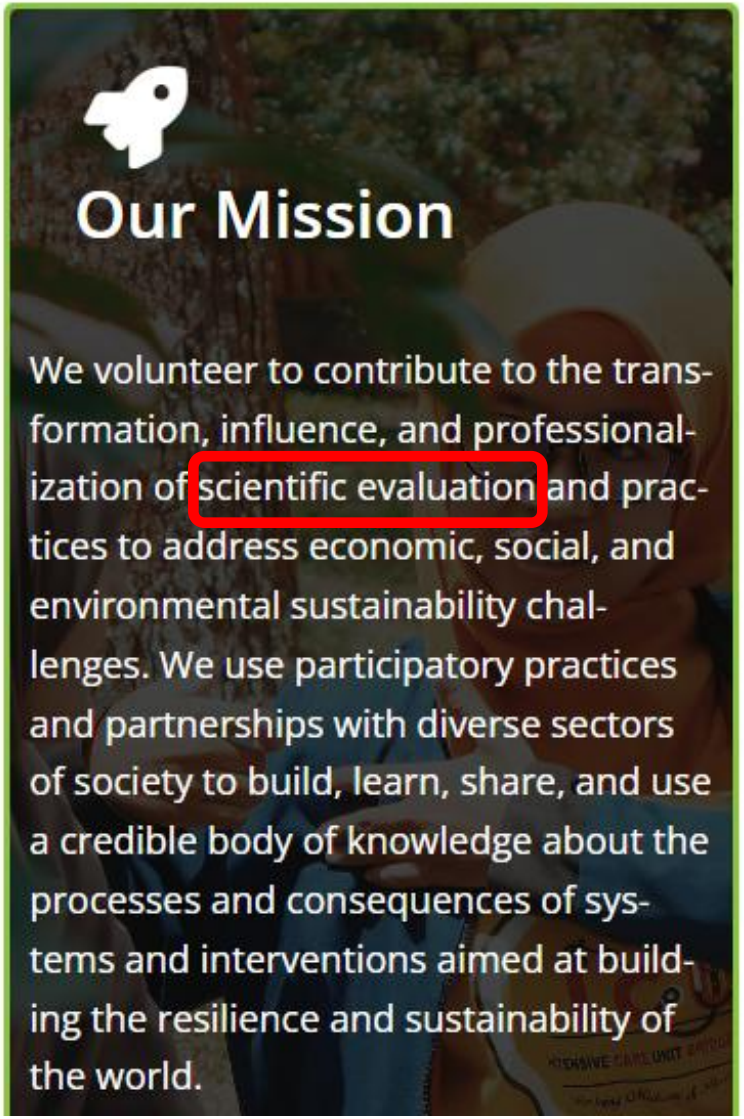
…Science is in fact totally dependent on evaluation for even the use of its name. Judgments of value…are in fact highly objective elements in every scientific enterprise, every scientific publication, and every plausible version of the scientific method….

Evaluation as Transdisciplinary





International Evaluation Academy



Global Evaluation Agenda (GEA) 2.0

EvalAgenda:
For a Future-Fit Evaluation

GEA 2.0 Evaluation

Recognizes and affirms that participatory practices and engaging evaluation processes have an impact as evaluation is being done, not just through production of findings and reports, but by infusing evaluative thinking and timely feedback throughout an initiative.

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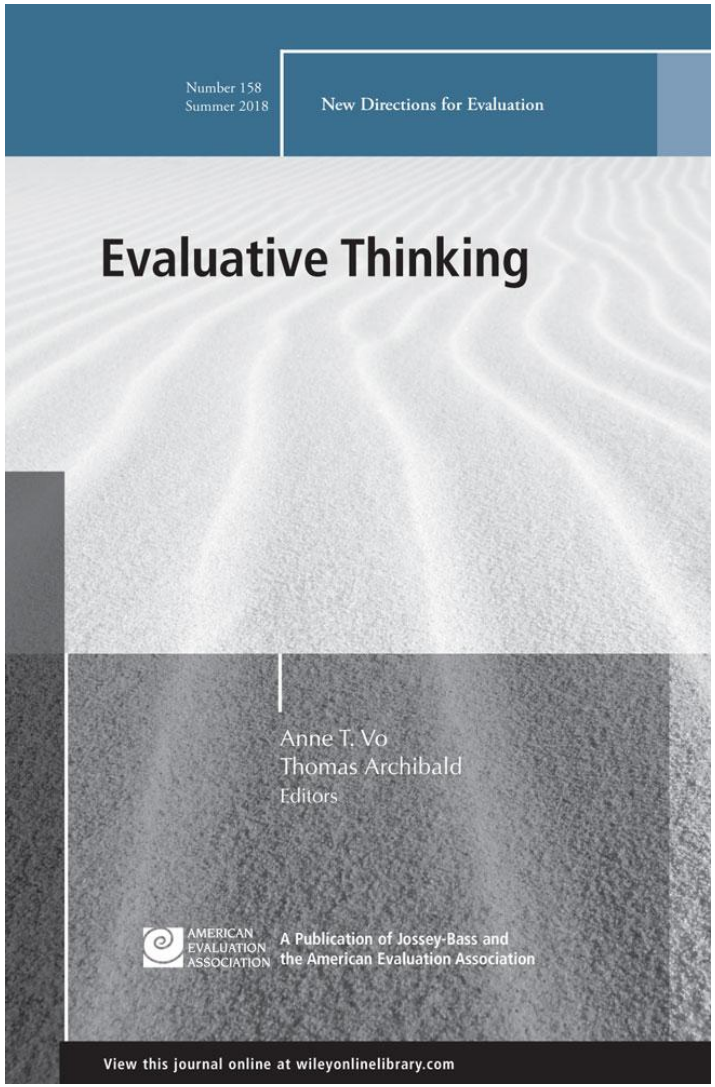

Evaluation Science: 5 stances

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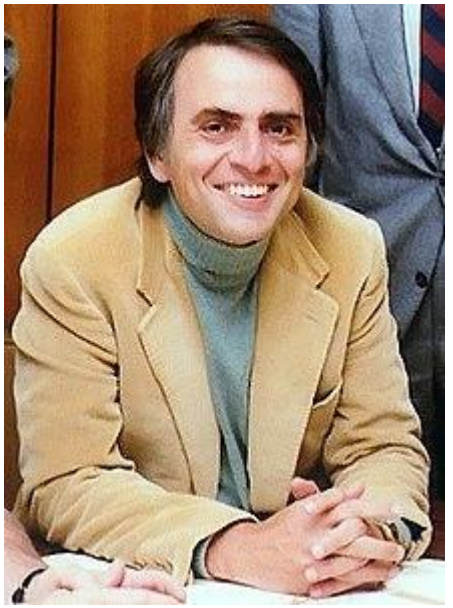
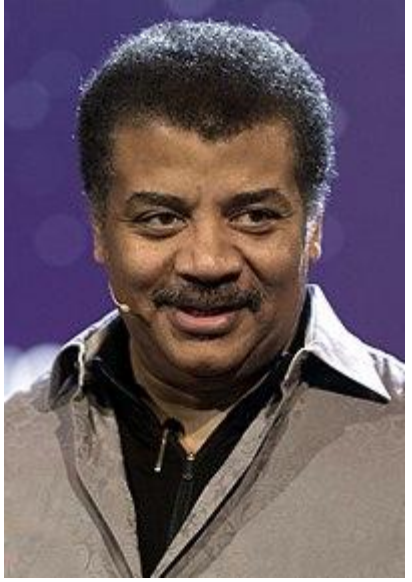
Carl Sagan, cosmologist

"Science is a way of thinking much more than it is a body of knowledge."



1934 - 1996

Neil deGrasse Tyson



“You've never seen me debate anybody. On anything. Ever.

My investment of time, as an educator, in my judgment,

is best served teaching people how to think about the world around them.

“Teach them how to pose a question. How to judge whether one thing is true versus another.”


STEM

STEM: Science, Technology, Engineering and Math

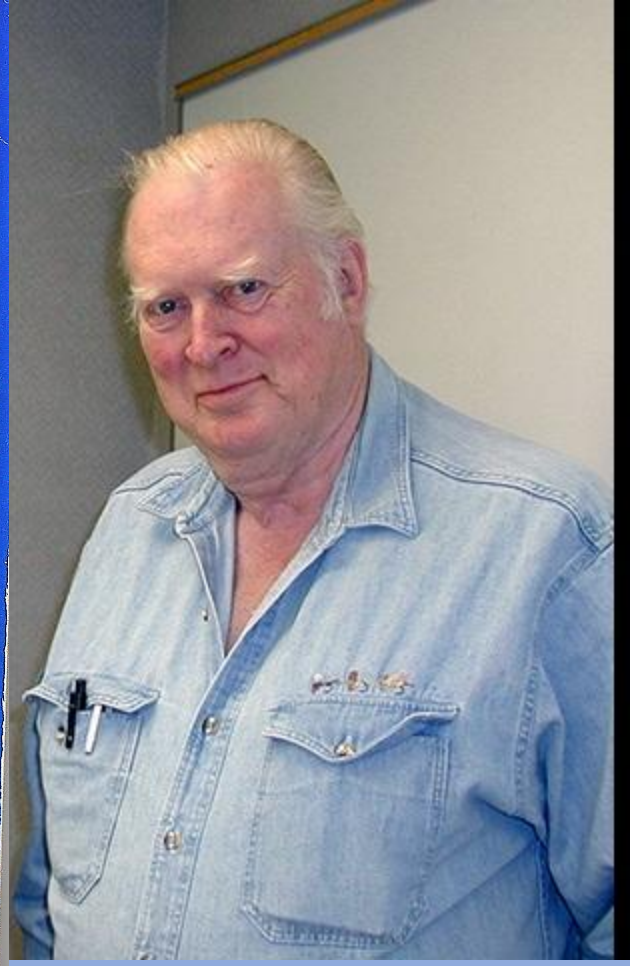
"Science is more than a school subject, or the periodic table, or the properties of waves. It is an approach to the world, a critical way to understand and explore and engage with the world, and then have the capacity to change that world..."

President Barack Obama, March 23, 2015

Science, Technology, Engineering and Math: Education for Global Leadership | U.S. Department of Education

Michael Scriven

REASONING



Evaluation Science as a *Transdiscipline*

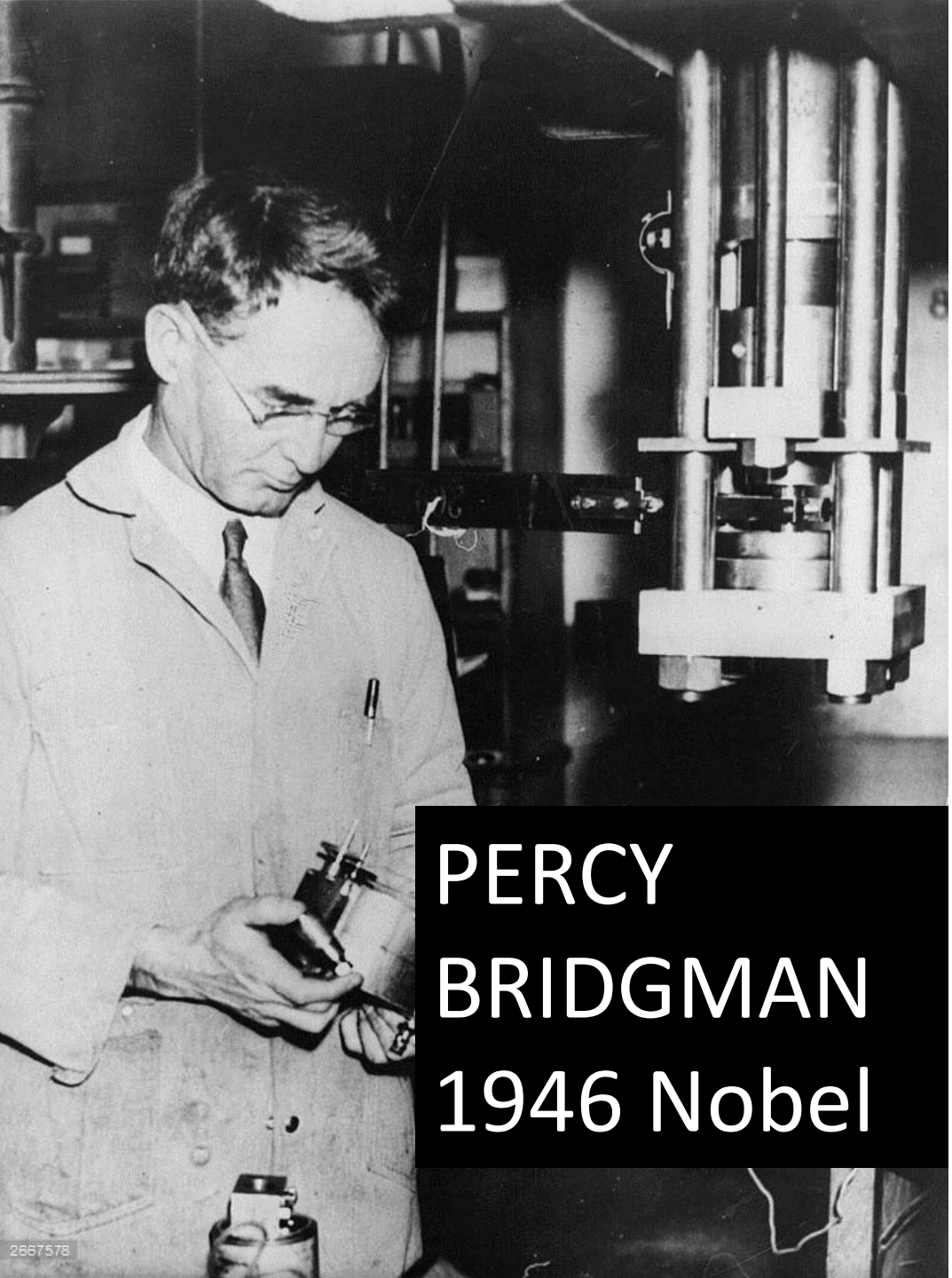
- Philosophy
- Statistics
- Evaluation science

EVALUATIVE THINKING

RIGOROUS EVALUATIVE THINKING

Evaluation as an intervention in critiical thinking

SCIENTIFIC METHOD



PERCY BRIDGMAN 1946 Nobel

"There is no scientific method as such, but the vital feature of the scientist's procedures has been merely to do his utmost with his mind, no holds barred"

Albert Szent-Györgyia,
Hungarian physiologist;
Nobel Prize in Physiology
or Medicine in 1937

"Discovery consists of looking at
the same thing as everyone else
and thinking something different."

GOLD STANDARD

METHODOLOGICAL APPROPRIATENESS

not

Methodological orthodoxy or rigidity

Strong evaluations

"Strong evaluations employ methods of analysis that are appropriate to the question; support the answer with evidence; document the assumptions, procedures, and modes of analysis; and rule out the competing evidence."

Strong evaluations

Strong studies pose questions clearly, address them appropriately, and draw inferences commensurate with the power of the design and the availability, validity, and reliability of the data. Strength should not be equated with complexity. Nor should strength be equated with the degree of statistical manipulation of data. Neither infatuation with complexity nor statistical incantation makes an evaluation stronger.

Strong Evaluations

The strength of an evaluation is not defined by a particular method. Longitudinal, experimental, quasi-experimental, before-and-after, and case study evaluations can be either strong or weak…. That is, the strength of an evaluation has to be judged within the context of the question, the time and cost constraints, the design, the technical adequacy of the data collection and analysis, and the presentation of the findings.

Evaluation Science

"A strong study is technically adequate and useful—in short, it is high in quality."

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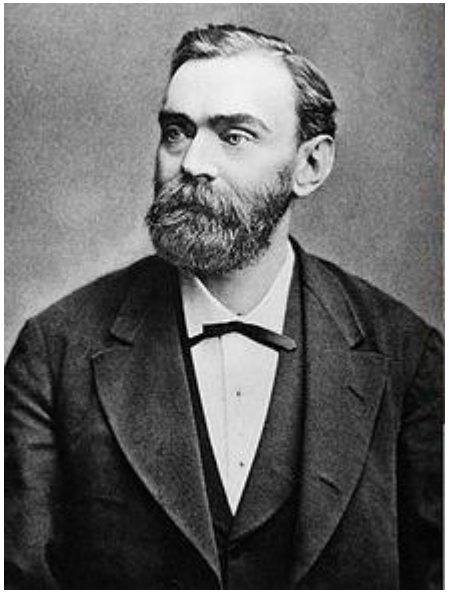
Nobel Prizes

- Chemistry
- Physics
- Literature
- Peace
- Physiology or Medicine

- The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel

Alfred Nobel, 1833-1896



Swedish chemist, engineer, innovator, and creator of the

Nobel Prizes.

He held 355 different patents, dynamite being the most famous.

Dynamite, Medicine, Peace, and the Nobel Art of Evaluation

American Journal of Evaluation
2014, Vol. 35(3) 377-386

DOI: 10.1177/1098214014535482
aje.sagepub.com
SAGE

Peter Dahler-Larsen[1]

> My factories may make an end of war sooner than your congresses. The day when two army corps can annihilate each other in one second, all civilized nations, it is to be hoped, will recoil from war and discharge their troops.
>
> –Alfred Nobel, the inventor of dynamite

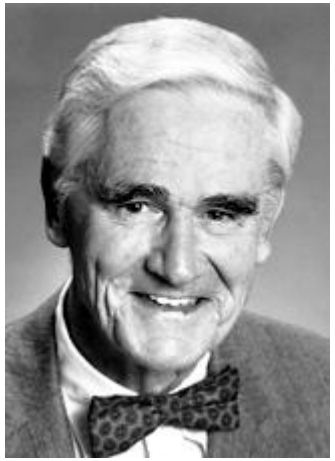
> Controversy is no good judge.
>
> –Geir Lundestad, secretary of the Norwegian Nobel committee

The Nobel Prize is the most prestigious award in the world. Each year, a small handful of Nobel laureates, most typically only one in each category, are sifted from hundreds of nominees, the rest of which get nothing, no grading, no ranking, or no public praise. Behind the brutally simple structure of this decision lies an evaluation process that is complicated, elaborate, institutionalized, and partly secret.

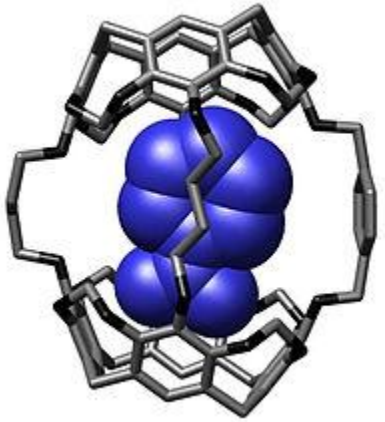
The purpose of this article is to allow the reader to understand this evaluative process, as it is described by two key people who are directly involved in it. I am grateful to Göran Hansson (GH), secretary general of the Nobel Assembly in medicine, and Geir Lundestad (GL, 2001), secretary of the Norwegian Nobel committee for their willingness to participate in the following interviews. While GH was interviewed in Stockholm, February 12, 2014, and GL in Oslo, February 24, I have summarized and reorganized the material, so that their answers to comparable questions are placed under similar headings immediately after each other as service to the reader. Both interviews were conducted by native Scandinavians, but took place in English, having in mind the journal you are now reading. Both interviewees have reviewed the way their quotes were transcribed and condensed and had no substantial objections.

Guidelines for the Nobel Prize were already described in Alfred Nobel's will in 1896. However, his evaluation criteria are not particularly specific but require careful interpretive work. The world has changed in ways he could not predict and so has the definition of the domains of science, culture,

Chemistry Nobel, 1987
Donald J. Cram



Anyone reading my work "can see, in some detail, how I have spent most of my mature life. They can become familiar with the quality of my mind and imagination. They can make judgements about my research abilities…. I know of no other field in which contributions to world culture are so clearly on exhibit, so cumulative, and so subject to verification."



Things we're trying…

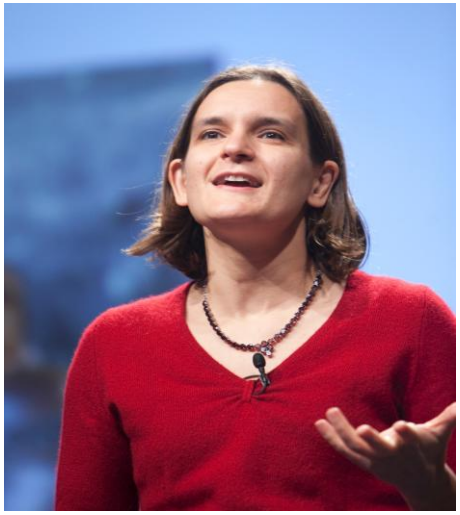
- Visualization
- Using social media
- Shorter reports
- No reports
- Building relationships with intended users
- Building evaluative capacity
- Shaping AI

Dr. Angus Deaton
2015 Nobel Prize in Economics

“This award is a great tribute to my tribe within the tribe, those of us who worry about measurement, about how to provide coherent accounts of what we measure….”

“Just trying to figure stuff out, and also to try and bring data to bear on the world’s puzzles and get some illumination. It's a murky world out there and it's hard to figure things out sometimes….You bring information, you bring data to bear in a way that helps illuminate something…”

Esther Duflo was awarded the **Sveriges Riksbank Prize in Economic Sciences** in 2019 along with her two co-researchers Abhijit Banerjee and Michael Kremer for their experimental evaluations of efforts to alleviate global poverty.



*NO **BEST** PRACTICES*

- Evidence-based practices
- Better practices
- Promising practices
- Bad practices
- Really bad practices
- Really, really bad practices

BUT…

The appropriate evaluation question is not

"Does IT work?"

but the more nuanced question…

Impact question

"What works for whom in what ways under what conditions with what results in what contexts?"

The Challenge:

Matching the evaluation design to the evaluation's purpose, resources, and timeline to optimize use.

Context matters

Culture matters

Evaluation's Diversity Initiatives

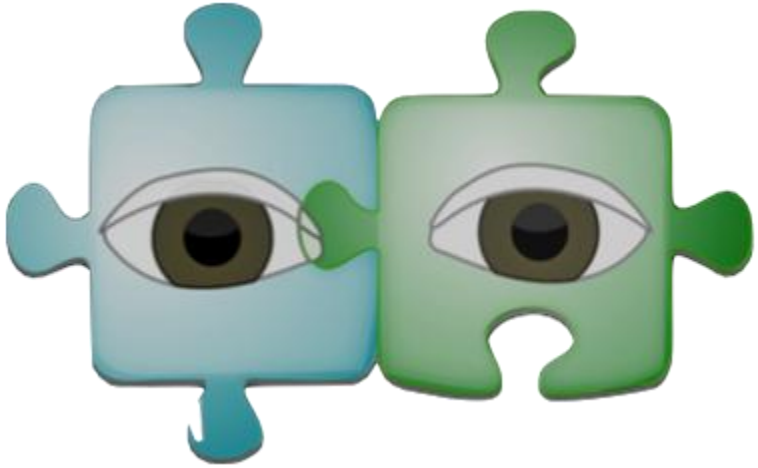
Dr. Stafford Hood
leader in culturally responsive modes of evaluation

Cultural competence

The capacity to engage respectfully, authentically, and effectively with diverse people – understanding and taking into account the impact of culture on all aspects of evaluation.

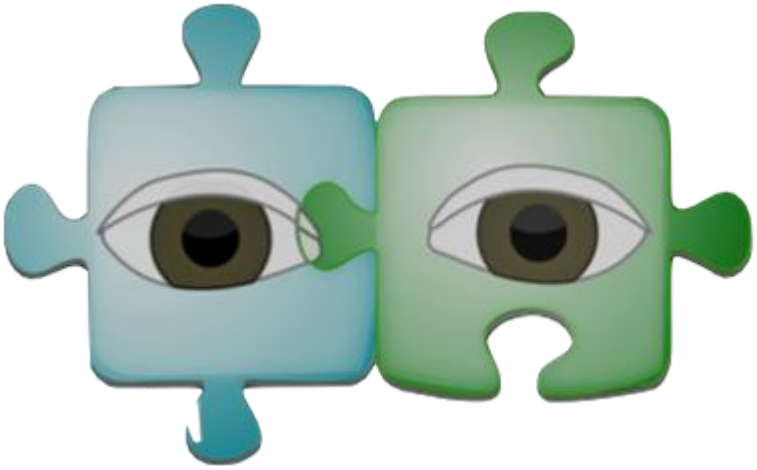
AEA statement: A culturally competent evaluator is prepared to engage with diverse segments of communities to include cultural and contextual dimensions important to the evaluation. Culturally competent evaluators respect the cultures represented in the evaluation.

Two-Eyed Seeing

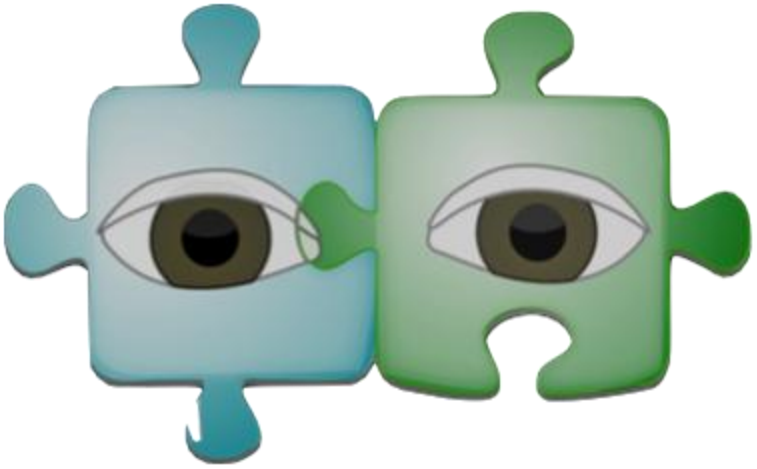


The Guiding Principle brought into the Integrative Science co-learning journey by **Mi'kmaw Elder Albert Marshall**.

Etuaptmumk is the Mi'kmaw word for Two-Eyed Seeing.



Two-Eyed Seeing refers to learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing ... and learning to use both these eyes together, for the benefit of all.



Elder Albert indicates that
Two-Eyed Seeing is the gift of multiple perspectives treasured by many Aboriginal peoples. We believe it is the requisite Guiding Principle for the new consciousness needed to enable Integrative Science work, as well as other integrative or transcultural or transdisciplinary or collaborative work.

African Ways of Knowing

Dr. Sulley Gariba

Evaluation science knowledge: Importance of…

1. Rigorous scientific evaluative thinking
2. Process use
3. Validated theories of change
4. Information alone seldom produces lasting behavioral change
5. Personal factor

Evaluation science knowledge: Importance of…

6. Methodological appropriateness and pluralism – no gold standard
7. Contextual sensitivity: No best practices
8. Cultural responsiveness
9. Learning from failure
10. Looking for unanticipated consequences

My list…Yours?

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   Emergent and innovative directions in Science

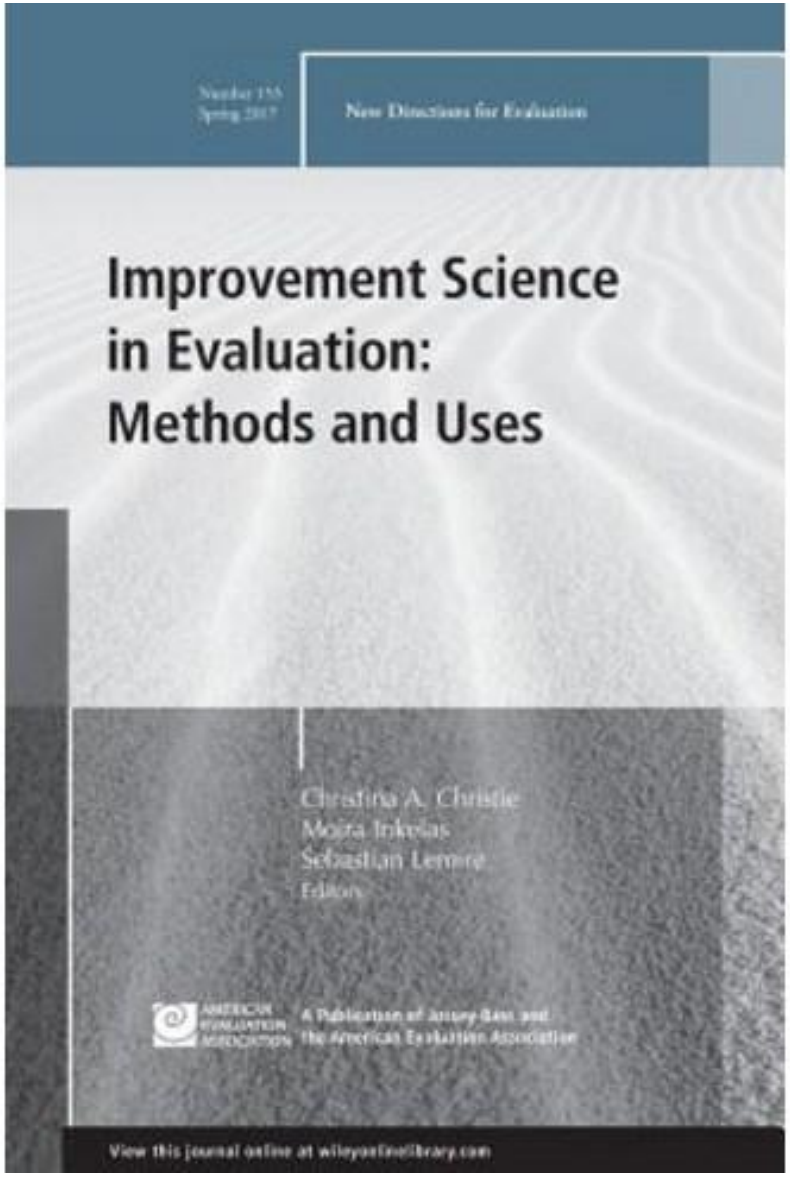
Emergent “Sciences”

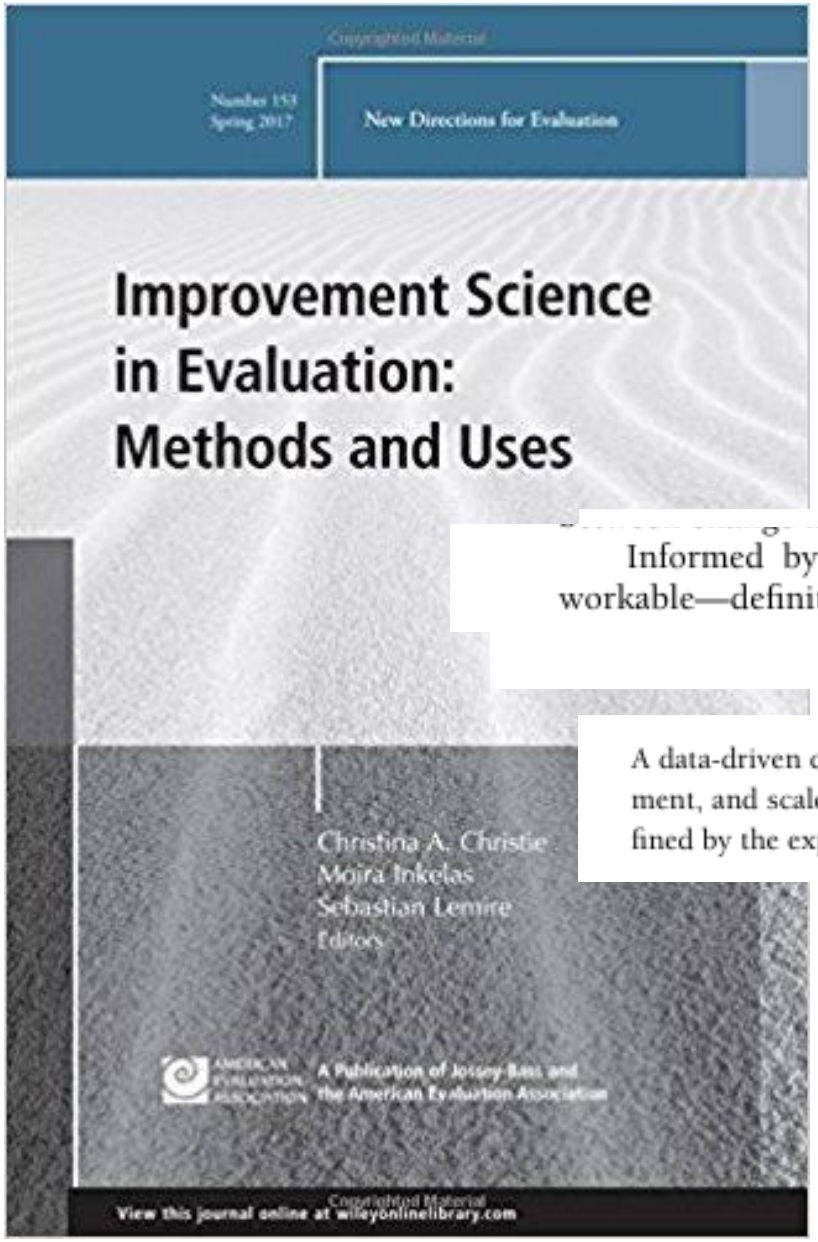
- Implementation science
- Translational science
- Policy science
- Action science
- Big data science
- Complexity science
- Sustainability science
- AI Science
- Decision science
- Cognitive science
- Strategy science
- Brain science
- Network science
- Community Science

The Center on
Network Science

SCHOOL OF PUBLIC AFFAIRS

UNIVERSITY OF COLORADO **DENVER**


New Directions for Evaluation
Improvement Science in Evaluation: Methods and Uses
Christina A. Christie
Moira Inkelas
Sebastian Lemire
Editors
View this journal online at wileyonlinelibrary.com

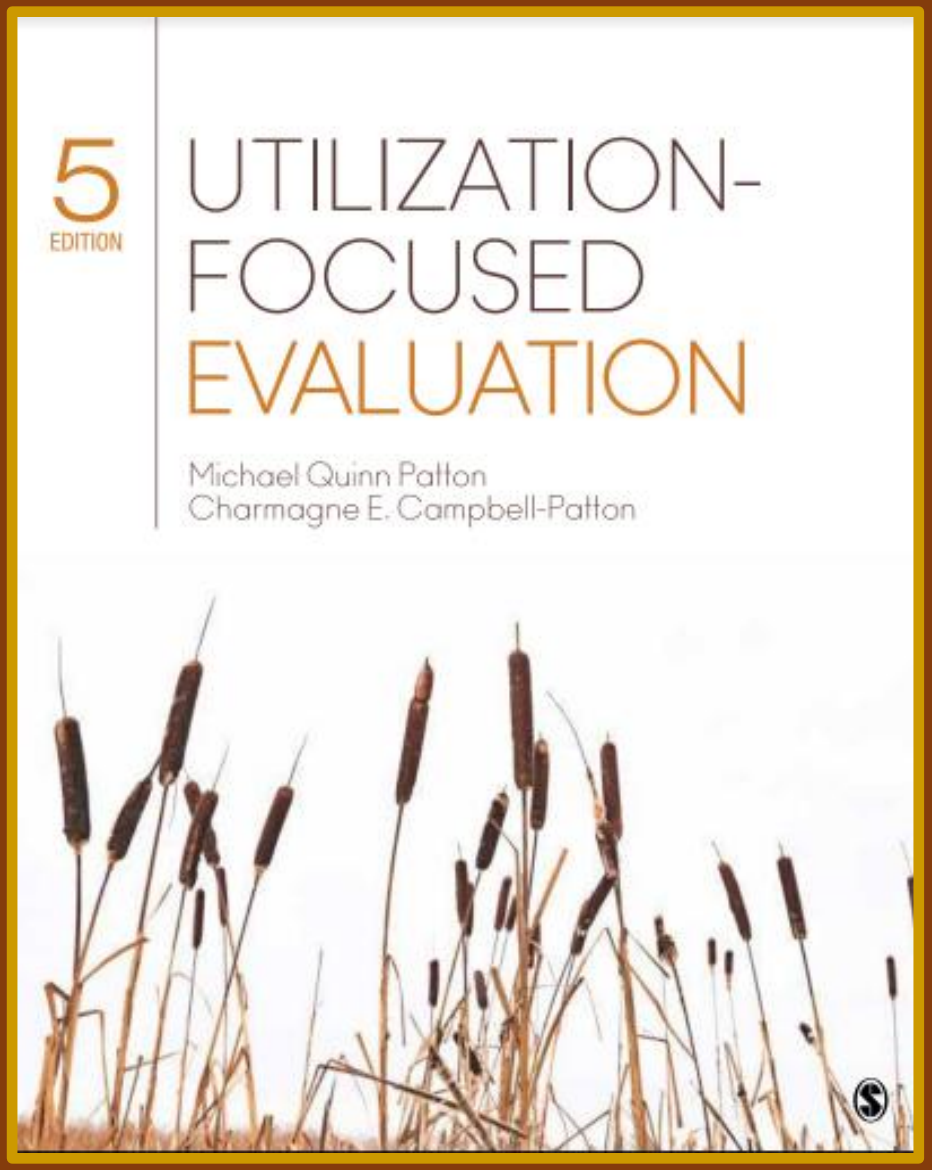


The Methods and Tools of Improvement Science

Sebastian Lemire, Christina A. Christie, Moira Inkelas

Informed by the contributions cited here, a working—or at least workable—definition of improvement science

A data-driven change process that aims to systematically design, test, implement, and scale change toward systemic improvement, as informed and defined by the experience and knowledge of subject matter experts.


5
EDITION
UTILIZATION-FOCUSED EVALUATION
Michael Quinn Patton
Charmagne E. Campbell-Patton

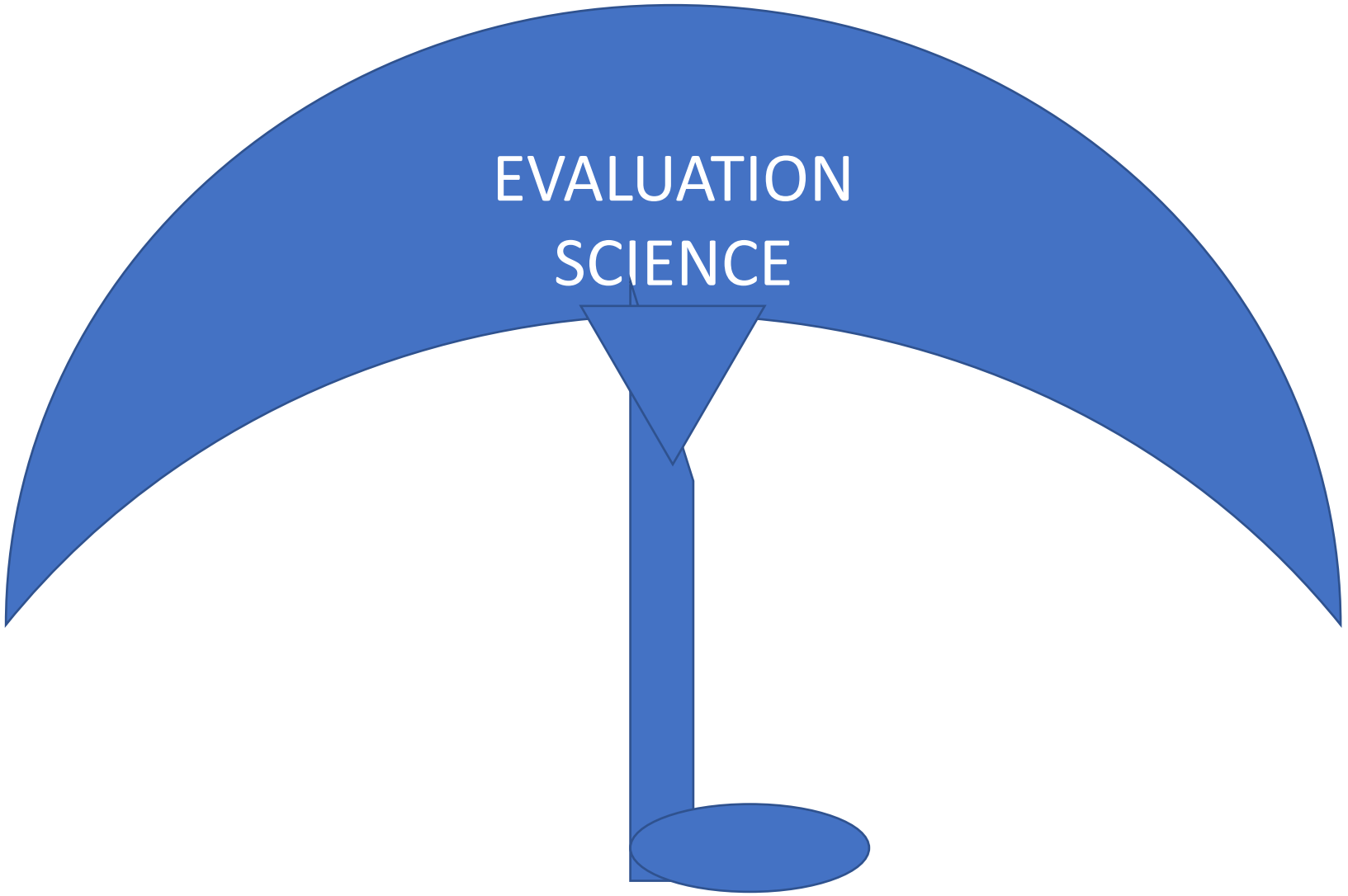
Intergenerational evaluation

Evaluation Science as a Body of Knowledge About Effectiveness. We're also learning the importance of synthesizing knowledge from multiple evaluations to extract general lessons to inform future intervention designs. Evaluation is no longer just about how to conduct evaluations. The transdiscipline of evaluation science has generated a body of knowledge about patterns of effectiveness. Knowledge generation and lessons for design use is an important frontier of utilization-focused evaluation

David Chavis

Principal Associate/CEO of

Community Science


EVALUATION
SCIENCE

Rigorous Evaluative Thinking

- Systems thinking
- Strategic thinking
- Design thinking
- Complexity thinking
- Scientific thinking
- Mixed methods thinking
- Principles-driven thinking
- Innovation-focused thinking
- IMPACT THINKING

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   Emergent and innovative directions in Science

5. Political stance: Making common cause with other scientists in support of Science

AMERICAN EVALUATION ASSOCIATION

AEA President's Prize

Evaluation and Politics

When and under what conditions is evaluation not political?

Political Viability Standard…

Be politically adept…

Politically astute…

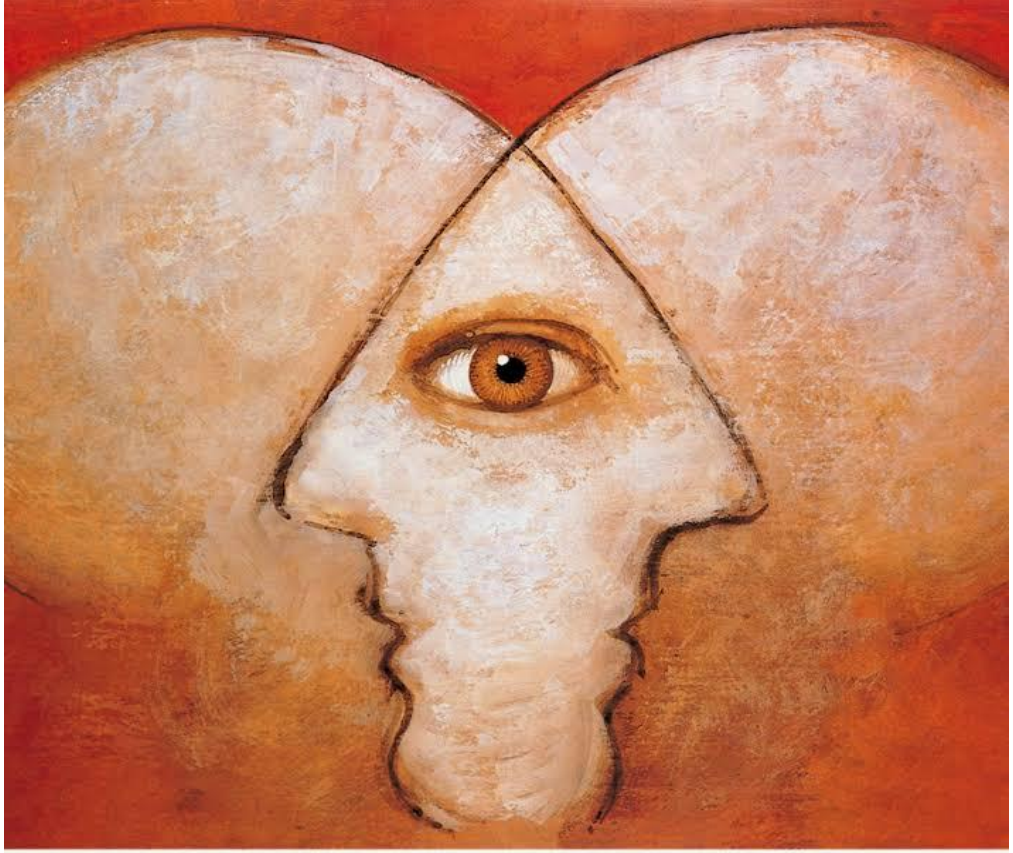
Politically sophisticated…

Politically skilled…

Politically engaged…

Politics comes with the territory:

Expect it! Get good at it!



TRUTH

A GUIDE

SIMON BLACKBURN


post-truth

POST-TRUTH ERA

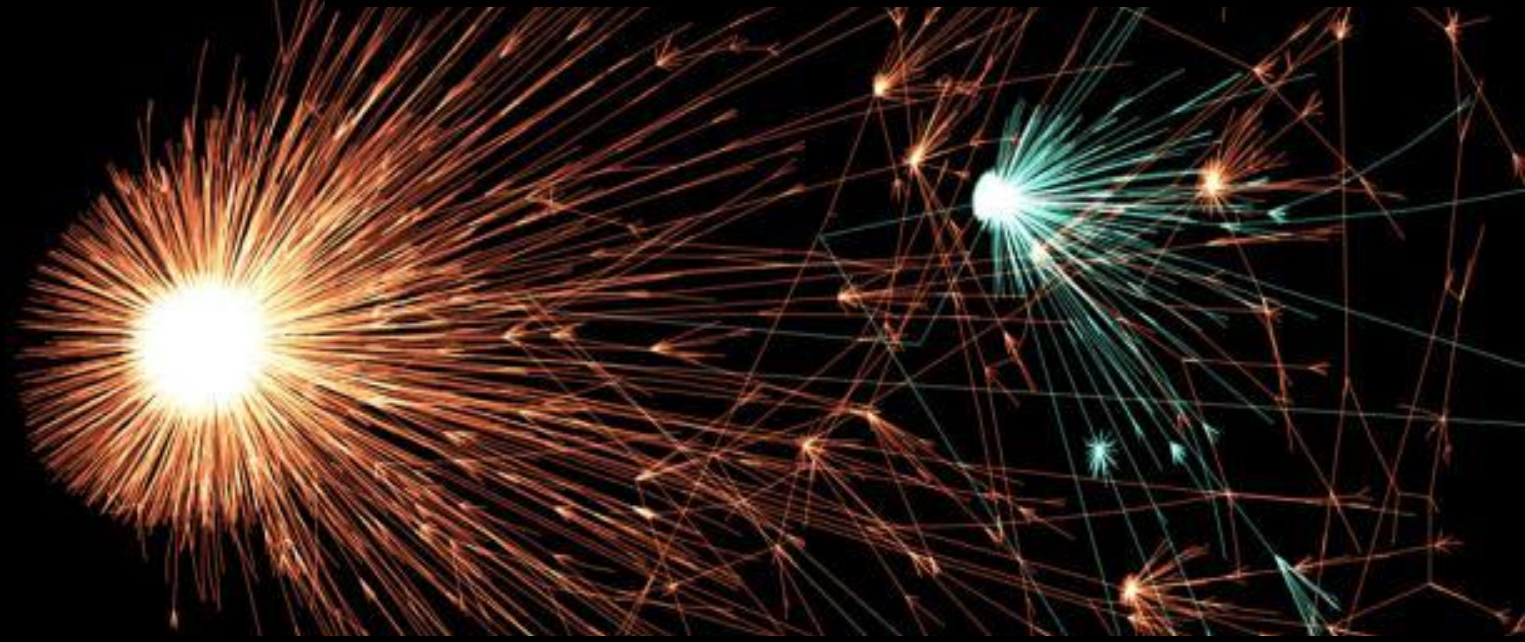
In November, 2016, the Oxford Dictionaries announced ***post-truth*** as its international Word of the Year.

post-truth *adjective:*
Relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.

Science

The spread of true and false news online

Soroush Vosoughi, Deb Roy, Sinan Aral March 9, 2018



The science of fake news,
March 9, 2018

How fake news spreads online

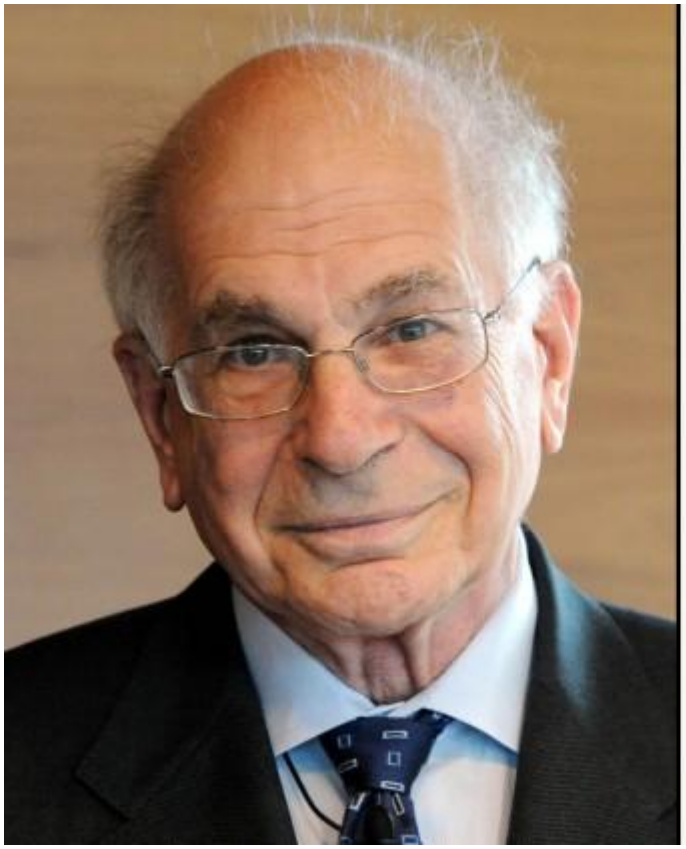
- MIT “data scientists”: journal *SCIENCE*
- 12 year study
- 126,000 Twitter cascades
- Falsehoods were 70% more likely to be retweeted
- Time it took for a false claim to reach 1,500 people was 6 times faster than true news

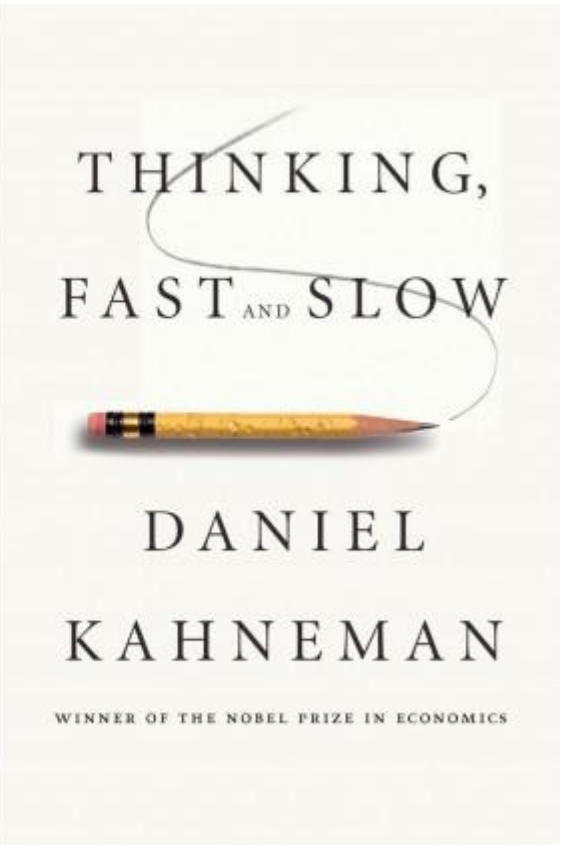
TRUTH IS IN DANGER

Evaluators as Fact Checkers

Evaluators as Truth Tellers

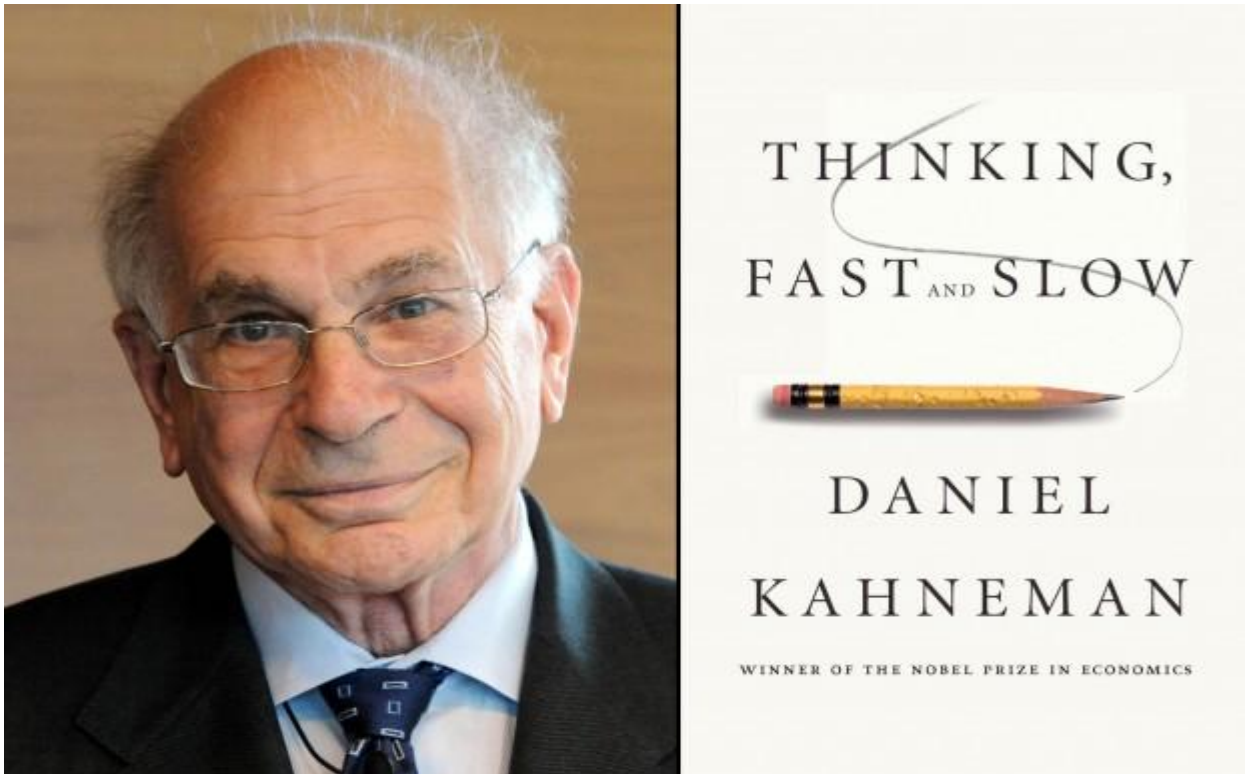
Scientific wisdom from Nobel Prize laureates





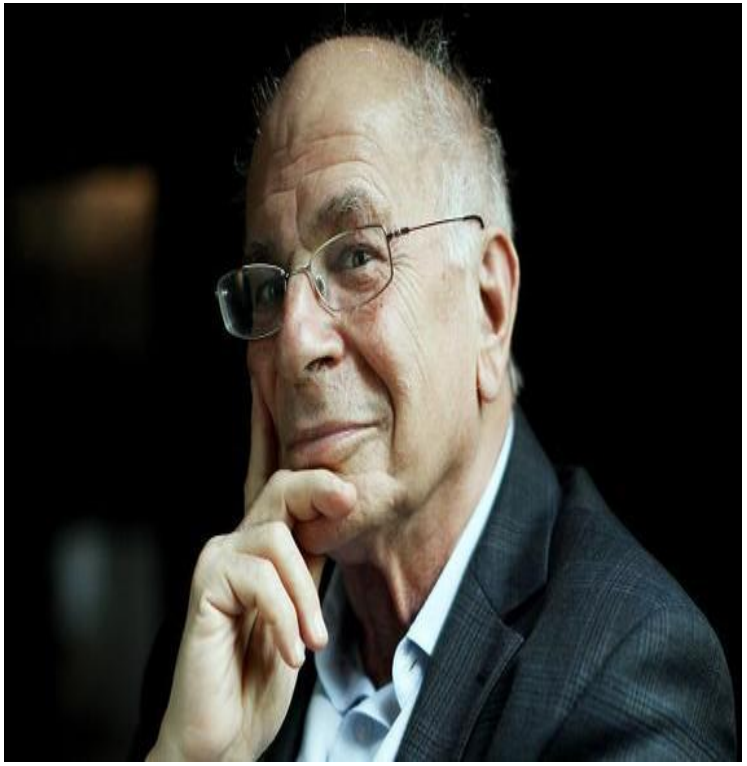
Economics Nobel Prize recipient Daniel Kahneman (2002) won for his work on the psychology of judgment and decision-making.

Our rationality is bounded and distorted.



A major barrier to appropriately interpreting scientific and evaluation findings is our biased and illogical interpretation and decision-making processes.

"A reliable way to make people believe in falsehoods is frequent repetition, because familiarity is not easily distinguished from truth. Authoritarian institutions and marketers have always known this fact."



Daniel Kahneman

Evaluation Scientists: Maintain Equity and Sustainability as criteria

Commitment of the evaluation profession

not just individuals

POLITICAL

SCIENTIFIC

The importance of evaluative thinking was spotlighted by the conflict in responses to the coronavirus pandemic between science and politics. The mantra "follow the science" became significant, and remains significant, when politicians politicize and dispute scientific findings, as occurred repeatedly throughout the pandemic. As historian John M. Barry (2020) has observed, "When you mix politics and science, you get politics. Here's one example among many: Christi Grimm, the Inspector General at the U.S. Department of Health and Human Services, an evaluation function, surveyed 343 hospitals and documented major shortages of COVID-19 testing kits and personal protective gear. President Trump attacked the findings as "fake" and fired her."


MISINFORMATION


DISINFORMATION
HONESTY
CONTEXTUAL
CONFABULATION
BRICATION
MISDIRECT
INACCURA
UNTRUTH
SPEAKING
DECEIVES
OMISSION
IMPLYING
INTRODUCE
STANDARD
ADVANCE
SPEAKING
PHYSICAL
ACTUALLY
ATTEMPTS
INHERENT
GUILT
CONTENTS
DIRECTION
LANGUAGE
ENRAGED
PRETEND
OCCURS
FEINT
PHRASE
SAYING
FICTION
MAKING
HONEST
FORMER
VICTIM
THOUGH
RECENT
DELIVER
GRAND
BELIEVES
ACCURATE
POLITENESS
FENDANT
CERTAIN
INSTEAD
CHILDREN
COMPLETE
WITNESS
REMEMBER
ACTIONS
REASON
REALIZE
MIGHT
KNOW
MAGIC
MAJOR
QUICK
THINGS
DOESN
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FOSTER
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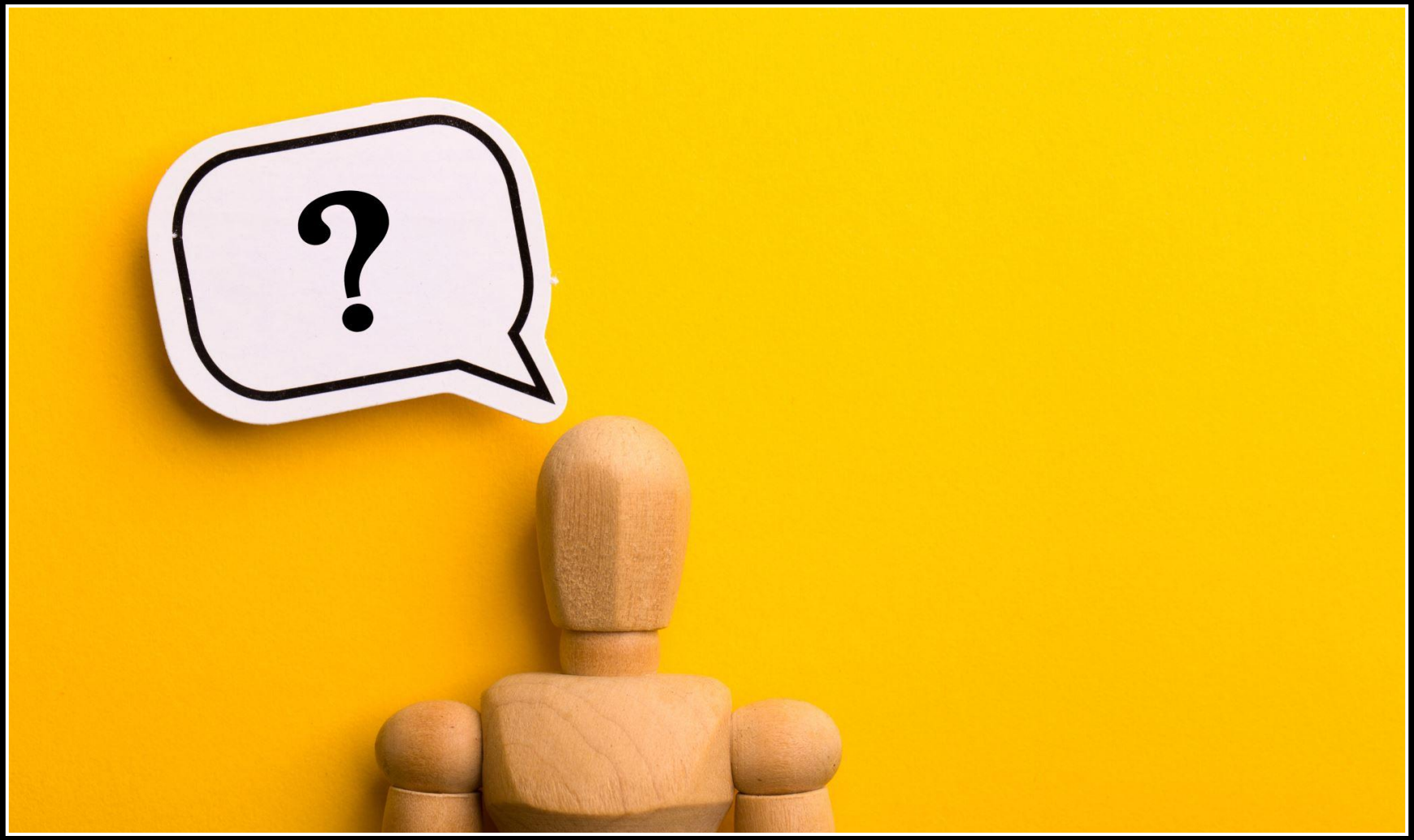
APPEARS
INVITATIONS
CAPABILITY
CONTINUING
TEMPORARY


TRUTH



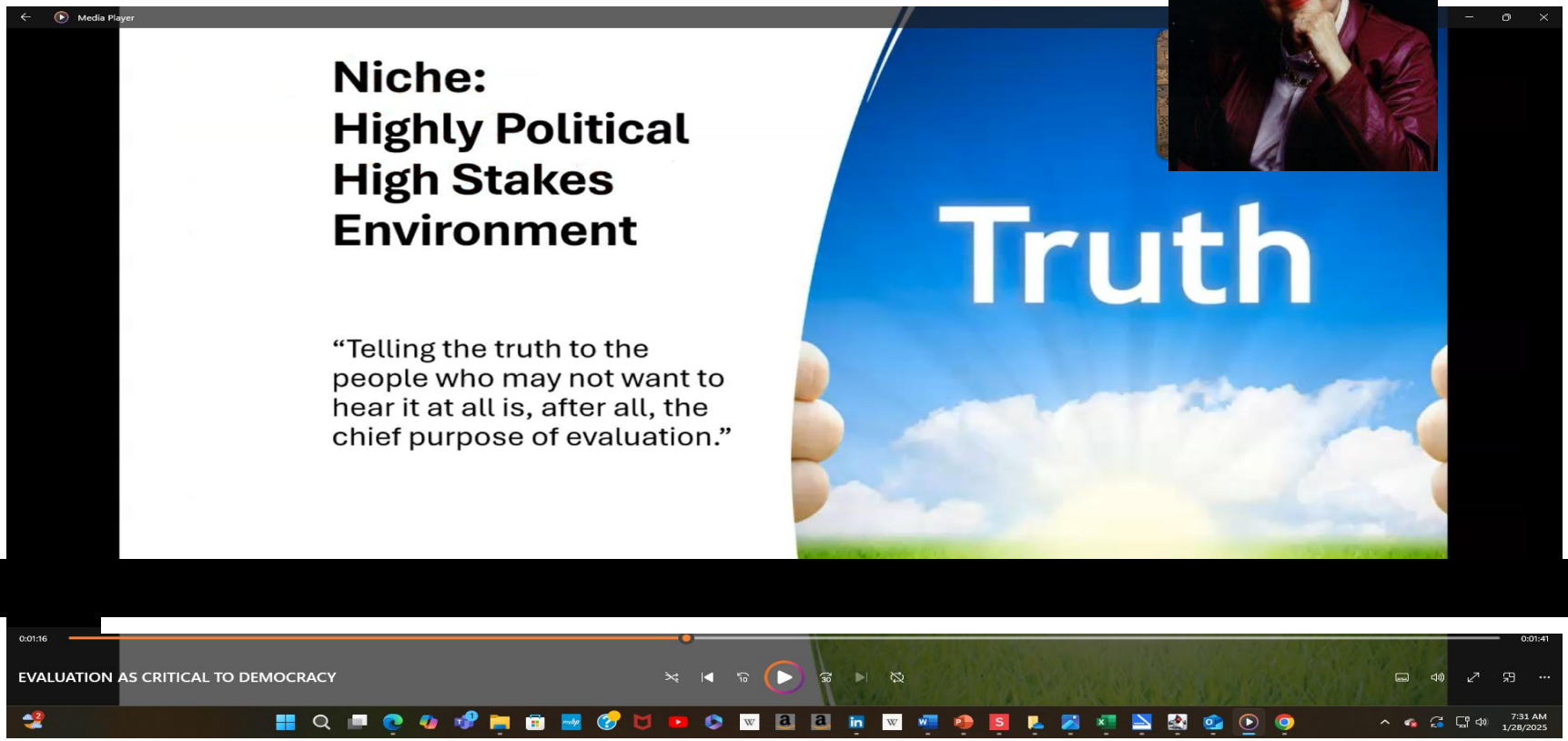
Why Evaluation Matters

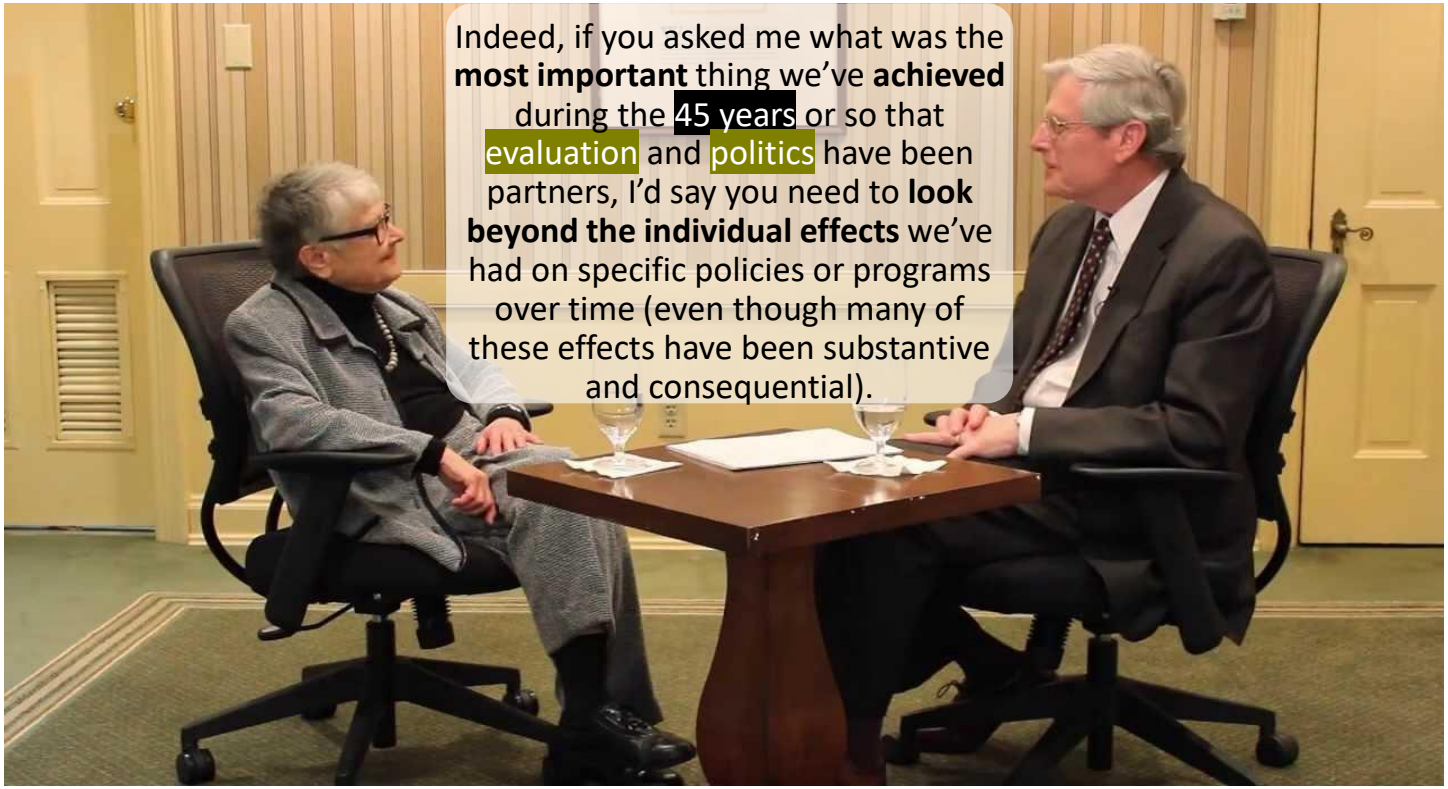
Eleanor Chelimsky

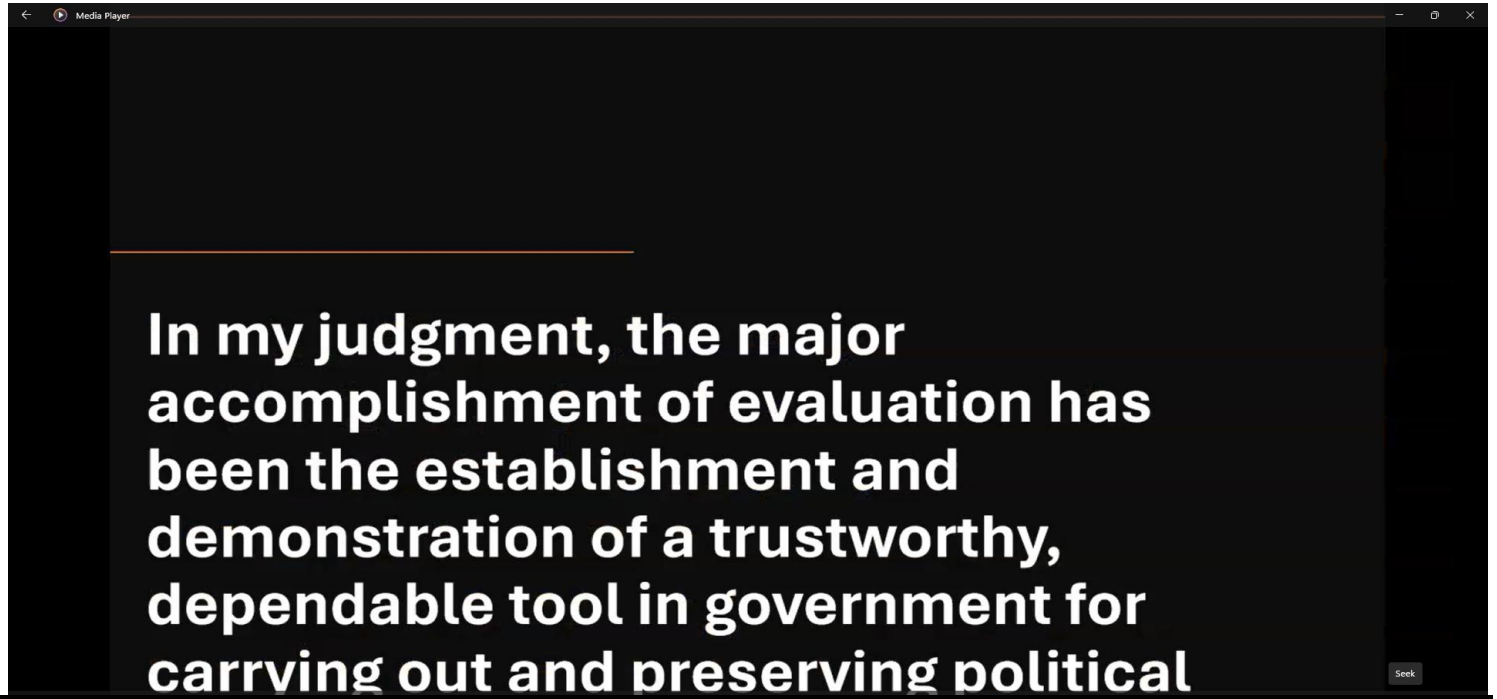
1926-2022

GAO's Program Evaluation and Methodology Division

- Between 1980 and 1994
- Eleanor Chelimsky, Director
- The unit was charged with doing evaluations for Congress and improving GAO's methodological capabilities.
- With 80 to 100 people, PEMD had between 45 and 50 evaluations under way at any given time, and produced 30 major products annually.

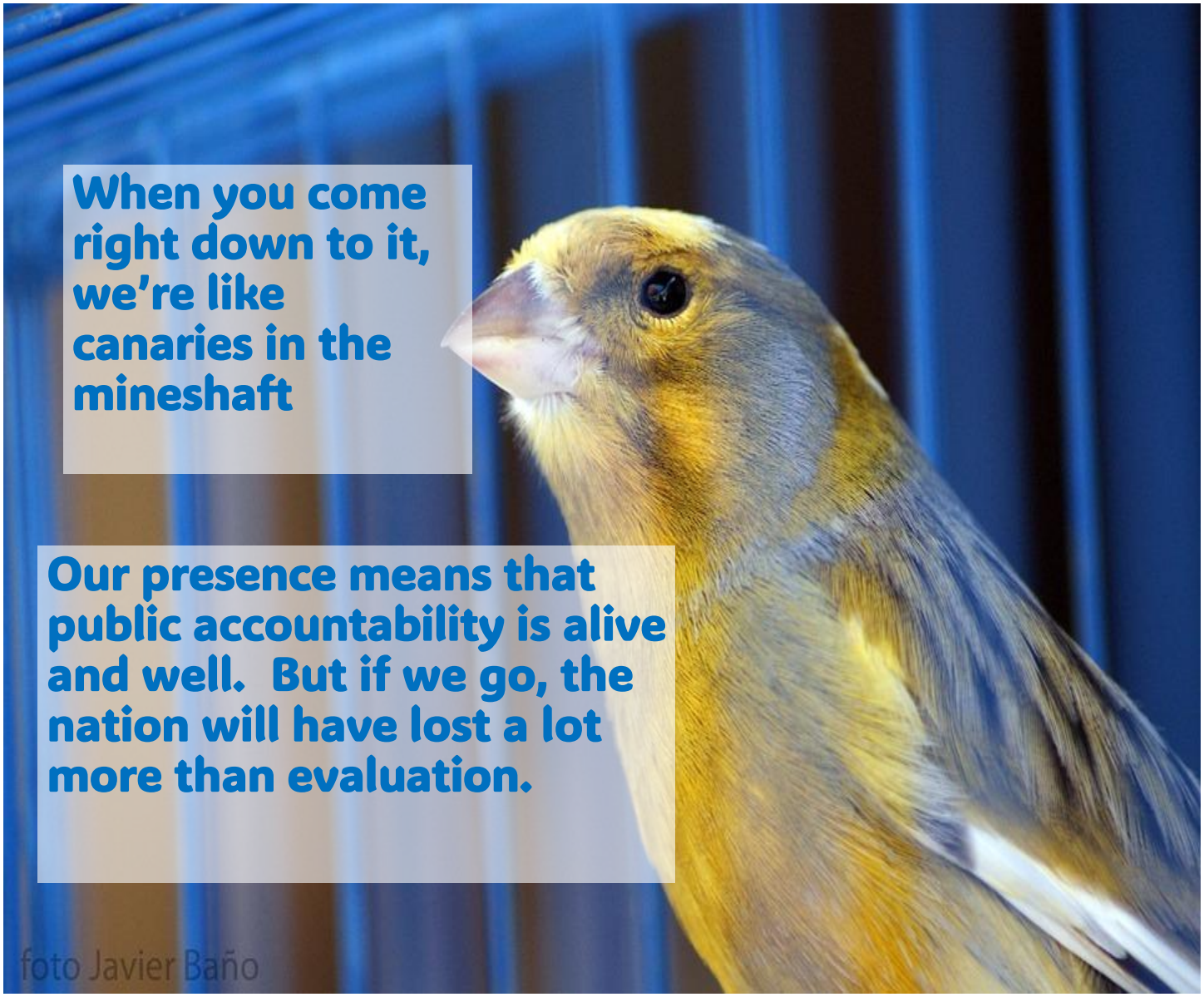

Media Player
Niche:
Highly Political
High Stakes
Environment
“Telling the truth to the people who may not want to hear it at all is, after all, the chief purpose of evaluation.”
Truth
0:01:16
0:01:41
EVALUATION AS CRITICAL TO DEMOCRACY
7:31 AM
1/28/2025


Indeed, if you asked me what was the **most important** thing we've **achieved** during the 45 years or so that evaluation and politics have been partners, I'd say you need to **look beyond the individual effects** we've had on specific policies or programs over time (even though many of these effects have been substantive and consequential).



ACCOUNTABILITY

So, we have to get it right. Because if we don't try, and don't succeed, and systematic evaluation of what the government is doing becomes a thing of the past, then our failure would affect not only evaluation itself but also our democracy and its political freedoms.


When you come right down to it, we're like canaries in the mineshaft
Our presence means that public accountability is alive and well. But if we go, the nation will have lost a lot more than evaluation.
foto Javier Baño

Evaluation Science

??????????

Comments