Canada’s Sydney Tar Ponds: Conflicting Interests Resulting in a Case of Suppression Bias and Social Injustice?

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“Epidemiologists as expert witnesses: Exposing the influence of biased epidemiological assessments in tort actions…”
The study of health effects on populations from exposures to physical, chemical, and biological agents external to the human body...

We try to clarify the relationships between exogenous factors and health.

Adapted from Last, JM. A Dictionary of Epidemiology, 4th Edition, 2001
Our job is to inform policy with a view to reducing harms by preventing disease and premature mortality at the community level.
Hierarchy of Epidemiology Study Designs

- DESCRIPTIVE STUDIES (hypothesis generating)
  - Population-based (correlation studies)
  - Individual-based
    - Case/Anecdotal Reports
    - Case Series
    - Cross-sectional/prevalence surveys

- ANALYTIC STUDIES (hypothesis testing)
  - Observational Studies
    - Case-Control studies
    - Cohort studies (retrospective/prospective)
  - Intervention Studies
    - Randomized Controlled Trials (RCTs)

The lower down on the chart, the greater the complexity and cost.
But, policy is influenced by many forces/interests
\textit{Research Suppression} (or, \textit{oppression}) is the act of obstructing the conduct of a study or the release of its findings. It is unethical when imposed for reasons other than concern for scientific validity and objectivity.
Research suppression operates at the *interest group* level such as from government, industry, the scientific community, or by any other group or individual with a vested interest in maintaining the *status quo*. Suppression can be motivated, for instance, *by financial or ideological interests* that a topic not be researched or reported on, or even by professional jealousy.
Such acts deny the fundamental principle of advancing scientific knowledge, namely that of research in pursuit of the public interest. Research suppression can lead to:

- an absence of evidence;
- bias in a purported risk factor-disease association in the literature; and
- a decrease in the precision of that association's estimate.

Those serving to bring such acts or pressures to public view are considered to be whistle blowers.
Be aware of forces at play that influence both science and policy.

… Great vigilance and personal integrity are required to change course
“Industry’s offensive against the regulation of health and safety hazards uses academics to downplay or deny the seriousness of the hazards...”

Clayson and Halpern

J. of Public Health Policy

September, 1983
Inconclusive By Design: Waste, Fraud, And Abuse In Federal Environmental Health Research, Environmental Health Network, National Toxics Campaign Fund, May 1992, 71 pages

Inconclusive by Design

Waste, Fraud and Abuse in Federal Environmental Health Research

ENVIRONMENTAL HEALTH NETWORK NATIONAL TOXICS CAMPAIGN FUND

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Fomenting uncertainty …

In whose best interests?

David Michaels’ work

OUP 2008: “Doubt is their product: How industry’s assault on science threatens your health”

The policy-maker’s conundrum

• The greater the uncertainty, the more unlikely it is that policy will be set
And to influence law


Don Brown’s chapter in *Sustaining Life on Earth* (2008) on right-wing think tanks …

CONTEXT
Frank Abbass (2006) provides a 330-year history of coal mining, coking and steel production with various *immigrant communities of all colors and creeds* globally descending on Sydney seeking work.

No regard to environmental protections for the disposal of waste, well-known to be human carcinogens. The Sydney Harbor became the dump site to become known as, if not the most, then as one of Canada's most contaminated sites for substances known to cause cancer since Percival Pott’s study of chimney sweeps ~1776.
Provincial and federal government complicity in deceptions over many decades through misinforming the workers and communities, and for limiting what type of epidemiological evidence should be available.
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The body of epidemiological evidence for risk evaluation covers only descriptive study designs at the lower levels of epidemiological assessment (SMRs, correlation and cross-sectional designs).

No more definitive epidemiological assessment studies of workers (cohorts or case-control studies), or of community health effects were ever funded, despite having been proposed.
Is it not governments' responsibility to look after public health?
Hence, Nova Scotia's first class action environmental law suit against the governments of Nova Scotia and Canada.
Globalisation and Ecological Integrity in Science and International Law

Edited by Laura Westra, Klaus Bosselmann and Colin Soskolne

This volume returns to one of the major themes of the Global Ecological Integrity Group: the interface between integrity as a scientific concept and a number of important issues in ethics, international law and public health. The main scholars who have worked on these topics over the years return to re-examine these dimensions from the viewpoint of global governance.

“This book constitutes an aim for building a new world that fosters human wellbeing and social stability while enhancing the integrity, resilience and beauty of ecosystems with an emphasis on fairness, respect and concern with the spiritual. It is a combination of questions and answers that outlines what each of us can do to set the path for a promising future.”

—Sheila Abd, IUCN, Chair of CEL

“This year’s [CEIG] collection provides an indispensable guide to the full sweep of ecological integrity, building from its scientific and ethical underpinnings to a prophetic vision of its applications in sustainability governance.”

—Professor J. B. Ruhl, Matthews & Hawkins Professor of Property, Florida State University College of Law, USA

“This important collection of insightful contributions from scholars representing the sciences, social science, humanities, and the law thoroughly examines how ecological integrity plays a central role as humankind pursues its goal of attaining a sustainable future based on principles of equity, fairness, morality, and justice.”

—Professor Ved P. Nanda, Evans Distinguished University Professor, University of Denver, USA

Dr Laura Westra holds doctorates in both Philosophy and Jurisprudence, and has taught in the fields of philosophy, ethics and environmental law at several universities.

Dr Klaus Bosselmann, born in Germany, is Professor of Law and Director of the New Zealand Centre for Environmental Law at the University of Auckland.

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The Four D’s applied to scientists studying that which does not support the *status quo*

- DENY
- DELAY
- DIVIDE
- DISCREDIT
- DISMISS