

COLIN L. SOSKOLNE, PhD, F.A.C.E.

Dr. Colin Soskolne is Professor of Epidemiology in the Department of Public Health Sciences at the University of Alberta, Edmonton, Canada, where he has been based since 1985.

Dr. Soskolne was born and raised in Johannesburg, South Africa. There, he obtained his B.Sc. degree in Applied Mathematics in 1969, and his B.Sc. Honors degree in Applied Mathematics and Computer Science in 1970, from the University of the Witwatersrand, Johannesburg. He spent the first 31 years of his life in South Africa before moving, in 1978, to Philadelphia to study for his Ph.D. at the University of Pennsylvania. His seven years of research experience in South Africa, before moving to the USA for his doctoral training, were spent with the Human Sciences Research Council in Pretoria as statistician, and then with the Medical Research Council in Johannesburg as biostatistician.

Dr. Soskolne obtained his Ph.D. in Epidemiology from the University of Pennsylvania in 1982. He won the Society for Epidemiologic Research (SER) annual student prize in 1983 for his Ph.D. thesis which resulted, in 1992, in the International Agency for Research on Cancer (IARC) designating "occupational exposures to strong-inorganic-acid mists containing sulfuric acid" as a definitive human carcinogen. Directly post-Ph.D., he was Director of the Epidemiology Research Unit of the Ontario Cancer Treatment and Research Foundation situated in the Department of Preventive Medicine and Biostatistics at the University of Toronto. He moved to the University of Alberta's Department of Public Health Sciences in 1985. There, he established and directed the Epidemiology Program and, from 1994, built the masters and doctoral training programs. In 1999, he completed a sabbatical year as Visiting Scientist with the World Health Organization's European Centre for Environment and Health in Rome, Italy.

Dr. Soskolne has published over 300 books, peer reviewed papers, letters and reports. His interests have spanned the fields of occupational cancer epidemiology, HIV-AIDS, professional ethics, environmental epidemiology and, most recently, his focus has been on sustainability. His most recent book "Sustaining Life on Earth: Environmental and Human Health through Global Governance" brings together his work as an inter-disciplinary scholar

(<http://www.LexingtonBooks.com/ISBN/0739117297>). Dr. Soskolne is concerned about current policies globally that are degrading life-supporting ecosystems, with dire consequences for human health and well-being. His website is at <http://www.ualberta.ca/~soskolne>

Narrowing the Gap through Attention to Values and Ethics in Public Health Risk Assessment

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Colin L. Soskolne, PhD

Professor of Epidemiology
School of Public Health
University of Alberta
Edmonton, Alberta
CANADA T6G 2G3

ABSTRACT:

Gaps or disparities in health and health care have been widening. The divide between rich and poor people continues to grow in parallel with disparities in health. The prospect of a world in which disparities become history is the ideal under the ethical principle of “distributive justice” (or, “equity”). The role of professionals in perpetuating disparities or in reducing them is discussed, and the notion of professional standards of conduct is presented. Unless professionals are educated about the foundations of ethical conduct and the fact that “ethics” is rooted in values, the prospect of their protecting the public interest over any other interest is not likely because they will not be able to present rational argument to distinguish good from bad professional conduct.

The fact that ethical conduct is context-related bears directly on ethics applied in the health field. For, the ethical health researcher, practitioner, or provider needs to obey the law of the land. And, where these laws are in conflict with professional norms of good conduct, the professional must work to alter the laws that inhibit ethical conduct. In any country, law constrains that which constitutes professional conduct.

In particular, in a country founded on libertarian values, as is the case in the United States, the social context and legal frameworks have a direct bearing on the ability of the health professional to conduct themselves in ways that serve the public interest over other interests. “Life, liberty and the pursuit of happiness” derive from the Declaration of Independence, adopted in 1776, and are deemed among the inalienable rights of US citizens. The individual dominates under Libertarian Theory, such that taxation for the common good is not deemed a virtue; “survival of the fittest” would be a more consistent response under libertarian theory, just as we see acted out today.

On the other hand, Canada was founded on egalitarian values. “Peace, order and good government” derive from the Constitution Act of 1867 (the British North America Act). In Canada, it is expected that the health professional will uphold the principle of equality. The community is the greater concern. So, the challenge for Americans is to find a way to interpret libertarian values in a way that those less fortunate have equal access to health, consistent with what those who have the means can afford.

Narrowing the Gap Through Attention to Values & Ethics in Public Health Risk Assessment

Colin L. Soskolne, PhD

School of Public Health
University of Alberta, Edmonton, Canada

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- * My colleagues and students who
have added so much to my
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Levels at which we apply our training

- * **Macro- level**
 - State, country or global-level
- * **Meso-level**
 - Regional, city or community-level
- * **Micro-level**
 - One-on-one-level

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Narrowing the gap

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The Eight Millennium Development Goals (UN, 2000)

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV and AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

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**Think globally ...
Act locally**

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The Edmonton Journal, March 15, 1996

MAKER-SPONSORED STUDIES MORE FAVOURABLE TO DRUGS

Drug studies published in symposia sponsored by pharmaceutical companies are more likely to show positive results about the drug than studies not backed by drug makers, researchers report.

[Annals of Internal Medicine]

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Definitions

ETHICS - The rules of conduct/behavior recognized in respect to a particular class of human actions or a particular group or culture.

➡ **SELF-REGULATED**

MORALS - Principles or habits with respect to right or wrong.

➡ **LEGALLY ENFORCED**

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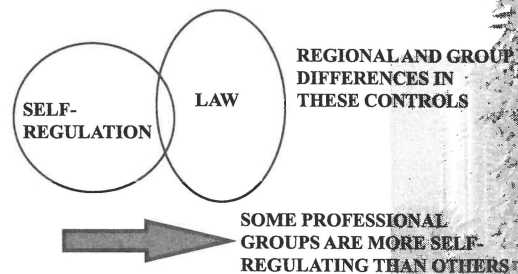
The Scientific Ethic*

A set of norms that define the scientific endeavor ➡ an ethos that evolved gradually and organically.

PROFESSIONAL ETHICS embody some of these norms, but "The Ethic of Science" is more like the charter that makes science possible than like a law book that spells out the specific rules.

This ethic defines the boundaries that must be respected by those who wish recognition as part of the scientific community.

15 * Reece, RD & Siegal, HA. Studying People: A primer in the ethics of social research. Mercer 1986, pp. 62-70.



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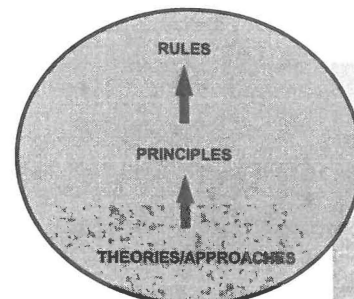
THEORETICAL APPROACHES/MODELS

ETHICAL THEORIES

- Normative
- Utilitarian
- Deontological
- Egalitarian
- Relational
- Libertarian
- Virtue

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THE DISCIPLINE OF ETHICS



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Other principles

- *Protect the most vulnerable in society
- *Involve communities in our research
- *Serve the public health interest above any other interest

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- *No hierarchy*

- *Constant tension among the four main principles*

- *Aim to maximize each of the four*

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Principles – their utility

- *Normative basis for rational policy
- *Transparency of collective values
- *Accountability for actions taken

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Character vs. Actions

Virtues do not replace ethical rules. Rather, an account of professional ethics is more complete if virtuous traits of character are identified, such as:

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VIRTUES OF PROFESSIONALS

- Humility – Respect the input and opinions of others / Self-effacement
- Fidelity – Honour one's commitments / Promote trust
- Justice – Act fairly
- Patience – Take time to hear others' viewpoints
- Industry – Do your level best / Excel
- Veracity – Tell the truth / Be honest
- Compassion – Empathize
- Integrity – Demonstrate good moral character
- Serve – Protect the most vulnerable / Serve the public interest
- Prudence – Err on the side of caution / Demonstrate good judgment

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Prescriptive codes

versus

Aspirational codes

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But, “applied ethics” is context-related

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Societal Values

- * Egalitarian
- * Communitarian
- * Libertarian

Canada ... ?

USA ... ?

Mexico ... ?

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Egalitarian values

**Greater focus on community
through “Peace, order and good
government” (1867)**

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Libertarian Values

**The individual’s right to “life,
liberty and the pursuit of
happiness” (1776)**

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***Distinguish between* Rights and Duties**

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Example

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The Hill “criteria”. Is an observed association causal in nature?

- * Strength of Evidence
- * Consistency across studies
- * Specificity of effects
- * Temporality of effects
- * Biological Gradient (dose-response)
- * Plausibility of effects
- * Coherence with other knowledge
- * Experimental evidence
- * Analogy based on experience

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But, Hill cautions

- * Broad interpretation of the evidence with respect to his “aspects”.
- * Use as a guide to help answer if there is any other way to explain the set of facts before us
- * To not discount associations because there is insufficient evidence or understanding at one point in time.
- * Causal judgments do not require perfect information and must be considered in the context of available knowledge and a responsibility to protect health.

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Hill concludes ...

- * “All Scientific work is incomplete – whether it be observational or experimental. All scientific work is liable to be upset or modified by advancing knowledge. That does not confer upon us a freedom to ignore the knowledge we already have, or to postpone the action that it appears to demand at a given time.”

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A range of “precautionary actions”

- * Not a one-time “yes/no judgment”
- * Can include:
 - Restrictions while further study
 - Requirements for analyzing alternatives
 - Financial responsibility requirements
 - Public health goal-setting

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Main PP points for teaching

- * The PP is a “compass” to guide and improve decision-making under uncertainty and complexity
- * There is no formula for determining when there is enough evidence for cautionary action
- * When to act should be assessed on a case by case basis considering all the evidence
- * It should be a function of both strength of evidence on risk and ability to prevent
- * It is ultimately a political determination

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QUESTION ...

- * Is science value free?
- OR
- * Is science value neutral?

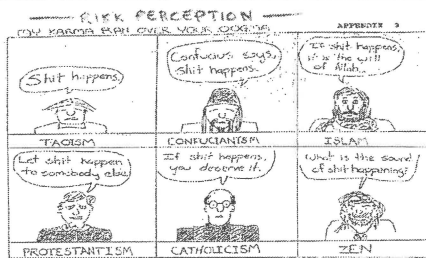
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“Unrecognized risks are still risks; uncertain risks are still risks; and denied risks are still risks”

— John Cairns, Jr.

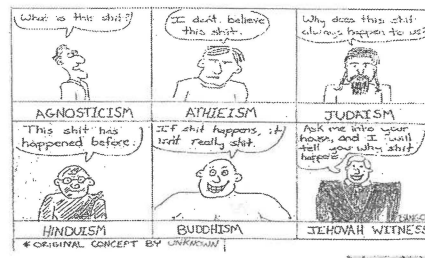
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Risk Perception – Context (1 of 2)



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Risk Perception – Context (2 of 2)



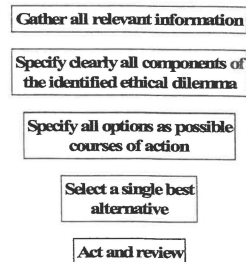
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APPLIED ETHICS – context-specific

- * **Macro- ethics**
 - The greater the potential impacts, the greater the need for precautionary action
- * **Meso-ethics**
- * **Micro-ethics**

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Generic Problem-Solving Model



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