

“Challenges in Proposing a Code of Conduct with Dual-Use Perspectives ”

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Codes, Scientific Responsibility and Biological Weapons: An idea whose time has come and gone and come and...?

- WFSW (and ICSU): Hedén “Perspectives on an Identity Card or Certificate for Scientists” *Scientific World* **1968**
- “Two items in this issue of *New Scientist*, [one] the report on last week’s discussion of chemical and biological warfare...re-emphasize a theme which is now always recurring in our pages...[U]nless some principles of conduct are established for the men and women who manipulate the materials of nature, anarchy will develop, and with anarchy, disaster.”

Editorial “Wanted – A Code of Conduct” *New Scientist* **1968**
- Cournand “The Code of the Scientist and its Relation to Ethics”
Science **1977**

A Code of Conduct could...

- ...‘aim to prevent the involvement of defence scientists or technical experts in terrorist activities and restrict public access to [WMD] knowledge and expertise...’ *Working Group of the United Nations and Terrorism (2002)*
- ... entail ‘an overt ethical code of conduct linked to professional membership analogous to the Hippocratic Oath.’ *British House of Commons Science and Technology Committee (2003)*
- ...provide ‘a solid framework for bioscientists ...that would have universal recognition.’ *President George W. Bush (2001)*

Barrier 1: What is the problem to which a code is a solution?

- NSABB to develop ‘Professional codes of conduct for scientists and laboratory workers that can be adopted by professional organizations and institutions engaged in life science research’

Possible Problems (see “Codes and Biological Weapons”)

- * Lack of awareness of BW dual use concerns or prohibitions
- * Individuals pressured to participate in illicit BW programs
- * Relation of individual and professional responsibilities unclear
- * International agreements not written for individuals
- * Elaborate existing biosafety and biosecurity provisions

A Codes Typology

Type	Name	Main Aims
<i>Aspirational codes</i>	'Code of ethics'	Alert; Set realistic or idealistic standards
<i>Educational/ Advisory codes</i>	'Code of conduct'	Provide guidelines, raise awareness & debate; foster moral agents
<i>Enforceable codes</i>	'Code of practice'	Prescribing or proscribing certain acts

Barrier 2: Fragmentation and organizational constraints

Towards a universal or widespread code in the life sciences?

- Lack of single key organisation, as in chemistry

E.g., Codes through the National Academies?

Pre-2004: Diversity of national academies engagement w/codes

Early 2004: Inter-Academy Panel agree to produce code

- * Timeframes, rationales, remits, composition differ

Today: Latest IAP Statement on Biosecurity

- * Principles to inform other codes
- * National academies to have different engagement w/codes

Barrier 3: Whose initiative is it?

Brief synopsis of many international and national code initiatives:

Government representatives expect the life science community to provide a lead on matters of research conduct which the former traditionally have not addressed.

+

Life science community representatives expect government agencies to provide a lead on matters of security which the former traditionally have not addressed.

**2 +3 = A continuing state of overall prelude,
enter the NSABB**

Barrier 4: What is it all supposed to mean?

Standard critique of aspirational, educational, and even enforceable professional codes:

Provisions banal, open to interpretation, internally conflicting, a disagreement reduced to writing, etc.

Question: What would codes say to topics of national and international controversy?

Transparency in biodefense, burden of proof or precise procedures for assessing dual use potential, permissibility of mid-spectrum incapacitants, future of BTWC, etc.

Question: Is a code a way to states agreement, to defer disagreement, or to set the parameters for discussion?

Barrier 5: “What are you talking about?”

Based on workshops with over 600 members of university biology departments in the UK...

"Security Conscious" Type

1. There is a BW problem
2. Developments in life science research can further the problem
3. Preproject, prepublications oversight on biosecurity grounds prudent

"Classic Open Science" Type

1. BW hype, overblown, not a serious issue
2. To this rather minor problem the contribution of advanced research is negligible
3. Preproject, prepublications oversight on biosecurity grounds dangerous, ill-advised

Codes as Awareness Raising:

A possibility which begs further questions

Barrier 6: Implementation

Agreeing...

the problems a code should address,
what type of code is necessary,
who is the audience,
who should initiate its formation,
what it should initially state, and
how it can be made it relevant

...is just the first phase.

Question: How will ‘a code’ be taken forward?

Watch: *AMA Guidelines to Prevent Malevolent Use of Biomedical Research*

For more information about codes, visit:

<http://www.ex.ac.uk/codesofconduct/>