

**Nano-Technology, Genetic Engineering and the Environmental Question:
Precautionary Reasoning and Its Role in Ethical Questions Posed by New Technologies
(Precaution and the Ethics of New Technology)**

PANEL DESCRIPTION

The precautionary principle originates in debates over environmental policy in European legislation dating to the 60's. A typical formulation is the following: "when human activities may lead to morally unacceptable harm that is scientifically plausible but uncertain, actions shall be taken to avoid or diminish that harm " (UNESCO 2005). For the most part, its appearance in legislation and international treaties is in the environmental domain, and it is becoming very prominent in this area. However, the use of the principle has expanded outside that domain and arguments based on precautionary considerations are increasingly used in a variety of areas. Precautionary arguments are now cited in fields ranging from technology-policy debates to the debate over same-sex marriages and even the controversy surrounding safety issues in modern particle physics experiments. Importantly, recent debates over the social, ethical and environmental implications of nano and biotechnology and genetic engineering have relied increasingly on arguments closely associated with the precautionary principle. But, just as the use of the principle has grown, it has attracted a very large number of critics who attack its coherence, its ethical foundations its ability to provide reliable or coherent policy recommendations.

The papers that will comprise the panel will address recent uses of precautionary reasoning as it has been applied to ethical and policy questions posed by emerging technological fields such as nano-technology and genetic engineering. The papers will address ethical questions directly arising from these new fields that relate to their environmental, health and safety concerns. They will also address questions relating to the potential social changes these new fields might cause. In addition, some of the papers will also address the increasing criticism that the principle has attracted and will investigate the proper ethical stance to these new fields. Thus, this collection of papers will not only clarify the proper scope and application of the principle but will also clarify and explore the correct stance ethical theorists ought to take to these new fields and how that stance ought to be applied to the many pressing questions that they bring.

PANEL ORGANIZER

Dan McArthur,
Associate Professor, Department of Philosophy,
Faculty of Liberal and Professional Studies, York University

PARTICIPANTS AND PAPER TITLES

Dan McArthur, Associate Professor, Department of Philosophy, Faculty of Liberal and Professional Studies, York University. *Infinite Precaution? Can the Precautionary Principle Generate Coherent Ethical and Policy Guidance in Debates Arising from New Technologies?*

Shane Ralston, Assistant Professor, Department of Philosophy, Pennsylvania State University-Hazleton and World Campus. *Precautionary Reasoning, Geoengineering and Ethical Anomalies in the Global Climate Change Debate: A Deweyan Analysis*

Fritz Allhoff, Assistant Professor, Department of Philosophy, Western Michigan University with **Joseph Spino (co-author)**, Dept. Of Philosophy Western Michigan University *Risk and Precaution in Emerging Technologies*

Anton Petrenko , Lecturer, Departments of Philosophy, York University and Vernon College *Technology, Social Change, and Liberty: The Ethics of Regulating New Technologies*