

Prevention, Precaution, Logic and Law: The Relationship Between the Precautionary Principle and the Preventative Principle in International Law and Associated Questions

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“The change in dominant cultural outlook pointed to by Furedi and Arnoldussen brings us to the second possibility. It is not so much that the world has changed but that we approach the world with a different attitude. It would be interesting to explore the role scientists and philosophers – or intellectuals in general – have played in this change. **Peter Bernstein showed in *Against the Gods* how the idea of ‘risk’ gradually was picked up in political, economic, and legal practices.¹³ This changed those practices for good. In a similar way, it is important to write the remarkable history of uncertainty. Uncertainty has certainly become a true buzzword among scientists today.¹⁴ As a working title for such a history, I suggest Against all Odds.**

The ‘post-modern’ turn in the appreciation of science will probably have a prominent place in this history. Proponents of precaution often criticise the arrogance of scientists and stress the limited value of scientific knowledge.¹⁵ And in a sense they are right; it is true that all received scientific knowledge is ‘valid through’ today. However, **the more we seek security for a future that is further away from us, the more we encounter uncertainty. In this way, precautionary academic writing takes us away from what we can know with reasonable certainty. In encouraging us to ensure a sustainable world for our grandchildren – and for theirs – **precautionary logic urges us to try to foresee and to forestall problems that could arise in the long term.** Climate models typically have a time horizon of one or two centuries. Herman Kahn too wrote a book on the next two hundred years.¹⁶” (pp. 102-103)**

“...Concomitantly, **in economically and industrially highly developed societies, diverse regulation of a mainly precautionary nature⁷¹ has found its way into many areas.⁷² The shift of societies to a culture of precaution galvanises citizens’ insistence on advance proof that activities and products pose no long-term risk to human and environmental health.⁷³ Scientific research and regulation caters for this ‘risk management of everything’.⁷⁴ Lest we forget, there is a strong desire among mass-public citizens in the Western world to believe that they live in, and need to live in a world made predictable by science. There is an equally strong desire among elite citizens working in the media, business, and government to appear to be doing the right thing by ritualistically consulting seemingly au fait analysts and consultants (technocratic, scientific, religious or otherwise) from well-known institutes in order to ‘grasp the future’.⁷⁵ Science as a result has become heavily politicized and commercialised. **The increasing public and political focus on safety, security, and predictability propels scientific research in growing and disparate fields, initiating, for lack of a better term, the ‘scientification’ (or perhaps the objectification) of risk and uncertainty.**⁷⁶**

Still, scientists are quite aware of the limitations of scientific knowledge. As mentioned, verification within science is beyond our capabilities. Indeed, examples abound in which science comes up with surprising new insights that overturn old ideas and concepts. In the celebrated BBC documentary *The Ascent of Man*, Jacob Bronowski memorably assessed what science in fact is:

‘... Science is a very human form of knowledge. We are always at the brink of the known; we always feel forward for what is to be hoped. Every judgement in science stands on the edge of error and is personal. Science is a tribute to what we can know, although we are fallible. In the end, the words were said by Oliver Cromwell: ‘I beseech you, in the bowels of Christ, think it possible you may be mistaken’.’

When we expand our demands for safety, as precautionary culture does, into a by definition unknown distant future, the confines of even our best scientific knowledge will surface progressively more poignantly. Here we enter the realm of uncertainty, and cross over from modernity to post-modernity:

Because we don’t drop dead [because of the implementation of a technology; authors], we allow ourselves to draw our boundaries of consideration much narrower than they should be. Boundaries over space and time are nearly always much narrower than the

boundaries that include the cause. When the boundaries are made appropriately larger, they embrace more of our ignorance and more ambiguity77' ”

(pp. 242-243)

“...The modern scientific effort to secure objective knowledge in precautionary culture is transformed into **the post-modern goal of acceptability and strategies of, for instance, safety through governance**, as it is thought that society is continually threatened by numerous unknown dangers. At this juncture science cannot secure objective knowledge as we are dealing with remote probabilities that might (or might not) materialise in a distant future. A culture of fear has emerged.⁸⁶ **The modern approach centres on risks that can be assessed more or less confidently**, and policies, which aim to prevent major health problems, will include the majority of the population, as the history of RDAs has shown.⁸⁷ **Conversely, the more post-modern approach deals with health risks that are much more explicitly viewed as uncertain, as underlined by the latest WRR report, and are explicated in the examples we discussed above.**” (pp. 244-245)