

Policy cannot wait for certainty

HEARTLAND



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Broader approaches to risk management are needed than just science



Sir Peter Gluckman is adamant that along with knowledge, societal values, public opinion, affordability and diplomatic considerations must be integrated into decision-making and policy development – and that knowledge provides the base on which these values-laden domains be overlaid

Philosopher, mathematician and historian Bertrand Russell stated last century that demand for certainty is natural to man. He went on to suggest that this demand is an intellectual vice.

In fact, the only certainty is that nothing is certain.

Pliny the Elder, a Roman scholar and scientist, coined that phrase almost two millennia ago – proving that plus ça change, plus c'est la même chose ... the more things change, the more they stay the same.

We have always lived in uncertain times. The question remains how to make important decisions sensibly in the absence of certainty.

Don't wait for cause

Professor Martin Manning, a theoretical nuclear physicist now responsible for the interdisciplinary New Zealand Climate Change Research Institute hosted by Victoria University, suggests that governments don't need to wait for scientists to prove the cause of a new type of risk.

"The increasing rate of change we're experiencing across the globe means that we can't always delay making a decision until scientists have done all the analyses and everything is known," he says.

"Research into social and structural resilience matches with this perspective; we must bring in broader underlying approaches to risk management than just science."

The type of response that Professor Manning is advocating is increasingly likely in future.

Professor Sir Peter Gluckman,

chief science adviser to the Prime Minister, takes the thinking further.

While acknowledging that there are limits to scientific knowledge and to the scientific approach, he suggests that these limits should not be used as a reason to avoid the application of scientific findings in policy formation.

"We collect evidence in an attempt to achieve sufficient information to make a decision – but sufficiency is not the same as being definitive," he says. "In judging what is sufficient, we need to be conscious about what the consequences might be of making a wrong decision."

New precautionary approach

This concept could be the new interpretation of the precautionary principle, which received so much focus last decade.

In the UN definition, the principle of precaution commands that the damages done to the natural world should be avoided in advance and in accordance with opportunity and possibility.

In some developed countries, this was translated as "if in doubt do nothing." But in fact the UN suggested the precautionary principle also means acting when conclusive scientific understanding is not yet available.

It means acting despite uncertainty.

Sir Peter's role is that of knowledge broker and he is adamant that along with knowledge, societal values, public opinion, affordability and diplomatic considerations must

be integrated into decision-making and policy development – and that knowledge provides the base on which these values-laden domains should be overlaid.

The problem he foresees is that knowledge and value are frequently conflated. Politicians then follow the values and these are frequently based on emotion, not facts.

"We need evidence-based, values-free (as far as it is possible), analysis of issues," he says. "The recent paper on adolescent transition is an example. In New Zealand a large number of children do not make the transition from childhood to adulthood easily, which leads to an unacceptably high level of poor social and health outcomes for our young people.

"In writing the paper, *Improving the Transition: Reducing social and psychological morbidity during adolescence*," we found that the facts in this extremely important area of concern were poorly understood, there were high levels of uncertainty and values abounded."

Accepting trade-offs

Sir Peter believes we need to be able to distinguish scientifically-derived facts from value-based conclusions and acknowledge and accept a trade off between uncertainty and certainty.

"This is particularly important where knowledge can help define or resolve the range of options for the policy maker," he says.

In another paper, *Towards Better Use of Evidence in Policy Formation*, Sir Peter suggests that decisions made

in the absence of informed background material are, by definition, less likely to be effective or efficient, and can entrench policies which may be of little value.

He recommends that agencies should have chief scientist positions. The people in these new positions would act as interlocutors – brokering knowledge in the areas important to the agency. This would enable decisions to be made based on relatively values-free evidence.

Change the debate

"We need to change the nature of the debate in New Zealand," he says. "Scientific analysis in advance of policy formation is a sign of maturity apparent in many developed countries. Evidence in policy-making will lead to a better future – it will enable sound decisions to be made, even in the midst of uncertainty."

Lord Russell says, "To teach how to live without certainty and yet without being paralysed by hesitation is perhaps the chief thing that philosophy, in our age, can do for those who study it."

Clearly we all need a bit of philosophy in our lives, alongside the facts and evidence. Professor Manning and Sir Peter are leading the way in action and thinking.

ON THE WEB

The papers referred to can be found at the Office of the Prime Minister's Science Advisory Committee) www.pmcsa.org.nz

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