

Science and Mr. Floatie

Dear Editor:

There is much confusion and contradiction in the many appeals to ‘science’ to solve contested public policies, such as in the sewage treatment pros and cons. This confusion is reflected in the latest editorial in the Times Colonist which argues against ‘Mr. Floatie’ because, it claims, we should base our decisions on ‘science’ rather than on ‘emotion’. Well, I can testify that there already is plenty of emotion on both sides of this issue and that each side will select those aspects of science which tend to support their particular views. Science is not unitary. That is, there are many findings in science, a great number of which require interpretation before they can be applied to practical problems. Both scientists, and non-scientists have to interpret data and findings. Moreover, only the public and democratic decision-making can pronounce on issues of public policy. In the most profound sense, for example, scientists are ‘non-responsible’. That is, in their role as scientists they are only accountable to their peers, not to the public in general. If scientists holding a particular view are ‘wrong’ it would be to their credit to admit they are wrong and to adjust their own research accordingly. They might suffer some scientific loss of status, but they certainly would not be held ‘publicly accountable’, in the sense of suffering public punishment or sanctions. In fact, other scientists would argue that to admit wrongness shows how scientific they truly are. Yet, public policy affects real lives in real ways in which wrong decisions can have immense individual and collective consequences and in which those making incorrect decisions will presumably be sanctioned in some way. Moreover scientists in many fields are often committed to particular ways of viewing the world. In the case of *Helicobacter Pylori*, for example, medical scientists were loath to admit that the causes of stomach ulcers were not what they had previously thought. It was a battle to get recalcitrant scientists to admit they were wrong – something they had eventually to concede.

There are also differences between basic science and applied science. This distinction might be most obviously made between basic medical science and its application in the public sphere which constitutes applied science. Though all science is influenced by politics in the broadest sense of the term applied science is more ‘politically’ influenced than basic science because it is in the application of science that more abstract knowledge comes in contact with the hurly burly of everyday life, politics and the many and often conflicting values and interests of

everyday life. Science also deals with what we know, but we know so little about many topics that science cannot help us in deciding what risks may be involved, in fact, be very important or risky ‘unknowns’. Thus, while some applied scientists would assure us there is little chance there are ‘unknowns’ in dumping our raw sewage into the ocean, others point to existing degradation of the ocean floor around the outfalls, for example, something no one could now deny, and to effects, some already measured, others not as yet unmeasured. The degree of risk we want to admit for ourselves, for other species and for our children and grandchildren, is for us to decide.

Thus, given the often conflicting nature of the products of science, and the socially influenced proscriptions of applied scientists, we simply cannot give over our democratic decision-making powers to scientists. Where the buck stops is with us, not with a mythical neutral decision-maker – there is no such thing.

The editorial about ‘Mr Floatie’ was in my opinion misconstrued. There is no single science which will decide issues for us. Sometimes, hidden problems, like dumping sewage in the ocean out of sight, need to be made real. If Mr. Floatie reminds us of what we would prefer to keep hidden, bravo Mr. Floatie.

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