

The Rise of the Dedicated Natural Science Think Tank

By Philip Mirowski

While most of work on think tanks takes it for granted that their mandate would encompass the social sciences as part of their political orientation, it has been much less common to focus on the growth of think tanks dedicated to the *natural* sciences. This has been unfortunate, because it is one thing to generate policy-relevant knowledge to bolster your side in the political arena, it is quite another to have the ambition to change the very nature of knowledge production about both the natural and social worlds. Analysts need to take neoliberal theorists like Hayek at their word when they state that the Market is the superior information processor par excellence. The theoretical impetus behind the rise of the natural science think tanks is the belief that science progresses when everyone can buy the type of science they like, dispensing with whatever the academic disciplines say is mainstream or discredited science.

Here we follow the historical literature in distinguishing three waves of think tank formation: the first, pre-WWII policy institutes; the second, post-WWII to the 1970s, contract research institutes with heavy military dependency; and the modern period of advocacy think tanks. It is a fair generalization to say there were no first wave think tanks concerned with the natural sciences, while the second wave constitutes what appears at first as something of a grey area. If one looks at a second wave think tank like RAND, it did have a dedicated cadre of natural scientists dealing in areas like satellites, rockets, mathematics and computers; but there are two things to observe about this. At RAND, the dedicated natural science sections sought to innovate research programs that were not yet represented within the

university disciplinary structure, but were rapidly taken up there once they showed some signs of success—formal computer science was only the most glittering example. And further, RAND used military funding to hire the most prestigious scientists in the university sector as consultants; there was no attempt to concoct a contrarian or advocacy science when it did so. It is significant the natural science departments actually shrunk over time at RAND. Hence, when we say that natural science think tanks are a novel phenomenon of the last three decades or so, it should be interpreted as stipulating the provision of targeted scientific findings (from ‘data’ to ‘theories’ to full-fledged scientific publications) within a concerted “marketplace of ideas” framework, with the intention of altering the balance of orthodoxy and heterodoxy from outside the university sector.

The expanding role of natural science think tanks have due to two high profile events over the last few years: *Kitzmiller v. Dover* (2005) which challenged a public school decision to teach ‘intelligent design’ alongside the theory of evolution in biology classes, and the media scuffle over global warming. In the former case, the role of the **Discovery Institute** in providing alternatives to evolution and scientific materialism was highlighted in news coverage; while in the latter case, the Union of Concerned Scientists and other environmental groups have sought to raise awareness of the numerous think tanks behind the contrarian science opposing the IPCC and academic global warming studies.¹ But the real eye-opener for those concerned with science policy was the cache of documents made public in the series of tobacco industry settlements of the mid-1990s, available at <http://tobaccodocuments.org>. Due to the court settlements against the tobacco industry for misrepresenting the health hazards of smoking, we have unprecedented access to normally proprietary records which document the ways in which the industry, in alliance with some PR

¹ For background on the former, see Barbara Forrest, “Understanding the Intelligent Design Creationist Movement,” at <http://www.centerforinquiry.net/uploads/attachments/intelligent-design.pdf>. For the latter, see Union of Concerned Scientists. 2007. *Smoke, Mirrors and Hot Air*. Available at http://www.ucsusa.org/assets/documents/global_warming/exxon_report.pdf.

and product litigation support firms like the Weinberg Group and Hill and Knowlton, later fortified by dedicated think tanks, developed a novel strategy to block exposure to liability from the harmful effects of smoking.² Mimicking a standard refrain among academics that “more research is needed,” the consultants had picked up some tips from the neoliberals that one could build an entire ‘counter-science’, even if it was little more than a Potemkin village, and that it might even be more effective in frustrating litigation and regulation than merely throwing lawyers at the problem. In the mid-1950s, when evidence began to surface linking cancer to tobacco smoke, the industry started out by founding the US Tobacco Institute, nominally to carry out and fund research on smoking and health. While the Institute was recognizably an industry creature, it became the staging point from which to mount an entire institutional campaign which is now widely recognized as setting the pattern for many subsequent incarnations of commercial science. As David Michaels puts it, they learned that debating the science turned out to be easier, cheaper and more politically effective than directly debating the policies themselves. We might rephrase it that they came round to accept that scientific debate was engagement in politics by other means. The key tenets were to promote otherwise isolated scientific spokespersons (from gold plated universities, if possible) who would take the industry side in the debate, manufacture uncertainty about the existing scientific literature, launder information through seemingly neutral third party fronts, and wherever possible recast the debate by moving it away from aspects of the science which it would seem otherwise impossible to challenge. As one famous tobacco company memo put it:

Doubt is our product since it is the best means of competing with the "body of fact" that exists in the mind of the general public. It is also the means of

² The documents can be found at <http://tobaccodocuments.org> , one of the few truly useful outcomes of the settlement of the lawsuit. Some of the best sources commenting on these documents and events are: (Glantz et al, 1996; Michaels, 2008; Union of Concerned Scientists, 2007).

establishing a controversy. Within the business we recognize that a controversy exists. However, with the general public the consensus *is* that cigarettes are in some way harmful to the health. If we are successful in establishing a controversy at the public level, then there is an opportunity to put across the real facts about smoking and health. *Doubt* is also the limit of our "*product*" ... Truth is our message because of its power to withstand a conflict and sustain a controversy. If in *our* pro-cigarette efforts we stick to well documented fact, we can dominate a controversy and operate with the confidence of justifiable self-interest.³

The inspiration was to take one aspect of what many philosophers (from Peirce to Popper to Putnam) had argued was central to scientific epistemology, and expand it into a principle of research funding and management, guided, of course, by explicit self-interest in negotiating the threatening controversies of the day. At first the practice started small, but again under the example of the neoliberal thought collective, whole rafts of think tanks, 'Institutes' and labs were founded to carry out various components of the program. Among the most significant were the **George Marshall Institute, The Annapolis Center, the Competitive Enterprise Institute, the Center for Science and Public Policy, junkscience.com, the Manhattan Institute**... These structures, in conjunction with a few smaller centers founded within universities, by the 1970s began to form a parallel scientific universe, a whole mirror world of white papers and dubious fact sheets and fake journal publications explicitly constructed to mimic academic scientific output while keeping the original funding and motivations obscure.

One should not think that this vast fabrication of science-to-order was only or primarily limited to one or two cases, or to issues surrounding tobacco, although it

³ Brown & Williamson memo "Smoking and Health Proposal" snapshot_bw 0000332501, dated 1969, <http://tobaccodocuments.org/bw/332501.html>

does appear that that tobacco was the first test case. For instance, ancillary documents from the tobacco settlement reveal Hill and Knowlton providing histories of its early organized intervention in a number of scientific issues, including the link between vinyl chloride and cancer, dioxin and human health, many issues in groundwater contamination, asbestos and its effects upon humans, and even an early program of ‘denial’ in the case of ozone depletion by fluorocarbons. One memo included in this release explicitly admits, “Hill and Knowlton was asked by DuPont to calm fears, get better reporting of the issues, and gain two or three years before the government took action to ban fluorocarbons.” One can observe a delicate neoliberal cost-benefit analysis of a few more years of profit on one side, and scientific truth on the other. The collateral damage began to show up in the orthodox scientific literature: “the contours and content of the scientific literature are directly and intentionally shaped by parties seeking to succeed in litigation... if not for the litigation, or fear of future litigation, the body of scientific literature about a particular topic would be quite different” (Michaels, 2007, pp.1142-3).

The 1990s were a period of lush growth of dedicated natural science think tanks, especially thanks to the large sums of money being spent to call into question global warming (Union of Concerned Scientists, 2007). A current roster of the most significant think tanks addressing environmental issues is presented in (Jacques et al, 2008). Perhaps one might think this particular effort has failed, because the media now treats global warming as a ‘fact’, but given the current political position of the US as holdout against international initiatives to mitigate carbon emissions, one may have to rethink the definition of ‘failure’ from the think tank perspective. Indeed, I should like to explore the possibility that the movement that seeks to “rescue science from politics” (Wagner & Steinzor, 2006) is seriously misconceived, because the commercialization of science has fostered a situation where think tank science becomes the norm, and ‘disinterested science’ can no longer be easily demarcated from science for sale just because it seemingly originates from within an academic context.

Far from simply intervening in individual controversies as they arise, neoliberal think tanks have innovated longer term infrastructure to change the way people think about science. One of the most interesting developments in think tank science is the ‘ghost management’ of the scientific literature. Think tanks and contract research organizations now have a much better grasp on what gets published where and for what reasons than do the naïve individual scientist. They also appreciate that ‘death of the author’ is more than a wicked postmodern idea in literary circles. To that end, they may hire various people to pen articles to order, and get others to append their name as author for a fee, before they submit them to reputable academic or journalistic outlets. While this has been thoroughly documented in biomedicine, the practice has spread to an unknown degree in other natural sciences as well. Indeed, whole journals may be created by these think tanks, finely crafted to mimic the scholarly trappings of older conventional journals (or collateral web sites). In one case I am familiar with, the **Ethics and Public Policy Center** has funded and distributed an entire journal called *The New Atlantis*⁴ dedicated to the philosophy and sociology of science, primarily to counter the general popularity of ‘science studies’ within the academy. Nowhere are the responsible parties indicated; and the journal has been circulated for free among many in the history and philosophy of science community. For a journal dedicated to the discussion of “the effects of technology on human life”, it is unerringly filled with neoliberal proscriptions for the kinds of natural science promoted within the think tank community.

Bibliography

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⁴ For recent issues, see <http://www.thenewatlantis.com/>.

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