

Socially constructed ignorance, usable ignorance, uncomfortable knowledge and hypocognition - in pills.

Andrea Saltelli, updated, July 2016

Ravetz (1987) is the first to have spoken of “*social construction of ignorance*” in relation to the disappearance of a style of science “descendant of natural history”, whereby clergymen and other gentlemen of leisure could accumulate vast quantity of observations with a disinterested spirit about phenomena of nature. Ravetz’s work is nevertheless a plea for a rediscovery of ignorance - especially ignorance generated by science itself, in the mastery of a solution to urgent problems. He sees the dichotomy between knowledge and ignorance as problematic as that between facts and value. Ignorance is useful not only because significant work can be done on its boundaries (finding where these can be penetrated, processing signals of troubles from beyond the boundaries) but also to achieve ‘a new scientific style’. Ravetz invokes “the inclusion of ignorance in decision making via the explicit assignment of burden of proof”, and warns: “[...] if ignorance is recognized to be severe, then no amount of sophisticated calculation with uncertainties in a decision algorithm can be adequate for a decision”. In a later work Ravetz (2015, p. xv-xviii) talks of a rediscovery of ignorance at the end of the Cartesian Dream.

For Rayner (2012) “*Sense-making is possible only through processes of exclusion. Storytelling is possible only because of the mass of detail that we leave out. Knowledge is possible only through the systematic ‘social construction of ignorance’ (Ravetz, 1986; Rayner, 1986), a phrase which draws on Berger and Luckmann’s 1966 classic The social construction of reality, and which aims to highlight the ways that ignorance is a socially produced and maintained phenomenon, and the ways that knowing and not knowing are interdependent.*” ‘Uncomfortable knowledge is “*that knowledge which is in tension or outright contradiction with those versions [and] must be expunged*”’.

Note the relation of Rayner “sense making” by exclusion and Keynes’ (1936, Chapter 12) remark that actors’ decision on a market are based on “hypothesis of an indefinite continuance of the existing state of affairs” even if there is no rational excuse for such a hypothesis. “[...] human decisions affecting the future, whether personal or political or economic, cannot depend on strict mathematical expectation, since the basis for making such calculations does not exist [... whilst] often falling back for our motive on whim or sentiment or chance.”¹

¹ Keynes goes as far as saying “If we speak frankly, we have to admit that our basis of knowledge for estimating the yield ten years hence of a railway, a copper mine, a textile factory, the goodwill of a patent medicine, an Atlantic liner, a building in the City of London amounts to little and sometimes to nothing; or even five years hence. In fact, those who seriously attempt to make any such estimate are often so much in the minority that their behaviour does not govern the market.”

Rayner (2012) identifies four strategies societies may use for dealing with “uncomfortable knowledge”. He does not use at all the term “hypocognition”. I try to synthesize:

Denial: “There isn’t a problem”

Dismissal: “It’s a minor problem”

Diversion: “Yes I am working on it” (In fact I am working on something that is only apparently related to the problem)

Displacement: “Yes and the model we have developed tells us that real progress is being achieved” (The focus is now the model not the problem).

Lakoff (2004, 2010) defines hypocognition the result of a lack of the appropriate frames that would be needed to become aware of a problem. Frames are value-based. Lacking these frames we simply do not see it. Political activism can operate by helping to generate those frames that would allow (our) desired discourses to be heard or our opponents’ discourses to be vilified. The emphasis of Lakoff’s 2004 book is political (US context), lamenting the great advantages republicans have mustered by working on effective frames while democrats are stuck at square one, each time trying to ‘re-explain’ an issue for which the republicans have already a frame which does not need any explanation. Example ‘We need a tax relief’ is better than ‘Taxes are a duty and a privilege because they allow our complex societies to be sustained, infrastructures to be generated, services such as health and education to be delivered, commerce and industry to flourish etc. etc.’, where ‘relief’ has already consolidated the frame that associates taxes to a pain from which one must seek solace. Lakoff’s 2010 paper is about environmental hypocognition and the tragedy of the absence of frames we would need to tackle present predicaments. For Lakoff ‘action’ is never far off (he defines himself a cognitive linguist but cognitive activist would also fit!) and action is about creating a new world and a new consciousness, frame by frame. He does not quote Rayner and Ravetz.

“Uncomfortable knowledge” can be used as a gauge of an institution’s health. The larger the “uncomfortable knowledge” an institution needs to maintain, the closer it is to its *ancien régime* stage (Funtowicz and Ravetz, 1994).

References

Funtowicz, S.O. and Jerome R. Ravetz, 1994, Emergent complex systems, *Futures*, 26(6), 568-582.

Keynes, J. M., 1936, *The General Theory of Employment, Interest, and Money*, Palgrave Macmillan.

Ravetz, J., R., 2015, Descartes and the rediscovery of ignorance, in Guimarães Pereira, Â., and Funtowicz, S., Eds., 2015, *The end of the Cartesian dream*, Routledge’s series: Explorations in Sustainability and Governance.

Lakoff, G., 2004-2014, Don't think of an elephant: know your values and frame the debate, Chelsea Green Publishing.

Lakoff, G., 2010, Why it Matters How We Frame the Environment, *Environmental Communication: A Journal of Nature and Culture*, 4:1, 70-81.

Rayner, S., 2012, Uncomfortable knowledge: the social construction of ignorance in science and environmental policy discourses, *Economy and Society*, 41:1, 107-125.

Ravetz, J., R., 1987, Usable Knowledge, Usable Ignorance, Incomplete Science with Policy Implications, *Knowledge: Creation, Diffusion, Utilization*, 9(1), 87-116.