

Social media, truth, social forces, democracy, and social research:
The “scientific” manufacture of untruth and desolation ... and a possible cure.

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Abstract

While the manufacture of videos which convincingly convey false information precisely because one has “seen what happened with one’s own eyes” is deeply disturbing, vast amounts of false information has been manufactured via the application of easy-to-use statistical analysis packages to data collected from “convenience” “samples”. Large sectors of this mountain have been discredited through the so-called replication crisis. Yet most of the “explanations” offered for the situation that has arisen focus on only two or three of the network of social forces involved. The preparation of a causal loop diagram would reveal many more. But these “aberrations” are actually the least of our worries. “Science” – actually reductionist science – which fails to identify the systemic, multiple, and recursive effects of action constitutes the greatest threat to Gaia that has ever existed ... worse than the destruction inflicted by largest meteorite. The application of reductionist science has facilitated the release of the CO² which had been salted away to facilitate the evolution of life and the plunder of the planet’s resources has resulted in endless destruction of the soils, seas, and atmosphere. Understanding the network of social forces which has resulted in this misapplication of science, logic, and authority is therefore of the greatest possible importance. As discussed at previous conferences, rectifying this situation depends on the evolution of forms of public management which will innovate and learn without central direction. Yet the operation of any cybernetic/societal learning and management system which will act in the long term public and planetary interest depends on a climate of respect for diversity and others’ rights to lead their lives in their own way combined with a pervasive commitment to truth and public welfare.

KEY WORDS: social force (60), vast amount (40), reductionist science (40), meta analysis (40)

How does one know what to believe?

Much public discussion has focussed on fake news and other misleading videos which appear to have been filmed in a particular situation but were not – and their manipulation, especially through recursive feedback loops to feed the public what it wants to hear, to influence thoughts, feelings, and behaviour ... especially in relation to political and social action.

All of this is deeply disturbing. But at least these things are being discussed and the issues are, to some extent, right there for all to see.

But the implications of this disinformation could well be less serious than those arising from the misconstruction and misuse of science, logic, and authority.

In the course of writing what became a long paper entitled *Problems with Closing the Gap Philosophy and Research*ⁱ the author became deeply shocked at the widespread misapplication of “science” (eg reporting on one single outcome of an intervention and failing to study and report other important outcomes), the neglect of logic (eg the imputation of causality to a correlation and the subsequent use of this misinterpretation to generate policy), and the gross mis-use of authority to impose on others “evidence-based” practices that the authority in question believed to be good and right without concern for the wishes of those concerned or wider effects on societyⁱⁱ.

A few examples may be used to illustrate these points.

The misuse of “science”

John Hattieⁱⁱⁱ has published a meta-analysis of 800 meta-analyses of evaluations of educational policy.

The problem is that virtually all of these studies focus only on academic attainment as the measure of school effectiveness.

Yet knowledge has a half-life of a year (and is thus likely to be forgotten by the time it is needed) and has little chance of relating to the students’ actual needs. (Apart from anything else, students rarely go to work in the area of their specialist study).

Yet these assessments perform the vital *sociological* function of allocating social status and, more generally, legitimising a hierarchical and divided society.

The evaluations do not report the relative merits and demerits of educational programmes from the point of view of recognising and nurturing the huge range of diverse talents pupils possess (which is widely believed to be the *main* goal of the system and is in fact implied by the term itself) ... diverse talents which are crucial to creating the climates of innovation on which our future as a species depends.

Worse, by not reporting on these things, these evaluations, on the one hand, *discredit* those educational programmes which do nurture them and, on the other, fail to reveal that about one third of pupils are seriously damaged by the current system.

On what basis, therefore, can these studies claim to be offering objective evaluations of educational policy and school effectiveness? Yet it is on its claim to objectivity that science rests its strongest claim.

Similarly misleading information is generated by many of those who purport to offer guidance on the relative value of alternative fertilisers and pesticides in agriculture. These studies focus only on short term yield and do not report their destruction of the future fertility

of the soils by poisoning the micro-organisms on which the system depends. They fail to report on the poisoning of other plants and animals in the food chain on which we ourselves depend.

To satisfy a claim to objectivity, what would be needed in both cases would be *comprehensive* evaluation: Evaluation of *all* the effects, short and long term, desired and desirable, and undesired and undesirable, for the individuals concerned and for society.

In short, what we have here, is two examples of the *mis* application of science. More specifically we have the application of *reductionist* science – science in which it is seen as legitimate to ignore systemic issues.

Going back to the evaluation of educational effectiveness, there is something else of great importance to note: *There are no accepted “measures” of the huge range of talents pupils have the capacity to develop^{iv}.*

As a result, the seemingly reasonable requirement that “only reliable and valid measures shall be used in programme evaluation” results in evaluations which are anything but scientific or objective.

Negative outcomes are in this way rendered *invisible*. The programmes could, and do, do enormous damage to most pupils and society without detection. And those teachers and schools which do nurture vitally important qualities cannot get credit for their efforts.

What we have here amounts to an extension of Campbell’s law^v that the introduction of any quantitative measure or standard into the evaluation of any activity (education or health care) has the effect, not only of leading those concerned to focus only on gaining high scores on those measures by whatever (underhand) means possible and to neglect the main goals of the system, but to the corruption of the very measures themselves.

In short, what we have here is evidence that the well-intentioned work of the thousands of researchers who contributed to Hattie’s meta-analysis has, as Forrester’s^{vi} law would lead one to expect, had counterintuitive, counterproductive, indeed, almost entirely destructive effects^{vii}.

What’s worse, the focus on what are, essentially, single-factor attainment tests scores has contributed to the brutal imposition of Social Darwinism in the competitive arrangements that have emerged between and within schools and in society more generally^{viii}.

The abuse of logic

The errors arising from enthrallment with reductionist science were not the only errors embedded in the literature reviewed in the course of preparing the previously mentioned publication.

Equally serious were the errors arising from failures of logic.

One of the most conspicuous of these was the failure to recognise the systems implications of correlations between norm-referenced variables.

One of these is the illogical conclusion that, because attainment test scores are strongly predictive of whether or not one gets a job, if the educational system pays more attention to raising those scores everyone will get jobs!

The illogical nature of this deduction is immediately apparent, but it has dominated educational policy since World War II.

Less obvious is the same error in relation to the evaluation of remedial education programmes. Yes. These result in the shifting a number of children from “remedial” to regular classes ... but their seats are immediately filled by an equivalent number who move down.

That is the way norm-referenced systems work.

By the same token, decisions to admit a greater proportion of “disadvantaged” youth to universities results in others being denied a place.

Note the sociological implications of these particular errors. All result in massive work-creation programmes: More students spend more and more time striving to advance their position in a norm-referenced “educational” system. More and more professionals get involved in designing, assessing, and administering “remedial” and “counselling” programmes, lecturing, assessing students, publishing (junk) research reports, and reviewing those reports.

It is a wonderful application of Bookchin’s law^{ix} that, in any situation in which there is a surplus of labour, society somehow finds ways of creating vast amounts of hierarchically-organised senseless work ... senseless in the sense that the products and services it delivers do little to enhance the quality of life^x.

But, hear this: It is this vast amounts of senseless work that is inflicting irreparable damage on Gaia.

Abuse of Authority

But this is not the end of this horrific story.

The next step is to impose what the authorities concerned have chosen to believe are conclusions derived from this deeply flawed “evidence-based” policy “research” on others.

Thus the Scottish government has decreed^{xi} that the home of every “child” aged minus 8 months to 22 years shall be repeatedly visited by a person named by the government to ensure that the parents are implementing government-decreed child rearing policies and that their children attend school and have “appropriate attitudes toward their sexual orientation”. All this against a backdrop of fines, having children taken into (uncaring) care, requirements to attend government-mandated parenting courses, and, in the last resort face imprisonment.

Implications for Sociocyberneticians.

How has all this come about?

The “explanations” most often proffered for the replication crisis have to do with unethical practices such as trawling data for “significant” results and the unwillingness of journals to publish failed replications.

The “solutions” proffered have to do with insisting that post-graduate researchers take courses in ethics and monitoring their work more carefully. But how to select and monitor hundreds of thousands of post-graduate students working on dissertations? How to say “no” to the dissertations of the millions of students who have paid vast amounts of money to be allowed to participate in the game of pretending to conduct significant research and write dissertations?

Some authors do venture to suggest that the problem lies deeper – in the pervasive “publish or perish” climate which pervades (has been imposed upon?) the Universities. And a few even suggest that there is a problem with the peer review system which somehow discourages research which challenges the conclusions the reviewers themselves have promoted. And a few have gone so far as to note the role played by the customer-contractor principle in limiting the kinds of research which can be conducted with the aid of government funding ... research which must be conducted if those concerned are to advance in their careers.

Few have dared to publicise the role played by the conditionalities embedded in government grants: conditionalities which often require the researchers to gain approval of anything they might wish to say and the right of governments to actually alter the figures in those reports.

The preparation of any kind of comprehensive causal loop diagram would no doubt bring to light more such factors.

But one wonders if this would really capture the network of social forces driving the deeply unethical and destructive enterprise described above.

I strongly suspect that any attempt to generate a deeper map would quickly draw attention to the role of government and the network of forces which promote hierarchy already highlighted in our systemogram of the network of social forces driving education out of schools^{xii}.

When discussing the latter^{xiii}, I emphasised the need to find an alternative answer to Adam Smith’s question of how to design a self-managing governance system which would innovate and learn without central direction.

So far as I can judge, Smith’s (and other’s) critique of “democracy”, and hierarchical management more generally, seems to have fallen on deaf ears. The position is not merely that no alternative seems to be readily available but the actual need for an alternative does not seem to be recognised.

Obvious flaws such as the imposition of “free market” principles (viz centralised management) on unwilling societies^{xiv}, the promotion of the Iraq and other wars, and the rise of dictators are simply treated as aberrations.

How could this have come about? How come that, so far as I can judge, few cyberneticians have applied themselves to the task of mapping the network of social forces which control the *inputs* to the network of physical-economic forces which Meadows, Forrester, and others

mapped for *Limits to Growth*. How come that so few have mapped the network of social forces controlling the way “democracy” actually works? How come that so few have focussed on the task of generating a socio-cybernetically based answer to Smith’s question?

And how come that, so far as I know, no one has studied the network of social forces which constitute Bookchin’s “self-managing” network of social forces promoting hierarchy?

And one more thing. I have mentioned the willingness of authority to impose what they believe to be good on right on others regardless of the wishes of those others or the wider effects on society. I have not mentioned the fact that very many people seem to be not only too willing to participate in the brutal imposition and elaboration of these policies. Nor have I mentioned what seems to be a pervasive willingness of large numbers of people to do exactly the same thing on a lesser scale ... as with, for example, the imposition of politically correct behaviour, including the uses of language, on others. Behind all of these things seems to lie a pervasive disposition to fascism involving a profound rejection of diversity and the right of others to lead their lives in their own ways.

To what extent are these things the outcome of sociocybernetic processes and to what extent an outcome of individual psychology ... assuming the distinction itself makes much sense?

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ENDNOTES

ⁱ Raven (2017).

ⁱⁱ Raven (2018).

ⁱⁱⁱ Hattie (2009).

^{iv} In fact a *descriptive* framework akin to the biological classification of plants and animals would be required to record them and an ecological framework grounded in such things as symbiosis would be required to discuss their nurturance and functioning.

^v Campbell (1979)

^{vi} Forrester (1971/1995)

^{vii} I am deeply grateful to Luciano Gallon who, at the previous Urbino conference, insisted on opening my eyes to the whole new world of systems dynamics and its previously hidden application in *Limits to Growth*.

^{viii} Klein (2007)

^{ix} Bookchin (2005)

^x Eg Lane (1991)

^{xi} Scottish government (2014)

^{xii} Raven (1994)

^{xiii} Raven (1995)

^{xiv} Klein (2007)