

Why ‘science’ as currently conceived is often part of the problem, and how it could become part of the solution

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The Baconian Project

- Honest observation free from preconceived ideas or dogma. New knowledge questioned old dogmas (e.g., Galileo's falling bodies, moons of Jupiter)
- Breakdown complex issues into their parts; development and systematising of thinking, induction enabling this beyond deduction (Bacon)
- Knowledge is Power (Bacon) that immediately allows us to counter Nature. Knowledge will be useful to mankind,

A brief history of power over nature.

thereby make ourselves the lords and possessors of nature", Descartes:

*"the good of mankind may be much increased
by the naturalist's insight into the trades."* Robert Boyle (ca 1680)

*The scientific process has two motives:
one is to understand the natural world,
the other is to control it."* (C P Snow 1959)

The Royal Society's Mission Statement:

*"To expand the frontiers of knowledge by championing the development and
use of science, mathematics, engineering and medicine
for the benefit of humanity and the good of the planet."*

Since 17th century, we have added:

- Statistics, and the distribution of variance
- Complexity theory

Application of Science now lets us *intervene*

In great contrast to merely *observation*

For example, in agriculture use of NPK seemed like an *observation*, but century of study showed it was really an *intervention*, gross and damaging

Conventional science guides the way we (industrial countries) live

Now that same science tell us it is destroying how we live.

A shift in purpose but not in method is needed:

Science must now act not counter life but with life

It must act *con vivo*, the adjective of which is

convivial