Philosophy Report for Forum by Mike Gilsenan

"What is this scientific method? Is it really as reliable as we are commonly led to believe? How does science progress? These are the sorts of questions which philosophers of science ask." (Nigel Warburton's "Philosophy: the basics", Chapter 6).

Our Philosophy Group has been following Chapter 6 of Nigel Warburton's "Philosophy: the basics" reading and discussing the development of the scientific method from a historical perspective. Our Group's 'fun run' through thousands of years of human scientific endeavour has been fascinating and challenging – so challenging that we need a second session to focus on the 20th century significant developments!

Our journey began by looking at Antiquity/Classical pursuit of knowledge and the development of human logic by the Greek Philosophers. The early Islamic ages were a golden age for knowledge, and the history of the scientific method must pay a great deal of respect to some of the brilliant Muslim philosophers of Baghdad and Al-Andalus. They preserved the knowledge of the Ancient Greeks, but they also added to it, and were the catalyst for the formation of a scientific method recognisable to modern scientists and philosophers.

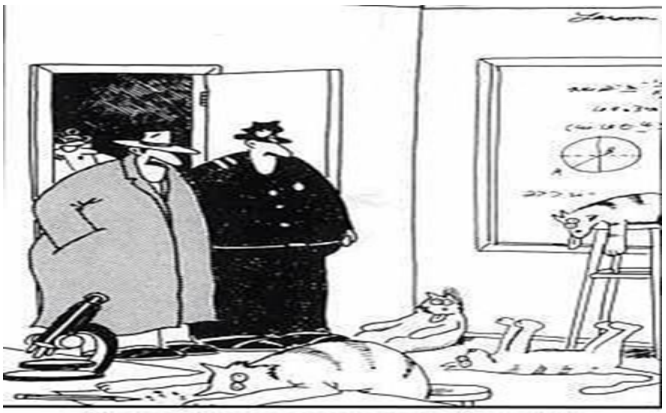
Outstanding scholars from the Middle Ages and Renaissance were another turning point for the scientific method. European scholars further built on the knowledge of the Greeks and the Muslims. We covered some significant contributors: Roger Bacon (1214 - 1294); Francis Bacon (1561 – 1626; Descartes (1596 – 1650); Galileo (1564 – 1642). The Scientific Revolution reached its zenith with Isaac Newton, who made perhaps the greatest contribution, as he was the first to really understand that the scientific method needed both deduction and induction.

As science began to split into chemistry, physics, biology and the proto-scientific psychology, the history of the scientific method became much more complex. Physicists could remain true to the Baconian inductive methods, but psychologists began to find this increasingly difficult when dealing with the extreme variability of the human mind and man-made constructs.

Karl Popper (1902-1994) questioned induction as basis for scientific method; his main point being that science was not infallible, and that well-established scientific disciplines often followed the wrong path and generated incorrect theories.

So, working though from the Greeks, the Muslims and the Renaissance, where does the modern scientific method stand?

To be continued… at the Philosophy Group (next meeting) 10am -12pm Tuesday 28th Feb 2023 at Enterprise House Harmire Enterprise Park, Barnard Castle DL12 8XT



"Notice all the computations, theoretical scribblings, and lab equipment, Norm. . . . Yes, curiosity killed these cats."