

ESSAY 33 : INTOLERANCE IN SCIENCE

If science is the simple study of nature without anticipation of fame or wealth why should there be any intolerance? The answer is the inverse of the question. Anticipation of fame and wealth relegates simple mindedness to the cupboard. That is the contemporary mind set. If an original, or simple minded, individual seeks to think, the process might make others less wealthy and affect their TV image. It makes established chairs feel uncomfortable. In the European mediaeval era the mass was given to the masses in such a way that no one could understand the words, they were in Latin, the language of the golf club. The illiterate were tied to the manor, and could not travel freely. If they could have travelled, they might have learned something new. Only the troubadours and artists could travel, and it was these artists who gave us our first glimpse into the condition of the toiling masses in *Les Tres Riches Heures* for example - an illuminated manuscript for the Duke of Berry - his *Most fulsome hours* complete with high gothic castles - chivalry for some. It took a catastrophe such as the pandemic of the fourteenth century to force a change. Only half the population were left, so who was to till the soil? The answer was the travelling farm hand, or itinerant labourer. These soon learned their own worth and demanded higher wages. The middle classes started to come into existence, and started to think about the unthinkable, ideas such as the classical Greek democracy that had been hitherto hidden from the captive masses in a veil of Latin words.

So ideas are dangerous in science too. As in mediaeval darkness they might lead to change, the dissolution of the order, and ultimately to the dissolution of the monasteries themselves. It might be thought that chairs are occupied by the unworthy, and it might be thought that the unworthy have sat there too long, in the words of my ancestral cousin, Oliver Cromwell. One may then begin to think aloud. How did those individuals get to sit there in the first place? Were they really selected by a process untainted by corruption, a process based on free ideas? One might remember John Milton: *For now I see peace /To corrupt no less than war to waste*. Even Cromwell could not get those professors out of their chairs, and instead, meekly accepted an honorary degree from Oxford in the middle of a savage civil war. Therefore ideas are powerful, and if locked up within an ivory tower can influence the most hard minded of soldiers otherwise unafraid of dissolving Parliament abruptly.

If the simple minded are allowed to challenge the ivory towers by siege, what will become of dogma? The simpler the challenge the more dangerous, especially in a world where billions are spent on failed experiments. How can the fundamental ideas of science be wrong? Recently I read about the fate of a prominent scientist who was awarded the highest honour of his country for distinguished service to science, but who was also a thinker. One day a letter arrived on the doormat warning him to stop thinking. Absurd, but true. He had begun to question the cut in marble statements of received opinion. He had begun to think that special relativity could be interpreted differently - in a different way from the Lord of the Manor and the ivory chessmen. This kind of thinking was purely theoretical and cost the taxpayer nothing, he did not even ask for any money for it, but shortly thereafter his entire laboratory was defunded, even though he had been awarded the highest honour his country could bestow, and even though his experimental work was standard physics.

The behind the scenes people responsible for this intolerance are being questioned more and more, and so is the system that could allow this to happen in a modern democracy. It is evident that the democracy extends just so far, and is not allowed to extend any further, it does not reach the manor house. Some of the ideas of the failed and abstruse science of the twentieth century are incomprehensible, even to other scientists, yet the few who promote such ideas are liberally funded, being richer than the Duc de Berry. Where is the progress in

several hundred years or will human nature never change? The intolerance of ideas springs from a dislike of something that is unknown. The unknown is unsettling. The scientific approach to new ideas would be to test them in the laboratory. To devise new experiments to make an unequivocal distinction between old and new, or otherwise to prove the old theory to be mathematically incorrect with the use of a logic that to any honest mind is unequivocal.

When I first thought of the $B(3)$ field in late 1991, the same kind of intolerance reared its ugly head, with the same creeping, petty pace. I observed that little or no effort was made to understand the new $B(3)$ theory, but that hearsay was used to denigrate it in anonymity. The ghost of Banquo would have been familiar with such tactics. The $B(3)$ field is now the basis of a new industrial revolution. New ideas are indeed powerful, and one cannot stop the march of ideas - why bother to try? So to those who put the obstacles in the way, your tales are those of idiots, signifying nothing.