

Civility and the Decline of Magic¹

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One of the most puzzling aspects of the emergence of a new kind of world in the last few centuries in the West is the development of what we now call 'science'. The shift from a magical and religious dominated cosmology to a mechanistic and secular one, though far from complete and far from confined to the period roughly between 1550 and 1850, is in general undisputable. Until that time it had not happened in other civilizations such as China, Japan or the Islamic world, which had much earlier reached a higher level of craft knowledge than anything then current in Europe.² So why did it happen where it did, when it did, and why did it happen at all? A number of historians, for example Thomas Kuhn and Michel Foucault, have drawn attention to the 'paradigmatic' or 'epistemic' shift manifested in the work of Galileo, Descartes and others. Yet while providing examples of the shift, neither has been able to put forward any plausible explanation of why the shift occurred. Indeed they both specifically state that they leave it to others to explain why.³ More recently we have been given an excellent, revised, picture of the earlier magic cosmology and its continuity with the later 'scientific' one by Stuart Clark. Yet once again, the author explicitly states that he is not attempting to provide any explanation of why the cosmologies changed over time.⁴ Some of the most stimulating suggestions concerning the reasons for the change have, in fact, come from anthropologists, who draw attention to the importance of literacy, the 'trade-travel' complex, Protestantism, the clash of cultures and other factors in the movement to the 'Open society' of modern science and technology.⁵ Yet they are unable to provide the detailed historical evidence and the assertions remain general.

¹ Originally published in **Civil Histories; Essays Presented to Sir Keith Thomas** (Oxford, 2000), edited by Peter Burke, Brian Harrison and Paul Slack, pp. 145-159.

² See, for example, Toby E. Huff, **The Rise of Early Modern Science; Islam, China, and the West**, Cambridge Univ. Press, 1993.

³ Thomas Kuhn, **The Structure of Scientific Revolutions**, Chicago, 2nd edn., 1975, esp. the preface; Michel Foucault, **The Archaeology of Knowledge**, London, 1978, esp. 162-3, 175; Michel Foucault, **The Order of things; An Archaeology of the Human Sciences**, London, 1977, esp. xiii.

⁴ Stuart Clark, **Thinking With Demons; the Idea of Witchcraft in Early Modern Europe**, Oxford, 1997, esp. the postscript.

⁵ For examples, see Robin Horton, 'African traditional thought and Western Science', pt.ii, **Africa**, xxxvii, no.2, April 1967 and Ernest Gellner, **Plough, Sword and Book; The Structure of Human History**, London, 1988.

The most ambitious attempt to solve the problem is that given in the two works by Keith Thomas, **Religion and the Decline of Magic** (1970) and **Man and the Natural World** (1983). It is worth reflecting on the ways in which these two books, so influential both in their content and approach, have advanced our understanding of why a great cosmological shift occurred in Western Europe in the early modern period. The argument in **Religion and the Decline of Magic**, somewhat simplified, can be summarized as follows. The central initial premise is based on Malinowski's thesis that magic is 'to be expected and generally to be found whenever man comes to an unbridgeable gap, a hiatus in his knowledge or in his powers of practical control, and yet has to continue in his pursuit.' As Thomas notes, these theories 'constitute one of the few direct assaults on the difficult question of why it is that magical beliefs decline' and hence, inversely, why science emerges. He further quotes Malinowski to the effect that 'Magic is dominant when control of the environment is weak', and Evans-Pritchard to the effect that 'the advances of science and technology have rendered magic redundant.' Thomas's reaction is that 'when applied to the facts of sixteenth- and seventeenth-century society, it makes a good deal of initial sense.'⁶ What then, in Thomas's account, was this 'environment' and how did its change help to explain the decline of magic?

In the first chapter of **Religion** Thomas provides an over-view of the insecure world of the sixteenth and seventeenth-centuries in England, which was 'still a pre-industrial society, and many of its essential features closely resembled those of the "under-developed areas" of today.' The pre-occupations with 'the explanation and relief of human misfortune', we are told 'reflected the hazards of an intensely insecure environment.'⁷ The first insecurity is connected to 'the expectation of life.' Thomas cites evidence to show that 'Tudor and Stuart Englishmen were, by our standards, exceedingly liable to pain, sickness and premature death.' In relation to the latter, for example, he cites the low life expectancy of the aristocracy and though noting expectations of life at birth as high as 40-45 in some country villages, concludes that contemporaries knew that 'life was short, and that the odds were against any individual living out his full span.'⁸ The second insecurity was the food supply, which 'was always precarious.' 'About one harvest in six seems to have been a total failure, and mortality could soar when times of dearth coincided with (or perhaps occasioned) large-scale epidemics.' People died of starvation and exposure in the streets, and most people suffered from vitamin deficiencies. People were 'chronically under-nourished and vulnerable to tuberculosis and gastric upsets...'⁹

⁶Thomas, **Religion**, 647, 647, 648 and note 2, 648.

⁷Thomas, **Religion**, 3, 5

⁸Thomas, **Religion**, 5,6

⁹Thomas, **Religion**, 6,7

The third insecurity was disease. 'There were periodic waves of influenza, typhus, dysentery.... smallpox', but the most feared of all was bubonic plague, which 'terrified by its suddenness, its virulence and its social effects.' In this pain-filled environment, 'medical science was helpless before most contemporary hazards to health.' Doctors were unable to diagnose and hence to cure most diseases, and in any case, physicians were too expensive for the majority of the population. The fourth insecurity was fire. Thus 'Unable to prevent the outbreak of fire, and virtually helpless during the actual conflagration, contemporaries showed little more resource when it came to bearing the loss.'¹⁰ Thomas finds that 'Poverty, sickness and sudden disaster were thus familiar features of the social environment of this period.' Given this background, he is not surprised to find that people were driven to alcohol, tobacco and gambling on a large scale.¹¹ In a long review of Thomas's book, Lawrence Stone echoes and endorses this view in even more trenchant terms. 'Premodern man' lived in a world where 'Both groups and individuals were under constant threat, at the mercy of the hazards of weather, fire, and disease, a prey to famines, pandemics, wars and other wholly unpredictable calamities. This insecurity produced a condition of acute anxiety, bordering at times on hysteria, and a desperate yearning for relief and reassurance.'¹²

The major part of Thomas's **Religion and the Decline of Magic**, some six hundred pages of detailed historical evidence, is then devoted to showing the gradual erosion of the magical worldview and the birth of modern science. What happened was the 'scientific and philosophical revolution of the seventeenth century'; that is, 'the triumph of the mechanical philosophy.' There was 'a rejection both of scholastic Aristotelianism and of the Neoplatonic theory', which killed off magic. 'The notion that the universe was subject to immutable natural laws killed the concept of miracles, weakened the belief in the physical efficiency of prayer, and diminished faith in the possibility of direct divine inspiration.'¹³ This was Weber's great 'disenchantment of the world', without which 'modernity' could not have occurred. Yet why did it happen? For the theory that the new mechanistic philosophy can be the explanation is clearly inadequate. Not only is it tautologous - one is trying to explain the growth of a new world view by the growth of that same worldview, but the timing is wrong. This latter point is made, for example, by Lawrence Stone. 'The trouble with this explanation is that skepticism about magic and witchcraft was growing among clergy, lawyers, doctors and lay magistrates in the early seventeenth

¹⁰Thomas, **Religion**, 7-8, 8, 8-12, 16

¹¹ Thomas, **Religion**, 17, 17-21

¹² Lawrence Stone, **The Past and the Present**, London, 1981, 155-6

¹³ Thomas, **Religion**, 643

century, before the new natural science had made any real impact.'¹⁴

As Thomas admits, 'The most difficult problem in the study of magical beliefs is thus to explain how it was that men were able to break out of them.'¹⁵ Returning to the early Malinowski thesis and the various types of insecurity that he has suggested were 'reflected' in early religious and magical beliefs, the obvious place for Thomas to search is for changes in those insecurities. At first he seems to find some evidence for a major change in the later seventeenth century. He notes that population pressure decreased and that this, with improvements in agriculture, began to overcome the danger of harvest fluctuations. He notices the absence of bubonic plague after 1665 and the fact that, by the end of the century the English, alongside the Dutch, were the wealthiest nation in Europe. He notes improved communications, with the growth of newspapers, for example, which helped people to find lost property. The growth of deposit banking and fire and life insurance towards the end of the century, as well as improved fire-fighting equipment, mitigated some of the risks. Several of these developments were built on embryonic sociology, economics and the statistical calculation of probabilities.¹⁶ Yet when all is considered, Thomas comes to the conclusion that the Malinowskian theory does not work: 'the more closely Malinowski's picture of magic giving away before technology is examined, the less convincing does it appear.'¹⁷ He then proceeds to show the weakness in the argument.

Basically the problem is that given the nature of the insecurities outlined in his first chapter, the developments of the later seventeenth century were far too little and far too late. As Thomas points out, many of the sceptical and anti-magical attitudes were already present in the Lollard works of the fifteenth century. As he notes, for example, 'Many later medieval theologians were strongly "rationalist" in temperament, and preferred to stress the importance of human self-help... They regarded the sacraments as symbolic representations rather than as instruments of physical efficacy.' Much of the most important development of 'science', whether that of Bacon, Galileo, Harvey or others had occurred well before the supposed improvements in insurance, fire-fighting and so on. As for the treatment of disease, Thomas elaborates in detail how despite increasing knowledge, 'so far as actual therapy was concerned, progress was negligible.'¹⁸ Indeed we now know that the later seventeenth century was unhealthier than the later sixteenth century in England,

¹⁴ Stone, **Past and Present**, 168

¹⁵ Thomas, **Religion**, 643

¹⁶ Thomas, **Religion**, 643, 650, 650, 651, 651-4, 654

¹⁷ Thomas, **Religion**, 656

¹⁸ Thomas, **Religion**, 47, 658

which again undermines the views of growing security.¹⁹ Stone summarizes this central weakness; 'during the critical period when magic was in decline and the magical properties of religion also in retreat in the fact of natural theology, there was really no great technological breakthrough.'²⁰

Thomas is thus puzzled. He suggests that the change must have been mental, rather than technological. 'For the paradox is that in England magic lost its appeal before the appropriate technical solutions had been devised to take its place.' Indeed it was the reverse of Malinowski. 'It was the abandonment of magic which made possible the upsurge of technology, not the other way round', and this was one of the pre-conditions, as Weber had seen, for the 'rationalisation of economic life.'²¹ If the change that occurred in the seventeenth century was 'not so much technological as mental', what caused that change? Here Thomas admits defeat. He is 'forced to the conclusion that men emancipated themselves from these magical beliefs without necessarily having devised any effective technology with which to replace them.' Yet, 'the ultimate origins of this faith in unaided human capacity remains mysterious.' Despite toying with the idea that 'the decline of the old magical beliefs' is connected to 'the growth of urban living, the rise of science, and the spread of an ideology of self-help,' Thomas admits that 'the connection is only approximate and a more precise sociological genealogy cannot at present be constructed.'²² He might have added that the 'rise of science' and 'spread of an ideology of self-help' are merely parts of the problem to be explained, as we noted in relation to mechanistic philosophy. Thus in terms of explanation of the decline of magic, the central theme of this work, Thomas has been unable to find a solution. The 'mystery' remains, just as it did after my own much more modest attempt at about the same period to 'explain' the decline of witchcraft.²³ We appear to be stuck.

The difficulty of solving the problem of the decline in witchcraft beliefs and accusations is illustrated in a recent collection that is specifically devoted to examining Keith Thomas's major work on **Religion and the Decline of Magic**.²⁴ In a helpful overview of developments in this field since Thomas's work was published, Jonathan Barry draws attention to a few possible contributing causes for the decline, for instance the association of witchcraft beliefs with certain religious

¹⁹ See, for example, figure 10:5 on p.414 of E.A.Wrigley and R.S.Schofield, **The Population History of England 1541-1871**, Cambridge, 1981

²⁰ Stone, **Past and Present**, 169

²¹ Thomas, **Religion**, 656-7, 657

²² Thomas, **Religion**, 661, 663, 663, 665, 666

²³ Alan Macfarlane, **Witchcraft in Tudor and Stuart England**, London, 1970, chapter 16, and esp. 202-3

²⁴ Jonathan Barry, Marianne Hester and Gareth Roberts (eds.), **Witchcraft in Early Modern Europe; studies in culture and belief** (Cambridge Univ. Press, 1998).

sects in the Civil War, both witchcraft and these groups being later discredited, and the decline of the interest in magic in the church courts after 1660.²⁵ Peter Elmer suggests tentatively that Quaker-witch stereotypes took over from pure witches as scapegoats in the 1650's, but admits that 'all mono-causal explanations for the decline of educated belief in witchcraft has proved highly elusive'.²⁶ All that we can be certain of is that, as Ian Bostridge writes, 'by the 1720s the ideological foundations of witchcraft had slipped'.²⁷ We are still left puzzled.

In his second book, **Man and the Natural World** Keith Thomas studied a related problem, that is the growing mastery over and estrangement from the natural world which occurred most markedly in England. His argument may be summarized as follows.²⁸ If we compare the start and end of the period he reviews, 1500 and 1800, a series of deep changes in perception and feeling had occurred; we have moved from a pre-modern, pre-capitalist, magical cosmology, into a modern, capitalistic, scientific one. Weber's 'disenchantment of the world' has occurred, Marx's alienation of man from the natural world is complete. In 1500 we are in an anthropocentric world of the Bible. All creatures are ordained for man's use; 'nature' is made for man alone and has no rights apart from man. 'Man stood to animal as did heaven to earth, soul to body, culture to nature.' This assumption of a man-ordained world was gradually eroded during this period. This 'revolution in perception - for it was no less' at the upper intellectual and social levels, had a 'traumatic effect upon the outlook of ordinary people.' Basically what happened was the separation of man from nature. 'Crucial' to the older beliefs was the interblending of man and nature, 'the ancient assumption that man and nature were locked into one interacting world.' There then occurred the split between man and nature, between thought and emotion, which is part of the famed 'dissociation of sensibility'. The natural world was no longer full of human significance. No longer was every natural event studied for its meaning for human beings, 'for the seventeenth and eighteenth centuries had seen a fundamental departure from the assumptions of the past'.²⁹

Why did this happen? Here Thomas falls back on roughly the same set of causes as those advanced in **Religion and the Decline of Magic**. There were scientific and intellectual discoveries: the telescope expanded the heavens and diminished man in space, geological discoveries diminished man in time, the microscope brought out the complexity of nature, exploration and empire brought unimagined species to

²⁵ Barry et al., **Witchcraft**, 31, 35.

²⁶ In Barry et al., **Witchcraft**, 171, and cf. 157, 176.

²⁷ Barry et al., **Witchcraft**, 316.

²⁸ This summary is taken directly from Alan Macfarlane, **The Culture of Capitalism**, Oxford, 1987, 79-82.

²⁹ Thomas, **Natural**, 35, 70, 70, 75, 90

light. There were economic and social causes. 'The triumph of the new attitude was closely linked to the growth of towns and the emergence of an industrial order in which animals became increasingly marginal to the process of production. This industrial order first emerged in England; as a result, it was there that concern for animals was most widely expressed.' Kindness to animals, for example, depended on the newly created wealth; it was 'a luxury which not everyone had learnt to afford.'³⁰ Through the study of the attitude to trees, flowers and animals he argues that it was rapid urbanization, the replacement of animal by artificial power, growing affluence and security and a widening intellectual horizon that led to the revolution in ideas about the natural world.

The problem is, however, that Thomas himself gives a great deal of evidence to show that the separation of man and the natural world was not a new phenomenon, invented as mankind for the first time gained mastery over nature in the eighteenth century. For instance, concerning the 'disenchantment of the world', it is not clear that this occurred after the Reformation, for Thomas tells us that 'Since Anglo-Saxon times the Christian Church in England had stood out against the worship of wells and rivers. The pagan divinities of grove, stream and mountain had been expelled, leaving behind then a disenchanted world to be shaped, moulded and dominated.'³¹ Although Thomas is right to point out that it is too simple to see this disenchantment as simply equated with Christianity, there is certainly an ascetic stress in Christianity, and particularly in the northern variety, which was hostile to the interfusion of man and nature, to 'magic' and 'symbolic thinking'. Closely related was the supposed shift from the anthropocentric classification of the world, a growing tendency to recognize the separateness and autonomy of the natural world. Having argued that this change was a central feature of the revolution in perception, Thomas continues that 'there was, of course, nothing new about the realization that the natural world had a life of its own.'³² The view was fully propounded in Aristotle. Turning to specific instances, he shows that pet-keeping, far from being a new invention, was widely present in medieval England, that the debate over animal cruelty was likewise an old one, for instance being rehearsed in a poem of 1410. He concludes that the 'truth is that one single, coherent and remarkably constant attitude underlay the great bulk of the preaching and pamphleteering against animal cruelty between the fifteenth and nineteenth centuries', noting that 'so far as their main arguments were concerned there was a notable lack of historical development.'³³ Likewise the enthusiasm for gardening goes back to the Middle Ages as does the

³⁰Thomas, **Natural**, 181, 186

³¹Thomas, **Natural**, 22

³²Thomas, **Natural**, 82

³³Thomas, **Natural**, 153, 154

love of wild nature. The anti-urbanism and the desire for country life was widely present well before the sixteenth century.³⁴

Where then does this leave Thomas's thesis? It would be difficult to argue that 'urbanism' and 'industrialism' could have had serious effects in England before the second half of the eighteenth century. As in his earlier book on **Religion** the causes of the change came at least a couple of centuries too late to explain the phenomenon. As for 'science', this is a complex matter, for the growth of 'science' is one of the very things we are trying to explain and it can become tautological to explain the rise of 'science' by 'science'. Thomas's two attempts to chart the greatest intellectual change in modern history thus, ultimately, leave us with a 'mystery'.

II

In probing Keith Thomas's first book, Hildred Geertz draws attention to an epigraph used by Thomas, taken from Selden. 'The Reason of a Thing is not to be enquired after, til you are sure the Thing itself be so. We commonly are at **What's the Reason of it?** before we are sure of the Thing.' She continues with Selden's anecdote about Sir Robert Cotton who 'was exclaiming over the strange shape of a shoe which was said to have been worn by Moses, or at least by Noah, when his wife, apparently a much more simple soul, asked: "But Mr Cotton, are you sure it is a Shoe?"'³⁵ Geertz uses this warning to lead into an attack on Thomas's use of the word 'magic', but it is equally worth looking at another part of the shoe which Thomas is investigating, namely the links in his argument concerning the environment which led to the decline of magic and the utilitarian and 'scientific' attitude to nature.

Let us experiment by changing some of the parameters. Firstly, as we have seen both in relation to nature and the decline of magic the process was already well advanced before the sixteenth century. As compared to most magical worlds, that of the Pastons, of Chaucer, of Bartholamaeus Anglicus or Bracton was already very secularised. In his effort to redress the previous balance Keith Thomas has exaggerated somewhat the magical elements of the earlier period. Witchcraft and popular magic were already somewhat peripheral. Most explanation was this-worldly, even if people also invoked God, Hell, fairies etc. This he admits on

³⁴Macfarlane, **Culture**, 86-91

³⁵Quoted in Hildred Geertz, 'An Anthropology of Religion and Magic, I', **Jnl. of Interdisciplinary History**, VI:1 (Summer, 1975), 71

several occasions, as we have seen. If we reformulate the problem thus, we have less to explain. It was a slight tilting of a balance rather than a vast and revolutionary change from one worldview to another. Hence much less of a causal revolution is needed. Secondly, it is worth examining briefly the central opposition between 'magic' and 'science'. As in the standard anthropological tradition since Frazer, these are treated as antithetical and opposed systems. But given the recent questioning of the epistemological purity of science,³⁶ the more sympathetic accounts of the intellectual framework of magic,³⁷ and the critique of anthropologists on this very point,³⁸ it now seems more helpful to see the systems as placed on a continuum rather than forming a binary opposition. If we write history from after the event, we can see that certain techniques and findings were fruitful and 'reliable', and others not. But at the time the mixture of methods and hypotheses was much more jumbled and it must often have been difficult to know whether an activity was in our terms 'magical' or 'scientific'.

Some of the problems are resolved if we substitute John Ziman's term 'reliable knowledge' for 'science'.³⁹ That is to say, we think of a continuum from activities and beliefs where the level of 'reliable knowledge' was very low indeed, to modern 'science' where it is much higher. On this continuum, the high or learned magic of the Renaissance lies somewhere in the middle. It strove for roughly the same goal as 'science'; that is, reliable and effective control over nature. But it did so through methods which did not lead to cumulative growth of knowledge, and on the basis of hypotheses about the hidden forces behind natural appearances, the influence of stars, spirits, place and so on, which have turned out to be incorrect. Yet, if we see magic and science as placed on a continuum, we realize that modern science evolved out of parts of learned magic, as well as having many other roots. This helps to explain the apparently odd fact that it was precisely at the start of the 'scientific revolution' that learned magic reached its highest point. It then becomes easy to see that John Dee, Francis Bacon and Isaac Newton are among the last of the great magicians, as well as first great scientists. Of course, this is not to say that magic and science are the same or that the only difference is the quantity of reliable information they generate. The famous characteristics of the scientific method,

³⁶ See, for example, Bruno Latour and Steve Woolgar, **Laboratory life: the social construction of scientific facts**, London (Sage), 1979

³⁷ See, for example, Frances Yates, **Giordano Bruno and the Hermetic Tradition**, London, 1964; Clark, **Thinking With Demons**

³⁸ See Geertz, 'An Anthropology of Religion'

³⁹ John Ziman, **Reliable Knowledge. An Exploration of the Grounds for Belief in Science**, Cambridge University Press, 1979

falsifiability, experimentations, the search for general laws and so on, do distinguish it from magic, as does the abandonment of the idea of the moving force lying above or outside this natural world. Yet the shift from one worldview to another does not need to be seen as a sudden and total transformation. It could partly be seen as the sloughing off of an old skin, a re-ordering of the relations between its parts, a shift of emphasis, a tilting in one direction rather than another, almost a change in intellectual taste or fashion. Seen thus, just as the simplest hunter-gatherer sharpening his flints or searching for animals has to be a proto-scientist, so the greatest of scientists, Isaac Newton, spent as much time on his 'magical' activities as on what we approve of as his 'science'.⁴⁰

If this very preliminary account has truth in it, it again simplifies the problem that Keith Thomas addresses. What needs to be explained at the learned level is not a sudden and total revolution from 'magic' to 'science' in two hundred years. Rather, we are dealing with a change of emphasis, which occurred most dramatically in the famous period 1550-1800, but which is part of a much longer re-orientation. The process can, in reality, be dated back to the Greeks, and gathers pace in Europe from about the twelfth century with the revival of Greek-Arabic science and the founding of universities. From that time, the experimentalism, optimism, the search for abstract truths, all were characteristic of work that we can broadly term 'scientific'.

III

Yet even if we make the change much more drawn out and less dramatic, there is still something to explain, and here we may return to Keith Thomas's technological argument. Let us look at this argument again, but in a context where, instead of requiring a sudden dramatic improvement in man's physical environment, for instance a 'revolution' in medicine, food production or control of accidents, we would be seeking a long-term and slow improvement from at least the fourteenth century. We would also be looking at the general level; that is to say, whether the improvement was from an already unusually high level of wealth and technology for a 'pre-industrial' society to an even higher one. Finally, we would need to extend our interest outside the rather physical elements of the environment, food, health, and fire, to include the political environment.

Let us take first those insecurities on which Thomas himself concentrates. The

⁴⁰ On Newton's magical workings, see, for example, John Maynard Keynes, **Essays in Biography**, London, 1951, 313-9

first is demographic. We have seen that he implies that life was relatively short and uncertain. This is of course true if we compare expectation of life at birth in the seventeenth century with the present. Yet the equations look different if we remember that in terms of survival after the age of one there was really no secular improvement for most of the population before the late nineteenth century. An Elizabethan villager who had reached the age of one had just as good an expectation of life as Robert Koch or Louis Pasteur. This illustrates the second point concerning the general level, that rather than seeing mortality levels in England as incredibly high before the demographic revolution of the later nineteenth century, we should in cross-comparative perspective see the levels as surprisingly low, a middling plateau which is perfectly compatible with a relatively optimistic and stable attitude towards the future, planning and achievement.⁴¹ Thomas's second insecurity is food, where he implies that there was widespread shortage, deficiency and dearth, if not massive famines. Again, of course, there is something in this. But it could be argued that in relative terms the English were an extraordinarily well fed population and that famine had been banished from all but a corner of the land by the fifteenth century. The light population, efficient agriculture, good communications, early market system, temperate climate and other factors protected the population from the vagaries of weather that effects so many 'agrarian' societies. It is not at all difficult to argue that the population of England were as well fed in the sixteenth century as in the nineteenth and in both centuries, apart from Holland, the English in general were probably the best fed population the world had ever known.⁴²

Thomas's third major insecurity is disease. Here again there is a half-truth. It is true that if we compare an English or American after 1950 with an English woman or man in the sixteenth century, then the latter were subjected to numerous forms of disease that have now been eliminated. But again we need to make at least two qualifications. Firstly, the changes were gradual and complex, with a rise in certain diseases and decline in others. Again, the situation of the later sixteenth century is not notably worse than that of the early nineteenth; old diseases like plague and leprosy had gone, new diseases like smallpox and cholera were rampant. Secondly, in comparison to most pre-industrial settled civilizations, the incidence of most diseases was relatively low. It is obviously true that there were widespread illnesses and most people suffered pain with a frequency and intensity which modern westerners would find difficult to bear. Yet the levels were not usually overwhelming. Furthermore, people could point to some improvements; leprosy had vanished, the sweating sickness disappeared after the sixteenth century, venereal

⁴¹ Alan Macfarlane, *The Savage Wars of Peace; England, Japan and the Malthusian Trap*, Oxford, 1997, 25-30

⁴² Macfarlane, *Savage Wars*, chs. 5,6,8

disease declined in virulence, plague become localized in cities and later vanished.⁴³ Finally, there is accident and misfortune, particularly fire. It is true that fire was a constant hazard, but it is tempting to overplay its importance. In comparison to other misfortunes it is only of moderate importance. There may even have been early and subtle mechanisms that further reduced the impact of fire. Certainly it was possible for the Japanese, with largely ineffective fire-fighting equipment, no formal insurance and conflagrations every few years, to face the hazards of fire with some equanimity.⁴⁴

Man's attitude towards the possibility of controlling the external world is affected by many other material, cultural and political factors. In terms of the material, there are the whole set of protections for his body, particularly housing and clothing. Here the English from at least the fourteenth century, and very markedly from the sixteenth, enjoyed levels of affluence and security that were, with the exception of the Dutch, unprecedented. An average Elizabethan was as affluent, well dressed, housed, and fed as an average inhabitant of England in any period up to the late nineteenth century - and far better than in all other world civilizations in history.⁴⁵ Looking out from this relative warmth and physical security, not over-pressed by long work-hours,⁴⁶ it is easier to see how most people could have some sense of confidence in a reasonably stable, controllable and ultimately comprehensible external world. They could see the improvements around them - better agriculture, new drinks, better cloth production, better housing, the printing press, gunpowder and compass. These and other modern improvements, as Thomas argues, gave people a sense of dynamism and progress.⁴⁷ Their force was increased because they were based on an already unusually high standard of living.

Furthermore, it was not just the immediate private space of the English that had been domesticated, tamed, brought under control - not merely house, garden, food and clothing. As Thomas shows, the physical landscape had been tamed and ordered very early. The shape of the fields and hedges, of the roads and paths, of the majority of human settlements, had been laid out by the eleventh century and was to change little over the next seven hundred years. Dangerous wild animals, which still roamed over much of continental Europe or Scotland until the eighteenth and nineteenth centuries were destroyed very early. In the sixteenth century William Harrison thought it one of the important blessings of God on England 'that it is void

⁴³ Macfarlane, **Savage Wars**, parts III to V

⁴⁴ Macfarlane, **Savage Wars**, 233-4

⁴⁵ Macfarlane, **Savage Wars**, chs. 5,6,12,13

⁴⁶ Macfarlane, **Savage Wars**, ch.3

⁴⁷ Thomas, **Religion**, 429-432

of noisome beasts, as lions, bears, tigers, pards (leopards), wolves, and suchlike, by means whereof our countrymen may travel in safety and our herds and flocks remain for the most part abroad in the field without any herdmen or keeper.⁴⁸ He compared this with the situation beyond the Tweed, where fierce animals abounded. The perceived safety of the countryside went back much earlier. In the early thirteenth century the English monk Bartholomaeus Anglicus noted that in England there were 'few wolves or none' and as a result sheep could be securely left 'without ward in pasture and in fields.' This, he said, went back to Anglo-Saxon times, and had been a phenomenon noted by Bede.⁴⁹

Even more dangerous than animal predators are human ones and it is they who usually make it necessary for armed shepherds to guard the flocks. Thus as important as the control of the physical world of nature was the control of human violence through political and legal means, a subject that Thomas largely omits. Here again it would seem that England had been early tamed. England was a largely unified nation-state under the later Anglo-Saxon kings from Alfred onwards and the continuing uncertainties, regional uprisings and over-mighty subject were, in the main, eliminated by the strong governments of the Normans and Angevins. Internal warfare and invading armies, which made much of Europe dangerous and led to a weapon-carrying population and the defensive fortifications of nobility and cities up to the nineteenth century, had largely been eliminated by the early medieval period in England. The power of the King's Courts, the absence of a standing army, the freedom from foreign invasions provided by sea boundaries, these and other factors combined to give a very early and continuous peace. The early development of an intricate legal system, monopolization of violence by the State, high level of participation in local administration of justice which are well known features of England back to the Middle Ages are all different facets of this stability. The contrast with the devastations of France, Germany, Spain or Italy through the centuries is instructive.⁵⁰

The differences in political structure would help to explain the curious fact that the English gentry after the fifteenth century were happy to live in undefended manor houses in the country, while in most countries they sheltered within huge chateau fortifications or, preferably, within the city walls. Towns and castles were

⁴⁸ William Harrison, **The Description of England**, New York, 1968, ed. Georges Edelen, 324

⁴⁹ Bartholomaeus Anglicus, **On the Properties of Things**, trans. John Trevisa, London, 1975, vol.ii, 734

⁵⁰ The differences in warfare are described in Macfarlane, **Savage Wars**, ch.4; I hope to treat the wider political and legal differences in more detail in a forthcoming work, provisionally titled **The Riddle of the World**.

the refuge and the natural home of 'civility' and 'civilization', that is of people with urbane, urban and civilized manners, when times were violent, and hence were far more important on the Continent. It is for these reasons that E.A.Freeman, for instance, when trying to explain the absence of 'capital' cities in England, ascribed it to political factors. The 'princely' and the 'civic' element show themselves in greater splendour in French rather than English cities 'simply because in England the kingdom was more united, because the general government was stronger, because the English earl or bishop was not an independent prince, nor the English city an independent commonwealth'.⁵¹ Edinburgh or Durham were the nearest British equivalents to such a phenomenon.

A final strand of the explanation of the peculiarities undoubtedly lies in the religious system. Keith Thomas, following Weber, rightly lays considerable stress on this. Christianity in general has a curiously ambivalent attitude towards the relations between man and nature. On the one hand it stresses an exploitative attitude; God made all creatures for man, and can be used for his own good. On the other hand, God created all creatures, and man should respect His creation and see His hand in its beauty. The myth of the Garden of Eden is an aspect of the rural emphasis of the religion. Within Christianity, the proto-Protestant and Protestant versions that dominated England stressed an anti-magical, disenchanted attitude towards nature that Weber noted. Long before the Reformation, many of the uncertainties, mysteries and extensive ritual inter-penetrations had been eliminated. An overlap of the material and spiritual worlds common in many cultures was largely absent. The attack on those popular errors that indicated a fear and awe of nature, the undermining of a belief in divine presences in natural phenomena, had begun long ago under the Anglo-Saxon Church. Protestantism carried it to its logical and final limits. An ascetic, anti-magical tendency in Christianity thus fitted with the other forces, political, economic, social, which separated the world of man and nature, bringing nature under absolute control, and then allowing a sentimental re-integration on man's own terms. This disenchantment of the world is the central theme of Thomas's work and he summarizes the process thus: 'in place of a natural world redolent with human analogy and symbolic meaning, and sensitive to man's behaviour, they constructed a detached natural scene to be viewed and studied from the outside.'⁵²

Other elements of Christianity are also essential. There is the attitude towards time; many have pointed towards Christianity as an historical religion, moving

⁵¹ E.A.Freeman, **Historical Essays**, fourth series, London, 1892, 42

⁵² Thomas, **Natural**, 89

mankind from an original creation through a long series of stages to a final revelation. This gave a sense of openness and progress.⁵³ Or again, the theology suggested an omnipotent and omniscient God who had lain down a series of 'laws' that it was man's duty to enquire after. This again was propitious. Thirdly, Christianity took a positive, not to say positivistic, attitude towards the physical world. It existed independently of the observer, it was not an illusion or construct of man's mind, as it tended to become in some forms of Eastern mystical religion, hence precluding serious scientific investigation of the 'natural world'.⁵⁴

All these features were necessary ingredients. Yet as we can see from the history of certain Catholic countries such as Spain or Portugal, if combined with a different political and social structure these religious beliefs were not enough to lead to the transformation of magic and ritual. It is the total assemblage - the increasingly high standard of material life and political security as well as the religious tendency that is necessary - in exactly the right mix and over a long period. The roots lie back in north-western Europe from the Middle Ages and we can see them developing, for instance, in England from at least the twelfth century. They are apparent in the work of Bartholomaeus Anglicus, Bracton, Roger Bacon, Occam and many others. What we see in the sixteenth to eighteenth century is not a revolutionary change but a growing confidence and extension of earlier tendencies. By a kind of paradoxical miracle, by the end of the eighteenth century England was both the same and utterly different from the England of Chaucer.

IV

The development was not a steady growth of the kind beloved by Whig historians, yet it is, after the event, possible to see a sort of 'progress' in the way in which the balance was tipped. We might therefore conclude that in England many of the causes of insecurity, war, famine and most diseases (except plague) had already been brought within reasonable limits by the late fourteenth century. Life was reasonably predictable. The violence of men, weather and micro-organisms had already largely been brought within control. People felt a reasonable sense of confidence in a relatively stable and predictable world. By the fifteenth century the firm underpinning provided by the reasonably efficient administrative system, the good judicial system, the advanced market economy, meant that there was, for an agrarian

⁵³ For example, see J.B.Bury, **The Idea of Progress**, London, 1921, 23

⁵⁴ See **The Shorter Science and Civilization in China**, Cambridge, 1978, vol. I, 265, an abridgement by Colin A.Ronan of Joseph Needham's original text.

economy, already an unusually high level of personal security. Popular magic was needed only at the margins. The learned or intellectual magic described by Stuart Clark was not strongly antithetical to science, but probably a necessary pre-cursor. The area of the 'irrational' was already delimited.

What then happened was that in the sixteenth century all these tendencies were enhanced. The threat of civil war evaporated further. The integrated market economy spread further. Affluence for the middle groups rose. The Poor Law and administration were improved. Plague declined in virulence and there was a relatively healthy period until the 1620s. By the 1590s the balance had been tipped decisively towards a belief in the controllability of the external world and a sense of optimism and progress was felt, as evidenced by Francis Bacon, for example. Things were improving. Man could raise himself. The set-backs in the 1590s and 1620s momentarily halted this process, but after the 1650s the founding of the Royal Society and other institutions, and the work of Boyle, Hooke, Newton and others made rapid progress. Confidence rose as conditions improved. The world of Defoe is considerably more complex and sophisticated than the world of Harrison or Camden. As people looked back, they could feel a real sense of discovery and progress, not only over the recent past, but even when compared with the glorious attainments of Greece or Rome.

Standing back from Keith Thomas's work we see that the problem of the decline of magical and witchcraft beliefs and accusations will only be approachable if we re-define what is to be explained. The strong opposition of 'science' and 'magic' is not helpful. Nor did 'magical beliefs' go through a straight-forward secular decline, but rose and fell over time in the period between the fifteenth and eighteenth centuries. Yet even if we modify the dating and the emphasis put forward in the early formulation by Keith Thomas, there is still something left to explain. Here it is worth exploring the way in which some of the insecurities of life that encourage belief in witchcraft and magic were being eroded from the fifteenth century. The relative affluence, the political and legal security, the relative freedom from the Malthusian ravages of war, famine and disease, provide a necessary, if far from sufficient, background to what still remains something of a mystery. Keith Thomas posed a real question and even if his answer does not fully satisfy either him or us, it characteristically stimulates and challenges us to try and do better.