

The Roots of Science: Wyrð and Causality versus Providence

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The arrival of Middle Eastern monotheism in Europe replaced a prior proto-scientific belief in causality with the teleological concept of Divine Providence, or the Will of God. Ancient Greek philosophy was supplanted by a demand that men should stop seeking to understand the nature of the causal forces at work around them, and accept this simply as the work of an all-powerful monotheistic god. A new organized priestly class demanded that men must accept the “revealed” word of their god without question. The academy founded by Plato was ordered closed, and as Bertha Phillpotts first showed us, even among the Germanic nations the concept of *Wyrð*, which postulated an all-pervasive causal force, was replaced by the concept of Divine intervention or Providence. Europe entered the Dark Ages, and remained there until the rediscovery of the writings of the pagan classical scholars made possible the Renaissance and the rise of modern science.

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Michael Horowitz, Oriental Monotheism, and Organized Priesthoods

Michael Horowitz¹ has contrasted the success of the Greeks in laying the foundations of a scientific understanding of the world with the failure of the Mesopotamians, who had indeed created an advanced civilization but never developed an objective science. He attributed this

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¹ This essay was largely inspired by reflections on a study by Michael Horowitz (see footnote 2) and the more extensive research of the late Bertha Phillpotts (see footnote 4). However, neither integrated the two notions, which is what I have done here. They are therefore not responsible for any faults that may have crept into this paper.

to their belief in the overriding power of their gods and the priests who serve these gods. Horowitz argued that the early Mesopotamian and subsequent Semitic cultures tended to believe that humanity was created to “relieve the gods of toil” and that righteous persons should serve and obey them. This belief was rigidly sustained by a large and well-organized priestly class that exerted ultimate power over the people, but even these priests were too fearful of their gods to dare to question the workings of the world, which they attributed wholly to the will of divine beings:

A hymn to the storm god Enlil quails before the deity’s “wild, glaring eyes.” “What has he planned? What is in Enlil’s holy mind?” the anxious supplicant wonders. “What has he planned against me in his holy mind?” Apparently, Enlil may strike without cause — merely being human is sufficient provocation (Jacobsen 1976).

Nature was considered both sacred and potentially hostile. The Sumerians had warned that the laws of nature are like the “laws of the abyss — none can look upon them” (Kramer 1981). From the second millennium B.C., Babylonian scribes are, to be sure, more adventurous. But even they believe the study of nature is a sacred enterprise, and that the truth must not be wrenched from the gods — facts would be gradually “revealed” according to divine pleasure (Contenau 1966). By attempting to rationalize the universe, [a man] would be courting heresy; he would be threatening the domain of the deities. This transgression would almost certainly be rebuked by priestly superiors.

Horowitz saw Greek society, by contrast, as being illuminated by an aristocracy that was essentially free from domination by priests. Indeed, the Greek priests served only individual gods, whose supernatural powers were limited to specific functions and were not regarded as all-powerful beings. Consequently learning was not restricted to the priesthood, who were not organized into any dominant hierarchy. As a result, the Greek aristocrats were able to allow their curiosity to enquire into the secrets of the world around them. Horowitz writes: “An energetic, creative aristocracy supplied percolating talent and the affluence and leisure to deploy it. An anarchic theology liberated Greek theoretical imagination about the natural world.”

Indeed, although Horowitz does not mention it, the head of each Greek kinship unit conducted the socio-religious rituals of the kin group. All important ritual and priestly duties relating to the organization of

society were conducted by the heads of families and phratries, and by kings who generally derived their authority by virtue of their descent, real or imagined, from the founder of the nation. Free from subordination to one or more all-powerful gods, and superior to the priests who served the individual nature gods, the aristocrats of Greek society were at liberty to speculate on the nature of the universe and seek explanations of what happens in it. As Horowitz says:

Greek culture offers its pioneering philosophers an encouraging social, political, theological, and linguistic environment for the development of the scientific dialectic:

Socially: It boasts an active, confident, hegemonic class of aristocrats, with a unique tradition of individual thought and behavior. This aristocracy had never in its cultural memory been intimidated by religious dogma. Indeed, it is from this class of aristocrats that Greece's first philosophers spring.

Fustel de Coulanges, European Paganism, and Causality

Absent the Oriental tendency to portray Divine Beings as all-powerful despots, pagan Europeans in general appear early to have concluded that the universe was governed by a web of causality. They recognized gods who were endowed with supernatural powers, and they had priests who served these gods — but these gods did not create the universe, and were themselves but a part of it. The French nineteenth century scholar Numa Denis Fustel de Coulanges early demonstrated that the true religiosity of ancient Greece, Rome, and the Celtic and Germanic nations was centered on the religion of the family, clan, phratry, gens, and tribe.² The moral ties and rituals that truly bound pre-Christian European communities together were based on kinship. A man owed his foremost duty to his kinfolk — and not only to his living kinsmen but also to those who had gone before him and given life to him and to his descendants who would come after him. Men were powerless before the causal forces that determined the events taking place around them and thereby shaped their destiny, but a proud and courageous man could win fame for himself and honor for his descendants by striving courageously against the slings and arrows of misfortune. A man could

² See Numa Denis Fustel de Coulanges and J. Jamieson, *Family, Kin and City-State*, Scott-Townsend Publishers, Washington D.C. for a full exposition of the familial nature of Greek and Roman religion, which centered on the concept of kinship, with the gods being almost incidental to the religious bond that held family, tribe and state together.

not avoid his destiny — because he was caught up in the vast nexus of causality that permeated the Universe, a force that moved irresistibly from the past, through the present, and onwards into the future.

Causality in the form of The Three Fates

The fundamental concept of causality, as an all-powerful force shaping the workings of the Universe, was deeply rooted in the culture of ancient Greece and Rome. The three Fates or Moirae of the Greeks were believed to weave the web of causality: Clotho, with her spindle, spinning the causal threads that vitalized the world and all that was in it; Lachesis, pointing with her staff to a globe; and Atropos, with her sundial, and scissors, ready to cut the causal thread of each man's life. The Romans knew these same Fates as the Parcae. And similarly, the Germanic people recognized these three sisters who controlled causality as the Norns, calling them Urthr, Verdandi and Skuld, who between them were responsible for *What was, What Is and What Will be*.

Even as late as Shakespeare, Englishmen still remembered three weird sisters, albeit in a somewhat Christian haze, as elderly, immortal witches, who knew the secrets of Fate and could foretell the future.

In brief, European paganism to either a greater or a lesser extent sensed causality as the moving force behind all natural phenomena. Their gods were immortal and possessed superhuman powers, but they did not create the Universe and were themselves only one aspect of it. Beyond the ties that bound society together there was a metaphysical aspect to the religiosity of pre-Christian Europe that reflected an appreciation of Nature and of the pulse of the Universe, untrammelled by any fear of an all-powerful monotheistic god. The less sophisticated made pre-scientific attempts to manipulate causality by the pre-scientific means that we call magic, but the more sophisticated applied Aristotelian logic to the task of uncovering the causal forces that vitalized nature, and by so doing laid the foundations for modern science. While the Babylonian, Assyrian and Egyptian priesthood slavishly served their gods, fearing to question their motives and desiring only to placate their anger and carry out their wishes, the myths of ancient European paganism tell of heroes challenging the gods to reveal whatever information they had about the secrets of the universe, of searching for the golden apple of wisdom, and even the more primitive Germanic myths tell of Odin giving an eye in his search for knowledge.

Martha Phillpotts and *Wyrð*

A reading of the works of Dame Martha Phillpotts, a pioneer authority on Anglo-Saxon and early Germanic culture, provides insight into the pagan European concept of an impersonal causality, and supports Horowitz's explanation of why true science emerged in Europe rather than in the earlier civilizations of the Middle East. The Germanic-speaking peoples of Northern Europe, like the Greeks and Romans, also lived free from any fear of a single all-powerful god, and Phillpotts shows us how the Germanic peoples intuitively shared in the same proto-scientific appreciation of causality that we find in more developed form amongst the Greek and Roman intelligentsia. In Northern Europe this causal force was identified as *Wyrð*, and as such played a major role in Germanic culture. *Wyrð* as a word is the abstract form of the Germanic verb *weorthan*, "to come to be" thus meaning "that which happens."³

As she declares that there is⁴

more in Anglo-Saxon paganism than the worship of Woden and Thunor, and the sanctions of loyalty to a chief: the recognition of *Wyrð* as an impersonal and unapproachable force...

If we can descry the shadowy outline of this earlier, unformulated philosophy, it must be through the medium of the stories and memories of the Heroic Age. The Anglo-Saxons shared in that epic period as freely as any other of the Nordic peoples, and it seems safe to assume that the ideas that lie behind it were also common property.

The Triumph of Christian Monotheism

Phillpotts also confirms Horowitz's theory about how Oriental priesthoods attributed events to the will of one or more all-powerful divinities by noting how Christianity, rooted as it in Oriental monotheism suppressed the roots of scientific thought in Europe by attributing events to the "Will of God" rather than to the more logical European pagan concept of impersonal causality.

The Oriental belief that all events could be explained as the will of one or more divinities was eventually to evolve into the monotheistic

³ It may even be possible to suggest that in Germanic myth even the gods appear to have been subject to the overpowering force of *Wyrð*.

⁴ This and the subsequent quotes from Bertha Phillpotts are taken from her essay "*Wyrð* and Providence in Anglo-Saxon Thought," in *Essays and Studies by Members of the English Association*, XII, (1928 for 1927).

doctrines of Judaism, Christianity and Islam. These three religions accepted no other explanation for natural events than the will of a divine Creator — except on occasions when it was found convenient to hypothecate an anti-God or Devil to explain unpleasant events that the priests chose not to attribute to their god.

As a missionary religion that sought to convert all peoples to acknowledge the one true God, Christianity developed subtle techniques to promote conversion, and Christian concepts, generally antithetical to European paganism, eventually replaced even the more deeply rooted of the pagan concepts. Christian churches were commonly erected on the site of places held holy by pagan myth and tradition. Marriage, which in pagan Europe was a function of kinship, in the eyes of Christianity was not just a compact between two people and their kinfolk, but involved a third party, the Christian God — thus enabling Christianity to breach the walls of the kindred, which lay at the heart of paganism. Christian converts were not to question the word of God as revealed by His prophets, for to seek any explanation of the working of the universe other than that contained in His revealed Word was to do the bidding of the devil. The Christian God was a jealous God, whose ways were at times inexplicable and “wondrous.” Christianity had no room for those who asked questions when natural events mystified them, for God was omnipotent, all-powerful, and all that took place was Divine Providence.

Christianity, some of whose roots through John the Baptist possibly reached back into the egalitarian communalism of the Essenes, arose as a heresy among the Hebrews at a time when they lived under the domination of Rome, whose legions had stormed Masada and destroyed the Temple in Jerusalem. It offered comfort to those who suffered by alleging that their suffering and enforced humility would bring them benefits in the afterlife, while the pride of the Roman ruling clans known as *gens* (from which the term “gentiles” is derived) would bring with it only sorrow after death.

Providence Supplants Wyrð

Christianity, with its emphasis on faith and the unquestioning acceptance of miracles as acts of God, eventually suppressed the proto-scientific spirit of enquiry amongst the pagan Greek philosophers and severely set back the rise of science until the advent of the Renaissance. So also it suppressed any further proto-scientific appreciation of causality among the Germanic peoples who were to eventually emerge as the prime pioneers of modern science.

Like the pagan Roman Stoics, the pagan Germans sought to face misfortune with courage, knowing that the causal forces that determined their fate moved with irresistible grandeur. Christianity, by contrast, represented Fate not as mechanical causality, but as Providence, as the Will of a monotheistic Creator God. Christianity had no room for *Wyrð*, since God preferred to work miracles, but *Wyrð* retained such power in the German mind for generations after the advent of Christianity that Christian priests and monks initially sought to equate *Wyrð* with the Christian concept of Divine Will or Providence. Eventually they ensured that it declined into “weird,” with all the fearful and ungodly connotations that are associated with “weird” to this day.

For good measure, while some European pagans had seen death as the end of life, representing Hel, the realm of the dead, as an empty nothingness, and Christianity offered the Justice of God. Heaven was the reward of those who submitted to the church’s wishes, but for those who rejected the rule of the church an alternative fate was ordained, admission to a Hel[1]. This was now portrayed as a place of eternal torment. Since the rewards and punishments were to be realized only after death, none could discover until after death whether the promised rewards and punishments were real, and a man on his deathbed was easily tempted to offer some or all of his wealth, (that would otherwise have gone to his descendants) to the Christian clergy as an inducement for them to pray that he should go to paradise rather than to eternal torture in the Christian version of Hel[1].

As Phillpotts writes:

These ideas of Heaven, Hell, and the justice of God, are the three ideas connected with the new faith which we find clearly indicated in *Beowulf*, and they were no doubt specially characteristic of the first few generations after the conversion. Clearly mere misfortune, mere defeat, was easier to understand in the light of the new knowledge. The victim could be compensated in the next life for his sufferings in this one, though that resistance to the uttermost, that defiance of Fate, so much admired in the heathen times, was now very liable to become mere impiety.

Christianity set back science in Europe by suppressing the early notion of impersonal causality and suppressing the freedom of men to speculate on the nature of the Universe. It diverted attention from any idea of scientific enquiry by replacing the concept of *Wyrð* as a mechanical

causal force with the ideas of Fate as Divine Providence — as the inexplicable Will of God, which should never be questioned, but only humbly accepted with complete Faith in His goodness.

Plato's academy, which had survived for centuries after his death, was eventually closed by order of the Christian Emperor of Byzantium because in seeking to understand causal events it challenged the doctrine of divine Providence. Similarly, in the Germanic world, *Wyrð* came to be portrayed as “weird,” and those who sought to explore the secrets of causality were portrayed as being aligned with the forces of evil.

It can therefore be argued that it was not European paganism that brought the real Dark Ages to Europe: it Christianity, with its origin in Oriental monotheism, that suppressed the roots of scientific thought throughout Europe; on the contrary, it was Christianity, with its roots in Oriental monotheism, that suppressed the evolution of modern science from the earlier proto-scientific pagan European belief in some kind of inanimate causal forces. This belief in natural forces, even if at first only ill perceived, was the ground from which scientific enquiry into the mysteries of Life and the Universe eventually evolved, not Providence and the “Revealed Word of God”.

Appendix: *Wyrð*, Fate and the Value of Fame

What we know as the Heroic Age in ancient Greek, Germanic, Celtic, Slavic, and even Iranian and Indo-Aryan culture was an expression of the dignity of men who met their fate — as determined by *Wyrð*, the irresistible causal forces that shaped all events — bravely and without flinching. They sensed that they could not resist the causal forces that determined all movement in the universe, but they also intuitively realized that the prestige and social status of their kinsmen and descendants would be enhanced by the fame that they would earn by their conduct. As Bertha Phillpotts expresses it:

About the references to Fame in Anglo-Saxon and Scandinavian poetry there is a warmth and a passion which ought to warn us against regarding it as the meed of mere physical prowess. It is an assertion that there is something greater than Fate: the strength of will and the courage of human beings, the memory which could preserve their deeds. Fame and human character: these were the two things against which Fate could not prevail. ‘Wealth perishes, kinsfolk perish, one’s very self perishes’, says the Northern Havamal, ‘but fame dies never for him who gets it worthily.’

Only the descendants of the Germanic hero benefit from the bravery with which he meets his fated end. As Byrthwold declares in the *Battle of Maldon*:

Soul shall be the more stalwart, heart the higher,
Courage the greater, the more our might diminisheth.

No thought of retreat or shameful escape here, only of the pride, dignity and courage with which men of iron go to their death, and thereby increase the prestige of their kinfolk and lineal descendants. While the Christian belief in Providence, in the Will of God, encouraged humility, passivity, and submission, the pagan was expected to confront *Wyrð* with unyielding dignity.

To the pagan European, life was short. Bertha Phillpotts points to the legendary simile of the sparrow, whereby the life of man is likened to that of a bird that flies into the thegn's hall where men are feasting, but quickly flies out again through another opening in the roof. In contrast to the pagan philosophy which saw the life of man as brief and flitting, Christianity promised something very unnatural: nothing more nor less than what in popular jargon has been called "pie in the sky" — an eternal afterlife in a perfect heaven. It is true that, in the Odinist tradition, Germanic warriors were also offered a more militant form of "pie in the sky" — eternal combat and feasting as members of Odin's *Einheriar* or *warband* in *Valhalla* — but this was only open to the warrior class, and is not typical. Once again, Bertha Phillpotts writes:

For the Northern peoples there was no reward in a future life, since the doctrine of *Valhalla* never seems to have made much headway against the far older beliefs that the dead man lived on in his grave-mound or led a shadowy existence in *Hell*. So, as the Anglo-Saxon gnomic verse says: *Dom bio se-last* 'Fame is the best of all.' This attitude to life deserves, I think, the name of a philosophy and it is a coherent philosophy even though unformulated. It depends equally on the conception of Fate and on the conception of Fame. Neither can be taken away without shattering the web of thought.

To the Nordic pagan, Fame — earned by facing Fate with pride and courage — had value in that it added to the status of one's descendants; but Christianity disliked pride and indirectly also on fame, seeing them qualities that detracted from the humility that men should show toward their "loving," but also "jealous," God, and possibly not less so to His church.