



The Owl of Athena

CONTRATYRANNOS

The Natural Law Theory of Human Progress Website

EXCURSUS #12

One of a series of monographs that expands the discussion of important topics examined in *The Natural State of Medical Practice*.¹

VALIDATION OF THE NATURAL LAW THEORY OF HUMAN PROGRESS

Summary: Following a formal validation of Natural Law Theory, the unintended consequences of authoritarian interference in society's natural rights are shown to reside in big government, thus giving us the warning:

**From him who sees no wood for trees,
And yet is busie as the bees
From him that's settled on his lees
And speaketh not without his fees,
Libera nos.”²**

Sumer	Egypt	India	China	Greece
<i>Medical Treatise</i>	<i>Papyrus Ebers</i>	<i>Charaka Samhita</i>	<i>Su Wen</i>	<i>Hippocratic Corpus</i>
2900 BC	3100 BC	2000 BC	2000 BC	600 BC
Early urbanization	Early urbanization	Urban	Early urbanization	Early urbanization
2350 BC	2600 BC	500 BC	300 BC	300 BC
Akkadian	Pharaonic	Hindu	Bureaucratic	Destabilization
assimilation	assimilation	assimilation	assimilation	
Incorporation	Incorporation	Incorporation	Incorporation	
Disappearance	Disappearance	Ayurvedic Medicine	Traditional Chinese Medicine	Disappearance

This Table lists, in sequence, the regions, the critical medical texts, approximate or proposed date of origin of their rational clinical content, the social environments at that time, approximate dates of authoritarian intercession, the causes of that cessation, its mechanism, and ultimate status. Its purpose is to summarize the course of medical progress in human history supporting a proof of the Natural Law Theory of Human Progress.

¹ Volume, chapter and page number of otherwise unreferenced statements in this monograph refer to the version of the four volumes as published by Liberty Hill Press, 2019-2023:

Vol. 1 – *The Natural State of Medical Practice: An Isagorical Theory of Human Progress*

Vol. 2 – *The Natural State of Medical Practice: Hippocratic Evidence*

Vol. 3 - *The Natural State of Medical Practice: Escape from Egalitarianism*

Vol. 4 – *The Natural State of Medical Practice: Implications*

² A Letany for St. Omers, 1682, from: *Proverbs of John Heywood. Being the “Proverbes” of that author printed in 1546*, J. Sharman, ed., London, 1874.

Introduction

No, despite the crafty proverb of Mr. Heywood in 1546 I do not intend to diminish the significance of the work of the vast army of historians who over the centuries have conscientiously attempted to describe and interpret the history of mankind. Indeed, the theory I will now summarize is based on their careful labors. But it is my opinion that from the vast treasure they have recovered it is now possible to see the “forest” if we but step back and view the panorama in which the many battles of humankind have been fought. And it is my hope, therefore, that *The Natural State of Medical Practice* will be interpreted not as a historical recounting of a cornucopia of individual successes of our favorite predecessors but as a revelation and warning of panoramic failure.

The conclusions of *The Natural State of Medical Practice* rely on the correct interpretation of historical data surrounding the appearance and then disappearance of arguably nascent scientific medical practices in the ancient civilizations of Mesopotamia, Egypt, India, China, and Greece. These civilizations were initially studied because each began as a primary civilization and we possess ancient medical documents from each that have been acclaimed by scholars as consistent with those practices.³ Conclusions from their study are the basis for the *Natural Law Theory of Human Progress* that is derived from it.⁴ The documents are:

Mesopotamia – *Treatise of Medical Diagnosis and Prognosis*
 Egypt – *Papyrus Ebers*
 India – *Charaka Samhita*
 China – *Huang Ti Nei Ching Su Wen*
 Ancient Greece – *Hippocratic Corpus*

Each is considered the foundational medical document for its respective civilization. Notably, of all the documents it is only the Egyptian *Papyrus Ebers* that in its original form may have included supernatural content, although even this is uncertain.

Thus, the scope of investigation of *The Natural State of Medical Practice* that led to the Natural Law Theory of Human Progress comprises medical practices from around the world. Its definition is:

A theory ascribing all apolitical advances for the betterment of mankind to autonomous associations pursuing self-betterment in which each member has equal opportunity to speak freely and share ideas about the group’s common interest without fear of retribution. Axiomatically it excludes “betterments” that have been stolen, copied, derived by exploitation, or used for subjugation of others.

Inevitably, investigative results attempt to be comprehensive, and profound generalizations will be based on an ocean of specific events and details. As in all objective studies that rely on data there will be outliers that do not fit into an all-inclusive generalization. Exceptions are found in

³ Definition of a “primary civilization:” A civilization that has not been “shaped by substantial dependence upon or control by other, more complex societies.” (Trigger, B. G., *Understanding Early Civilizations*, Cambridge (UK), 2003, p. 19.)

⁴ Also see: Majno, G., *The Healing Hand*, 1991, 1st paperback edition. This is an excellent clinical interpretation of medical practices in ancient civilizations and includes all five of the civilizations discussed in this excursus.

everything, and it is with statistics that we attempt to focus on those things deemed most important. The Natural Law Theory of Human Progress entails both issues. On the one hand it is based on broad generalizations; on the other there is a rudimentary attempt at statistical analysis (see Appendix A, volume 1, of *The Natural State of Medical Practice*) in the hope that some of the outlying material can be reasonably excluded. It is my hope, therefore, that its conclusions will prompt others to apply to other essential subjects a similar analysis to test the validity of the Natural Law Theory of Human Progress.

But first, a “theory” is, at its core and according to Merriam-Webster, a “supposition.” That supposition is “based on general principles” independent of what is being supposed. The Cambridge Dictionary agrees: “a statement ... based or suggested to explain a fact or event ... or an opinion or explanation.” The Stanford Encyclopedia of Philosophy definition of theory(s) is, in contrast, exceedingly complex. It is best, therefore, to focus on a practical definition of “theory” for a specific issue, and a convenient one is found in *Science News for Students* and can be summarized as *an explanation of how something happens based on experiments, observations and facts that have been confirmed*.

Using the latter definition, the Natural Law Theory of Human Progress (herein the “Theory”), to be considered a valid theory that can be taken as a serious attempt to explain the course and causes of success and failure of human progress, should depend on confirmed facts and observations. How closely does the Theory adhere to this requirement?

1. Factual basis of the Theory - The Theory is derived from the facts of history as provided in scientific journals and books by hundreds of scholars. I am not a historian and am not competent to judge the factuality of historical events uncovered by specialists who often have disparate views of the same event. I have tried to consider and to include competing views in developing the Theory. Ancient history, however, is fraught with inconsistent judgments regarding facts, and even basic factual information concerning dates, names, and locations is often unavailable and therefore is often an estimate or guess, however insightful.
2. Observational basis of the Theory – This means the actual observation of something by someone, which in the realm of history usually is a personal observation by a participant or bystander or a relevant contemporary description of an event that is generally held by those affected by the event. It often is unavoidably subjective, and a corollary is the myth or legend arising from the event that has become a virtual fact in the minds of contemporaries and descendants but which has little basis in fact. In some situations, however, there may indeed have been a factual basis underlying the origin of the myth or legend. This is discussed in volume 3 of *The Natural State of Medical Practice*, p. 31.⁵

Given the scientific limitations of historical theories as outlined above, the historical observations and facts upon which the Natural Law Theory of Human Progress is based can now be reviewed. Three arguments representing the basis for its conclusions are presented: **(1) The credibility of basic documents** upon which the arguments rest should be considered consistent with progress in the field of medicine according to modern medical judgment rather than contemporary or popular opinion; **(2) There should be evidence for early urbanization** as the social environment that permitted the initiation of medical progress, a phase sometimes referred to as a “settlement hierarchy;”⁶ **(3) Evidence of authoritarian manipulation** should explain the

⁵ Also see: Honko, L., *The Problem of Defining Myth*, in *Sacred Narrative*, Alan Dundes, ed., Berkeley, 1984, pp.41-52, especially p. 45.

⁶ Definition of a settlement hierarchy: “A natural progression of intergroup adjustments that spontaneously occurs as an urbanizing society, having no prior experience with a political hierarchy, becomes more complex and acquires

loss or termination of that medical progress. These three arguments are now reviewed as they apply to each of the five civilizations.

Elaboration on arguments supporting the Theory

First, there is an axiomatic base upon which the Theory rests. The following points are made and explained in *The Natural State of Medical Practice*:

1. The initial steps leading to medical discovery are cheap, easy, quick, simple, and at hand. No technology is required. In medicine we call this the history and physical examination of the patient.
2. The steps leading to scientific medical discovery require a group of practitioners and a large population under observation for, to be scientific, a discovery needs confirmation. Each person responds uniquely to an illness or injury, and, except for epidemics, illness and injury tend to be sporadic and at best only modestly predictable. A sporadic medical event, therefore, is better confirmed within the combined experience of a group of practitioners acting within a large population. An observation within one's family circle or tribe may be correct, but to be scientific it needs confirmation. A minimum requirement based on a limited statistical analysis is proposed in *The Natural State of Medical Practice*, volume 3, Appendix A, for initiation of a sustainable medical profession capable of maintaining medical progress over time: a collegial association of at least three or four practitioners in a prosperous and politically stable region and an accessible population in the range of ten thousand.

Thus, even without knowledge of their origin, the medical documents upon which the validity of the Theory is based can, with reasonable confidence, be declared the work of at least several practitioners working collegially in the midst of a large population rather than a single practitioner moving from village to village. This should be reflected in the social environment of the time.

Mesopotamia:

Credible document: The medical document most studied by medical and linguistic scholars has been the Sumerian *Treatise of Medical Diagnosis and Prognosis*. The prescient nature of its knowledge is described in articles written by medical subspecialists and is especially well outlined in the excellent book by Drs. Scurlock and Andersen, the latter a specialist in infectious diseases, and works of other scholars.⁷ In addition to these references, I comment in *The Natural State of Medical Practice*, volume 3, pp. 53-54, that a procedure described to drain fluid from the chest had to be based on the experience of many practitioners over time, thus adding to the argument for a Sumerian collegial medical affiliation of some sort.

Evidence for early urbanization: The evidence from medical sources, however minimal, is sufficient to confidently claim a significant formal medical presence existed during the Early Dynastic period of Sumer (2900-2350 BC) or earlier, perhaps in the Jemdet Nasr period (3100-

facilities, goods and services to accommodate an enlarging population." A "primary city-state" is an early city-state that is not a colony and is unaffiliated with a larger civilization.

⁷ See: Scurlock, J., and Andersen, B. R., *Diagnoses in Assyrian and Babylonian Medicine*, Chicago, 2005; Paullisian, R.; *Medicine in Ancient Assyria and Babylonia*, in *J. Assyrian Academic Studies*, 5:3-51, 1991.

2900 BC) of the prosperous city-state of Uruk, population 50,000, prior to domination and unification of the regional Sumerian city-states by the Akkadian monarch, Sargon (24th C BC).⁸ There of course had been no prior experience with a medical profession. If 2900 BC is chosen as the approximate dating of this evidence it would be late in the “settlement hierarchy” phase of urbanization of Uruk.⁹

Evidence for authoritarian manipulation: Although Sumerian medicine was admired and some of the texts of scholarly works would be transmitted in Sumerian cuneiform for two thousand years, the degradation of the clinical practitioner paralleled the centralization of political power in Mesopotamia during subsequent troubled times. The degradation of the *azu* (physician) commenced with the appearance of the exorcist-priest, *asipu*, of the early Akkadian conquerors (ca. 2300 BC). Payment for the *azu* was then regulated by the Code of Ur-Nammu (2050 BC), and penalties for errors of the *azu* were imposed by the Code of Hammurabi (1750 BC). The *azu* is not even mentioned for centuries in the monarchical regimes following the Old Babylonian period. In contrast, the *asipu* became increasingly prominent over these centuries, using the early clinical wisdom of the *azu* in the *Treatise of Medical Diagnosis and Prognosis* while contributing none of his own. Omens, while common in Akkadian, are absent in writings from earlier Sumer even though gods and goddesses were in abundance.¹⁰ It is notable that the *azu* was again recognized in the militant Neo-Assyrian empire (911-609 BC), but only as a medical companion to retrieve the wounded during military actions. The exorcist *asipu*, in contrast, remained identifiable throughout all periods, even to the 4th C BC, and magic featured prominently in the subsequent medicine of Zoroastrianism of the Persian Empire (550-330 BC).

Egypt:

Credible document: There are a mere twelve medical papyri that grace the medicine of the 2600-year-old ancient Egyptian civilization, most of which deal heavily with magic and with repetitions of clinical sections from the singular *Papyrus Ebers*, which therefore must be considered the pinnacle of ancient Egyptian medical scholarship. Much scholarship has centered on ancient Egyptian medicine as a forerunner of Western modern medicine, and excellent translations and commentary have revealed the valuable clinical detail of *Papyrus Ebers* and its near contemporary, the Edwin Smith papyrus.¹¹ Both are acclaimed as works of great medical insight.¹²

⁸ The Sumerian medical practitioner (the *azu*) is mentioned as early as 2900 BC, and the Electronic Text Corpus of Sumerian Literature (ETCSL) at the University of Oxford provides a text concerning a goddess, Ninisina A, who is described as a healer, a helper for childbirth, and possessor of a scalpel (t.4.22.1). This goddess, holding a scalpel, is first attested in Early Dynasty IIIa (2600-2450), although her earlier manifestation is thought to be Ninsun (or Ninisina) the mother of Gilgamesh, now considered an early king of the Early Dynastic city-state of Uruk (?Isin, ca. 2800 BC). It is to be admitted, however, that the two earliest extant rational Sumerian cuneiform tablets date only from ca. 2500 BC in the western Sumerian city of Ebla, although they presumably reflect pre-existing earlier rational medicine in a central Sumerian city-state such as Uruk. Furthermore, it probably took two or three centuries for a professional medical component to evolve to the point that it could be so highly regarded as to be assigned to a goddess.

⁹ It has been stated that the settlement hierarchy phase and the political centralization phase of urbanization can co-exist for extended periods, and evidence suggests no rigid political hierarchy existed at the time of Gilgamesh.

¹⁰ Michalowski, P., *How to Read the Liver – in Sumerian*, in *If a Man Builds a Joyful House*, A. K. Guinan, et al., eds., Leiden 2006, pp. 247-258,

¹¹ Allen, J. P., *The Art of Medicine in Ancient Egypt*, New York, 2005.

¹² For example: van Middendorp, J. J., Sanchez, G. M., and Burrige, A. L., The Edwin Smith Papyrus: A Clinical Reappraisal of the Oldest Known Document in Spinal Injuries, in *Eur. Spine J.*, 19:1815-1823, 2010; Strouhal, E.,

Evidence of early urbanization: An inscription in the 16th C BC copy of *Papyrus Ebers* states that it (meaning the original version) was shown to the 1st Dynasty pharaoh, Den, whose rule is presently dated 3000 to 2960 BC (found in paragraph 856a of the papyrus). Scholars have cautioned that the dating of *Papyrus Ebers* with the pharaoh Den should not be assumed to be correct.¹³ On the other hand, the *Berlin Medical Papyrus* of the 18th Dynasty contains much that is in *Papyrus Ebers* and a similar mention of Pharaoh Den.¹⁴ The *Papyrus of Ani* of the 19th Dynasty contains elements that have been described as “primeval,” validating the possibility of even predynastic material finding its way into later papyri. The Wellcome Institute cites a page of the *Papyrus Ebers* that contains a recipe from the 1st dynasty. The 3rd C BC Egyptian historian, Manetho, cites the 1st dynasty pharaoh, Athothis, as a “physician” and author of an anatomical text. The social environment of Hierakonpolis as an autonomous Egyptian primary city-state in ca. 3100 BC has been reviewed, and its principal features are consistent with the settlement hierarchy phase of urbanization. It can be concluded that the clinical material in *Papyrus Ebers* comes from the Naqada III or 1st Dynastic period (together, 3200-2890 BC), probably the former.

Evidence for authoritarian manipulation: With centralization of power in the early centuries following the unification of Upper and Lower Egypt under the first pharaoh, the wisdom of the early practitioners became canonized and subsumed by priest-physicians of the palace beginning in the Old Kingdom period (2700-2200 BC). Medical progress not only ceased; it was increasingly magical and regressed. By the time of the Persian conquest (525 BC) nothing of significance remained.¹⁵ Diodorus Siculus (1st C BC) then cited severe penalties should a “physician” deviate from the ancient Egyptian writings.

India:

Credible document: Essentials of the earliest medical practice in India are considered to reside in the Vedas, specifically the Rig Veda and the Atharva Veda. Their mature secular form is considered to be modern Ayurveda, with the medical classic, the *Charaka Samhita*, acclaimed as its initial masterwork. Underlying the many statements in that document that to the modern mind

Vachala, B., and Vymazalova, H., *The Medicine of the Ancient Egyptians*, New York, 2014; Nunn, J. F. *Ancient Egyptian Medicine*, Norman (OK); Majno, G., *The Healing Hand*, Cambridge (MA), 1975.

¹³ John Nunn: *Ancient Egyptian Medicine*, Norman (OK), 1996, p. 31

¹⁴ That the original *Papyrus Ebers*, or its content, was seen by Den suggests the nascent Egyptian medical practitioner of his time had already acquired a good reputation above and beyond the reputation that circulates among one’s kin and friends. Some estimate the date of the original *Papyrus Ebers* to be as early as 3400 BC, although the hieratic script of the papyrus was not developed until the Naqada III period (3200-3000 BC). As with the early Sumerian dating of its collection of clinical material, it is reasonable to estimate the Egyptian clinical observations were made during the two centuries preceding pharaoh Den, i.e., ca. 3200-3000 BC. In an autonomous primary city-state of the time (Hierakonpolis, settled in late 5th millennium BC) there was an increasing population and prosperity guided by a commercial heterarchy even though there were local leaders that were evolving an elite class. Kinship affiliations have been judged to be not prominent, and specialization in services and crafts proliferated. Prosperity and progress in medicine, as found in *Papyrus Ebers*, would continue into the Early Dynastic period, along with freedom of artistic expression among the non-elite population.

¹⁵ “There is no evidence of major changes in the format or content of classical Egyptian medicine between the Old Kingdom and the end of the Twenty-sixth Dynasty, covering the years 2600 to 525 BC... .” J. F. Nunn, in *Ancient Egyptian Medicine*, Norman (OK), 1996, p. 206.

seem absurd, there is much clinical description documenting the prescience of many Indian practitioners in ages past.¹⁶

Evidence for relevance of early urbanization: Tradition has tied the wisdom of the *Charaka Samhita* (the “collection of Charaka”) to the Vedic Age, 1500 to 500 BC by current scholarly estimations but probably prior to 2000 BC by some authorities, although the *Charaka Samhita* itself was probably physically compiled *ca.* 1st C BC. Its legendary (mythical?) author was Agnivesha in the 8th C BC. Charaka himself has yet to be specifically identified, but Dr. Chattopadhyaya has proposed the word “caraka,” meaning “wanderer,” to be closer to the truth.¹⁷ This would equate the early Indian practitioners with the itinerant physicians of ancient Greece and China. But the basis for the rational medical knowledge of the *Charaka Samhita* is considered to be the Rig Veda, the oldest and most revered of the several Vedas and dated to the early years of the Vedic Age. The confidence with which its pronouncements about contemporary medical practitioners are made indicate a medical profession not only existed when Rig Veda was composed but had existed, and over a wide area, for some time, perhaps several centuries. Importantly, its medical statements contain no numinous component, whereas the much later *Charaka Samhita* has much mystical and religious content as well as additional advice from its subsequent non-physician editors. There is also no question but that the clinical content of the *Charaka Samhita* reflected the medical environment of a large population. The idea that it was cumulative experience arising from irregularly visiting hamlets and villages over a broad area by isolated, illiterate and competitive “wandering” practitioners is untenable. Sizeable Indian cities in ancient times belonged either to the Indus River Valley civilization (2600 to 1900 BC) or to the “second urbanization period” (500 to 200 BC). Only local populations surrounding separate and discrete monarchical centers of the subcontinent existed during the intervening centuries.¹⁸ It is proposed, therefore, that the collection of clinical information was already available late in the 1st millennium BC when Hinduism formally emerged. The only possible site for its origin is the extraordinary Indus River Valley civilization with its many large cities. One of its larger, autonomous and prosperous city-states was Mohenjo Daro, located in present-day southern Pakistan. Its archeological structure was egalitarian and there is no evidence of centralized political power.

Evidence for authoritarian manipulation: Beginning about 2000 BC, and presumably because of climate change rather than conquest, Indus River Valley cities declined, their population moving primarily toward the east. Many centuries later it was the Brahmin caste of Hinduism that, being the most scholarly of the Varna system, involved itself in the work of the ancient Indian medical practitioners. From perhaps the 5th C BC to the 5th C AD Brahmins were involved in medical practice and the education of those who would be practitioners. Their scholars, presumably including Charaka and Drdhabala, the 5th C AD editor, compiled and edited, respectively, the *Charaka Samhita* and added numinous content from Hinduism so that the collected work came to be seen as a Vedic classic integral to Hindu tradition. But later in the 1st millennium AD the

¹⁶ As Dr. Debriprasad Chattopadhyaya states, “... their great significance and reputation despite the heap of intellectual debris eventually piled upon them.” *Science and Society in Ancient India*, Amsterdam, 1977.

¹⁷ See the magisterial work of G. J. Muelenbeld, *A History of Indian Medical Literature*, volume Ia, Part 1, for an exhaustive account of the dates and identities of those who might have been affiliated with the original *Charaka Samhita*. But I rely much on Dr. Chattopadhyaya’s insightful book in the previous footnote.

¹⁸ In his list of largest cities, Tertius Chandler lists no subcontinent large cities between 1900 and 500 BC: *Four Thousand Years of Urban Growth: An Historical Census*, Wales, 1987.

association of Brahmins with medical practitioners came to an end as medicine was viewed as a low caste purview.¹⁹ As part of the canon of Hinduism, there has been no clinical progress in Ayurveda beyond the mere recovery of some of its ancient edited content as found in the *Charaka Samhita*, although periodically new botanical observations occurred.

China:

Credible document: The *Huang Ti Nei Ching Su Wen*, translated by Dr. Ilza Veith as *The Yellow Emperor's Classic of Internal Medicine*, has been uniformly considered the masterwork of Chinese medicine for centuries.²⁰ Its authority has extended to today's Traditional Chinese Medicine. First documented in an early bibliographic catalogue of the Han Dynasty (the Qilue, 2nd C BC), it received a major editing and amending by the non-physician, Wang Bing, in the 8th C AD. This has been the source of the modern version of the text. Its core tenets include the uniqueness of the individual patient and a non-mystical approach to causation and therapy. There are many reasonable and insightful clinical observations, and it is universally agreed that it is the work of many practitioners, although whether there was a collegial association is not mentioned.

Evidence for relevance of early urbanization: Traditional thinking has the *Huang Ti Nei Ching Su Wen* dated to the time of Huang Ti, the Yellow Emperor, the legendary (? mythical) unifier of early China *ca.* 2500 BC. Scholars do not accept this as factual, and most would put its compilation of medical wisdom about 300 BC, with the majority of its content being contemporary but with the clinical core possibly much older.^{21,22} The Han Dynasty (202 BC-220 AD) mention of the *Huang Ti Nei Ching Su Wen* in the Qilue bibliography of the extant *Book of Han* indicates its knowledge was already ancient. There is no evidence of medical practitioners in the intervening Xia and Shang dynasties (2070-1050 BC) even though the Chinese writing was evolving and referred to oracles and shamans. The Zhou dynasty (1050-256 BC), in the Rites of Zhou (*ca.* 260 BC) mentions palace “physicians” with seemingly paramedical tasks but no knowledgeable treatise. It is proposed, therefore, that the social environment of the Shandong Longshan Culture of the legendary Yellow Emperor provided the clinical foundation of the *Huang Ti Nei Ching Su Wen*. Of the few population centers of the time, one of the largest was Liangchengzhen, notable for its lack of centralized commercial regulation and located near the coast. I propose it is from such an early population center as Liangchengzhen in the late Longshan period, *ca.* 2000 BC, prior to the invention of writing and at a time when urban specialists in goods and services first appeared, that medical practitioners first entered into collegial affiliations and acquired the medical knowledge that would later be the basis for the *Huang Ti Nei Ching Su Wen*.²³ It would be passed

¹⁹ Hunter, W. W., *The Indian Empire: Its People, History and Products*, New Delhi, 2005, a reprint of the 1886 original, p. 109. This work was apparently translated and used in contemporary schools in India.

²⁰ See: Veith, I., *The Yellow Emperor's Classic of Internal Medicine*, Baltimore, 1949. Her work included only 32 of the 81 chapters of the *Huang Ti Nei Ching Su Wen*.

²¹ Unschuld, P., *Medicine in China: A History of Ideas*, Berkeley, 2010, the 25th anniversary edition, p. 25.

²² Ma, B., *A History of Medicine in Chinese Culture*, Singapore, 2020. It should be mentioned that there is a public site identified as the birthplace of Emperor Huang Ti, and elsewhere footprints attributed to him have been preserved.

²³ It has been noted by scholars that the *Rites of Zhou* from the late Warring States period (475-221 BC) contains elements of bureaucratic structure traceable to the Duke of Zhou (the “honorable and virtuous king” who reigned 1042-1035 BC) because the compilers of the *Rites of Zhou* included venerable bureaucratic structures of the Duke of Zhou so as to make their new bureaucratic system more acceptable to critics. Analogously, perhaps the Warring States historians who some propose to have compiled the *Huang Ti Nei Ching Su Wen* retained fragments of orally transmitted knowledge from the Longshan Culture in their compilation because any association with the Yellow

down orally in fragments for centuries before being an acknowledged comprehensive medical treatise during the Han dynasty.

Evidence for authoritarian manipulation: Whatever the resolution of the origin of rational medical wisdom found in the *Huang Ti Nei Ching Su Wen*, the wisdom itself, as codified and amended by Wang Bing, a nonphysician, in the 8th C AD, did not evolve. Once bureaucratically entrapped and canonized, the clinical knowledge of the *Huang Ti Nei Ching Su Wen* would never improve, as indicated by its veneration even today. Instead, the only aspect of ancient Chinese medicine that increased was its botanical menagerie of medicinal herbs and other substances. Dynastic emperors over subsequent centuries commissioned massive herbals from information gleaned throughout their empires, usually collected and compiled by non-physicians, but scientific merit was not sought, even into the 20th century, when it was reintroduced by the Chinese People's Republic as Traditional Chinese Medicine, a cheap but inferior alternative to Western medicine.

Ancient Greece:

Credible document: Documented far beyond any other ancient system of medicine, the Hippocratic Corpus remains today a respected source of information on all aspects of clinical medicine, as well as the Hippocratic Oath. It still provides us with surprising insights.²⁴

Evidence for relevance of early urbanization: Traditionally Hippocratic medicine is tied to a single practitioner, Hippocrates of the island of Cos a few miles off the Ionic Coast (now the western coast of Turkey). Reasons for disagreeing with this attribution are presented elsewhere (*The Natural State of Medical Practice*, volume 1, p. 217ff). It is considered probable that what would become Hippocratic medicine originated with development of the ancient Greek city-states. The best candidate is the large and prosperous primary city of Miletos about fifty miles from the island Cos on the mainland of then Ionia (now the west coast of modern Turkey). It was founded as a primary city-state about 1050 BC and reached a population of 10,000 by 800 BC. Whatever the conclusions may be about the site of its origin, there is no doubt but that 5th C BC Hippocratic medicine originated during a century or more prior to Hippocrates (his dates supposedly 460-380 BC), for the breadth and depth of its medical knowledge had to have been acquired by many physicians over at least two or three generations and shared collegially. It is in line with this reasoning that the history and prehistory of Miletos is considered the paradigm city where Hippocratic medicine probably began sometime in the 6th C BC, an unprovable opinion because Miletos was razed to the ground by the Persians in 496 BC. There is no evidence of a burgeoning 6th C BC medical practice in any other ancient Greek city-state.

Evidence for authoritarian manipulation: Hippocratic medicine had a short run of productivity. Its disintegration was part of the disintegration of the ancient Greek city-state and its democratic foundations, beginning in the 4th C BC, and completed by the Roman army in 146 BC. Disruption

Emperor (Huang Ti) would be considered venerable authentication of their work. As writing and collegial medical affiliations tend to occur contemporaneously, I predict that at some point in the archeology of Liangchengzhen or similar Longshan population center early Chinese characters referring to medical practitioners will be found. That a preceding form of writing existed in the region, see the evidence by Dr. Paolo Dematte in *The Origins of Chinese Writing: The Neolithic Evidence*, in *Cambridge Archaeological Journal*, 20:221-228, 2010.

²⁴ See this website's Section "Papers" for my contributions to date.

of Greek civilization, like that which followed the Early Dynastic period of Sumer, also disrupted the medical associations that had fostered medical progress. Sadly, the Roman Empire developed no formal medical profession of its own, relying instead on foreign practitioners. As a consequence, when the Dark Ages arrived there were no medical professionals remaining.

Conclusions²⁵

For more than a century-and-a-half the West has reaped the benefits of medical progress that began in the 18th C, and it seems unimaginable that present-day benefits could be lost. But the five ancient civilizations identified herein initiated rational medical practices and then lost the benefits of medical progress as centralization of political power disrupted and arrogated the practice of medicine. Our modern medicine also began as a consequence of resurgent autonomy that can be traced to the Reformation (*The Natural State of Medical Practice*, volume 1, p. 458ff). Might centralization of political power in the West lead to the same disruptions for us?

The issue involves the unprivileged population, or common citizenry, to which can be traced all medical progress. In ancient times it was the common practitioner who, acquiring a certain knack or discovering an unusual effect of a botanical, acquired a slight reputation as a local healer. It also was in ancient times that, when the demographic situation was suitable, several such healers decided to share their knowledge so as to improve their services. Over a century, or two, or three, and if social circumstances remained relatively stable, that number increased and their reputation did as well, providing future compilers, collators and editors with the knowledge that would find its way into the medical classics described herein. These early practitioners did not suddenly appear because of royal edict, and there was no template to guide their initial collegial associations. They were merely everyday citizens who, realizing their services were useful to their circle of acquaintances and basing their effort on autonomous self-betterment, decided to improve those services by sharing and critiquing their knowledge and then expanding its delivery to the general population. A profession was born. And that is what a settlement hierarchy permitted during in early urbanization; it provided the opening for a variety of services to spontaneously appear and to freely evolve before political forces came on the scene.

There were the inevitable seemingly miraculous cures, and this would contribute to beliefs in healing deities and medical superpowers. Some of the diagnoses, therapies and prognostics of early healers would be spectacularly correct and such feats elevated the popularity of the medical practitioner. But inevitable as well were similar pronouncements and healing that appeared to be successes of seers and exorcists. Clinical practitioners obviously knew the difference, and thus the earliest expressions of medical practice in Sumer, India, China and ancient Greece appear to have been free of mysticism. And it turned out that, for the time being, the clinical practitioner and the exorcist were not mutually exclusive. Both responded to a social need, and the state of knowledge was not yet so great as to overwhelmingly favor one or the other. They worked in parallel but not in concert.

Then matters changed. With the inevitable centralization of political power in their respective city-states, government favored some types of medical practices politically useful or popular, especially if they reflected some intimate association with the divine. In Sumer the rational *azu* practitioner was diminished by the mystical *asipu* to the point of disappearing

²⁵ For factual support of much of the following see Book IV, volume 1, of *The Natural State of Medical Practice*.

altogether for centuries, in Egypt the predynastic community practitioner was incorporated into a pharaonic priesthood, in India the scattered knowledge of earlier Vedic-age clinical practitioners was tied up in the unchanging and mystical wrappings of Hinduism, and in China similar fragments of ancient medical knowledge were compiled by court bibliographers and wrapped in bureaucratic layers of philosophical and therapeutic pseudoscience to accommodate Confucian-oriented political ends. In each case the originators of unvarnished rational medicine have been lost in time, and in each case medical progress either ceased (India, China) or regressed (Mesopotamia, Egypt) rather than progressed.

In ancient Greece the origin of a true medical practice was similar to those in the preceding paragraph, but the combination of a relatively stable social environment and a trend to democratic governance that did not endeavor to interfere with medical services led to the flourish of medical insight documented in the Hippocratic Corpus. It was the authoritarian disruption of the Greek civilization by Philip of Macedon and then Roman armies that provided the colophon to what had been a fruitful beginning.

Medicine in Western civilization began similarly. Arising from the barren medical landscape of the medieval but grandly abetted by the printing press, individual practitioners among the general population began to identify and then communicate features of clinical medicine with their acquaintances. Local practitioners began to replace the medieval university professors of medicine who taught the words but not the methods of the Hippocratics, and, more importantly, to begin their own collegial associations. From these humble practitioners, not the Universities, the Vatican, the Lordships, or Renaissance patronage arose modern medicine. They did not build on previous “shoulders;” they began anew. Slow at first but with astounding successes since the 18th C, the benefits of Western medicine have mollified many of the threats to our health and happiness and, for the first time in human history, increased the life expectancy of a civilization.

That is the story to date. But what now? If there is any lesson to be learned from the history of medical practice as presented in *The Natural State of Medical Practice* it is that its origin and its perpetuation depend on the natural rights and thereby civil liberty of the general population, unleashing its ingenuity and common sense (see Excursus 3). But authoritarian governance of any kind will inevitably attempt to acquire and dominate the services of the medical profession.²⁶ It will integrate its favored medical practice into a bureaucratic framework for political convenience. The resulting misuse of that medical association will interfere with medical progress. Equally important, *The Natural State of Medical Practice* has disclosed an unintended consequence of that interference, the cessation of the flow of ideas from the general population. The sequestration of medical practice within a privileged political bureaucracy prevents alternative medical insights and inventions from developing. This removal of options for autonomous pursuit of medical care by the unprivileged citizens (in the United States those outside government service or assistance) disenfranchises the ingenuity and common sense of the greater part of society.

There is a lesson to be learned here regarding government intrusion into today’s medical practice in the United States, one that in all likelihood can be extended to include other aspects of society. It is not just that medical practice as an arm of a political hierarchy becomes the

²⁶ To a list of authoritarian governance some might include that pan-European super-kinship, the medieval Church, but it must be understood that true medical practices had disappeared prior to the approach of the Dark Ages. The Church was the only institution that, acting in accord with its moral message, stepped forward to fill that void. The idea that it used its role in medicine to increase its power is untenable. For the most part the Church tried to dissuade a medical component among its adherents. The problem, instead, was lack of autonomy for the common citizenry in feudal Europe, and it is the later interaction between feudal interests and the increasing power of the Church that begot many problems.

prerogative of the incompetent, inserts a third party between patient and physician, and, as medicine now belongs in the privileged class, is no longer self-regulated and becomes an invitation for abuse. It is also critical to recognize the great harm done as canonization of medicine and medical practice by government marginalizes attempts at improvement from any source other than those it can manipulate or control, *i.e.*, medical corporatism. Alternative ideas become anathema to the political class and all that term implies.

It is proper, therefore, to take issue with any inappropriate medical decision by government. But this will inevitably fragment any organized opposition, for there will not be unanimity on most issues. The conclusion of this excursus, therefore, is an appeal to the medical profession to realize the real problem is the forest, not just some of the trees. For medicine, and probably for everything else, that forest is big government.