

# **FLAWED MEDICAL FOUNDATION**

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In the cited article, I will show the common law concept developed before the science age has impaired the foundation of science.

## **4.1 Introduction**

We examine the foundation of modern medicine. We show that many common law concepts were ported into the foundation of medicine without ever being validated. All of those concepts were developed long before modern sciences were known.

When the common law concepts were developed around 700 to 800, designers were not guided by relevant sciences. The designers did not understand probability, group theory, process optimization, and even the best rule like "apple cannot be compared with orange." They did not know how repeating application of several fixed rules could impact final results. They did not know what kind of data could be aggregated and what may not. The whole common process with fatally flawed designs still runs the U.S. and influences the world.

The common law rules are not wrong per se when they are used to compel citizens to comply with legal obligations. Most common law vestiges continue forcing people to accept them as presumptions so that they must be regarded as truth. This system is maintained by those who are not trained in any of relevant sciences. However, when such common law concepts are used to regulate natural process, natural phenomena, and the human body, they only result in consistent failure.

This is a main reason for the failure of modern medicine and the failure of common law nations.

## **4.2 Neglected Health Problems**

One obvious flaw in modern medicine is disease definition. Modern medicine fails to define a large number of health problems caused by internal imbalances.

A human body is a dynamic and open system run by a large number of biochemical processes, their relative reaction rates, reaction timings, completing degrees, and working and rest phases must be important. A human body is not a simple physical object, and thus orientation, position, timing, and motion state are important. Even sleep position can affect death rate and sinus conditions. Since human beings live in nature with seasonal weather changes, all weather parameters affect their health. Indeed, temperature, humidity, and day-night light cycles have definite impacts on personal health. Since all emotional activities can control physical activities of the body, all emotional-and-physical interactions are also important. As we show, emotional factors often play a decisive role in stroke prevention and stroke risk elimination. Modern medicine, due to its limited disease-definition concept, could not address those obvious disorders.

Among three major types of diseases, acute diseases, discomfort caused by internal imbalance, and the failure of multiple organs, modern medicine can handle only the

first one. Acute diseases have only one or limited abnormal things that could be fixed by drugs, surgeries, or self-healing. Discomforts caused by functional or other imbalances include certain headache, muscle pains, and subjective perception of uncomfortable signs without detectable causes. Some of imbalances such as tinnitus can cause great discomfort but do not have serious consequences. Most people in their life times might experience imbalance between multiple organs. The third class of diseases involves the failure of multiple organs. Multiple organ failure happens in patients with chronic diseases and complex diseases. This is how most people experience in their last days of lives. The whole body is failing. It is impossible to pick up a drug to fix an individual organ. So, hospitals just use the incurable as a final label and give up.

The human body is a highly complex life system. When one organ degrades, the whole body degrades. For example, lack of energy caused by the heart or oxygen deprivation caused by the lungs would have adverse impacts on kidneys by reducing energy supply. Toxins accumulated in the body caused by compromised kidneys will in turn damage the heart, the lungs, and anything else. The whole body goes down. For any given root cause, symptoms in different people differ. Some people experience heart problems, some have problems in the lungs, and others show toxic reactions. The disease process is a “cooperative degradation” of multiple organs. When the body slowly degrades, the thermodynamic state of the body gradually changes. The changed state cannot be reversed by fixing the original cause. This is why a chronic disease is “incurable” by using a single drug. A cure must simultaneously raise the functions of all vital organs by a “cooperative improvement”. The patient dies if the function of any vital organ drops below the threshold for sustaining life. Modern medicine is incapable of treating such a terminal condition.

People can get stroke if they fail to defeat the condition for stroke to take place. Normal blood pressure readings are far from telling the whole story. A person blood pressure curve in response to stress is far more important, and the personal blood vessel condition is similarly important. That analysis shows that dynamic consideration is far more important than static health parameters. It takes only one single mistake to make a stroke happen, leading to death, permanent disability, or a chain of health disasters.

### **4.3 Flawed Use of the Binary System**

Medical research and medical practices have been heavily influenced by the common law vestiges. This can be found by reviewing the common law practices.

#### **(1) The binary system**

When the common law model was developed more than a thousand year ago, the designer, the ruler in Britain, was not guided by sciences. The ruler established a binary system for the common law court. Each element in any legal standard or a claim can take only yes-or-no two values. The outcome in determining any legal claim is also limited to only two outcomes. Such a binary system was to reduce the burden on the ruler.

This binary system is very inaccurate for defining human conduct and commercial activities. In common law nations, any legal matter is defined by several elements with yes-or no values. A legal claim is equivalent to a model in modern science, evidence is equivalent to data in modern science, and adjudication of claim is like to modeling

process in modern science. A claim with five elements has only 32 different outcomes which are then forced into only two outcomes (one with all yeses and the rest 31 with at least one no). Common law modeling is extremely poor.

In reality, human conducts come in an infinitely large number of colors and shapes and many properties used legal definitions are continuous in their values. The binary system is forced on such a property, the property can take only yes or no status. The property is distorted by so much that it is meaningless. For example, intention to destroy the whole mankind and intention to cause a bodily discomfort is considered as same in common law. Altering any of the several elements in a claim may not change the result. In the complex system modeling, an incremental change in each element may alter the final result. We have to say the all models using the binary system would be the worst and are invalid. In ancient times, it appears to be better than adjudicating cases by dueling and ordeals. It is not sure if that still holds.

Due to the use of the binary system, common law court systems are known for very poor performance. Such courts are incapable of delivering justice. The extreme poor performance is well reflected the early equity movements. The gross injustice forced Britain to create an equity court. The U.S. courts poor performance is reflected in the frequent miscarriage of justice in criminal law cases (more innocent defendants would plead guilty for non-committed crime), pro-se cases (zero chances to win against represented parties), and family law cases. People who have used the legal system can quickly know common legal process is a game-playing adjudication. In the recent years, many presidential candidates including Hillary Clinton made criminal law reform as a campaign promise, but none of them addressed the root problem.

## **(2) The binary system finds its way to all walks of life**

This binary system was developed at the time science was unknown, and was ported into every walk of life as a presumption.

This binary system may be reason for modeling very simple human behaviors. This system has used to address extremely complex problems such as antitrust behavior. Thus, a behavior from million dollars to deal to ten of billion deal must be measured by a two-status yardstick. A contract valued from one dollar to trillion dollars must be measured by one single consideration term (every common law judge will take it very serious). In our modern world which is magnitudes more complex than the world where the King Bench was hearing in ancient times. This binary yardstick is incapable of getting anything right. Few commercial activities and legal matters in modern times really follow this binary system.

The worst problem is that this binary system was extended to natural phenomena, natural process, and human personal health problems. The political system never directly imposes two statuses on natural systems directly. It actually affects human activities and behaviors by federal agency practices, liability law, substantive laws, tax law, and all kinds of agency regulations.

The common law vestiges find their way to the foundation of medicine. First, we can show that no health property (except the matter of life and death) follows the binary system. We have discussed a great number of examples of health properties: they are all continuous properties or things comprising a huge number of things. Human health is a relative and continuous property that cannot be well defined. Health condition, a poorly defined property, can range from extremely good to near death. The nature does not in any way classify health condition in health or unhealthy. So, healthy and un-

healthy is a man-made term that is used for the convenience of rulers in allocating resources and computing taxes, etc.

The binary system is completely inapplicable to every aspects of human health with one exception: the alive and dead statuses. Even for this issue, the binary system is not good for characterizing the state of those in a coma state. However, the binary system has entered into the foundation of medical research and every field of science and has greatly distorted the accuracy of research. We will show the problems in following three examples.

**Health Definition Flaw.** Nearly all medical research attempted to compare healthy persons as a control group and with persons in a treatment. If a study is intended to find potential causes for heart diseases, the researcher fills the control with persons who do not have heart disease symptoms and fill the treatment group with persons with heart disease symptoms. In this kind of research model, the researcher can identify or confirm only few striking factors such as lack of exercise, overeating, smoking, and exposure to heavy metals, the researcher is unable to identify or confirm thousands of weak factors that both the groups have been exposed to.

The researcher in this case will not able to determine if Biphenol A is a cause factor because all people in both the groups are exposed to it. Every "healthy" person and every diseased person have been exposed to it. The flaw is that the researcher assumes that the people in the control without symptoms are healthy. But the reality is heart disease is still under development in the healthy people. The striking factors separate the two groups and thus easily hide all weak disease-causing factors. The researcher identifies people for the control group and the treatment group by using the flawed binary system. The nature does not draw a line between so-called healthy people and diseased people. The researcher actually arbitrarily fills or defines the two groups. Thousands of synthetic compounds like Biphenol A are hidden in the forest of the striking factors. Such research method is bias and is incapable of finding weak factors.

**Control group bias.** Both concepts, control group and disease group, are created by the man. Thus, those groups can be created with subjective bias. The two groups can be defined with bias definitions, and individual people can be assigned to the two groups arbitrarily. If the purpose of a research is to study the effects of weak factors, the chance of success would depend upon three conditions: effects of strong factors must be absent, prior exposure to same factors must not have happened, and the time must be long enough to show the week effects. We will show that it is impossible to satisfy any of the three conditions.

**(1) Interference by strong cause factors.** In a study involving heart disease, calories imbalance is a strong factor to cause heart disease. This might have happened to most people in the U.S. When this factor exists, the effect of thousands of weak factors cannot be determined. Each of the small effects will reside on the peak of a large effect like noise. So, modern medicine can only find a few strong effects.

**(2) Prior exposure to weak factors.** When a research is conducted to study the effect of a food additive such as Yellow No. 5 or a colorant, everyone has exposed to it and will continue being exposed to it. The researcher is actually doing a study to see how prior exposure and continuous exposure will have different effects. Since the effect of the colorant is weak by nature, the researcher will not find it. Thus, a fix to the flaw is to find right people for the control that are never exposed to the colorant.

**(3) Short study duration.** When a study is limited to two years at most, it is im-

possible to find the effects of weak factors. Inability to detect weak effects and interactions guarantee false negative findings.

Among the three model problems discussed above, the first two are caused by turning a continuous property into a binary property. This is not done in a way consistent with natural law but by subjective and often wrong definitions. It is done like a common law judge treating \$ 1 trillion dollars as same as one dollar. In this step, the researcher can inject unlimited bias and the magnitude of error is same a trillion dollars minus one dollar. It is not a poor approximation or an imperfection problem, it is total meaningless modeling approach. This is the primary cause of the failure of medicine and failure of science.

The influences of common law on the medical landscape are overwhelming. This problem is not obvious to readers who have gotten used to common-law thinking. Many human behaviors tend to take yes and no values, the binary system is reasonable good for a few extremely simple human conducts and commercial transactions. When society is very primitive, turning everything into two values was not very absurd.

We must question how the binary system can be applied to human health. Not one single health property follows the binary system. The quantitative nature of health properties were known in China more than 1700 years ago. As we have shown, nearly all health problems follow quantitative functions. We have discussed human blood pressures in detail. However, early leaders gotten used to the binary system so much that they could not do away with it. Thus, the binary system has been forced on all health properties: every health property is divided into normal and abnormal; health condition is defined as health and unhealthy; each treatment and drug is rated as effective and ineffective.

Everyone in the research community knows the true quantitative law in natural science, but has to twist things to work with the binary system. In conducting a medical research, researchers have to evaluate chemical, mechanical and physical properties quantitatively. But for a strange reason, they could not use numbers as final results, and had to convert all quantitative findings into the binary system. Every question must be broad enough to cover the mankind, and every answer must be yes and no. This practice makes sense in determining legal right: a person cannot be both guilty and innocent, and most legal obligations can take only one of two. Application of this convention to health problems makes no sense because there is no practical need to impose two states against the true quantitative nature.

The misuse of the binary system in health care is the primary reason for failure to find disease causes for all chronic diseases. When a disease is caused by a large number of factors and each of the factors contributes a little bit in unpredictable and random manner, the binary system naturally “nullifies” all of them. Even if it gets one cause per the binary system, it is most be wrong for a super majority of people who suffer the disease. Modern medicine would fail to find true disease causes for nearly all diseases.

This binary system causes modern medicine to fail to find disease causes for all chronic diseases. If we pick up any physician manual, we find that causes of chronic diseases are unknown. We can show two specific reasons for this gigantic failure. One is that modern medicine makes an assumption that each disease is caused by only one or a few distinctive causes. This is again a common law vestige. However, we have shown that virtually all diseases are caused by a large number of factors in a quantitative model. Moreover, various factors contribute to a disease in different degrees. Therefore,

it is impossible to find one or a few causes because this presumption is totally wrong. Blood pressure, cholesterol level, blood glucose, stress, blood counts, and any test data all follow quantitative functions of multiple factors. Another problem is that the medical technology is not good enough to determine the qualitative contribution of each of disease-causing factors. They are present or absent, and they may contribute different amounts. As a result, the causes of nearly all chronic diseases cannot be determined. Finally, modern medicine also fails to note one most obvious fact that human body is a completely open system. If modern medicine finds disease causes in a controlled system, the found causes are irrelevant to a super majority of real cases. So, there is no chance for modern medicine to find cure for chronic diseases.

### **(3) Impacts on the U.S.**

As we have shown, the modeling methods using the binary system do not reflect reality. The methods were better than dueling and ordeal in ancient times. Naturally, all nations following the common law model are in rapid decline. As long as the U.S. does not get rid of massive junk sciences from the legal system, it stands no chance to stand as a strong nation in the world. No matter what the current president Trump does to improve U.S. productivity, the nation can deliver only a fraction of its full potential. Some studies have found that U.S. productivity has reached the lowest now.

In the U.S., all judiciary decisions are decided by relying upon this obsolete binary system. In that sense, none of the huge number of decisions is right. We estimate that one third of U.S. Supreme Decisions are also based on additional junk sciences such as misuse of statistics and comparing abstract concepts. Comparing abstract concepts has long become a “justice specialty” which is well reflected in most e-discovery rulings. The judges in such rulings follow a different set of natural laws that have nothing to do with truth. Federal Rules of Civil Procedure and U.S. Appellate Rules all reflect common law flaws of comparing abstract concepts. Legal process, optimization, and merit evaluation using the binary system cannot drive human production activities to optimum points, but most probably to middle points and even lowest points.

### **4.4 Misusing Categorization Method**

The common law has another strange practice: it likes to classify things by classes or categories. For Westerners, it is so natural that they think it is only way to get things done. Strangely enough, the ancient people addressed medical problems more than 1700 ago, they ever used this method. Early rulers, the kings of England, liked to classify people in categories in order to impose rules and regulations easily. Legal practices did not need to be scientific valid. Indeed, it is invalid in all respects. For political purpose, everything can be classified by categories, and individual properties can be aggregated by sums and averages. It is very useful in managing resources for early rulers. This concept is used in all of areas of law. It gets into science without questioning its validity.

We can easily show that each personal health problem is unique and there is no basis to classify diseases by disease names. If data aggregation is conducted to provide health care guidance, the validity of aggregated data would depend upon a core assumption: the property can be averaged and such an average is useful to a particular purpose. Such data aggregation is very useful to the rulers and current government if it is used in managing resources and estimating spending. It is completely wrong to use such

data for health care services and medical research. We have pointed out in each context why data aggregation is improper in our book.

In the population, there are young people, women and men, and old people. People may be vegetarians, caffeine drinkers, alcohol users, and/or drug addicts. They may be physical workers, sedative workers, and high-stress workers. They all have different health histories, different genetic compositions, and different medicine use histories. We use the Nine Big Factors to show the variances. All those factors directly define health properties. When so many sources of variances cannot be controlled, data aggregation is simply wrong. Despite the obvious flaw, trial data, survey data, population data are routinely aggregated for wrong purposes. A huge number of studies are done to promote personal health, but such flawed studies have little utilities.

Averaging data is proper in some situations. Averaging data is a good thing if such data is used for allocating resources for the government. It is wrong if averaged data is used to guide personal health care. When data for women and data for men are averaged, the average would represent neutral human beings; average of health properties of brain cancer patients and foot cancer patients might be for persons with half a brain cancer and half a foot cancer; the average size of a baby and a giant man might be for a midget; and sums and averages data for hundreds of tinnitus persons must be useless, given there are at least tens of thousands of different causes. The pooled properties of headache cases are also useless, given an unlimited number of possible headache causes. In each of the instances, the original data is good for individual people. After the data is aggregated, the sum and average has no relevance to anyone.

A widely used concept is daily nutrient allowances recommended by Food and Nutrition Board, the Institute of Medicine. Given the huge deviations of human sizes, ages, and activity levels, they could turn petite people into monsters, and make those 300 lbs sportsmen to starve to death. Just size difference between 70 lbs and 300 lbs is enough make it useless. True nutrition demands vary widely, just like weights, heights and activities and medical conditions. Such a concept is misleading even though it was intended as one reference, but people often use it as their own numbers in reality. When those numbers are used in other nations, the required warning statement is often dropped out so people actually dutifully use them as personal guidance. Such numbers, as they are widely used, can only cause people to act to their detriment. That is one reason for seeing the large number of obese population in the U.S. As we show, it only needs to have a very small energy intake imbalance to result in very bad outcome. A recent change in blood pressure from 140/90 to 130/80 suggests that health care is a political question. In reality, it should be a personal problem, regardless of any artificial scale.

Intended-use concept is a version of common law categorization concept. A drug under testing is intended for all human beings having the “same” disease. This practice reveals a big presumption that a cure must exist for the same disease in all human beings. This assumption is wrong. Anyone with a little personal health experience should note its problems. No two patients suffering an identical disease should be treated by using an identical method.

None of the standards such as blood pressures, nutritional daily allowances, or anything are useful in managing stroke instances and risk elimination. Some people have poor blood vessels, some have reduced capillaries, and some have abnormal stress responses. There is no “average person” who shares one-third of each of the three characteristics (even though some persons might happen to have all of the three in different degrees). Such averaged data is irrelevant to them. If health care is for the interest of

individuals, there is no need to use an objective person and there is no necessity to force population data, averaged data, or any other forms of aggregated data onto any person. Each person is unique in all stroke-relevant factors in the world. A cure for an individual person must be designed for the person. This is why we have to avoid using the current medical approach. In stead, we must use the optimization approach for complex system. We must rely upon the ancient medical theories which are completely consistent with the approach used in optimization of a complex system.

Data aggregation method cannot be used in finding cures for internal imbalance and cooperative organ degradation. Such a health problem is due to relative imbalance among different organs. There is no way to get aggregated data. Health problem is not a problem in one single data point.

Using drugs is extended from using herbs in ancient times. Modern medicine makes a presumption that right chemical drugs are cures for diseases like herbs. In making this extension, modern medicine ignores the fundamental differences between drug working principles and herbal working principles. Herbs are intended to restore the body defense mechanism (although eliminating foreign agents is a consideration in some formulations) and change the internal balance, while drugs are intended to fix a problem by affecting chemical reactions often with obvious effects of compromising the immune system. This presumption is wrong and preclude cure.

#### **4.5 Chemical Reactor Models**

The common law philosophy, embodying the binary system and categorization method, is making any legal problem simplest. This thinking inevitably treats human beings as chemical reactors or widgets so that every factor affecting the human body can be studied by a controlled study and every question can be answered by yes-or-no affirmatively.

Such a model is completely wrong. The human body is a super complex system. Just two sources of variables can create gigantic variances of any health property: the genetic difference and exposure to environmental factors. We can see huge differences among people from different races: a man from Asian, a woman from Africa, a Native American, and a senior from North America. They may be different in anything in the gigantic amount of genetic information.

As to exposure history, we cannot find any method to predict their differences. Some people may stay largely in home, and others may travel to a large number of places in the world. Besides those factors, their health histories and health conditions can vary immensely. Even a twin from an identical egg can quickly acquire different personalities in their childhood. This super complex system is further complicated by the presence of mind and emotion. Thus, common law thinking could not deal with this multiple random variables, emotion-driving, super complex system, the human being.

Due to the influences of common law vestiges, early researchers could not find a right method to address this super complex system because the knowledge of complex system was unknown when modern medicine started developing. Although, Chinese Medicine uses right complex system approach with focus on emotion and disease agents, it was developed prior to the science age. Thus, its

knowledge was not written in a language compatible with scientific principle, but in language that is almost impossible for Westerners to understand. Unfortunately, its great theories equivalent to the Relativity have been ignored by modern medicine. That is how modern medicine finds itself in a dead end.

There are three basic models: static chemical reactor evaluation, automobile repairs, and optimization of super-complex human body. Modern medicine chooses the worst static chemical reactor. Such a low standard is easy to use and allow anyone to master just like all legal concepts such as the reasonable person standard used in the U.S. legal system. The medical landscape was thus formed by simplifying the human body as a widget or a static chemical reactor, and treating different individuals as just units of widgets or chemical reactors.

Such an oversimplified model would be improper even for fixing cars. Cars are similar to human beings in that they have different makers, models, capacities, designs, features, etc. Cars can run in different power demands just like humans. Cars have different ages like human beings, and are in different conditions like human health conditions. Fuel line pressure, combustion pressure, and gas consumption are equivalent to human blood local pressure, blood pressure at the heart, and energy daily intake. All auto repairmen repair cars by using a method very similar to system optimization method, which is tailored for each specific car.

In repairing cars, no auto repairman uses general guidelines, standard of car, population data, and averaged data. They never use any kind of data from other cars as guidance for fuel consumption, daily fuel usage, engine speeds, etc. All cars are different so that technicians must study performance problems for the car and nothing else. If they use Chevrolet Caprice specifications to Honda Accord and vice versa, they would ruin every car. Nor, can they use any performance numbers acquired from other cars as guidance. Essentially, repairmen use a correct approach in repairing cars. If they use simple static model in repairing cars, they would disable most cars immediately.

Modern medicine has failed to cure for a half of the U.S. population precisely due to this flawed model. By using the static chemical reactor model, it is intended that all variables can be "reduced," all variables can be "controlled," and all individual units can be treated as same. After the human beings are reduced to static chemical reactors, all flawed common law concepts such as the binary system, categorization method, and data aggregation method can be used. While this oversimplified model has made all health problems much simpler, it does not reflect the reality of the human body. Therefore, all discovered knowledge and treatment methods will not work for human beings. Most treatments cannot cure chronic diseases. Even though every drug is found effective in trials, it cannot cure even the intended disease. This is one of main reasons why modern medicine fails.

Human beings are even more complex than the most complex physical systems that have been studied. It has a large number of other factors that are unpredictable. They can be present or absent without warning. They are random as they can take any of an infinitely large number of different values (far more complex than the binary system). Even worse, many variables can have a positive or negative efforts on any one or more health properties. And further worse, those health properties can have different weights or impacts on the life quality and life spans. For some people, one health property may be more important than others.

For this reason, there is no objective one single criterion for optimization. This means that achieving personal health may be an optimization process against different criteria. The bottom line is that all depend upon what a person wants to achieve from life. Some people will be happy to live a short life with highest enjoyment, while other might hope to live 130 years to see the future world.

Health objective is to seek optimizing such an extraordinarily complex and open system that is also controlled by mind and emotion. Chinese Medicine correctly uses an approach for optimizing a super complex life system. In contrast, modern medicine treats human bodies as static chemical reactors or widgets by ignoring obvious reality that no two persons are identical, mind is the soul of such a super life system, and there is no general effect of anything on all human beings. It is strange that every health question it formulated to seek an answer in yes or no, when in reality there is no such a need. The only reason is that common law thinking has deeply influenced early leaders in such a way that they did not know how to deal with health problems without using a yes or no answer. This practice sharply clashes with individual interest: everyone wants to achieve personal health, and no body care about general effects of any health factor on an abstract person.

#### **4.6 Omitted Emotion and Subject Feeling**

Ancient experience-based healing methods were developed by generations of people in different cultures. Ancient people regarded environmental factors, emotional elements, etc. as root causes of diseases. Its validity is beyond challenge.

However, modern medicine often neglects those two classes of factors in treating diseases. In stroke management, an adverse reaction to emotional shock can easily cause a person to increase heart output. Emotion-caused heart output is one of the primary causes of stroke, yet it is often neglected in medicine. Instead, doctors spend time to get most accurate reading of baseline blood pressures. Besides, stroke is also a personal activity problem and an ambient factor problem. A large number of factual analyses show that any of the facts can play a pivotal role in stroke prevention.

Modern medicine never pays attention to the timing of treatments. However, the two phases of each person determine the importance of the timing for using foods and drugs. The repairing mechanism and the immune system are strongest at the night. Fat accumulation clearly depends upon the timing of high glucose spikes. For all drugs intended to affect biochemical processes, the use timing must be important. When antioxidants are used to protect cells against radical damages, the use timing should be slightly before the expected time for generating a large number of free radicals in doing extreme exercise, using a big meal or harmful food, or dealing with stress activities. Ingesting antioxidants when there are few free radicals would achieve little benefits.

Chinese Medicine focuses on organ interactions. It even built a five-form interactive model for organ interactions. Ancient people used such rough models because biochemical processes and compounds were unknown. All of those interaction modes now can be explained by biological knowledge. However, most medical studies focus on treatment effects without considering any of possible interactions. Omission of interactions is improper because the net effects of a treatment may depend upon many other factors.

For example, if a treatment has positive effect on some persons and negative effects on others, it would be found to have no effect. Modern medicine fails to treat human beings as complex systems and thus is unable to find true treatment benefits under various conditions. The true healing benefits often “vanish” under the static chemical models.

Modern medicine relies upon objective chemical, functional and structural evidence, but fails to focus on subjective signs and feeling which are more sensitive and reliable. Modern medicine uses some of subjective signs with little weights. It pays little attention to subjective feelings that only the patients can tell. They can carry more useful information. This practice is a result of common law influences. To common law judges, subjective evidence is always less reliable. It makes no sense to discredit subjective feeling because medical treatment is for the benefit of patients.

Modern medicine makes subjective signs useless also because it fails to pay attention to details of subjective signs. For most health problems, subjective feelings are always better and appear many years before objective evidence can be acquired. For some diseases such as headache, tinnitus, emotional factors, and subjective feelings can have conclusive values, while objective evidence is unreliable or useless. Earring is a meaningless word in diagnosing tinnitus, but subjective feeling from frequency, source/direction, aptitudes and continuous characteristic can lead to millions of combinations. Modern medicine cannot get just one sound profile by modern diagnostic methods while ignoring rich information that could be acquired. Most of diagnostic methods are great means for generating revenues while most people mistakenly believe they can solve their health problems.

For example, a person can tell what causes dark spots in his or her vision view. After being confused by medical teachings for several decades, one could find a way to resolve it in less than a minute: if dark spots are caused by floaters or particles inside an eye ball, they drift. Just rotating the eye and then stop to stare at a point and see how the spots behave. If the dark spots keep changing their locations, they are caused by particles inside the eye. If the dark spots roughly stay in the same positions relative to the focus point, they are most probably caused by a retinas issue. Double vision can be caused by an eye optical problem or a brain problem. If a double or blurred vision is caused by stroke, it cannot be corrected by wearing eye glasses. Double vision caused by an eye optical problem can be corrected by wearing eye glasses.

A biggest riddle is tinnitus for which no cure has been found. A large number of self-reported cases on web sites reveal that no objective evidence could ever been found for their existence. This factor raises the possibility that most so-called objective evidence such as jar problem, middle ear diseases, hearing cell damages, etc. are not the real cause for perpetually-perceived sound. An offensive sound would continue after offensive cause such as hearing nerve is removed. None of the research methods can effectively find causes because perceived sound cannot be detected by any objective evidence. Based upon limited studies, we believe there are thousands of sound types that exist from combining different frequencies, different patterns, and different perceived locations/directions. Many relevant factors also affect the on-and-off statuses and perceived volume of sound. Moreover, a large number of diseases are known to cause ear-ringing and brain ring sounds. It is well known many terminal cancer and many terminal diseases can cause offending sound. Those factors have been known for several thousand years in Chinese Medicine. Based upon all factors, we must conclude that subjective signs and feeling carry far more useful information while objective evidence is useless or at least unreliable. The millions of different subjective signs and feelings could be

used to shed some light on its causes if they are collected and studied systematically.

Most subjective signs and feelings for health problems proceed many years before objective medical evidence can be established. When modern medicine insists using objective standards, it loses time to cure future diseases. A sure cure for stroke should take place at least five years before any objective evidence can be acquired. The inability to use subjective signs and feelings is a major reason for the prevalence of stroke in the U.S.

#### **4.7 Oversimplified Model**

Under the binary system, any legal matter is defined by several elements with yes-or-no values. A legal claim is equivalent to a model in modern science, evidence is equivalent to data in modern science, and adjudication of claim is like to modeling process in modern science. A claim with five elements has only 32 different outcomes which are then forced into only two outcomes (one with all yeses and the rest 31 with at least one no). In complex system modeling, all elements are allowed to take any values. Even assuming that each of the elements can take five different values, it would have  $5^5=3125$  outcomes. The result is not forced to fit into only two outcomes. For this example, difference is 32 vs. 3125 outcomes.

Common law modeling is extremely poor. This means that case adjudication result can flip unpredictably. In criminal law, the guilty of a criminal defendant often hinges on one single piece of identify evidence.

When this approach is used in medical research to model a much more complex life system, it necessarily leads to wrong results. People can change their behaviors to comply with law no matter how bad the law is, but the human body cannot change its physiology to comply with a wrong model.

#### **4.8 Statistics Misuse**

When the common law binary standard encountered statistic methods in modern times, it gains a new life. This combination becomes a “golden” standard that runs all fields of studies and results in the prevalence of junk science in all walks of life.

We note that statistical abuse was a biggest problem in the U.S. scientific fields. Professor Stephen K. Campbell published his book “Flaws and Fallacies in Statistical Thinking (Prentice-Hall Inc, 1974).” In his cover of the book is the statement: “this book was written with a dual purpose: first the author was motivated to relieve his distress over the fault conclusion drawn from frequent misuse of relatively simple statistical tools such as percent, graphs, and average...” The kinds of problems he discussed can be found in a large number of court opinions and most medical research papers. It was found that 85% of findings are flawed, while we believe 99% are flawed among all studies involving human subjects. The reason there is no way to get rid of the variances from the nine big factors.

A treatment assessment method was originally used in a widget production shop, where products are widgets such as TV sets. To determine the effects of a new produc-

tion method (or treatment), a controlled test could be conducted. In such a study, the critical requirement is that all units are exactly same in specification. Difference between any two individual units must be in similar size and happen in a random manner. This was how those normal distribution, t-distribution, etc. were established. One may not use statistical methods to analyze TV quality by creating a group consisting TV sets of different sizes, different conditions, different ages, and different models. Those factors can affect TV quality and thus defeat the required presumption that all individual units are similar.

When this method is applied to drug trials involving human beings, it carries the same assumption - that all test subjects are identical and their differences, if any, must not affect the health properties in a non-random manner. This presumption cannot possibly hold under any circumstances in any drug trial. Let us take a look at test subjects in a typical drug trial: the patients may vary in the Nine Big Factors (race, genetics, age, sex, food, life styles, drug use histories, other interactive compounds, health condition). They have more variances than those in TV sets made by the same specification. The worst problem is that some differences have direct impacts on quality properties to be studied. In controlled trials, the random effects of variables may nullify the effects of the treatment. Due to uncontrollable variations of human subjects and uncontrollable lifestyle factors, most statistical analyses cannot be possibly valid. Thus, a true cure can never be found. As to population studies using statistical analysis, the findings may be useful for other purpose. They cannot be used in making health decisions for any person.

Although some studies attempt to correct variance of errors introduced by those nine big factors, such corrections are also invalid. First, among those factors, sex is a qualitative property, and interactive compounds (e.g., presence or absence of an interactive drug) are qualitative properties. Most factors have different degrees and are thus quantitative factors. They are not properties that can be classified into valid classes. They are divided into different categories arbitrarily and none of such classifications can be shown to be statistically valid. No distribution can ever be found for such data. Transformation of a distribution can introduce great inaccuracies. Second, while we call nine big factors, there are actually millions sub-level items in food, lifestyle, prior exposure, and interactive factors. Any of environmental pollutants can be included in prior exposed drug, interactive compounds or health condition. It is impossible to determine variances for each of the millions of influencing items. Therefore, correction is meaningless in practice. Finally, in studying latent effects of a disease agent, it is impossible to find true "healthy" subjects because health condition did not exist as a binary value. This is a property imposed by common-law ruler. Thus, "healthy subject" also contains disease contributions.

The attempt used in statistical analysis is like an attempt to measure gram weight by using automobile weighing station or attempt to hear a whisper in a loud concert. No matter what you do, the result is garbage. The only utility of the statistical method is to determine imminent harm like a poison that can kill every human being, a super magic treatment that can cure everyone and a treatment with a "statistically-significant" effect among all negative effects and positive effects.

The misuse of statistics in modern times is the biggest problem in the science age. We hope experts in the statistical community should come out to do more to stop it from abuse. The abuse of statistics has caused more damages than anything else to the world. Statistical abuse causes huge damages to public welfare, national productivity, and

world economy. When statistical misuse causes a majority of studies to reach flawed conclusions in a systematic way, study findings distorted by statistical abuse are responsible for flawed national laws and policies. Such systematic bias is responsible for steering the U.S. into a rapid track to its decline. Statistic-based studies have guided modern medicine into a dead end, and caused it to abandon wonder cures that have known for thousands of years. Essentially, statistical abuse is responsible for the lack of cure in the world and premature death of most people in modern times.

By misusing statistical methods, one could prove that all burglaries are caused by the Earth rotation, and the heavy traffic in a city beltway is caused by John Doe, who always drives his car on the beltway in the morning.

Widespread abuse of statistics is in part due to stressing a need to guarantee research reliability within a study. This is again due to common law tradition: it demands reliable evidence except that this rule is misused to a wrong circumstance. It dismisses the possibility that research reliability can be proved by independent studies. By using the system optimization method, research validity cannot be proved by using statistical method. However, a health finding could be made by one study, and same or similar finding would be proved by other independent studies. More specifically, a finding of a set of well-defined variables or interaction patterns can be confirmed by different studies involving the similar set of variables or similar interaction patterns.

Statistical analysis is often misused in conjunction with intended-use concept. A drug under testing is intended for all human beings having the “same” disease. We see another big presumption that a cure must exist for the same disease in all human beings. This presumption is flawed for the same obvious reasons. Most diseases are not same even if their diagnosis is same. See our high blood pressure cause model as an example. People can have huge differences in genetics, physiological conditions, drug resistance, and drug metabolism. Emotion is considered, their differences could be two extremes: some might be the happiest in the world and some might be saddest in the world. Even if two individuals or a twin suffer an identical disease, they may require different treatments. A common scene in doctor offices is “let try this drug to see if it works.” The doctor knows it most probably will not work. Common knowledge known for thousands of years completely discredits this presumption.

#### **4.9 Distorted Research Purposes**

As a result of common law influences, medical research models are mainly characterized by starting with a static chemical reactor model with variables and emotion ignored, classifying variables according to abstract concepts, conducting a flawed statistical analysis, and presenting a final result in a binary system. Such research models force medical researchers to produce useless studies and disable doctors from curing diseases. Similarly, the FDA drug approval standard is based upon a chemical reactor model, disease classification method, statistical method, and a required conclusion in the binary system.

Anything, such as a health property or a treatment efficacy must be defined in two states, and a conclusion of yes or no must be found by conducting a statistical analysis. In order to use a statistic analysis, health study or experiment must be designed with all variables controlled even though it is impossible. For example, researchers have to use

“sham needle” in acupuncture studies, and data must be presented by using averages and sums even though the properties cannot be averaged. Essentially, it magically turns a multiple dimensional super-complex dynamic system optimization task into a comparing treatment with a control like a simple quality control problem in a widget production shop. Without knowing the flaws in the foundation of the common law, it is accepted as the golden standard for scientific research.

This “golden” standard inevitably forces medical researchers to manipulate research designs for the sake of meeting the standard. Every valid research must have a treatment and a control, and the validity of the treatment must be proved statistically. To achieve it, they must aggregate data by using averages and sums. Thus, health property data must be aggregated and averaged cross a large number of hidden or unidentified variables. Such a golden standard forces medical researchers to distort research purposes and preclude hope for finding cure for chronic diseases.

Peer review is another reason for precluding cures. A statistical analysis is viewed as a golden certificate of scientific validity. The flawed standard forces researchers to select research subjects that most probably will not lead to real cure but can win a golden certificate. For scientists, publication of study findings is often important to their careers. They have to select research subjects that would produce works that can pass peer review. For a given research project, researchers have to twist things around to make sure that a control and treatment exist and a comparison can be made even though the design is irrational or even wrong. Data may be manipulated to meet the requirements. The review process naturally precludes useful research programs, encourages research fraud, and increases the number of meaningless and misleading findings.

Our stroke management is based on the dynamics of individual life. Our program for stroke prevention and stroke risk elimination must be designed for an individual condition. It is hard to design such a study that can pass a double-blind test standard and the peer review standard. The nature of our work should have been done decades ago, but nobody would undertake it.

There are millions of articles on health care, each of which teaches how to achieve personal health by following the good-for-everyone rule. Nearly all findings are based upon human trial data, population data, and survey-type data. Experiments in nearly all studies are developed without considering the nature of life dynamics, personal health conditions, event timings, body orientation, emotions, factor interactions, other diseases, and competitions of biochemical processes. Many studies are done to understand health benefits of sugar, caffeine, alcohol, aspirin, etc. The findings are correct only for particular situations. After data are averaged, all useful information is lost. Each finding is intended to be for an “averaged person” that simply does not exist in the real world. This chemical-reactor approach is a root cause for colossal failure of modern medicine.

Achieving personal health is same as optimizing a super complex system. Each person is highly dynamic in life activities, unique in all health parameters, and constantly exposed to a large number of external variables and unknown variables. Human body is a dynamic complex open system—some factors may be present or absent. It is well known that optimization cannot be performed without including all variables. Each of the variables may take any of a large number of different values. In other words, each variable is also a random variable. Effects of each variable on its performance are often unpredictable. Each variable role may change in both magnitude and direction. Controlling variables is self-deceptive notion that cannot be done in reality. A correct method

for health research must follow the optimization approach for complexity systems. Such a method must be modified by looking out for unpredictable variables and including emotional elements.

The current medical research philosophy, influenced by common law, is to try to reduce a multiple-dimensional dynamic problem into a static simple system, where every health problem is answered by just yes and no. Those with experience in dealing with complex dynamic systems should see that such a wrong approach can never produce desirable results. Glucose, salt, alcohol, caffeine, sleep duration, meal frequencies, and food daily intake can all have different impacts in different conditions, as we have made detailed analysis for each of them.

#### **4.10 Flaws in Controlled Study Methodology**

Due to overwhelming flaws in double blind controlled trial method and use of statistical method, the current medical research methodology is incapable of determining true health benefits of real cures.

Controlling variables is proper only for studying chemical reactors or physical widgets, where a target variable affects a performance quantity by a simple relationship. Such a system must not have interactions. All studies without meeting those requirements are flawed, and their findings cannot represent reality.

The double blinds requirement is also a wrong requirement when it is used to assess any treatment methods that require active participation of patients. It is good method for studying chemicals and drugs because they can be administered to patients without letting patients know what are ingested. The requirement that an investigator be blind to the treatment and the control is also difficult to satisfy in a study requiring patients to do physical and mental activities.

The research model provides a strong disincentive for avoiding studying interactions of multiple factors because it is almost impossible to assess the effects of complex interactions. In the human body, when one organ degrades, the whole body degrades. For example, the heart, the lungs and the kidneys can degrade cooperatively. When the body slowly degrades, the state of the body gradually changes. The patient dies if the function of any vital organ drops below the threshold for sustaining life. The state cannot be reversed by fixing the original cause. This is why chronic diseases become “incurable” in medicine which could not focus on interactions in treatment. A true cure must simultaneously raise the functions of all vital organs by cooperative improvement. When the research model is designed for static chemical reactors, it does not support any experimental design for an optimization process. Thus, it is inevitable to “hide” many variables without actually hiding them.

The current research model makes it difficult to study treatment effects of any method for variables such as working timings, personal day and night phases, competing processes, subjective emotion, emotion states, and action different sequences. Such research model would exclude studies directed to exercises, food, emotion, and anything that would require mind regulation.

There is no way to do a controlled study with double blinds in study mind and emotion. Thus, it would be hard to tell how mind might affect treatment effects. It is also difficult to design a research for studying raw foods unless foods are processed into pills

so that placebo can be created. There is no way to study foods with distinctive smell and looks. As to mind exercises, there is no way to design a method where people can be blind to exercise. As to other traditional alternative methods such as massage, acupuncture, and push and pull treatments, they always directly work on the body and the brain. Indeed, regulating mind is essential part of those healing methods. Opponents of those alternative methods fail to see that mind and emotion are inseparable components of each true healing method. Some research project designs reflect how irrational the research model is. Acupuncture effectiveness is assessed by using a control with a "sham" needle.

The research model favors only simplest problems by ignoring, disregarding, or even hiding a massive number of variables that can never be avoided in reality. Thus, results are actually based upon averaged numbers that cross a large number influencing variables with both positive and negative effects. The results are totally unpredictable. If the negative effects of hidden variables are equal to the positive effects of other hidden variables, we will see a zero. If the negative effects are more than the positive effects, a negative net effect is found. Thus, it is easy to manipulate variables to achieve desirable results.

The current research model is incapable of studying slow disease process and disease reversal process. The research model always relies upon statistical analysis. Due to massive variances attributable to genetics, age, sex, health condition, and disease histories, the sample size must be very big. Thus, a trial can last no more than two years. In contrast, healing a disease is a very slow process. Disease develops at the speed of wearing a floor by footsteps. The reversal process takes place in a similar speed. A true cure for a chronic disease cannot be achieved in a time scale of pain killers. One cannot prove exercise effects of eliminating stroke risk, and thus no body would sponsor a trial. Thus, a true cure can never be identified under the current research model.

Most toxic effects of compounds cannot be assessed by using a controlled study. Even for a simple car, fuel injection speed must be maintained at a right speed. Injection of fuel at excessive speed can blow out the engine. Human body runs a large number of physiological processes approximately in near-steady state (at least for some time windows). The nature never defines what is poison and what is not (this is a term human made). Anything that can maintain a right concentration in the chain of reactions is not a poison. Anything that cannot maintain its right concentration would be a poison. Thus, cholesterol, salt, oxygen, glucose, vitamins, and essential nutrients can be poisons when their amounts are excessive (even indirect impacts caused by their influences in osmotic pressure, water activity, viscosity, and body fluid acidity can be enough to kill any living being).

Most findings for high dosage compounds in controlled studies are generally meaningless because such high concentrations do not exist in normal condition. When a compound is in an extremely high concentration, it disrupts, impairs, disables, or shuts down normal organ-organ interactions, chemical balance, immunity function, stem cell repairing functions, and possible other unknown functions. Due to failure to appreciate herb working mechanisms and use of chemical reactor models, such studies always exaggerates side effects. Discovered toxicity and carcinogenic affects are true only when they are used in high doses in grossly distorted conditions that are remote to reality.

The current research model is incapable of identifying latent side effects of drugs. Many chemicals can cause latent injuries. Latent injury develops at the speed of shortening a floor lifespan by footsteps. No method can prove latent and slow processes by

conducting a controlled trial. When a side effect is very slow, controlled drug trials are ineffective. Besides, there is no clue for determining what to look for. A drug trial can easily pass FDA requirements to win an approval. We all know that a drug will not show side effects in a trial period. Its sponsor knows little about its working mechanism and its long-term effects. The drug approval practice actually treats patients as experimental subjects. When side effects appear in the future, the FDA will remove the drug. The FDA drug books are like “recycle centers,” where new drugs are added as approved, and old drugs are removed as their side effects appear.

The current approval standard is incapable of determining drug-drug interactions. Compound-compound interactions and compound-and-function interactions are the most striking features in any living system. In a controlled study, all crucial interactions are ignored. Controlled study method is ineffective in studying synthetic compounds because it is impossible to study each of all interactions. There is no way to study all potential drug-drug interactions. In reality, it is impossible to discover all drug-drug interactions for new drugs because there are too many synthetic chemicals and naturally occurring compounds that would exist in the body. Potential interacting chemical compounds that a controlled trial can study in a drug trial are often different from drugs and compounds that a person may be exposed to in real life. Therefore, the potential interactions of drugs, chemical agents, food additives, toxins, pollutants, etc. cannot be studied systematically. Each person may be exposed to potentially thousands to tens of thousands of synthetic and natural compounds from all sources. Because human beings are affected by a large number of health variables, it is impossible to find links between a drug and any of uncontrollable factors. Thus, “safety conclusion” reached on the basis of one trial, ten trials, or even a hundred trials cannot be rationally extended to real world situations.

Synthetic compounds did not have chances to interact with other natural compounds in evolution, and no living being in the world can develop mechanisms to tolerate them. The risk from natural herbs and spices are lower because they have been exposed to animals and human beings. Human beings may have developed mechanisms for tolerating them.

When the double blinds controlled study method is used to evaluate the performance of herb formulations, it always fails to detect true healing benefits but exaggerates side effects or leads to completely false conclusions. The main reasons are that most studies use improper dosages and herb ratio, which can ruin the healing effects and exaggerate toxic effects.

When precise working mechanisms of herbs are unknown, any study by extracting one of more compounds from the herbs and evaluating them would result in useless and misleading results. If aconitine were identified as a main compound of the heart formulations used by Dr. Li and were studied by using the current study method, it would be found to be a powerful killer in virtue certainty. Many similar treatment methods cannot be studied without fully understanding their working mechanisms. For example, a vaccine is intended to trigger the immune system, the vaccine must be sufficiently deactivated to reduce its disease-causing power, but complete inactivation makes it useless. A study attempting to find its effect at high dosages, excessively high potency or low potency will lead to a wrong conclusion.

Many minerals and compounds have both beneficial benefits and harmful effects. For example, potassium can be a killer and a cure. The body needs it but a high concentration in the blood can kill a person. If its concentration is high enough to interfere with

a vital biochemical reaction, it is a killer; but if its concentration in the body is too low to maintain normal biological functions, using it is a life-saving cure. Its proper concentration depends upon how it affects physiological functions. Dual-effect nature of compounds or elements is very common. Even glucose, oxygen, salt, sedative drugs, alcohol, caffeine, and pain killers all have dual affects. Readers can find hundreds to thousands of things that have dual effects. A large number of things that have not been studied may have multiple effects.

Herb toxicity cannot be studied by using accepted toxicity study protocols, neither. Most toxicity studies are conducted at high or very high doses. The toxicity at very high dosages cannot be extrapolated to low dosages in most cases. Many species are found to contain carcinogens that can induce cancer only at high concentrations. However, there is no basis to assume that a carcinogenic effect is proportional to its concentration by a simple relationship. While this assumption may be reasonable in many common phenomena such as taxation, manufacturing, marketing, economy, and law, it is always wrong in a living being. The reason is that multiple-organ interactions, innate immunity, stem cell repairing mechanism, microbe impacts, and many known mechanisms can completely alter this presumed simple linear toxicity. Thousands of compounds including cholesterol, salt, and glucose have dual roles. It is even possible a carcinogen may activate the innate immunity which can kill a broader spectrum of other tumor cells. It is even possible to use a cancer agent to cure other types of cancer.

The double blinds test design standard gives drugs an easy pass and systematically reject true healing methods. In the end, such standard kills real cures, but fails to stop harmful side effects of drugs and other disease agents. The research framework is directly responsible for a large number of health crises. The single variable approach is unable to detect any of the latent side effects of drugs. Despite consistent failure in predicting drug side effects, drugs with latent side effects can win approval. The harmful effects of genetically modified crops have never been studied in advance because nobody is required to consider how it could affect human health.

The research framework using static model is very unreliable. This can be shown in the early study concerning omega-6 fatty acid as essential fatty acids. The dietary requirement for linoleic acid is incorrect because the methodology proposed by a University of Toronto scientist failed to consider the effect of omega-3 fatty acids. Now that omega-6 fatty acid and omega-3 fatty acid ratio is important, we can assume that a large number of other ratios between different essential nutrients in foods could be important. This means controlled study is a wrong approach. There is no way to know all variables, and thus controlling variables is a self-deceiving justification. Moreover, competition among two of a large number of compounds in a living organism is common. One can anticipate that proportions of different compounds such as amino acids, fatty acids, and other nutrients could be distorted by widespread use of genetically engineered foods. Such foods can get human body through food chains and gradually alter cell structures in human beings. By focusing only one single variable, nobody needs to investigate a large number of variables and their complex interactions until another major health crisis has appeared, or has harmed the population.

In order to find true cure and reduce disease agents in the world, this research model should be rejected as junk science. The magnitude of the harm by this flawed research model cannot be overstated.

## **4.11 Summary**

Modern medical model is too remote from representing the human body. While it may roughly works for dealing with acute diseases and fast fixes, it is completely useless in modeling slow health properties such as latent drug side effects, synthetic compound adverse effects, chronic disease developing process and chronic disease reversal process. Those slow health properties take two to fifty years to develop or reverse. Such a model is totally useless in guiding people to achieve whole body health and longest life.