

Acupuncture

The easy way – or the hard way

some personal views

by

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Disclaimer - I speak only for myself!

Here I would like to take the liberty of expressing my personal views pertaining to a few things important to me. Since they are my PERSONAL views, everybody is free to object to those views, criticize or even ridicule them, if that seems appropriate. Being personal views I DO NOT represent anybody or anything, do not speak for a particular master, school or country (Japan) for that matter. I am definitely not authorized to speak on behalf of Japan, but take the liberty of expressing my preference of "Japanese style" over the world-famous TCM, even if there is no clear definition of what Japanese style refers to.

Thus, I exploit the theoretically granted right of "freedom of speech". That is, as long as the Chinese with their ambition at world domination cannot reach me with their censorship and/or send me their mafia, the Japanese consider me a public risk and maybe a secret police associated with the planned "NSC", a surveillance institution/law fashioned based on the NSA, or else the NSA itself sends me a hit squad based on wiretapping my communications and hacking into my computers. Probably the lowest risk comes from the Japanese. Not because they are particularly nice people, but because influential people really don't care about oriental medicine here, so that nobody feels threatened.

In the little text below I will try to address a few topics related to oriental medicine and attempt to describe my very personal comparison between characteristics of Japanese and Chinese concepts and practices. Yet, and I have to emphasize this (again), I am not a scholar or otherwise particularly learned or wise man. My text does not represent a "scientific study" of

any sort. In case I do make mistakes or present absolutely unacceptable assertions, the reader is not only free to, but rather encouraged to point out inadequacies.

It does not take a Sherlock Holmes to sense, that I do not approve of the Chinese practice of handling things. Neither is it any secret that in China EVERY bit of information is screened, checked and censored. There is no such thing as freedom in that country. Neither freedom of speech nor freedom of thought. If in China EVERYTHING is censored and manipulated in order to suit the "official views" considered most beneficial for the "people", what credible reason could there be for excluding oriental medicine from this consequent manipulation? I would like to hear it.

Just think about TCM = traditional Chinese Medicine. Most practitioners around the world know, that there is not much "tradition" in this TCM. It was synthesized in the 1960's by Mao Zedong, extracting some convenient elements from the real tradition, discarding everything unpleasant, adding lots of western medicine, stir it and cook until palatable to the world.

I prefer to believe, that professional practitioners know this. But advertising TCM to the public as "traditional medicine" without clarifying explanations is at least for my taste a deception of the unsuspecting public.

Please do not misunderstand me. I am NOT trying to indulge in any form of nationalism. First and foremost, because I am not a Japanese. As a German I have to live with a very dark history of "nationalism" on my back, even though I was born after that nightmare. Nationalism as a social and political trend is at best counterproductive and more likely poisonous to the state of mind of the human race as a whole. While the currently fashionable concepts of "globalization" pose a threat to

"national identity (characteristics)", this trend should be applied to the spread and application of knowledge and information.

While there are biological traits common to ALL human beings, every single one is at the same time unique – thus an individual. No two completely alike. That is, as long as we can stay away from cloning ourselves into madness. If anybody forsakes this uniqueness either by personal choice or through force(s) from above, s/he loses her/his humanity. Even though I acknowledge the Chinese origin (mostly) of acupuncture, this does not prevent me from preferring the characteristic traits and colors of the Japanese over their Chinese counterparts.

Immediately after I came to Japan, I decided to change my visa status (details in my "autobiography"; currently available in Japanese and German). To do so one has to leave the country and I chose to go to Hongkong, because I know someone there. There I learned from first hand experience, that it seems to be considered COMPLETELY NORMAL to deceive and cheat foreigners (me). The mentioned experiences definitely rule out any possibility of these instances of deception having occurred by accident.

By now I have been living in Japan for 34 years, but have NEVER experienced that kind of cheating/deception. That does not mean, the Japanese are angels. Every day the news are full of reports about corruption, deception etc., almost all of which can be traced back to the insatiable desire to make money. Maybe I am just imagining it, but I am under the impression, that these instances have increased in frequency over the last 30 years. Unfortunately the Japanese are apparently learning very undesirable things from other countries.

AND ... I fear this unfortunate trend may spread even to the realm of acupuncture.

Acknowledgment

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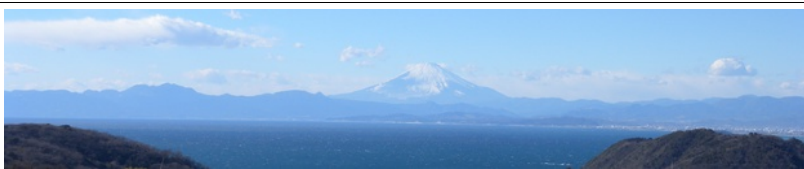
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My new home ...

Introduction

"Believe nothing, no matter where you read it, or who said it, no matter if I have said it, unless it agrees with your own reason and your own common sense."

Buddha

Acupuncture – the easy way or the hard way.

By now most people of the world have heard of acupuncture. A not insignificant number have even tried it. Those who tried it, may either never do it again, or else become a fan. Personally I like the Japanese tools and techniques MUCH better than the "authentic" Chinese ones. And since I believe, that those Japanese tools and techniques are much better suited for most western people, I here take the liberty of expressing this personal view of mine in written form. If anybody wishes to object, reject or ridicule my views outlined below: be my guest. Personally I would not volunteer to get an acupuncture treatment the "Chinese way" = **hard way**. Neither would most of my patients. If more Western people knew about the Japanese way = **easy way**, I believe MANY more people would use acupuncture treatment.

Disease is an eternal companion of man. It has been with

him since the birth of mankind. In fact, it is most likely something that coexists with life, meaning that all life forms are susceptible to disease. Yet, only man seems to have developed a whole system of measures to deal with diseases or lately also less serious health problems he calls today most often "medicine". Looking back from our current position, basically all treatment forms that have been practiced over a certain period of time in the past are considered to be "traditional medicine" for the relevant region.

Traditional medicine needs to be evaluated to find elements possibly still useful today and eliminate concepts and practices, that are less likely to be useful. Historically proven medical practices with roots going a long way back and in many regions of the world are more trusted than western medicine. It is no news, that highly sophisticated high-tech dominated western medicine sometimes "works wonders", but is unfortunately prohibitively expensive. Thus, the majority of the human race has no access to it. It is more a service for the rich. To assess ways of providing ALL mankind with medical care, the WHO has in the latter half of the 20th century initiated the project "health for all by the year 2000 = HFA2000", which has basically been a failure, since health care by 2000 was almost as incomplete as it was say 30 years ago. Nevertheless, the findings of the project were published as a book, providing very interesting insights. [BOOK: "Traditional Medicine and Health Care Coverage", Bannermann]

The characteristic of tradition is, that it builds on previous things/skill and evolves through history. Therefore a living, active tradition has incorporated and integrated over maybe hundreds of years a great variety of elements and refined them into, in most cases, a coherent system. In this context I will refer almost exclusively to the systems of traditional oriental

medicine. For reasons outlined below I deliberately do NOT call this "traditional Chinese medicine", because not everything related to acupuncture etc. is necessarily of Chinese origin and because of the misleading naming. Most practitioners in the field know, that "traditional" Chinese medicine is an artificial product cooked up by Mao largely for propaganda purposes.

Regarding the age, or rather the time of origin, of Chinese medicine the world is abound with various expert opinions. Often one can hear the phrases "3,000-year old" or "4,000-year old" traditional Chinese medicine. A few years ago the Chinese ambassador of the city where conference for physician practicing acupuncture was held mentioned in his opening address a "glorious 10,000-year long history, referring to the "neolithic origin" theory. Wonderful. However, the oldest archeological verified texts are about 2,300 years old. Assuming that the practice described therein has probably been in use for some hundred years, you may come up with a figure like 2,500 years. With a lot of imagination even 3,000 years. Everything else can only be a form of gaudy advertisement – propaganda.

As mentioned above, I am not a scholar and thus cannot really go into these things in detail, but interested readers should find an abundance of credible (!) sources of information. Which means that material provided from inside China written/produced by Chinese have to be ruled out, since there is an almost 100% chance, that this material has been censored and edited to suit some undisclosed purpose.

The information I give here is based on what I know. Sources likely to be credible. Nevertheless, ALL readers are encouraged, like a high-school teacher taught me (us) a long time ago: namely to consider EVERYTHING I say/write to be

a lie and check it. "Innocent until proven guilty" becomes: "nonsense until proven valid".

Another little quote, related to the way things are thought about and perceived. When talking about medicine and/or science, it is always assumed, that everybody and everything has to be perceived in the WESTERN way. A path to sure misunderstanding.

Before we can talk about the field of non-Western science, we have to define both non-Western and science. The term non-Western is not a geographical designation; it is a cultural one. We use it to describe people outside of the Euro-American sphere, including the native cultures of the Americas. The power of European and American colonialism is evident in the fact that the majority of the world's population is defined by what they are not. And in fact, for most of our recorded history the flow of knowledge, art, and power went the other way. In this series, we hope to rectify the lack of scholarly attention paid to most of the world's science.

As for defining science, if we wish to study science in non-Western cultures, we need to take several intellectual steps. First, we must accept that every culture has a science, that is, a way of defining, controlling, and predicting events in the natural world. Then we must accept that every science is legitimate in terms of the culture from which it grew. The transformation of the word science as a distinct rationality valued above magic is uniquely European. It is not common to most non-Western societies, where magic and science and religion can easily co-exist. The empirical, scientific realm of understanding and inquiry is not readily separable from a more abstract, religious realm.

(source: SCIENCE ACROSS CULTURES: THE HISTORY OF NON-WESTERN SCIENCE; VOLUME 3: Medicine Across Cultures / Editor: HELAINE SELIN, Hampshire College, Amherst, Massachusetts USA)

A little history

Note

Since I am neither a historian nor scholar, I borrowed most of the historical material from public resources and edited it to fit space and purpose here. Please skip the history part and move on to the rest, if you want to know more about the easy way, because history is NOT the real focus this text.

It is considered to be an established fact, that the element of oriental medicine I am talking about, namely acupuncture and moxibustion, has originated in China about 2,500 years ago. I will take the liberty of citing a few sources, add maybe one of two of my own thoughts, but otherwise refer the reader to the relevant specialized literature.

A quote from the book: "Acupuncture, visible holism" (p.42) about this generally accepted view:

Why has the mistaken theory that acupuncture had its origin in the late stone age (neolithic age, c.8000-3500 BC) been accepted so unquestioningly?

A thorough re-evaluation of the evidence confirms that acupuncture is not as old as has generally been assumed, and that it did not in fact develop gradually starting early in the neolithic age (c.8000-3500 BC). Rather, this great invention appeared quite suddenly and quickly matured in China approximately two millennia ago, thanks to the particular confluence of many aspects of Chinese culture, including geography, philosophy, society and human relations. However, it seems that scholars of our time have never questioned the general assumptions concerning the origins of acupuncture, despite the contradictions raised by a series of archeological

medical finds made since the 1970s. Why have twentieth century scholars been so infatuated with a theory that contains so many errors in logic? Is this only an academic mistake? With further study, it is not surprising to find that there are strong historical reasons.

History of Acupuncture (mainly China)



Classic depiction of one of the "meridians". This image already shows "acupoints" – their Chinese and Japanese name refers to "holes" and not "points" – and thus makes this a somewhat advanced image. The oldest archeological finds do not mention points.

Although acupuncture is undoubtedly a very old treatment modality, I do challenge the assertion, sometimes found, that it predates recorded history. Sharpened stones known as Bian shi have been found in China and hieroglyphs and pictographs dating from the Shang Dynasty (1600–1100 BCE) suggest, that such instruments may have been used also for therapeutic purposes. BUT, similar neolithic sharpened tools can be found in almost any region and culture. Therefore, this did not yet represent the treatment modality "acupuncture" as we know it today, but rather indicates its origins in bloodletting or demonology. The practice of moxibustion goes back to about the same time, although the technique has probably not always been using the fibrous material derived from mugwort. Despite improvements in metallurgy over centuries, it was not until the 2nd century BCE during the Han Dynasty that stone and bone "needles" were replaced with metal. The term "needle" is

somewhat misleading. The instruments should more appropriately be called "knives" and "lancets" [BOOK: Celestial lancets]. The earliest examples of metal needles were found in a tomb dated to c. 113 BCE, though their use might not necessarily have been acupuncture. The earliest example of the unseen meridians (經絡, pinyin: jīng-luò; see image above) used for diagnosis and treatment are dated to the second century BCE. Yet, while these records do not mention needling, there are descriptions of moxibustion. The earliest reference to therapeutic needling occurs in the historical Shiji text (史記, English: Records of the Grand Historian) but does not mention the meridians and may be a reference to lancing rather than acupuncture.

Generally the earliest written record of acupuncture found was considered to be the Huangdi Neijing (黃帝內經; translated as The Yellow Emperor's Inner Canon), dated approximately 200 BCE. However, the archeological discovery of the Mawangdui (Chinese: 馬王堆漢墓; pinyin: Mǎwángduī; literally "King Ma's Mound") in Changsha, China antedates both the Shiji and Huangdi Neijing. And the dating of this grave has also been quite precise: tomb 3 was directly south of tomb 1 and contained the remains of a man in his thirties who died in 168 BC. The occupant is believed to be a relative of Li Cang and his wife. This tomb contained a rich trove of military, medical, and astronomical manuscripts written on silk. This medical text mentions the use of pointed stones to open abscesses, and moxibustion, but not acupuncture. However, by the 2nd century BCE, acupuncture may have replaced moxibustion as the primary treatment of systemic conditions.

From **260-265 A.D.**, the famous physician Huang Fu Mi, organized all of the ancient literature into his classic text – Systemic Classics of Acupuncture and Moxibustion (Zhenjiu Jia Yi Jing). The text comprises twelve volumes and describes 349 acupuncture points. This book is noted to be one of the most influential texts in the history of Chinese Medicine and Acupuncture.

*Major developments occurred during the Sui (581-618) and Tang (618-649 A.D.) dynasties. During this period, acupuncture became a special branch of medicine and practitioners were now called **acupuncturists**. Acupuncture schools appeared and acupuncture education became part of the Imperial Medical Bureau.*

*During the Song Dynasty (960 – 1279) the famous physician Wang Weiyi wrote *The Illustrated Manual on Points for Acupuncture and Moxibustion*. This book accompanied the Bronze Man statue which was a life size model of the acupoints on the human body.*

*The **practice of acupuncture expanded early out of China into the areas now part of Japan (here by the 6th century)**, Korea, Vietnam and Taiwan, **diverging from the narrower theory and practice of mainland TCM** in the process. A large number of contemporary practitioners outside of China follow these non-TCM practices, particularly in Europe.*

In Europe, examinations of the 5,000-year-old mummified body of Ötzi the Iceman have identified 15 groups of tattoos on his body, some of which are located on what are now seen as contemporary acupuncture points. This has been cited as evidence that practices similar to acupuncture may have been practiced elsewhere in Eurasia during the early Bronze Age. [there is a very good article about this topic in Japanese, but I have not yet translated it.]

Middle history



An illustration of the bladder meridian.

Acupuncture chart from Hua Shou (fl. 1340s, Ming Dynasty). This image from Shi si jing fa hui (Expression of the Fourteen Meridians). (Tokyo: Suharaya Heisuke kanko, Kyoho gan 1716). Korea is believed to be the second country that acupuncture spread to outside of China. Within Korea there is a legend that acupuncture was developed by the legendary emperor Dangun though it is more likely to have been brought into Korea from a Chinese colonial prefecture.

The Emperor Renzong of Song [BOOK: The Evolution of Chinese Medicine: Song Dynasty, 960-1200] in 1023 ordered the production of a bronze statuette depicting the meridians and acupuncture points then in use. However, after the end of the Song Dynasty, acupuncture lost status, and started to be seen as a technical profession, in comparison to the more scholarly profession of herbalism. It became rarer in the following centuries, and was associated with less prestigious practices like alchemy, shamanism, midwifery and moxibustion. The Ming Dynasty (1568-1644) was the enlightening period for

the advancement of acupuncture. Classic texts were revised, techniques and manipulations were developed, moxa sticks were used, extra points were discovered and an encyclopedic work of 120 volumes was written. Portuguese missionaries in the 16th century were among the first to bring reports of acupuncture to the West. Jacob de Bondt, a Dutch surgeon traveling in Asia, described the practice in both Japan and Java. However, in China itself the practice was increasingly associated with the lower-classes and illiterate practitioners. In 1674, Hermann Buschoff, a Dutch priest in Batavia, published the first book on moxibustion (comment: moxibustion = neologism built from the Japanese term "mogusa" for the fibers of the dried leaves of mugwort and "combustion") for the cure of arthritis. The first elaborate Western treatise on acupuncture was published in 1683 by Willem ten Rhijne, a Dutch physician who had worked at the Dutch trading post Dejima in Nagasaki for two years. In 1757 the physician Xu Daqun described the further decline of acupuncture, saying it was a lost art, with few experts to instruct; its decline was attributed in part to the popularity of prescriptions and medications, as well as its association with the lower classes. In 1822, an edict from the Emperor Daoguang banned the practice and teaching of acupuncture within the Imperial Academy of Medicine outright, as unfit for practice by gentlemen-scholars. At this point, acupuncture was still cited in Europe with both skepticism and praise, with little study and only a small amount of experimentation.

Modern era

In the early years after the Chinese Civil War, Chinese Communist Party leaders ridiculed traditional Chinese medicine, including acupuncture, as superstitious, irrational and backward, claiming that it conflicted with the Party's dedication to science as the way of progress. Communist Party Chairman Mao Zedong later reversed this position, saying that "Chinese medicine and pharmacology are a great treasure house and efforts should be made to explore them and raise them to a higher level." Under

Mao's leadership, in response to the lack of modern medical practitioners, acupuncture was revived and its theory rewritten to adhere to the political, economic and logistic necessities of providing for the medical needs of China's population. Despite Mao proclaiming the practice of Chinese medicine to be "scientific", the practice was based more on the materialist assumptions of Marxism in opposition to superstition rather than the Western practice of empirical investigation of nature. Later the 1950s TCM's theory was again rewritten at Mao's insistence as a political response to the lack of unity between scientific and traditional Chinese medicine, and to correct the supposed "bourgeois thought of Western doctors of medicine"

Acupuncture gained attention in the United States when President Richard Nixon visited China in 1972. During one part of the visit, the delegation was shown a patient undergoing major surgery while fully awake, ostensibly receiving acupuncture rather than anesthesia. Later it was found that the patients selected for the surgery had both a high pain tolerance and received heavy indoctrination before the operation; these demonstration cases were also frequently receiving morphine surreptitiously through an intravenous drip that observers were told contained only fluids and nutrients.

→ To ME this sounds very much like the typical Chinese deception I have already mentioned earlier and will cite later again.

Acupuncture has been the subject of active scientific research both in regard to its basis and therapeutic effectiveness since the late 20th century, but it remains controversial among medical researchers and clinicians. In 2006, a BBC documentary "Alternative Medicine" filmed a patient undergoing open heart surgery allegedly under acupuncture-induced anesthesia. It was later revealed that the patient had been given a cocktail of weak anesthetics that in combination could have a much more powerful effect.

The use of acupuncture as anesthesia for surgery has fallen out of favor with scientifically trained surgeons in China. A delegation of the Committee for Skeptical Inquiry reported in 1995: "We were not shown acupuncture anesthesia for surgery, this

apparently having fallen out of favor with scientifically trained surgeons. Dr. Han, for instance, had been emphatic that he and his colleagues see acupuncture only as an analgesic (pain reducer), not an anesthetic (an agent that blocks all conscious sensations)."

While I was working at the Nissan Kohseikai Tamagawa Hospital, Tokyo (1984-89) I conducted a little (2.5-year) prospective study regarding the usefulness of acupuncture for postoperative pain control. The Japanese original was published in the magazine "Idononippon", No. 549-50, 1990, and a German translation I made in a German magazine: "Anwendung von Akupunktur in der Betreuung postoperativer Patienten" (published in: Akupunktur – Theorie und Praxis; 1990, No. 3, pp 196-245.

On November 16, 2010, acupuncture was recognized by UNESCO as part of the world's intangible cultural heritage.

History of Japanese Acupuncture

1. Early history of acupuncture in Japan [B.C.]

*Archeological evidence has revealed that in ancient times, stone-gimlets, stone-needles, bone-needles, etc., were used in medical treatment for the same purposes as acupuncture needles today. → **I very much doubt that for the reasons given above.***

[6th Century]

The introduction of continental medical culture to our country, as with the introduction of other continental culture until about the 6th century, was made mostly via the Korean peninsula. Slightly later than the introduction of Buddhism, the record of the first medical writings were pharmaceutical texts and "Meidō-zu" brought in 562 via the peninsula by a person named ZHI

Chong(智聰) from Wu(吳). "Meidō-zu" are anatomical charts illustrating the location of acupoints on the human body.

*From the 7th century, the start of official communication with China through ambassadors to the Sui and Tang dynasties, much medical culture was imported directly. Enichi and Fukuin played an important role. Soon the legislative system was also introduced and in 701 the **Taihō-ritsuryō** law was put into effect. Chinese medical texts from Han through the Six dynasties known*

as Myaku-kyō (脈經), Kō-otsu-kyō (甲乙經), Honzō-kyō-shichū (本草經集注), Shō-hin-hō (小品方), Shū-ken-hō (集驗方), Somon (素問), Shin-gyō (針經) were designated as medical texts in the medical law Ishitsu-Rei for the medical system and studied. In this law, the laws of earlier Tang were adopted almost entirely unaltered and as a result reveal the Chinese policy practiced during that period.

During the Heian era the growing Japanese cultural awareness led to the compilation of original Japanese medical texts. It is said in 808 IZUMONO Hirosada and his followers compiled Daidō-ruijū-hō (大同類聚方), and his son SUGAWARANO Minetsugu and others before 870 compiled Kinran-hō (金蘭方), which were ordered by the emperor; however copies of neither work seem to have survived to the present.

The Japanese envoy to the Tang dynasty was discontinued in 838 and by that time almost all of the major Tang medical texts had been imported. Nihonkoku-Genzaisho-Mokuroku (日本国見在書目録), circa 898, records 1,309 volumes covering 166 areas of Chinese medical and pharmaceutical texts, attesting to the zeal of the Japanese for absorbing Chinese medical culture.

[10th Century]

Japan's first medical text, the ISHINPO, was written by Yasuyori TAMBA. The contents of this book were based on Chinese medical texts compiled during the Sui and Tang dynasties.

[16th Century]

Due to the influence of Dosan MANASE, Buddhist ethics, which had until this time played an important role in medical philosophy, were replaced by Confucianism. **It was from this time that Japanese acupuncture began to develop in directions independent of China.**

[17th Century]

Up until this time, needles had been made of iron. During the seventeenth century, silver and gold needles came into use for the first time in Japan. Waichi SUGIYAMA, in search of a simple and speedy insertion method, developed the insertion tube, a small

cylindrical tube through which the needle is inserted. This insertion method is still used today in Japan by over 90% of acupuncturists.

*During this era, Oriental medicine was very popular and various schools of thought on the subject began to appear. Roughly, the schools could be divided into two groups, the **theoretical group**, which based its practices on ancient Oriental medical teachings, and the **practical group**, regarding clinical practical as very important.*

[19th Century]

Dutch and German medical systems were introduced and became popular in Japan. A new system of medicine was established; however, acupuncture and moxibustion, considered folk medicine, were not included in this medical system. Thus, oriental medicine did not prosper during this era.

2. First half of the 20th Century

Effectiveness of acupuncture and moxibustion was revised and raised to the status of a profession. Research and experimentation were conducted in the manner of Western medicine. Kinnosuke MIURA discovered that acupuncture-moxibustion therapy improved blood circulation. Research concerning the conformity between acupoints and Head's zones was conducted during this period by Michio GOTO.

Influenced by Western medical practices, acupuncture-moxibustion experiments and research were conducted also on animals. Associated with popularization of diagnosis by Western medical methods meridians were ignored in the treatment of individual diseases.

Major discoveries made during this period include: increase in leukocyte and erythrocyte counts, increase in the number of complements and antibodies, alkalotic changes in bone and blood, enhancement of intestinal peristalsis and liver functions. Pharmacological studies indicated that these results are due to histotoxin formed after moxibustion treatment. Experiments on animals showed that the mechanism of acupuncture-moxibustion was mediated via the autonomic nervous system. Renewed interest in the almost forgotten meridians of oriental medicine led

to the development of the meridian treatment methods.

3. Acupuncture in Japan in the 1940s, after the Second World War

In 1945, when Japan was occupied by the Allied Forces, **Douglas McArthur's General Headquarters (GHQ) ordered the Japanese Government to ban acupuncture and moxibustion as a barbarous and unscientific therapy.** The use of acupuncture or moxibustion on Allied Forces prisoners of war (POWs) due medical supply shortage was mistaken by the POWs as a form of torture. Some of the Japanese soldiers who applied the **treatment** were subsequently indicted as war criminals.

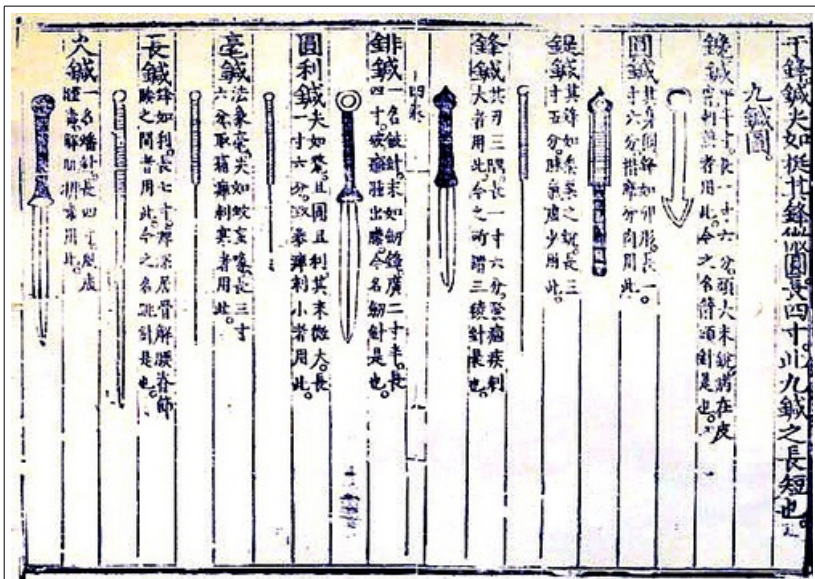
That was a period of real crisis for acupuncture and moxibustion. A number of acupuncturist societies cooperated in a big campaign against the decree. A few medical scientists interested in the scientific phase of the therapy succeeded to prove certain scientific facts pertaining to the efficacy of acupuncture and moxibustion. Owing to those enthusiastic movements, McArthur's GHQ rescinded the ominous order.

Under the guidance of the GHQ, democratization, modernization, and the spread of science gained highest priority. To cope with the new demands, acupuncture societies started to raise both the educational level of new students and the qualitative level of those already licensed. The "Institute of Oriental Therapy" was established, funded by the societies and headed by the then most prominent scientists in the field — Dr. Hidezurumaru ISHIKAWA and Dr. Kyugo SASAGAWA.

The tools

When one speaks of "acupuncture" and associates this term with hair-thin steel needles, the speaker/reader should stop and think a little about manufacturing techniques. The mentioned hair-thin needles used today, could NOT be manufactured during the "golden age" of oriental medicine, to which most of the classics refer. Samples of the nine needle types mentioned in the classics can maybe viewed in some museums. A quick

look immediately shows, that those instruments were much more knives than needles in the modern sense.



An illustration from the mentioned classic showing the 9 needles. Having a look at replicas found in museums etc. (I could not find a picture in the public domain to use) immediately makes clear, that these instruments would be called "needle" by anybody today. Lancets!

Naturally, the treatment administered with those tools were much less related to redirecting the flow of the elusive energy form called in the English literature based on the Chinese pronunciation "chi" or "qi", or in a roman transcription of the Japanese term "ki" than minor surgical procedures.

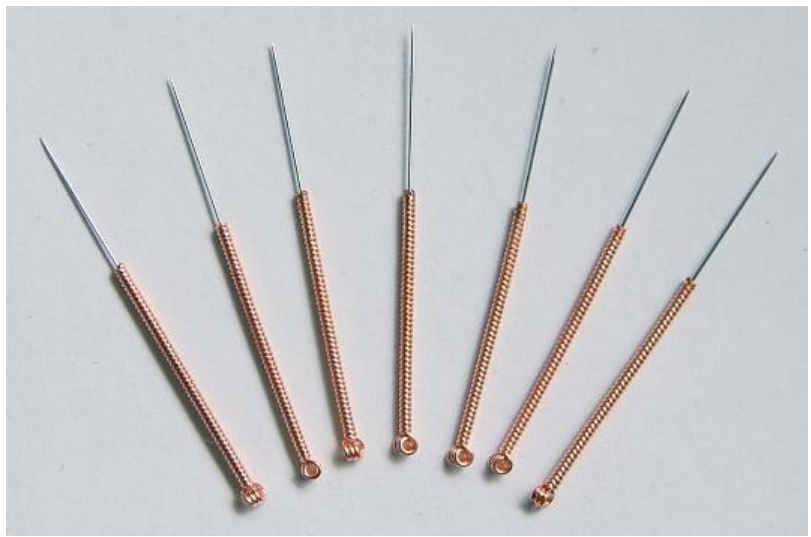
Material today is mostly stainless steel of a composition many manufacturers consider a corporate secret. Silver or gold needles are also still available and in use, but comprise only a very small portion of the needles. In ancient times, that means

at the time the classics were written, the so-called "needles" were made mostly of iron. Before that there have probably been bronze needles and before that needles made from materials other than metal, like bone, bamboo or stone. The "stone needles" are particularly mentioned in the classic "The Yellow Emperor's Inner Classic of Medicine".

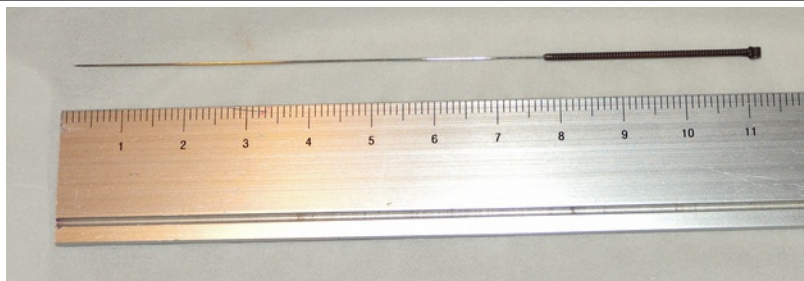
The "nine classical needles" (九鍼 see image above), a collective term for the nine types of needles described in the classic Lingshu, forming one part of the above mentioned The Yellow Emperor's Inner Classic of Medicine, are: filiform needle, shear needle, round-pointed needle, spoon needle, lance needle, round-sharp needle, stiletto needle, long needle and big needle. Apart from the "big needle" and the "filiform needle" the shape of these instruments clearly indicates that they are not really meant for the insertion of a thin metal cylinder – the idea of modern acupuncture. The big needle also is more like a spear than a needle, some 20 cm long. Even the "filiform" needle is so thick, it could easily pass for a pencil.

In any case, based on the nature of their material and shape those instruments were intended more for cutting or "stabbing" and not the gentle needle insertion people think about today. Naturally, over the centuries manufacturing methods and materials improved, so that better, different and most likely THINNER needles could be manufactured, thus allowing for a more bearable treatment.

In more modern times acupuncture needles got a lot thinner, their diameter probably approaching that of the thicker modern Chinese needles, which is somewhere between 0.4 to 0.6 mm in diameter. These needles were equipped with a head made of wire wound around the needle body, forming a loop at their end. That is how Chinese needles still look like today.



A set of short but still thick Chinese needles. Note the twirled wire head.

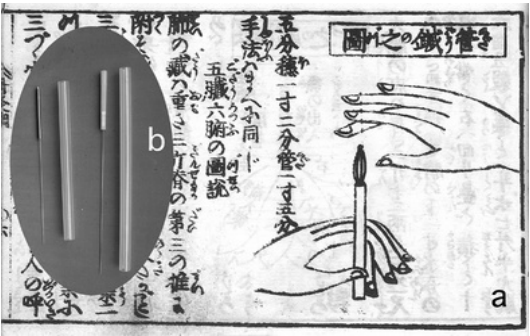


This is a 2.5 cun (or in Japanese "sun" = inch) long Chinese needle. I actually use this type of needle maybe once or twice a year. Also on myself, when I get sciatica in my right leg. But this is definitely not the tool of choice for ordinary treatment.

These needles are however thick enough, that you can thrust them with one hand into almost any tissue. Not unlike a

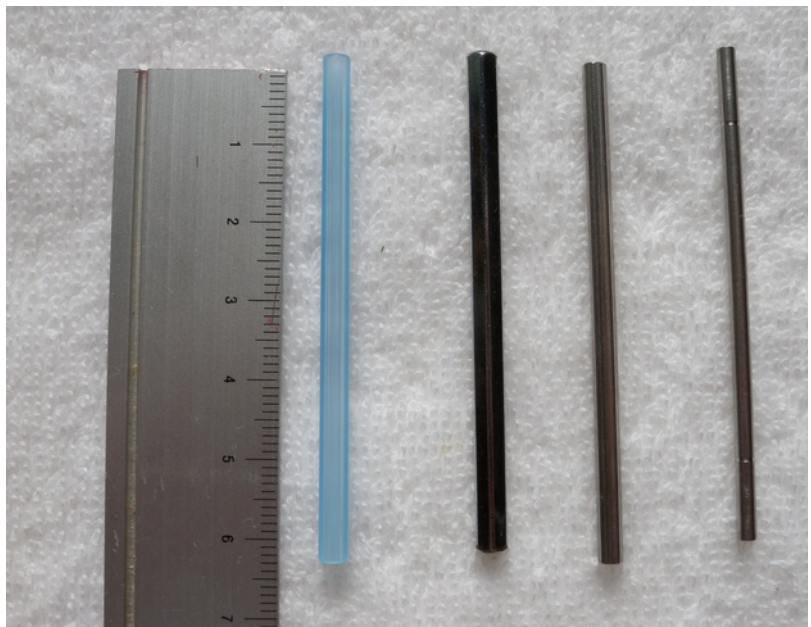
modern injection needle.

Note	<i>Sugiyama Waichi. THAT is the usual romanized spelling. I introduced the hyphen to indicate, that Japanese people pronounce the name with a little break "Wa-ichi" in it.</i>
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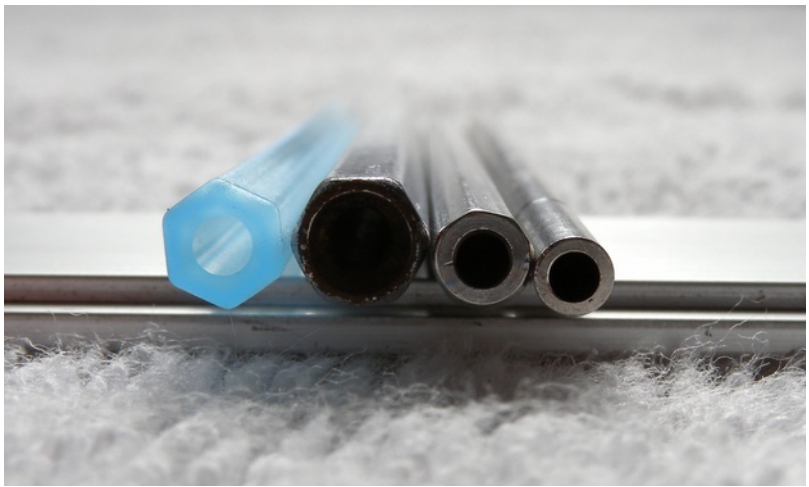


The blind Japanese Sugiyama Wa-ichi (1610-94) trained to become an acupuncturist, but because he failed to acquire acceptable skills of inserting the above mentioned, still

comparatively thick needles, he developed the guide tube for the needle insertion. Later developments led to the elimination of the little twirl of wire at the end of the needle head to achieve a closer fit between needle head and guide tube, thereby reducing bending of the needle during the insertion.

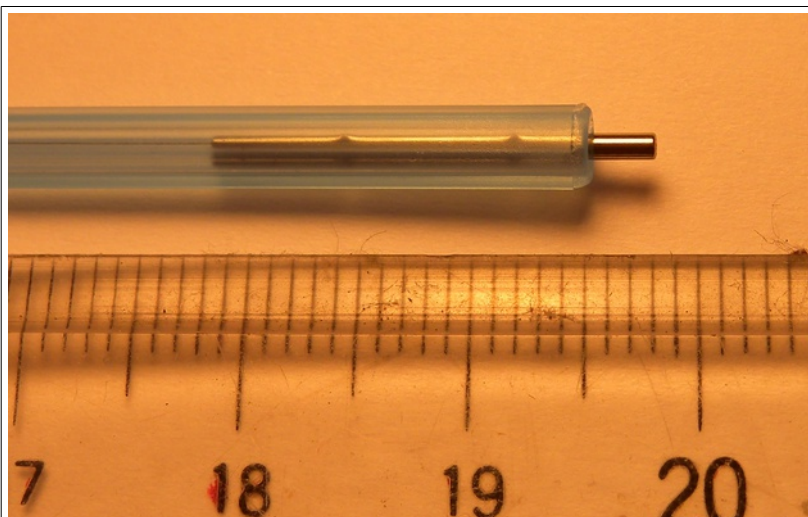


A number of needle tubes. On the left a plastic tube that comes with disposable needles. On the right three different metal tubes of different shape and diameter.



The same guide tubes as above, shown from their end. It is obvious, that the diameter of the metal tubes. Measuring the diameter on THIS picture shows $B > A > C > D$ when the tubes are labeled A, B, C and D from left.

Needle tubes are, depending on the particular brand, approximately 2-3 mm shorter than the needle. The "needle head" is for Japanese needles a slender metal cylinder, or in case of the disposable needles often a similar cylinder made of plastic. The plastic heads I have seen all tend to be thicker than corresponding metal heads.



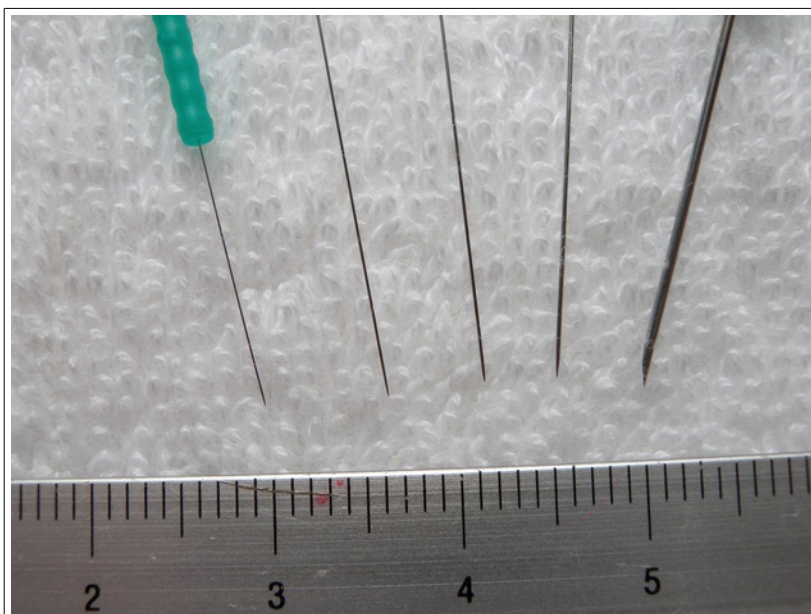
The needle head is protruding about 3 mm over the end of the needle tube. That is the length "inserted" by tapping on the needle head using the "seppi" technique. (seppi = cut (the) skin)

Naturally, a guide tube must allow the needle head to pass, so that the thickness of the latter defines the minimal inner tube diameter. A thicker tube means then a greater amount of free space around the needle body. Tapping on a needle in such a tube results in some bending of the needle when pressure is applied to its head, but the tip has not yet penetrated the skin. The greater this bending, the slower and less effective is the skin penetration, thus increasing the likelihood of pain on insertion.



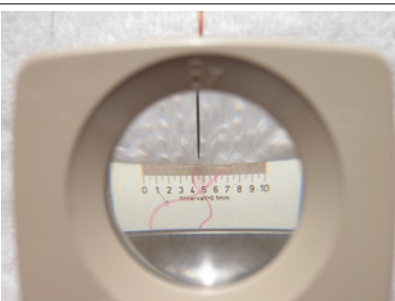
The disinfection mania has led to the creation of needles with plastic head and corresponding plastic tubes, I do not like those tubes for a number of reasons. I stick to the old-fashioned metal tubes.

Most Japanese people today embrace the Japanese type needles with their guide tubes. The most frequently used Japanese needles are probably #2 and #3, which means a diameter of 0.18 and 0.2 mm respectively. That is about one half of a "standard" Chinese needle.

With people getting more sensitive over time, the fashion of "cosmetic" acupuncture etc. thinner needles with a diameter from 0.16 mm down to 0.12 mm are nowadays also quite popular. For reference, the thickness of an average Asian person's hair is about 0.15 mm, making these needles even thinner than a hair.



A number of needles. From right to left: injection needle, ordinary Chinese (for Chinese "thin") needle, 50-mm long/0.2 mm diameter, 40-mm/0.18 mm, 15-mm/0.12 mm Japanese needles

	<p>Magnification: 10x. Sorry, but I do not have a microscope to do this.</p> <p>Magnified image of the 0.12-mm needle shown above.</p>
	<p>Magnified image of the injection needle shown above.</p>
	<p>Magnified image of the 0.2-mm needle shown above.</p> <p>Reproduction of these images here shows unfortunately far less detail than the original picture.</p>

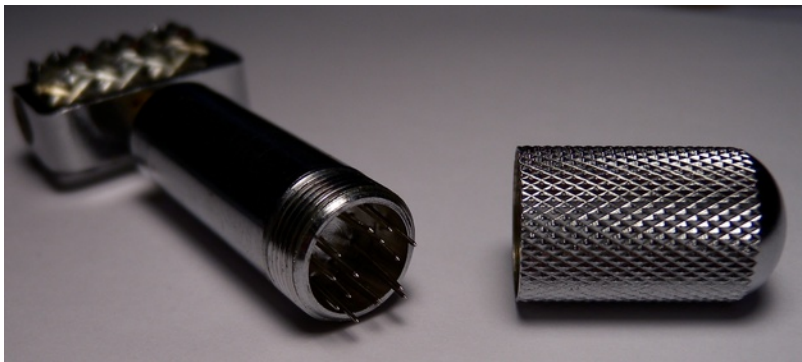
While the classic needles tended to be rather large instruments, the most frequently used type of modern acupuncture needles are about 40-50 mm in length, but for the above mentioned purposes shorter needles ranging from 30 to 15 mm are now gaining popularity.

The different length and diameter of the needles is naturally based on various predating philosophical and/or empirical concepts and tend to decrease over time. I believe the majority of practitioners here in Japan would administer an acupuncture treatment using their hair-thin needles inserted only to a depth of a few millimeters for the more sensitive (I will discuss the meaning of this expression later) city dwellers. Rephrasing this a little, you could say, this form of treatment is gentle enough to be administered to small (maybe 3 to 5 year-old) children, without eliciting any complaints (much less any screaming) from these little patients.

Apart from the ordinary needles for insertion, there are also different forms designed for contact, but not insertion. These needles include little rollers (and a number of similar other types), which are metal drums with some sort of spikes on their circumference, used to "roll" over the body. as well as little "hammers" equipped with needle-like projections, used to tap on the body surface.



A so-caller "roller needle". The projections on the drum are not really pointed, but more round and do not cause any pain. This size is used specifically for infants. The children like it!



Same roller needle as shown above. This model has a removable end, under which a "plum blossom needle" mounted on a spring is hidden.



A so-called plum blossom needle. The "needles", which are NOT meant to penetrate the skin, have rounded heads and therefore do not cause injury to the skin. Some source say, this instrument should be applied with sufficient force to cause some blood to ooze out. I DO NOT endorse that kind of treatment.



The head of the plum blossom needle a little enlarged. The needle points here on the left are not mounted on a spring like the one for infants shown above.



My own 'Do-it-Yourself' plum blossom needle.

For that purpose I use a bundle of about 9 pieces of bamboo skewer usually used for cooking. This picture is different, but tying them together with 2 rubber bands has proven to be the most versatile method.



Take the DIY plum blossom needle in your hand and gently tap the target area with its tips.

Use a gentle and soft, flexible flick from the wrist.

Sometimes I give my patients one of these as a souvenir for home care.

Bloodletting, most likely the original treatment form in the development of acupuncture, is also still performed today. While there are triangular "lancets" = needles specifically designed for this purpose, the instrument of choice for piercing the body to draw blood today are disposable injection needles. They are sterile, disposable and cheap. There is not much point in using fancy instruments, when the purpose is simply the creation of a puncture wound allowing some blood to escape.

Among the needles NOT intended for insertion the so-called "shoni shin" are probably the best known. Shoni shin is Japanese and means "shoni" = infant + "shin" = needle, thus needles for pediatric treatment. Infants refers mostly to children younger than about 3 years, but that is not something

absolutely determined and may naturally be subject to considerations pertaining to each individual case.

These Shoni shin (often also written in one word = shonishin, but I think that can make understanding more difficult for people who do not understand Japanese) include a variety of instruments basically designed to stroke, scrape or tap the skin of the infant. Definitely they are NOT intended to "hurt" the children in the sense of "puncturing" them.

Note	<i>Etymology: 'Acupuncture' (n.); 1680s, "pricking with a needle" to ease pain, from Latin acus "needle" + puncture. The verb is first recorded 1972. So, the English term to acupuncture is quite new. 'Puncture' (n.) late 14c., from Late Latin punctura "a pricking," from Latin punctus, past participle of pungere "to prick, pierce".</i>
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Sometimes when I show these instruments to people and tell them, that these are also a kind of needle I get very surprised and unbelieving looks.

While the shoni shin used to be made of metal, there are today disposable products made of plastic. Personally, I do not like these plastic things.

Then of course there are those tiny needles that are fixed to the skin for one or more days with little tapes. These needles vary in length between 0.3 and 1.5 mm and are about 0.2 mm in diameter. When I take them out of their package, they are so small, I cannot really see them. Recently the Japanese manufacturer Seirin has also marketed a new type of these intradermal needles with the brand name "Zero", that are designed NOT to pierce the skin at all. They are so small, I just have to assume they are there – or else need the help of a magnifying glass.

Although they are very small, they do provide a stimulation

that seems to help many but not all patients. You have to try them in order to find out, whether they are working for the particular patient. (No such thing as a "standard" effect you might expect).

Then there are also other little "things" like tiny spheres or cones taped to the body to achieve therapeutic effects. Here too trial and error is about the only way to find out, if they are suited for individual patients.

Manufacturing

Manufacturing – this is a real problem. Although the Chinese always boast with their (fake) 4,000-year history, a look at needles made in China can be anything from disappointing to horrifying. If I were a craftsman of a people claiming to have such a long tradition in this particular craft, taking pride not only in the own skill but also these "tools of the trade" ... I would be so ashamed of myself, I would not dare to show my face in public. Apparently, Chinese people have no problems with this at all.

The manufacturing quality of needles made in China I have seen so far is usually below any acceptable quality standard. The Japanese on the other hand are well-known for their craftsmanship and the pride they take in the quality of their products. If anybody is interested in this kind of craftsmanship, there may be not much materials/documents related to the manufacture of acupuncture needles, but take a look at the forging of the Japanese sword: the "katana".

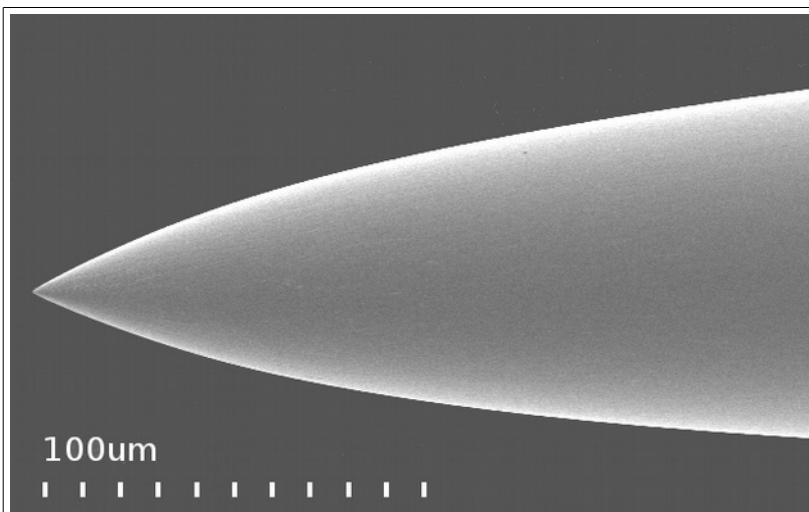
It represents one of the finest examples of forging in the world and its manufacturing methods have been perfected

already hundreds of years ago. To the best of my knowledge, there is no Chinese blade and only very few European blades made much later, that could compare to one of the famous Japanese swords. [BOOK: Katana: The Samurai Sword; Stephen Turnbull]

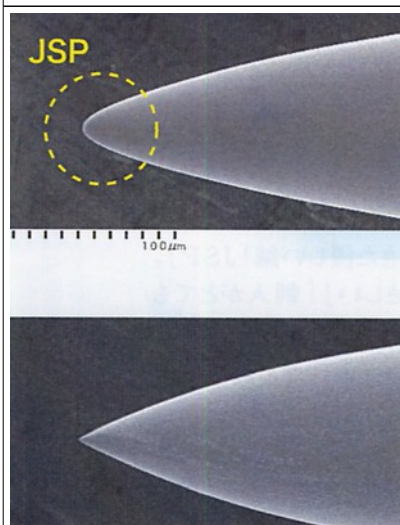
Application of these methods of metal working to the manufacture of acupuncture needles has produced instruments of outstanding quality, helping the practitioners to achieve results, that would be much less conceivable obtained with the rugged lancets used to "treat" people in China.

There is a very small town in Germany called Tuttlingen, where a number of specialized companies used to produce about 80-90% of all the little metal instruments used in surgery worldwide, including items for microsurgery so small, you need a magnifying glass to see them. ***Hand made!*** If anybody in the world would like to know about and judge the manufacturing quality of Chinese needles, I have suggested already a long time ago, to submit samples to these craftsmen (http://en.wikipedia.org/wiki/Master_craftsman) (not scientists!). They are able to provide a judgment of quality one can trust. See: <http://en.wikipedia.org/wiki/Tuttlingen>

Well manufactured Japanese needles are not really "pointed instruments for piercing." There are number of different types of acupuncture needles, but microscopic images show, that most of these are more round than pointed. The more recent types are really round at the tip.



Picture by courtesy of the manufacturer Seirin. Microscopic image of a needle tip. This one "pointed" but with rounded "shoulders".



The lower portion of the picture shows an ordinary needle tip, while the upper portion of the picture shows a newer type. Here the needle point is actually rounded.

Thus, when inserting such a needle, it does not "cut" through the different tissues, but rather squeezes itself BETWEEN the cells and into the tissue, moving the tissue out of the way in the process. Removing the needle causes the surrounding tissue then to gently return into its originally position, closing the gap. There are usually no "holes"! This is one of the major differences to injection needles, which are designed specifically to cut into the tissue.

Being rounded and sliding into the tissue, does not, however, rule out the possibility of occasional bleeding. This happens when a needle enters into a small vein and is then retracted, but is rarely of any consequence except for a little bruise.

Moxibustion

The term moxibustion – currently used worldwide for this treatment modality – is a contraction of the Japanese term MOXA and COMBUSTION = moxibustion. The Chinese term "jiu" as it is found in zhen jiu (acupuncture and moxibustion) is known to and used by very few people. The material named "moxa" used for this treatment form today refers to the fibrous material obtained from the dried leaves of mugwort or wormwood [*Artemisia vulgaris*]. Yet, in the distant past other plant materials seems to have also been used. Probably the somewhat unique combustion characteristics of the moxa has led to its continuous use for now somewhere around 2,500 years.

Moxa comes in a variety of different qualities, some of which are burnt directly on the skin, while others are burnt using something to serve as a cushion, like slices of ginger or garlic. The former technique(s) are called direct moxibustion



and the latter correspondingly indirect moxibustion. Other uses of moxa include attaching the dried material with the help of some tape to the body, preparing decoctions that can be taken internally or also applied topically.



Three different varieties of moxa. The differences in color and texture are obvious.



The best moxa quality. This grade is used for direct moxibustion, burning the material in small cones directly on the skin.

	<p>A lower grade of moxa used for rolling into little balls, that are then attached to the needle head and burnt there.</p>
	<p>Moxa for warming moxa techniques, where a slice of some material (ginger, garlic etc.) is placed between the moxa and skin. Actually this particular sample is from China. The Japanese variety looks lighter and less coarse.</p>

Ordinary moxibustion as it is practiced in Japan uses a very highly refined moxa product, consisting only of the fibers derived from dried mugwort leaves; the intricacies of the manufacturing process are not really important here. The material has a light beige color, a faint, pleasant smell and weighs almost nothing (when I put a heap of it into the hand of my patients, they always very surprised at the "nothingness").

The craft

Note

Below I describe the acupuncture techniques I know. Yet, this is not a textbook and I do not consider myself qualified enough to provide a comprehensive presentation of most techniques. For that, please refer to the relevant textbooks.




Acupuncture, by now needless to say, refers to the insertion of thin, solid needles into (mostly) the body. Insertion in relation to acupuncture means not just using a pointed piece of metal and pushing it through whatever tissues are between the practitioner and the envisioned acupoint. At least most Japanese needles are so thin, then cannot even be pushed through ordinary skin. Their insertion therefore requires a number of techniques and special skills to accomplish this maneuver.

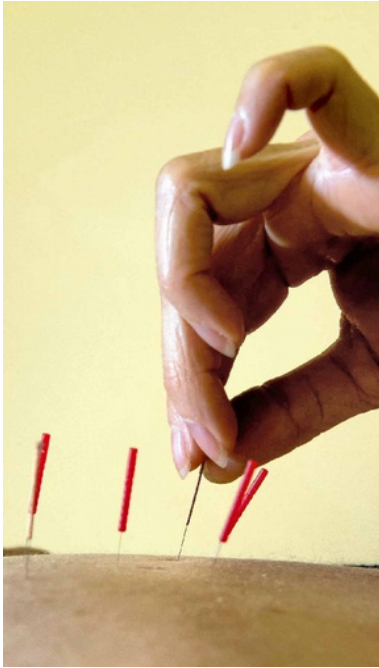
Not being a specialist for Chinese acupuncture, I limit myself basically to what I have learned and seen in three decades of clinical practice. Instead of following the 'authentic TCM' approach, I place more importance on advocating Japanese needling style(s), because I like them better and believe many people worldwide would second me here, if they just had a chance to try and compare.

Before I go into technical details, I would like to briefly describe my opinion about the hands. After all, the hands are the most important tool of a craftsman. The latter is called in German "Handwerker" a term composed of "Hand" (same as English) + "Werk" (like in "work" or "creation"). Manus is Latin for hand. Thus 'manual labor' = working with the hands.

Keep this in mind when thinking about the manipulation mentioned below.

The people working practically in the field of medicine, in particular those performing "manual therapy" are called practitioners, therapists, acupuncturists (special case here), masseurs etc. In any case, these people use their hands to perform medical MANIpulations. Even if some people may object, these practitioners are supposed to employ 'healing touch' and therefore may be called healers. The hands of a healer – THAT is something one cannot learn in any school. Either you have them, or you don't. Let me show you two unforgivable examples from the public domain.

	<p>This picture is found associated with the Wikipedia article about acupuncture.</p> <p>The practitioner has long fingernails and the nail of the middle finger has already left a very obvious mark on the hand of the victim.</p> <p>For a <i>medical craftsman</i> working with his/her hands ... this is NOT acceptable.</p>
	<p>In this example too the practitioner, judging by the</p>



appearance of the hands a woman, has very long nails. These nails can scratch=injury the patient. Unacceptable!

Not to mention the little finger spread away in the fashion of a noblewoman drinking tea. That is NOT the way the hands, the VITAL connection between patient and practitioner, should be used.

BUT, although practitioners may not have legendary 'hands of a healer', I still believe the hands need special attention. Pictures (public domain) found on the internet and observation of real people during demonstrations, congresses etc. shows, however, that the idea of clean hands without fingernails or potentially dangerous metal objects (rings, watches) is far from being commonplace. Unfortunately.



I do not want to praise myself here, since this is something that should be a matter of course for ALL (medical) people working with their hands, but this is a picture of my hand. Short cut nails and no metal (rings, watch etc.) that might injury the patient. Next time you go for a treatment ... check your practitioners hands.

Needling techniques

First I would like to quote a public domain source = Wikipedia:

<http://en.wikipedia.org/wiki/Acupuncture>

Insertion

*The skin is **sterilized, e.g. with alcohol**, and the needles are inserted, frequently with a plastic guide tube. Needles may be manipulated in various ways, e.g. spun, flicked, or moved up and down relative to the skin. Since most pain is felt in the superficial layers of the skin, a quick insertion of the needle is recommended.*

*Acupuncture can be **painful**. The skill level of the acupuncturist may influence **how painful** the needle insertion is, and a sufficiently skilled practitioner may be able to insert the needles without causing any pain.*

To start with, I would like to challenge the term "sterilized". Please bear with me, because I think, this has important

implications for the practice of acupuncture in general. It is a very popular expression, but when referring to wiping the skin with a little cotton swap soaked in alcohol ... it seems inappropriate to me. Maybe the people who use(d) this term, did not make the effort of looking it up in a dictionary:

sterilization /ster-i-li-za-tion/ (ster"i-lī-za'shun) (one definition)

*1. the **complete elimination or destruction** of all living microorganisms.*

It should be no news, that it is NOT possible to achieve a COMPLETE elimination of microorganism just by wiping with a little alcohol. According to renown microbiologist [BOOK: Allies and Enemies: How the World Depends on Bacteria] there is ONLY ONE way to "sterilize" the human body, or parts thereof: incinerate it to ashes.

What the people speaking of sterilization are referring to is called disinfection. That means, any employed measure achieves a certain reduction in the number of present microorganisms. Alcohol is classified as an intermediate level disinfectant:

http://www.aaalac.org/publications/connection/using_alcohol_disinfectant.pdf

I do wash my hands between touching different patients, sometimes several times DURING a treatment, use those alcohol swaps and sterilized needles, but take the liberty of maintaining my doubts about the effectiveness and sometimes necessity of the relevant procedures.

A well known example of over-anxiousness is the so-called "clean needle technique" (CNT). This refers to a procedure like:

- palpation to find or determine the point to be needles;
- wiping the area with a cotton swap soaked in alcohol;
- putting on finger sacs or latex/plastic gloves (if these have been put on in advance, it would make their "use" still less effective;
- either use the gloved left hand to prepare the needling site (when using Japanese needles with a guide tube), or do not use the left hand at all;
- "tap" the Japanese needle, or "thrust" the Chinese needle into the tissue
- tap, twirl or otherwise manipulate the needle to either drive it deeper into the tissue or obtain some effect ascribed to the specific form of manipulation used
- remove the needle (pull it out), possibly wiping the area again with alcohol.



This looks like and according to the story that goes with this picture is a nice example of such a CNT. First of all painful! Note that the practitioner is not using his left hand. It does not show here, but the needle was likely jabbed in and is now MANIpulated. But without preparing the needling site before needling and during manipulation the treatment has little chance of being pleasant. The facial expression of the lady speaks volumes.

However, the hands as the tools of highly skilled craftsmen, namely acupuncturists, function as a VERY sensitive tool for both picking up information from the body and then guiding and manipulating the needles (feedback). ANY form of glove or finger sac inevitably interferes with this vital sensation to what I would describe as a critical or even dangerous level.

Sometimes I have visitors to my clinic do a little test. For that purpose I use the core of a roll of fax paper and create(d)

two markings on it. To perform the test I have the person close his/her eyes and hand him/her the fax core.

The first marking is wedge cut into the paper core made with a knife that EVERYBODY finds, unless the person is paralyzed. The other marking is a little bit more tricky. It is a round area about 1 cm in diameter painted with a black, oil-based marker. Made by an **oil-based** marker, the surface characteristics within the painted area differ due to the oil soaked into the paper from the surrounding area. Although subtle, the difference is distinct.



A paper fax core. I cut a wedge into it with a knife. Length about 4-5 mm.
This is something everybody finds.



The same fax core. Here I painted with an oil-based marker an oval shape with a diameter of about 1 cm or a little larger.
The glistening of the oil is visible, meaning the surface properties are different from the surrounding.

All people who have tried this test, palpate the paper core carefully with closed eyes. They invariably slide with their fingers several times over the painted area. Yet, so far nobody

was able to detect this area. When I ask them to open their eyes and check it again, almost 100% of the people DO feel the difference. That means, however, they DID NOT acknowledge/recognize the information their hands have been sending to their brains. The information was definitely there. But all people needed visual confirmation.

An acupuncturist is supposed to scan the surface of the patients body (palpation) for changes in order to determine where to needle. Practitioners trained in Chinese style acupuncture, however, often rely on theoretical constructs rather than palpation. A good acupuncturist, however, needs the input of subtle information from his/her fingers in order to do a proper job. The use of gloves or finger sacs definitely interferes with his/her job. NO other craftsman relying on "touch" in his work would consent to use gloves.

So, the "clean needle technique" may possibly be "cleaner" than using your bare hands, but DEFINITELY interferes with all the essential skills of a craftsman proud of his/her craft. Have you ever seen a violinist play his instrument with gloves?

I do not want to delve into the myriad possibilities of creating "contamination" while using gloves etc., rendering all the cleanliness of the gloves futile.

I believe (personal view!) that the clean needle technique also sheds doubt on the big fashion of the time: **EVIDENCE based** medicine. An acupuncturist is supposed to search and find evidence (palpation) according to which s/he will then choose the acupoints considered to be most effective for the particular patient. If the practitioner voluntarily compromises his/her ability to gather evidence, then the choice of points must rely on assumptions! The kind of material textbooks tell you SHOULD be there. According to theoretical TCM

constructs the choice of points would depend on a 'logic deduction' based on some intellectual exercises (pulse, tongue diagnoses etc.) and looking up the treatment points in a chart (textbook).

Naturally, this whole system works only, if one ASSUMES that a certain condition A must always be associated with or lead to another condition B and therefore require point C. I much prefer Einstein over that kind of mechanical thinking:

"A man should look for what is, and not for what he thinks should be."

Telephone technique

This strange term describes how I explain the practice of acupuncture to my patients when asked. I compare the practitioners hands to a telephone. First the phone rings = a patient visits the clinic and I pick up the handset and hold it to my ear, to listen who is on the other end of the line and what s/he wants. That is where I pick up information from the surface of the patient's body = read it with the hands. After a sufficient amount of information from the patient has been recorded, I speak into the microphone of the handset in order to tell the other person who I am and what I have to say in response to the initial talk of the caller. That is the step, where my hands actively deliver my response to the input received during the first step.

Choosing treatment points following the suggestions in textbooks etc. is fine for beginners and scholars, but should be embarrassing for real practitioners, who I would like to call here "healer". In my mind EVERY patient, that means his/her body, is actively trying to talk to the practitioner. The therapist

then has the obligation (job) to LISTEN to what the patient has to say and respond to this patient as an INDIVIDUAL, not a standardized robot.

A dictionary entry for ***individual*** says: "1a: a particular being or thing as distinguished from a class, species, or collection: as (1) a single human being as contrasted with a social group or institution; (2) a single organism as distinguished from a group". Thus, if a practitioner would respond to a patient with some sort of standard treatment pattern, he/she disrespects the individuality=humanity of the patient. At least that is MY impression.

The Chinese currently have the publicly declared goal of imposing a "standardization" of oriental medicine onto the world. Naturally claiming that EVERYTHING in connection with oriental medicine is "indisputably Chinese intellectual property". Probably I am a heretic (as I called myself in my autobiography), but I refuse to believe, that there is such thing as *standard patients*, suffering from *standard conditions*, presenting with *standard symptoms* that can be classified into *standard categories* (pattern), according to which *standard treatment* patterns can be applied to produce *standard results* (getting always the same definite results would be very nice, but is not very realistic). And I refuse to be treated as such standard patients. Being a heretic, I daresay that an "unclean" needle technique based on non-standard, non-scientific 'hands-on' experience is more humane and probably more effective.

In case the thick Chinese needles are considered to be the "one and only authentic" acupuncture needles, then the left hand is used very little or not at all and the needle more or less forcefully thrust into the body. Using the left hand after wiping the area with alcohol would "contaminate" it again. Yet,

thrusting a needle from a certain height into the body looks to me more like darts than acupuncture.

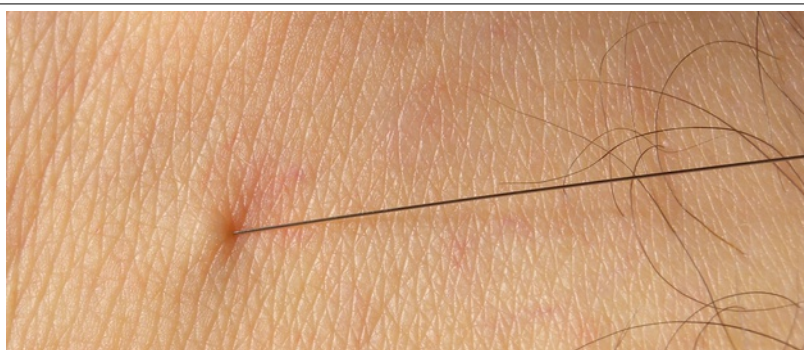
In Japanese acupuncture, using needles with guide tubes, the left hand is used first to palpate = search for the acupoints. Once found, they are gently kneaded with one or two fingers of the left hand in order to "prepare" the needling site. After that thumb and index finger of the left hand are put together to facilitate the needling. The guide tube with the needle inside held by the right hand is then squeezed between the fingers of the left hand, thereby stretching the underlying skin taught. This is followed by a ***rhythmic***, gentle tapping of the needle, of which there are many variants and techniques.

The skin stretched tight and the circumference of the guide tube around the needle tip provide a sort of "distractive stimulus" to the brain and the ***high acceleration*** of the needle obtained by the tapping or, in my personal technique, flicking the needle head, ensures a very quick passage of the needle tip through the skin. High speed insertion plus distraction usually leaves the patients wondering whether anything has happened at all.

Most professional acupuncturists should be able to insert even the thin, flexible Japanese needles without guide tube, not causing any pain in the process, but the use of the guide tube is considered by most people preferable.

The needles are 2-3 mm longer than the corresponding guide tube. Tapping the needle into the body just by this amount is called in Japanese "seppi", meaning the needle has just penetrated the skin. Removing the guide tube at this point causes the needles fall over following gravity, which may sometimes result in little bulges, were the needle tip is angled toward the skin. Since the needles are not reaching into the

muscles, they dangle from the body, when done right the patient does not feel them at all and people could take a walk with the needles in place.



A needle inserted for about 3 mm, falling over and angling up the skin at its tip.

Then there is the myth of the "needling sensation" and its necessity. Please allow me to cite first a short section from Wikipedia and then a portion of a research report.

<http://en.wikipedia.org/wiki/Acupuncture>

De-qi sensation

*De-qi (Chinese: 得气; pinyin: **dé qì**; "arrival of qi", or Japanese "tokki") refers to a sensation of numbness, distension, or electrical tingling at the needling site which might radiate along the corresponding meridian. If de-qi can not be generated, inaccurate location of the acupoint, improper depth of needle insertion, inadequate manual manipulation, or a very weak constitution of the patient have to be considered, all of which are thought to decrease the likelihood of successful treatment.*

De qi is more important in Chinese acupuncture, while Western and Japanese patients may not consider it a necessary part of the treatment.

<http://www.ncbi.nlm.nih.gov/pubmed/20964256>

*Insertion of an acupuncture needle into an acupuncture point typically generates a range of sensations called 'de qi'. Most acupuncturists **are taught** that obtaining de qi is important when treating patients with pain but this can be quite uncomfortable for patients.*

OBJECTIVE: This study assesses the importance of the strength of de qi, on the clinical outcome in osteoarthritic pain.

...

RESULTS: There was no significant correlation between the strength of de qi and improvement in pain ($p=0.49$). There was also no significant difference in pain relief ($p=0.52$) between those who felt de qi and those who did not using the de qi subscale of the Park questionnaire.

CONCLUSION: These data suggest that the presence and intensity of de qi has no effect on the pain relief obtained for patients with OA.

Personally, I do NOT like the needling sensation. Neither do MOST of my patients. Although I do acknowledge, that it sometimes may seem to be necessary and effective, it is definitely not something people=patients would volunteer to experience with each and every needle placed. I know from friends in Germany, who took part in the German Acupuncture Trials (Gerac, meaning the government paid the treatment fees and in exchanged expected the patients to undergo at least 10 treatments), that they dropped out of that study after 2-3, 4

treatments at most, because the pain was considered unbearable.

I also second the statement in the Wikipedia quote, that Westerners and Japanese may not consider this particular feeling as necessary. It is out of place here to deal in detail with the related physiologic basis, background, research etc. (I do not have the qualifications anyway), but my clinical experience tells me, and most of my patients for that matter, that the body WILL react to the needles – even without something that always looks to me like medieval torture.

Moxibustion

Methods used to administer moxibustion treatment and the relevant opinions differ widely among China and Japan.

Direct moxibustion

If I may refer to "Acupuncture: A Comprehensive Text" (the English translation of the standard Chinese textbook)

page: 438 ff -> "tightly packed" ... "small cones about 1 cm in diameter".

The text here refers to "pustulating" moxibustion and explains, that this IS the technique of direct "cauterization". The text goes on explaining how the practitioner is supposed to apply techniques to reduce the pain. Implying there is always not just a sense of heat, but pain. The applied heat is so intense, that it creates a second to third degree burn, which will be blistering and after a certain period develop into a scar.

It has its place in history - and probably still today under certain circumstances - but is definitely not mainstream any longer. This is probably the kind of moxibustion that McArthur

saw:

"In 1945, when Japan was occupied by the Allied Forces, Douglas McArthur's General Headquarters (GHQ) ordered the Japanese Government to ban acupuncture and moxibustion as a barbarous and unscientific therapy. This was due to the fact that some Japanese soldiers used acupuncture or moxibustion to treat Allied Forces prisoners of war (POWs), with utterly good intentions because of medical supply shortage, but the POWs took it as a form of torture, and some of those Japanese soldiers were subsequently indicted as war criminals."

http://jsam.jp/jsam_domain/english/intro_index.htm

(which also shows his/their complete lack of intention/capability to discern everything falling outside their own scope of vision)

The above mentioned textbook also states, that application of **7 or 9** of such moxa cones is considered to the "standard". I personally use 3 and I think many Japanese use preferentially 5 cones. Even without further explanation it should be clear, that this represents a VERY strong stimulation. Way beyond anything maybe 98% of all patients I have ever seen would be willing to accept.

Note	<i>Even and odd numbers. According to Chinese medical theory odd numbers are considered to be yang in nature, while even numbers are yin. Fire (burning moxa) is yang and therefore associated with odd number. That is why the number of moxa cones is usually: 1-3-5-7-9. Everything above that is called "many". I have not yet seen people using e.g., 4 or 6 cones.</i>
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A few years ago I attended a day-long seminar dedicated to moxibustion treatment during a conference in Germany held by a Chinese person. Direct moxibustion was not mentioned at all

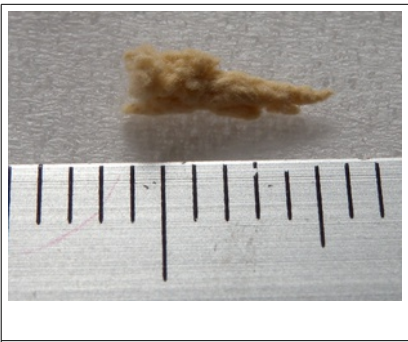
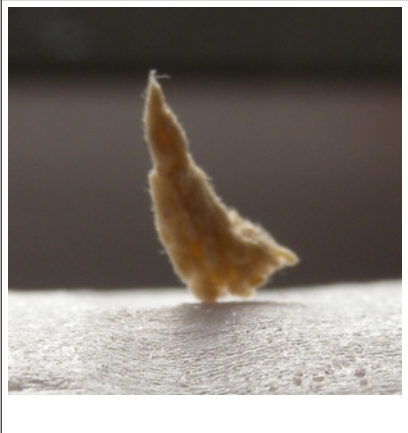
during the whole day.

During a different seminar on the same congress an American person living/practicing in Germany held a lecture and when someone from the floor asked about moxibustion, he replied: ***"I love moxibustion. Listen to this"***. With that he held up his left hand and rubbed thumb and index finger together to create some rustling/scraping noise. He proudly declared, that the noise stems from callouses on his fingers! That means, he must use a considerable force to twirl the moxa into cones. Very tightly packed moxa naturally burns a lot hotter than the lightly twirled moxa used in Japan. I myself am using moxibustion on practically all of my patients and have been doing this for about 30 years by now, but I never knew or could imagine, that the practice of moxibustion can lead to callous formation!

Direct moxibustion applying very little moxa cones, the size of rice grain cut horizontally in half, used to be "standard" form of Japanese moxibustion, a form of folk treatment. Unfortunately, following the trends of time the Japanese people are losing touch with this tradition, as with so many other "good things of old".

As mentioned above, the ordinary Japanese direct moxibustion uses LIGHTLY TWIRLED moxa the size of half a rice grain, sometimes as thin as a thread of cotton. These moxa cones may vary in size depending on the patient, the condition to be treated and a number of other factors. While the Chinese textbook states, that these cones may fall down and cause burns on other body parts, this is something I did not know one can worry about. Here in Japan I learned, that application of a minimal amount of cream or ointment of ANY kind, the preferred material though is Vaseline, serves as a form of glue,

preventing the moxa from falling off.

	<p>The size of a lightly twirled moxa cone. Just as fluffy as down as down feather. The measure indicates the size.</p> <p>Depending on condition, sometimes the cones are smaller or larger.</p>
	<p>A set moxa cone of the size shown above.</p> <p>Note the fluffiness at the bottom and that it is virtually 'floating' on the skin (here a piece of tissue paper).</p> <p>This does not really 'burn' you.</p>



A moxa cone after burning. Note, that it has not burnt completely down to its base. Before that happens, at least in Japan, the practitioner encloses the burning cone with his/her fingers, shutting off oxygen supply and thereby extinguishing the combustion. I am doing this for 30 years, but my fingers have neither burns nor calluses.

One form of practicing the moxibustion technique is to use a length of bamboo cut in half lengthwise (in Japan people used to step on it to stimulate the soles of their feet) and put a piece of tissue paper over it. Then apply your little moxa cones on the paper and light them. Letting them burn down without any interference is what the Chinese textbooks say. In Japan however, the practitioner puts his/her fingers (either two or three; personally I find placing three fingers around the burning cone the most elegant way) around the cone, thereby interrupting air supply, thus extinguishing the burning moxa. In this way the intensity of the heat of the burning moxa can be finely regulated.



A piece of bamboo to step on (massage the soles of the feet)



Moxa burnt at two sites on a piece of tissue paper laid over the said bamboo half.

Left lower site: the moxa was basically allowed to burn down. Upper right: burning moxa cone extinguished before it could burn down completely.



The piece of tissue paper.

The 'soft moxibustion' scars the upper layer of tissue, sometimes even burns a little hole into it, but the second layer is not penetrated.

To achieve this kind of delicate control over the combustion properties of the moxa requires some practice.

Using tissue paper with two layers as mentioned above, the heat should be enough to burn the first, but not penetrate the second layer. That creates a heat stimulus feeling like a little needle sting. And that is all. No burning, blistering torture. After getting a little used to it, it may be even sort of "addictive".

I also administered moxibustion on ALL of my own four children ON THE DAY THEY WERE BORN!

I treat virtually ALL of my patients with moxibustion unless there is some compelling reason not to do so.



My second son at about 18 months, quietly enjoying his moxa treatment. (I was young too!)

(Generally, the moxa varieties/qualities labeled "Made in China" I have seen so far would qualify here in Japan at best as moxa suited only for indirect moxibustion. I have already been asked by colleagues in Germany to send them some Japanese moxa, because they had access only to the coarse Chinese stuff

not suited for direct moxibustion. At least not, if you intend to enjoy it.

This is another area, where the Japanese style could save the world.)

If the world at large only knew!

Indirect moxibustion

Apart from the direct application of the moxa to the skin, there are numerous forms of moxa treatment without direct skin contact. These forms are called indirect moxibustion and may use for example sliced ginger or garlic, functioning as a cushion between moxa and skin, certain devices in the form of boxes etc. or simply a certain distance when using moxa rolls. Since I am living near the beach, I have picked up shells and use those as cushion material for indirect moxibustion. However, since the latter generates a lot of smoke and I do not have a powerful ventilation in my clinic, I use this particular treatment modality only sparingly.

The quality (grade; see pictures depicting varieties) of the moxa used for these applications is "lower" than the material used for direct moxibustion. A lower quality means, that there are more coarse components of the original plant in the material than in the high grade moxa.

Probably the easiest and most uncomplicated form of warming moxibustion is the use of the above mentioned moxa rolls. In this particular case, there are to my knowledge no Japanese products, but this is not really important, since the moxa does not come into direct contact with the skin. For direct moxibustion, I would ONLY consider the highest quality

moxa MADE IN JAPAN, even though a net search shows, that there are "similar" products on the Chinese market.

Apart from "burning" the moxa, this material can also be used in a variety of other forms. One simple but very interesting use is attaching moxa to the skin with the help of a strip of adhesive tape like it is used for taping. Although the moxa does not "burn", it still feels strangely warm and soothing. An effect I have experienced myself, but cannot explain.

Otherwise the moxa can be boiled in water to make a decoction, which is then diluted and can be applied topically using a sprayer. You can also drink this decoction (depending on the quality of moxa, water and equipment used) like a tea. It tastes quite good too.

These kind of applications can be taught to the patients, who then can use them for self-treatment at home.

From what I have seen, all these forms of moxibustion: direct, indirect, non-burning etc., are much gentler, associated with weaker stimulation than the corresponding Chinese applications.

Concepts

Naturally, a great variety of different views have influenced and been integrated into oriental medicine during the growth of the conceptual basis for its practice. Here again I will concentrate on those ideas relevant to acupuncture and moxibustion.

According to one theory the people in ancient China tried to

regulate rivers by building dams and thereby preventing regular flooding of their fields, causing extensive damage. However, attempts and "damming" or "stopping" the flow of water failed, because human-built structures could not withstand the its power. After a while of trial and error, they seem to have realized, that instead of trying to resist the onslaught of millions of tons of water, it is much more efficient and requires much less effort (construction) to redirect the flow gently into a slightly different direction.

气 This principle was later applied to medical treatment. The flow of "energy*" (qi) and/or blood was supposed to be redirected in an attempt to correct and balance regions with insufficient and excessive streams, thereby attempting to achieve a harmonious, well-balanced circulation of everything that is supposed to flow/circulate. As such the concepts of oriental medicine, including those of ayurvedic medicine, which predates Chinese medicine, do not differ that much from contemporary Greek and Roman concepts.

Note	<i>* I will refrain from discussing, whether "qi" is actually a form of energy, or whether it exists at all. That has long been and still is a subject of much heated debate among those in favor and the opponents. Please refer to the relevant literature. I would only like to say, it seems unlikely to me, that something that seems to have been "experienced" in all civilizations over the entire world and through all ages "does not exist", simply because there is no "scientific proof" for it. Go ahead and scientifically prove love. If that is not possible, does love not exist? I think, a lot of people would object. I will return to this idea later under "science".</i>
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Exceptionally, I do agree here with the Chinese. The human body, consisting of close to 70% of water, always seems to be

in flux, always changing. Things are circulating; referring to 'circles' – where everything comes back to its origin. Ideas more familiar and suited to the nature and way of thinking of oriental people than the more linear, mechanistically oriented Westerners.

	<p>This kind of "treatment" only suggests (to me), that the people doing it, actually don't know what they are doing</p>
	<p>A needle where there is a patch of free skin?</p> <p>That does not look like the application of philosophical concepts refined over 2,000 years</p>

If you are dealing with fluids in movement, you have to observe fluid dynamics, to put it in modern terms. Guiding fluids and/or redirecting them requires generally conduits and maybe some little valves or objects placed into the flow, to

achieve fine tuning.

Admittedly, I am not really a specialist in this field, but I believe the Japanese people have taken to the fuzziness of flowing fluids and their regulation a few centuries after the introduction of acupuncture to Japan. To my understanding even more so than the Chinese, who seem to have followed a path, leading them toward entanglement in theoretical considerations – somewhat neglecting the "hands-on" practice.

Probably this is at least partially a national trait: the Chinese tend to be more logic, theory driven, while the Japanese are more emotional, with a tendency towards a "holistic understanding". Meaning they tend to grasp ideas as a whole and do not arrive at them through logic reasoning. Although this is a widely accepted cliché, it points into the right direction. When I try to convey certain concepts to Japanese people in a logic sequence, I always make myself very unpopular and are called "argumentative".

An American patient once asked me before returning to the States, how the people over there carry out their diagnosis/treatment. He wanted to know, whether they will adhere to the theory dominated mental exercises apparently predominant in TCM, or whether they will be "poking around" like me.

With poking around he referred to the rather elaborate and extensive palpation of various (all) body parts in order to find "reactive spots" at which the patient's body is calling for the practitioners attention. Finding and responding to those reactive spots should be called EBM, but among the science-oriented peoples (scientists) there is a strong tendency to keep calling acupuncture 'quackery'. As far as I can tell from their postings on the web, they don't know anything about

acupuncture and most of them apparently never even thought of trying it.

Most likely I am not in a position "to speak for the Japanese", but I am under the impression, that the palpation performed by Japanese practitioners may be systematic, while lacking somewhat in a sound theoretic foundation.

[BOOK: Dr. Katai, Japanese physician and acupuncturist, has written a very good book about training of palpatory skills. Unfortunately no (English) publisher has shown any interest yet, and I am not allowed to translate it.]

Certain sources say, that the to my taste more intuitive and sophisticated palpation techniques used today for the practice of acupuncture and massage (the oriental variety of which is called in Japanese "anma"), have their roots in the Edo period. During that time the already mentioned blind acupuncturist Sugiyama developed the guide tube to facilitate needle insertion and later established a school for teaching acupuncture to blind people. Since that time the practice of acupuncture, anma and shiatsu has often been considered to be a profession of the blind. Of course, it is not that simple. Yet, people with severely impaired vision naturally have to rely on other senses than vision and often acquire a highly developed sense of touch. Evident when you see a blind person "read" braille script with the fingers.

It is this highly developed touch (see also the little test I described above) that led to the unique and sophisticated palpation techniques currently practiced in Japan, which I self-conceitedly have called above "telephone technique". However, not all Japanese practitioners use this approach and rely more on the Chinese style of diagnostics.

Using these techniques Japanese practitioners attempt to find the so-called "reactive spots" = active acupoints characterized by changes in skin texture, temperature, muscle tension etc., which may then be described as labeled excessive or deficient and possibly the flow of the elusive "ki" is also subject of the examination. Based on this information the therapy then should come "naturally" – even if it does not conform with textbooks or rigid TCM theories and/or classifications.

Note	<i>Active acupoints - not all acupoints are "active" at all times! Textbooks and charts may show the locations of the classic approximately 360 points, but that does not mean, they are ALL 'there' and 'useful'. In theory, in a completely healthy, well-balanced person you would not find any points. Some people may disagree, but I think little babies are like that: a very quickly expanding supernova of vital energy with no time and place for "holes" (Chinese name means hole).</i>
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Personally I like the Japanese "down to earth" approach better than the Chinese "over the rainbow" approach, but this is something everybody has to decide for him/herself.

Patients

In spite of the proverbial "all men are equal" there are differences in the physical constitution among different populations and of course individuals. Although the average Chinese person is likely to be smaller built than many Westerners, they appear to have a higher "pain threshold". In spite of very large, bulky bodies, many Westerners can or will not except the strong stimulation advocated in TCM. Thus, regardless of the theoretical and historical background of

CHINESE medicine, I am convinced, that the JAPANESE variety of oriental medicine is much better suited for people in the West, maybe even worldwide, than the Chinese techniques. Even if the latter are considered to be the ONE AND ONLY authentic form of oriental medicine.

Patients now and then

One of the first things to be taken into consideration is the difference between people 2,000 years ago and today. When referring to "traditional" Chinese medicine and relying on the authority of the classics, all descriptions and considerations are by necessity based on the lifestyle of ancient people. Maybe I am not fully informed, but I believe the at that time highly developed treatment forms like acupuncture and herbal medicine were not meant for ordinary men. They were used for the aristocracy.

Even the life style of rich people who did not need to work was surely considerably different from today's high-society life. In case acupuncture actually had been used for the ordinary working people, there must have been very marked differences too. Working in ancient times meant hard physical labor and not sitting in an air-conditioned room working with a computer.

Among the practitioners I know here, it is considered a matter of fact, that city dwellers (mostly intellectual work) and country folks (physical labor) ARE different in physical makeup, life habits and physical strength. Accordingly, they need different forms/styles of treatment. As a rule of thumb physical laborers can endure and often REQUIRE stronger stimuli.

With this in mind it should be a forgone conclusion, that the

traditional treatment in Chinese medicine is meant for people who need/expect strong stimuli. Based on these circumstances a whole system developed over many centuries, taking for granted, that this is the only correct way to proceed.

Japanese people on the other hand were, I believe, considerably more sensitive, or using a less favorable expression: weaker, in the sense of having a weaker disposition.

TCM concepts include the classification of various types of physical disposition in general, interaction between man and his environment (climate), representation and meaning of individual body parts of functions like for example the tongue or pulse. Being in love with all kinds of rather strict numerological classifications and generalizations – like two forces (yin-yang), three levels (heaven-man-earth; the Chinese character for "three" are 3 horizontal lines, among which the middle line is a little shorter than the others), five phases, seven emotions, nine needles etc. – the abstract theories can become very restrictive and even obstruct perception of what a practitioner may have right in front of his eyes and in his hands.

Conversely, this may mislead practitioners to deduct that for example a person standing 185 cm tall, weighing 90 kg and has a red face presents an "excess heat pattern" and thus needs a treatment to subdue and drain the excess pathogenic energy. Usually, in relation to acupuncture, this would mean strong stimulation, triggering the famous "de qi" (needling) sensation etc.

My clinical experience, however, has taught me first: nobody fits any generalized classification perfectly. The red face may be a sign of heat, but other findings could indicate that this

person presents with a "partial" heat pattern and needs other factors also taken into consideration, that the heat pattern does not account for. However, I have not yet heard of "partial" (fractal) patterns in ordinary TCM.

Second, assuming that an apparently sturdy, strong physical built should indicate an excess pattern has in my experience been mostly wrong.

This brings the fuzzy, more intuitively and less categorical Japanese evaluation to the center of attention. Treatment starts out with a trial-and-error approach; at least I do it that way. Following a thorough evaluation of the patient, both physically and mentally, the practitioner administers a treatment that is about 70% of what s/he considers necessary for this particular patient. Then you wait for feedback from the patient.

The rationale behind this approach is, that it is extremely difficult to tell, how exactly a certain patient will react to the needles. A too strong stimulation carries the risk of over-stimulation with associated adverse effects. Start slow and increase the dose if necessary.

Japanese fuzzy diagnosis, in particular the palpation may in modern terms be called "interactive". Practitioner and patient are in a constant and dynamic information exchange. Treatment then is the response to the intuitively perceived needs of the patient, who the practitioner "reads" during the examination and "writes" during the treatment. If I may use computer analogy. Whether this interaction is called by a specific name, classified as style XXX etc. is really not important. Personally, I could not care less about such decorative elaboration.

For the patient all that counts is, that with Japanese style treatment the practitioner is in closer, more intuitive/intimate

contact with him/her.

Research / evidence

Science – I am basically a science person myself. Yet, I am not a science devotee.

This is no place to list and/or discuss the rather extensive research and evidence pertaining to acupuncture, or oriental medicine in general. Interested readers should refer to the abundant literature.

However ... I would like to "complain" a little about those highly decorated academics and scholars who love to tell the world, that there is no evidence showing that acupuncture works and it therefore must be quackery.

Let's start with the basics. If anybody wants to have evidence and scientific proof, research is needed. Conduction of research requires a significant amount of money, equipment and personnel. I believe, we agree so far.

Yet, there are very few people/institutions/governments willing to spend anything in excess of pocket money. Mr. Yamanaka (http://en.wikipedia.org/wiki/Shinya_Yamanaka), who developed his by now famous stem cells, got/gets nice grants like 2 billion Yen just like that. So do people/companies developing new drugs that promise to sell well.

Well, my dear critics, anybody wishing to donate a million dollar for acupuncture research raise your hand. Nobody? In that case, the relevant research will remain very limited in scope and quality AND have no or only little scientific proof to show. If the academic critics of acupuncture wish to discuss

this subject on an equal, fair basis, they should first provide a few healthy research grants and give it let's say 20 years. I am sure, quite a few things would come up. Without equalizing the available foundation the whole debate is rather unfair, don't you think?

Strange remarks regarding "evidence".

(1) Invisible supermen

Let's have a look at microorganisms. Today everybody knows about them and is aware of infections etc. However, until quite recently, until the microscope was invented about 200 years ago, they could not be seen and there was no "scientific evidence" of their existence. Nevertheless microorganism antedate ALL other life forms on this planet by billions of years and make up a cumulative biomass several times larger than all other life forms put together. Apart from such nasty things like infections, which do not only affect people but also animals, insects, plants and even other microorganism, these tireless little things gave mankind such wonderful things as beer, wine and all sorts of fermented foods.

Nobody has ever doubted that fermentation works. Similarly nobody ever has considered diseases like cholera, pest etc. a figment of the imagination. Even without any proof. People in the past tried to explain microorganisms in various ways precisely because they were invisible and there was no proof of their existence, but their actions as real and definite as being hit over the head with a stick.

It is not really far-fetched or an unimaginable leap of imagination to apply this analogy to the idea of "meridians" or "channels" supposed to underlie the working mechanisms of

acupuncture. Not really surprisingly no real anatomical substrate has been found for these speculative structures. Maybe there are simply no such structures in the sense of the word. The yearned for scientific proof is (still) lacking, but maybe these "structures" work like a wireless network in an ordinary home. Tearing the house apart in an attempt to find dedicated wires would be futile. Everybody knows that. AND everybody knows, that the WAN is working. In particular those people trying to steal information from other people or tap your phone. Ask the NSA, they should be very knowledgeable in this field.

Yet, I am confident, that when our beloved critics come forward with a few million or billion dollar donations for research into acupuncture, the answer will not be such a long way off.

(2) Imperceptible smells

There is a tiny organ in the nose (vomeronasal organ: VNO), dedicated to the detection of minimal amounts of certain chemicals called pheromones. The discovery of the organ itself goes about 150 years back. A critic may ask, why it took anatomists several centuries to discover it.

Its function in detecting special chemical signals in animals and in particular insects has been known and studied for about half a century now. Yet, the fact, that pheromones also work as chemical information carriers, particularly in relation to sex information, is a much more recent discovery and has been accepted only for about 20 years.

<http://www.athenainstitute.com/discovery.html>

<http://www.athenainstitute.com/mediaarticles/washpost.html>

Until then, the general consensus was more like "substances" (or other forms of stimuli) below a for the particular stimulus characteristic threshold are imperceptible and (therefore) do not have any effects on the body.

Given the mentioned research into pheromones, where a few molecules may be sufficient to trigger a response, or the concerns that the emissions from mobile phones may adversely affect the brain, I believe the concept that weak or minimal stimuli do not cause any reactions needs to be reconsidered.

This has a direct bearing on acupuncture, its practice and proposed mechanisms.

In 2009 I attended an international symposium about the scientific evidence of acupuncture treatment for low back pain held in Japan. A variety of lecturers, all academics/scholars, came from Germany, England, Brazil, America, China, Korea, Japan of course, and a few more countries I cannot remember. All lectures held by foreign academics were about studies carried out to find evidence for or against the effectiveness of acupuncture.

Also, ALL lecturers advocated the so-called golden standard of scientific explorations in the field: randomized controlled clinical trials (RTC). Of course, nobody ever even considered the possibility, that a research method designed to investigate the effects of DRUGS = chemicals may not be optimal for an investigation of a physical treatment modality.

Now the interesting part. To conduct a CONTROLLED trial, you must have a "control" – for drugs this would be the placebo. So, all researchers proposed research using REAL acupuncture as opposed to SHAM acupuncture. Real acupuncture was defined as insertion of Chinese needles in

textbook point locations to a significant depth, triggering the needle sensation (de qi or in Japanese tokki), whereas "sham acupuncture" was needling shallow, using thin needles, no de qi and possibly outside textbook locations. That renders Japanese acupuncture almost completely "sham acupuncture". Meaning that the Japanese have practiced over the last several centuries only nonsense.

All speakers were asked by people from the floor, whether they know anything about Japanese acupuncture. ALL said no! What kind of scientific exploration is this? These people take one thing unquestioned for granted = real, believing (science should not be about believe) what the Chinese want them to believe, while rejecting another as fake without even knowing anything about it. Remember the wonderful quote from Einstein? **"A man should look for what is, and not for what he thinks should be."**

Japanese acupuncture often uses shallow needling. Since many people do not like being subjected to the said de qi sensation, that too is avoided by many practitioners. Compared with Chinese needles the Japanese needles are so thin, they may be considered too thin as to provide any stimulus at all. In particular those "needling" techniques involving minimal or no skin penetration at all.

Like with the pheromones. According to the scientist, they just cannot work. But recently were found to be literally of "moving" importance.

(3) Advanced physics

Physics may seem a little out of place here. But I want to make my point by referring to the financial, manpower and facility resources required to find elusive things.

Let's start with a recent (spring 2013) headliner: the Higgs particle. Its discovery made news in all major newspapers and TV stations all over the world. A physicist named Higgs predicted the existence of this particle about 50 years ago. This particle was considered ABSOLUTELY necessary to make modern (particle) physics possible. Yet, until spring 2013 there has been no shred of evidence of its existence in spite of enormous efforts made worldwide and spending astronomical amounts of money. Please look up the relevant materials regarding the CERN in Switzerland or the LHC in America.

Until its discovery most physicists (scientists) worldwide acknowledged the necessity for the existence of this particle. Without any proof. The necessary evidence could NOT be obtained, because man lacked the technical means to measure it.

Please explain to me why the assumption of something that you cannot proof due to lack of measuring equipment is fundamentally different from assuming a strange force at the basis of acupuncture, which could not yet be measured? Most likely because the people trying to do so, start from the wrong assumptions and do not have adequate instruments to measure it.

Another sample that presents itself is the neutrino. This particle too has been proposed about half a century ago and apparently even been measured in a crude way. An unending stream of neutrinos originating in supernovae (exploding suns) is constantly penetrating the entire planet, but has been verified only in 1987, for which Raymond Davis Jr. and Masatoshi Koshiba were jointly awarded the 2002 Nobel Prize in Physics; Davis for his pioneer work on cosmic neutrinos and Koshiba for the first real time observation of supernova neutrinos.

Here too the reader is encouraged to look up the resources spent on the construction and maintenance of another incredibly complex and costly facility called "super kamiokande".

Again, I am convinced that research of that magnitude would surely produce a lot more of the coveted scientific evidence for acupuncture lacking today. These facilities are a challenge to all forms of engineering and so costly that their number can be counted with one hand.

What is all this effort for? To chase after unimaginably small things so alien that knowledge about them most likely will never affect the life of 99.9% of the human population. Yet, it is important.

Why then, I ask you, is something also very elusive, but at the same time felt by most people on the planet throughout all ages, only to be given different names like prana, pneuma, vital energy etc. not worth looking into? And how come scientists around the globe develop intellectual allergic reactions whenever the topic pops up anywhere? Are scientists suggesting, that the entire human race throughout all ages and in all cultures has suffered from one common delusion? May I suggest, that this may be due to their fear of it, because they cannot measure it (yet)?

If scientists have any self-respect, I would like to advise having a look at the history of science, which is full of episodes, where established scientists, defending established theories, fiercely opposed new and/or unconventional ideas, only to be proven wrong a little later.

Even if there is no real, substantial evidence to define, characterize and possibly measure qi (ki), its presence and

actions are taken for granted and are necessary for a coherent system of an essential portion of oriental medicine.

Maybe I should dare to challenge my scientist critics to proof (I am aware the following is a cliché question) love. Do the critics actually have any scientific proof of love? For example that they love their spouse or children? Can they measure the degree of love they feel? If there is no evidence for their love, does that mean, scientists simply do not love? And must anybody who loves anybody or anything must have hallucinations?

(4) Chinese evidence

Now, let's have a quick look at the Chinese evidence. Begin with the following "equation:

- research conducted in China +
- by Chinese +
- in Chinese +
- translated by Chinese +
- censored by Chinese (government) = ?

What do you get? Chinese evidence. The objectivity and credibility of which is at best questionable. For one thing, as already mentioned in the introduction and definitely not being any sort of secret, ALL information in and from China is censored and manipulated to suit certain national "needs". How can such information be in any sense of the word be objective enough to pass as scientific evidence?

If I look at Chinese research published in the specialist literature, I am always amazed at the sheer number of patients involved in most of the studies. While a clinical study in Japan

may include for example 50-100 patients (realistic), a similar study about a comparable condition published in China usually includes thousands or sometimes tens of thousands of patients.

Even if there were that many patients, they must have been observed in more than one facility. That naturally requires meticulous multi-center coordination. Based on personal experience with the Chinese I daresay their "liberal" interpretation of rules makes rigorous adherence to very precise protocols at best unlikely.

Another thing that strikes me as odd, is that Chinese studies always report an efficacy of somewhere over 90%, that is rarely or never found anywhere else in the world. Scientific evidence, however, must be reproducible. One factor most likely contributing to this outcome is the stimulus dose applied. Using thick Chinese needles, eliciting the needle sensation (a form of pain according to the physiology research), maybe applying manual manipulation resulting in very strong stimuli and treating the patients daily, sometimes TWICE daily (according to the reports) the treatment represents a major stress condition with a magnitude so great, that the body is **forced** to respond. Any **BODY not** responding to that kind of treatment must already be comatose or dead.

Apart from having patients come daily or even twice daily for treatment being unrealistic and incompatible with an ordinary working life, at least NONE of the patients I have ever seen would be willing to endure a so intense treatment. Neither would I never volunteer for such a treatment.

Scientific research using animals – researchers in the West love this kind of "study" too – is often even worse. Using Chinese needles in animal studies with rats for example. A normal Chinese needle is somewhere around 0.3 mm in

diameter. Yet, a rat (depending on the species) has a body weight of only 100-250 g. In direct analogy (I acknowledge, that the analogy is not straightforward) of the stimulation dose obtained by needling a 100-g animal with a 0.3 mm needle you would need to treat a 50-kg person with tools about 150 mm thick: 50 kg means the body weight is 500 times greater than that of the rat; increase the diameter of the needle by 500 times in order to maintain the proportion, you get $0.3 \times 500 = 150$. Who would volunteer being treated with a needle 150 mm in diameter? What does that research tell the scientists about reasonable acupuncture treatment in ordinary men?

BUT, the Chinese are selling this scientific evidence to the West as proof for the efficacy of the one and only authentic acupuncture treatment and – for reasons I just cannot understand – the West buys it.

I had a high school teacher of my native language, who told us students during his very first class: ***"Consider everything I teach you a lie, until you go home, check it in independent other resources and find evidence, that it is likely to be true. Only then should you memorize what I taught you."***

Following this argumentation I would like to invite the reader to check my assertions against the available evidence. In the end YOU draw your own conclusions from the available evidence that seem to suit your needs and views best.

Last words

This is not my testament.

References and literature

An article about acupuncture treatment for chronic pain starts as follows:

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2176146/>

Acupuncture for Chronic Pain in Japan: A Review

Many Japanese reports of acupuncture and moxibustion for chronic pain are not listed in medical databases such as Medline. Therefore, they are not easily accessible to researchers outside of Japan.

Yes, absolutely true. I am trying to convince the Japanese, that they need to make their clinical and research material available to the world = usually meaning translation. However, I have not had much success so far.

I remember attending a big conference around 1995 during which an NIH representative held a special lecture about the background for the adoption of an NIH consensus pertaining to acupuncture.

(<http://consensus.nih.gov/1997/1997acupuncture107html.htm>)

Please note, that the "12-member" panel does NOT include any Japanese people and the entire list of contributors mentions only one research with a Japanese author. A country with a 1,500-year tradition in this craft does not need to be represented? I don't know about everybody else, but to me that sounds strange.

The lecturer detailed the efforts made to collect and examine the available evidence, assess it and finally deduct conclusions based on this evidence. He mentioned, that the NIH had a really hard time finding and sorting reliable evidence, mostly

originating in/from China. By the end of this process, which took or covered (do not remember exactly) a period of about 20 years, and by the time the institution was about to reach their conclusion, they found more by accident, that all the information they were looking for, were right here in Japan = in Japanese. That is why they could not "discover" it: it is only accessible to those who read Japanese.

I believe not only the authorities, but also the population of the world as a whole are missing out on an abundance of very revealing, helpful information.

The following is a list of books and other texts I found interesting. You will notice, that not all are directly related to acupuncture, but in order to 'see the bigger picture' it is sometimes necessary to extend your field of vision. Otherwise one can get stuck in the own very restricting frame of reference.

ENGLISH	
Title:	Sexuality and Medicine in the Middle Ages
Author/editor:	Danielle Jacquart (author), Claude Thomasset (author), Matthew Adamson
Publisher:	Princeton Univ Pr
ISBN-10:	ISBN-10: 0691055505
Release date:	Release date: 1988/12
Comment:	This book examines the concepts, words, 'scientific evidence' at the time. Elaborate descriptions about the way people, including 'authorities', dealt with new or not yet established concepts is very revealing. I cannot help but marvel at the obvious parallels one can draw between the attitude of established scientist of modern time and those of the Middle Ages.
Title:	Traditional Medicine and Health Care Coverage: A Reader for Health Administrators and Practitioners
Author/editor:	R.H Bannerman
Publisher:	World Health Organization (1983/12)
ISBN-10:	ISBN-10: 9994099302
Release date:	Release date: 1983/12
Comment:	The WHO initiated in the 1970s (I think) a research project called "Health for All by the year 2000 = HFA2000", when the organization realized, that Western medicine CAN NOT provide health coverage for all of mankind. The results of that research, an attempt to use whatever is actually useful form the traditional health care systems of various regions in the world, are very interesting and suggest, that traditional medicine is a very valuable treasure.
Title:	Medicine Across Cultures (Science Across Cultures: The History of Non-Western Science)
Author/editor:	Hugh Shapiro (Adapter), Helaine Selin
Publisher:	Springer; Softcover reprint of the original 1st ed., 2003
ISBN-10:	ISBN-10: 9048162386
Release date:	Release date : 2013/10/4
Comment:	This work deals with the medical knowledge and beliefs of cultures outside of the United States and Europe. In addition to articles surveying Islamic, Chinese, Native American, Aboriginal Australian,

	Indian, Egyptian, and Tibetan medicine, the book includes essays on comparing Chinese and western medicine, religion and medicine. Serves as a good reminder that not everything "IS" or has to be explained "THROUGH" western concepts.
Title: Author/editor: Publisher: ISBN-10: Release date: Comment:	Acupuncture: Visible Holism Bai Xinghua MD (author), R. B. Baron (author) Butterworth-Heinemann (2001/3/28) ISBN-10: 0750645393 Release date : 2001/3/28 The author presents the groundbreaking concept of acupuncture as "visible holism", as well as an entirely new theory concerning the origins of acupuncture, the identification of the meridians, and the discovery of the acupoints. In this particular respect I have to applaud this person. Rather unusual for something from a Chinese author.
Title: Author/editor: Publisher: ISBN-10: Release date: Comment:	Celestial Lancets: A History and Rationale of Acupuncture and Moxa (Needham Research Institute Series) Gwei-Djen Lu (author), Joseph Needham (author) Routledge; New version (2002/7/4) ISBN-10: 0700714588 Release date : 2002/7/4 Using modern knowledge to shed light on ancient techniques, this text examines two of the earliest therapeutic techniques of Chinese medicine: acupuncture and moxibustion. Acupuncture is the implantation of very thin needles into subcutaneous connective tissue and muscle at a great number of different points on the body's surface; moxibustion is the burning of Artemisia tinder (moxa) either directly on the skin or just above it. This is THE classic reference work (in English) about Chinese classics.
Title: Author/editor: Publisher: ISBN-10: Release date: Comment:	Allies and Enemies: How the World Depends on Bacteria Anne Maczulak (author) FT Press; first edition (2010/7/12) ISBN-10: 0137015461 Release date : 2010/7/12 Bacteria are invisible, mysterious, deadly, self-sufficient...and

	<p>absolutely essential for all life, including yours. No other living things combine their elegant simplicity with their incredibly complex role: Bacteria keep us alive, supply our food, and regulate our biosphere. We can't live a day without them, and no chemical, antibiotic, or irradiation has ever successfully eradicated them. They're our partners, like it or not - even though some of them will happily kill us. A very entertaining reading.</p>
<p>Title: Author/editor: Publisher: ISBN-10: Release date: Comment:</p>	<p>The Black Death Philip Ziegler Harper Perennial Modern Classics; Reprint edition (April 7, 2009) ISBN-10: 006171898X A series of natural disasters in the Orient (the book describes, how the plague apparently was brought to Europe via Chinese merchant ships!) during the fourteenth century brought about the most devastating period of death and destruction in European history. The epidemic killed one-third of Europe's people over a period of three years, and the resulting social and economic upheaval was on a scale unparalleled in all of recorded history. Synthesizing the records of contemporary chroniclers and the work of later historians, Philip Ziegler offers a critically acclaimed overview of this crucial epoch in a single masterly volume. The Black Death vividly and comprehensively brings to light the full horror of this uniquely catastrophic event that hastened the disintegration of an age.</p>
<p>Title: Author/editor: Publisher: ISBN-10: Release date: Comment:</p>	<p>The Art of Palpatory Diagnosis in Oriental Medicine Skya Gardner-Abbate (author) Churchill Livingstone (2001/5/5) ISBN-10: 044307058X Release date : 2001/5/5 This book provides a step-by-step introduction and practical guide to palpation as a method of assessment, diagnosis and treatment within the context of Oriental medicine, and in particular Japanese acupuncture practice. The aim of the book is to allow the reader to have a more vivid and sensitive feel for what lies below acupuncture meridians and points. Shows in some respects along my lines of thought, that the Japanese practice is sometimes superior to the</p>

	Chinese 'original'.
Title: Author/editor: Publisher: ISBN-10: Release date: Comment:	A Brief History of Qi Yu Huan Zhang (author), Zhang Yu Huan (author), Ken Rose (author) Paradigm Pubns (2001/12) ISBN-10: 0912111631 Release date : 2001/12 The book takes the reader through the mysterious terrain of Chinese Medicine, Chinese language, Chinese martial arts, and 'Qi Gong' - a truly evocative guide to virtually all the traditional Chinese arts and sciences. The whole story revolves around the concepts involving just this one character: 「氣」. The stuff that does not exist according to many scientists.
Title: Author/editor: Publisher: ISBN-10: Release date: Comment:	Katana: The Samurai Sword: 950-1877 (Weapon) Stephen Turnbull (author), Johnny Shumate (illustrations) Osprey Publishing (2010/11/23) ISBN-10: 1849081514 Release date : 2010/11/23 The Samurai sword of Japan is probably the finest edged weapon ever made. This volume, written by leading Samurai expert Stephen Turnbull, reveals the story of how and why it achieved this distinction, from the sword's unique metallurgy to its use in combat, where one stroke often decided the victor. This is indeed something the Japanese can rightfully be proud of. With such a tradition in metal works, it is really no wonder that the Japanese are also good a needle manufacture.
Title: Author/editor: Publisher: ISBN-10: Release date: Comment:	The Evolution of Chinese Medicine: Song Dynasty, 960-1200 Asaf Goldschmidt Routledge 0415426553 2008/10/8 The history of Chinese medicine hinges on three major turning points: the formation of canonical theory in the Han dynasty; the transformation of medicine via the integration of earlier medical

	theories and practices in the Song dynasty; and the impact of Western medicine from the nineteenth century onwards. This book offers a comprehensive overview of the crucial second stage in the evolution of Chinese medicine by examining the changes in Chinese medicine during the pivotal era of the Song dynasty.
Title:	The Hand - How its use shapes the brain, language, and human culture
Author/editor:	Frank R. Wilson
Publisher:	Vintage Books
ISBN-10:	4794806671
Release date:	New York, 1998
Comment:	The human hand is a miracle of biomechanics, one of the most remarkable adaptations in the history of evolution. The hands of a concert pianist can elicit glorious sound and stir emotion; those of a surgeon can perform the most delicate operations; those of a rock climber allow him to scale a vertical mountain wall. Neurologist Frank R. Wilson makes the striking claim that it is because of the unique structure of the hand and its evolution in cooperation with the brain that Homo sapiens became the most intelligent, preeminent animal on the earth.
JAPANESE	
Title:	気の世界—中国における自然観と人間観の展開
Author/editor:	小野沢 精一、福永 光司、山井 湧
Publisher:	東京大学出版会
ISBN-10:	ISBN-10: 4130160087
Release date:	Release date : 1978/01
Comment:	A very in-depth, highly complex discussion of historical, philosophical and cultural aspects of the concept of "ki". A very difficult academic discussion of the subject. This is not available in English.
Title:	治療家の手の作り方-反応論・触診学試論-
Author/editor:	形井 秀一
Publisher:	六然社
ISBN-10:	

Release date:	ISBN-10: 4901609106
Comment:	Release date : 2002/01 Dr. Katai calls this book (and the work behind it) about palpation techniques and how to acquire the relevant skills his life work. An excellent book about the subject. Unfortunately foreign publishers could not yet decide, whether they will publish it or not. And I am "not allowed" to translate it.
Title:	もぐさのはなし—日本人はモグサをどのようにして造ってきたのだろうか
Author/editor:	織田 隆三
Publisher:	森ノ宮医療学園出版部
ISBN-10:	4990067037
Release date:	2001/10
Comment:	A short (about 150 pages) book about the nature of moxa, its preparation and manufacture and applications. This too is not available in English. If I annoy the people in charge sufficiently, I might obtain permission to translate it.
Title:	Sonderling in Ost und West (German)
Author/editor:	Thomas Blasejewicz
Publisher:	Thomas Blasejewicz → Amazon Kindle
ASIN:	B00GCD2LC4
Release date:	2013/10/30
Comment:	Patients have asked me to put the reasons for me as a German practicing acupuncture in Japan into writing. After 15 years of hesitation I finally obliged those patients. This sheds, while being an autobiography, some light on why I developed all those strange ideas.
Links / Reports	
Link	Content

http://www.acos.org/articles/ancient-chinese-acupuncture/	Ancient Chinese Acupuncture – article about ancient history and archeological findings
http://www.acos.org/articles/history-of-acupuncture/	History of Acupuncture – another article about the history of Chinese acupuncture
http://en.wikipedia.org/wiki/Acupuncture	Wikipedia entry pertaining to acupuncture
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2176146/	Acupuncture for Chronic Pain in Japan: A Review Many Japanese reports of acupuncture and moxibustion for chronic pain are not listed in medical databases such as Medline. Therefore, they are not easily accessible to researchers outside of Japan.
http://consensus.nih.gov/1997/1997acupuncture107html.htm	Article on the official website of the NIH regarding the NIH acupuncture consensus. Objective To provide health care providers, patients, and the general public with a responsible assessment of the use and effectiveness of acupuncture for a variety of conditions
http://www.who.int/medicines/articles/traditional/definitions/en/	Traditional Medicine: Definitions – WHO site/article pertaining to the nature of traditional medicine(s) = health care systems
http://jsam.jp/jsam_domain/english/intro_index.htm	English text about the history of acupuncture on the JSAM website
http://www.athenainstitute.com/discovery.html	The Human Pheromone Discovery – article about the "discovery" of pheromones, or more specifically their involvement of transmitting sexually relevant information among people
http://www.athenainstitute.com/media/articles/washpost.html	PHEROMONES DISCOVERED IN HUMANS - as above, but a little more detailed explanations
http://www.ncbi.nlm.nih.gov/pubmed/1869817	Alma Ata and health for all by the year 2000. The roles of academic institutions.

"Acupuncture And Evidence-Based Medicine: A Philosophical Critique"	Medical Acupuncture A Journal For Physicians By Physicians This article explores the assumption of objectivity involved in gathering evidence, suggests that objectivity is an inappropriate standard for acupuncture, and concludes that where acupuncture and other interactive therapies are concerned, the objective/subjective dichotomy is perhaps transcended.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3789413/	"The Mechanism of Moxibustion: Ancient Theory and Modern Research"

Glossary

1. **acupuncture** --- consists of the insertion of one or several small metal needles into the skin and underlying tissues at precise points on the body.
2. **TCM** --- Traditional Chinese Medicine
3. **biological trait** --- a distinguishing (here biological) quality; distinguish here in the sense of 'different from other species', but not different within the same (human) species
4. **individual = unique** --- one and only of a kind; as opposed to one of a group of identical members/items
5. **acus** --- latin for needle; used in conjunction with the verb 'punctere' = puncture → thus acupuncture
6. **alternative medicine** --- poorly defined term referring to almost everything outside mainstream (Western)

medicine

7. ***Artemisia vulgaris*** --- latin (academic) name for mugwort (wormwood)
8. ***ayurvedic*** --- referring to ancient, traditional Indian therapeutic concepts and procedures
9. ***Bian shi*** --- stone needles; kind of neolithic tool used for cutting / "puncturing"
10. ***bloodletting*** --- puncturing the body for the purpose of draining some blood
11. ***plum blossom needle*** ---
12. ***bone-needles*** --- similar to 'stone needles'; pointed instruments use most likely for puncturing (bloodletting); meaning they are more like 'surgical instruments' than modern day acupuncture needles.
13. ***cauterization*** --- The medical practice or technique of cauterization is the burning of part of a body to remove or close off a part of it in a process called cautery, which destroys some tissue, in an attempt to mitigate damage, remove an undesired growth, or minimize other potential medical harmful possibilities such as infections, when antibiotics are not available. This definition DOES NOT mention the possibility of using heat stimuli to promote health.
14. ***CERN*** --- byname of **Organisation Européenne pour la Recherche Nucléaire**, formerly (1952–54) Conseil Européen pour la Recherche Nucléaire, English European Organization for Nuclear Research, international scientific organization established for the purpose of collaborative research into subnuclear

- physics (also called high-energy, or particle, physics).
15. **conduits** --- channel or pipe for conveying water or other fluid or for carrying out certain other purposes, such as protecting electric cables.
 16. **moxa cone** --- the basic 'unit' of moxibustion treatments
 17. **Dejima (Nagasaki)** --- "protruding island" was a small fan-shaped artificial island built in the bay of Nagasaki in 1634 by local merchants. This island, which was formed by digging a canal through a small peninsula, remained as the single place of direct trade and exchange between Japan and the outside world during the Edo period. Originally built to house Portuguese traders, it was used by the Dutch as a trading post from 1641 until 1853.
 18. **disinfectant** --- any substance applied to inanimate objects to kill microorganisms. Disinfectants and antiseptics are alike in that both are germicidal, but antiseptics are applied primarily to living tissue. Disinfection does not necessarily kill all microorganisms, especially resistant bacterial spores.
 19. **EBM** --- Evidence based medicine
 20. **Edo** --- Edo (Tokugawa) period (1603–1867), the final period of traditional Japan, a time of internal peace, political stability, and economic growth under the shogunate (military dictatorship) founded by Tokugawa Ieyasu.
 21. **fermentation** --- originally, the foaming that occurs during the manufacture of wine and beer, a process at least 10,000 years old. Louis Pasteur in the 19th century

used the term fermentation in a narrow sense to describe the changes brought about by yeasts and other microorganisms growing in the absence of air (anaerobically).

22. ***Gerac*** --- German Acupuncture Trials; government funded large clinical trials to investigate whether acupuncture should/could be reimbursed by health insurance. They resulted in acupuncture now being covered for low back pain and pain in the knees.
23. ***heaven-man-earth*** --- heaven and earth are sometimes also named the dual forces yin and yang. The heaven (yang) above and the earth (yin) below are connected to each other by man, who is supposed to harmonize these opposing and at the same time mutually complementary forces. The Chinese character for "king" is three horizontal lines (heaven-man-earth) connected by one vertical one = the king = 王
24. ***Heian*** --- in Japanese history, the period between 794 and 1185, named for the location of the Imperial capital, which was moved from Nara to Heian-kyō (Kyōto) in 794.
25. ***holistic (medicine)*** --- a doctrine of preventive and therapeutic medicine that emphasizes the necessity of looking at the whole person—his body, mind, emotions, and environment—rather than at an isolated function or organ and which promotes the use of a wide range of health practices and therapies. It has especially come to stress responsibility for “self-healing,” or “self-care,” by observing the traditional commonsense essentials of exercise, healthful diet, adequate sleep, good air, moderation in personal habits, and so forth.

26. **JSAM** --- Japan Society of Acupuncture and Moxibustion; biggest Japanese academic society related to acupuncture
27. **kamiokande** --- In the 1980s Koshiba (Japanese physicist), drawing on the work done by Davis, constructed an underground neutrino detector in a zinc mine in Japan. Called Kamiokande II, it was an enormous water tank surrounded by electronic detectors to sense flashes of light produced when neutrinos interacted with atomic nuclei in water molecules.
28. **katana** --- Japanese samurai sword; one of the finest pieces of smithery; manufacturing techniques perfected centuries ago attest to extraordinary high craftsmanship
29. **Mawangdui** --- Mawangdui (Chinese: 馬王堆; pinyin: Mǎwángduī; literally "King Ma's Mound") is an archaeological site located in Changsha, China. The site consists of two saddle-shaped hills and contained the tombs of three people from the western Han Dynasty (206 BCE – 9 CE): Marquis Li Cang, his wife, and a male believed to have been their son. The site was excavated from 1972 to 1974. Most of the artifacts from Mawangdui are displayed at the Hunan Provincial Museum.
30. **Meister** --- German craftsman system → master craftsman
31. **meridian** --- or channel; path along which some form of energy is supposed to flow
32. **moxa** = **mogusa** --- Japanese name for mugwort
33. **mugwort** = **wormwood** --- *Artemisia vulgaris*, fibrous

material from dried leaves used to make moxa

34. ***Neijing*** --- The third of the three ancient Chinese emperors began his rule in 2697 BCE. Called the Yellow Emperor, because his patron element was earth, Huangdi is the best known of the three early rulers. He was long supposed to have written the ***Neijing***, although the work is now believed to have been composed in the 3rd century BCE. The first part of the work, “***Plain Questions***,” (see Somon) has been translated into English.
35. ***over-stimulation*** --- a stimulation (in this context acupuncture) that is too strong for the intended purpose or the recipient (patient), thereby resulting in adverse effects
36. ***pattern*** --- a group of symptoms appearing often together, thereby forming a 'pattern'; these patterns are the basis for Chinese medical diagnosis
37. ***pheromones*** --- any endogenous chemical secreted in minute amounts by an organism in order to elicit a particular reaction from another organism of the same species.
38. ***placebo*** --- a placebo is an inert substance without any pharmaceutical effects, looking ***exactly*** like the real drug given to patients as a 'control' in pharmaceutical studies. If the placebo has any effects, it means that those are NOT due to the drug.
39. ***prana*** --- breath; Sanskrit Prāṇa (“breath”), in Indian philosophy, the body's vital “airs,” or energies.
40. ***qi*** --- In traditional Chinese culture, qi (also chi or ch'i)

is an active principle forming part of any living thing. Qi is frequently translated as "natural energy", "life force", or "energy flow". Qi is the central underlying principle in traditional Chinese medicine and martial arts. The literal translation of "qi" is "breath", "air", or "gas". Concepts similar to qi can be found in many cultures, for example, prana and cit in Hindu religion, mana in Hawaiian culture, lüŋ in Tibetan Buddhism, ruah in Hebrew culture, and Vital energy in Western philosophy. Some elements of qi can be understood in the term energy when used by writers and practitioners of various esoteric forms of spirituality and alternative medicine. Notions in the West of *energeia*, *élan vital*, or "vitalism" are purported to be similar.
[<http://en.wikipedia.org/wiki/Qi>]

41. ***sham*** --- fake, not true; in this context generally refers to 'sham acupuncture' = fake acupuncture, which is supposed to serve as a control for 'real acupuncture'
42. ***shamanism*** --- religious phenomenon centered on the shaman. Although shamans' repertoires vary from one culture to the next, they are typically thought to have the ability to ***heal the sick***, to communicate with the otherworld, and often to escort the souls of the dead to that otherworld.
43. ***shonishin*** --- pediatric needles; intended for the treatment of infants and small children (younger than 3 years)
44. ***shiatsu*** --- 'finger pressure' – usually called acupressure treatment; based on the same principles as acupuncture, only that it uses the fingers instead of needles. Therefore the term 'acupressure' is rather misleading

45. ***Somon*** --- First part of the THE Chinese classic about acupuncture etc.: the 'Neijing'; in Chinese this part is called Su Wen
46. ***Standardization*** --- A standard is that which has been selected as a model to which objects or actions may be compared. Standards for industry may be devices and instruments used to regulate colour, size, weight, and other product attributes, or they may be physical models.
47. ***Sugiyama Waichi*** --- (1614–1694) was a blind Japanese acupuncturist, widely regarded as the "Father of Japanese Acupuncture" who invented the guide tube for needles (shinkan).
48. ***telephone technique*** --- the name I have given my way of describing palpatory skills and procedures
49. ***tokki*** --- in Chinese 'de qi'; needle sensation
50. ***WAN*** --- Wide area network, telecommunication technique
51. ***yin-yang*** --- dual principal underlying at the foundation of all changes in Chinese philosophy
52. ***Ötzi*** --- Iceman / also spelled Ice Man, also called Ötzi the oldest mummified human body ever found intact. It was found by a German tourist, Helmut Simon, on the Similaun Glacier in the Tirolean Ötztal Alps, on the Italian-Austrian border, on September 19, 1991.