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Reasonable Feasibility Concept

??***Reasonable Feasibility Concept*** *- Child playing with triangular wooden blocks example. (Basics of my Critical Theory, Critical Reasoning and Subliminal Therapy are included in this 'duct')*

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The Concepts and Theories in 'duct' 4

Concepts and Theories

The Concepts and Theories in 'duct' 4 of Book 1 is the basis of countless philosophies of Aro-healing, ARC and Arochology. I will include an excerpt in this manuscript.

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Understanding the Reflex Concepts and Theories

Reflex Concepts and Theories

?? How to's in Duct 4:

Understanding the Reflex Concepts and Theories to:

Adjust posture (maintain successful body posture)
Adjust breathing (efficient oxygen intake)
Improve reflexes and reaction to stimuli
Improve flexibility and range of motion
Improve balance and co-ordination
Re-align anatomical position and manage pain
Relieve stress and encourage relaxation
Relax muscles and lower blood pressure
Stimulate nerve pathways and tactile communication
Build self-esteem and self-confidence

??***These 10 How to's are also Benefits of an Aro-health Massage***

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The Breath Holding Reflex

Breath Holding Reflex

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Magnetism and Polarity

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Magnetism and Polarity

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Body Movements and Applied Kinesiology

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Body Movements and Applied Kinesiology

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Chronic Pain

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Chronic Pain

http://www.cannabissearch.com/medical_benefits/chronic-pain/

Medical Benefits

Chronic Pain

There are many causes for chronic pain, including AIDS, arthritis, cancer, sickle cell anaemia, multiple sclerosis, and back, neck and spinal cord injuries, as well as degenerative hip and joint disorders and even severe burns. In almost every case, pain is not the primary condition, but a symptom that varies in duration, frequency and severity, and is different for every patient. While the underlying condition will determine how the pain is treated, it doesn't always dictate the proper pain The goal in all cases, however, is for the patient experiencing pain to function as normally as possible, by reducing their pain as much as possible while also minimizing the side effects so often associated with pain therapies. Failure to adequately manage chronic pain doesn't merely result in an annoyed patient, but can lead to depression, despair, and even a death-wish, when patients refuse potentially life-saving procedures such as surgery or chemotherapy, which cause suffering

While cannabis is not a cure-all, it can serve at least two important functions in the safe and effective management of

It can provide actual pain relief, either when used alone, or when used in conjunction with other analgesics;

It can control the nausea and vomiting that are common side effects of using opioid drugs, as well as the nausea, vomiting, and dizziness that often come hand-in-hand with ongoing severe pain.

While opiates are an effective treatment for severe pain, they also tend to induce intense nausea that can cause not just discomfort, but may also lead to malnourishment, anorexia, cachexia (the wasting disease) and an overall decline in patient's health. Some patients find this nausea so bad that they're willing to stop their pain treatment just to end it.

Conversely, an almost immediate relief from pain is provided by inhaled cannabis, and there are fewer adverse effects with this than there are with a common cannabinoid drug Marinol, which contains THC. There are two reasons for this: Inhaling cannabis allows the active components of it to be absorbed into the blood stream faster and with greater

There are more cannabinoids present in inhaled cannabis than there are in Marinol, which contains only THC. These additional components may have additional anti-emetic (anti-nausea) properties, and have also been shown to provide Research has also shown that spraying a cannabis extract under the tongue can provide an almost immediate relief from

I use cannabis for back and shoulder pain. It helps me to relax my muscles, and also helps to sleep when I am having

I use it for my hand. There are days the pain in my hand is so bad I can't grip anything. Medical Marijuana truly helps.

I suffer from fibromyalgia and if I took the pills the doctors want to give me I would live in a state of near unconsciousness all the time. But I have a family and kids. Who wants to not be a part of the world? Not me. With the assistance of med. marijuana I can be an active part of their lives without pain taking me to my knees. For chronic pain it is the top notch

i have a titanium kneecap from iraq, and no pills could help me with the pain. the only ones where addictive, i got hooked on oxy's for a little bit...it sucked! but when i stopped all the pills i started to realize that MMJ helped with the pain and its http://www.webmd.com/pain-management/news/20100830/marijuana-relieves-chronic-pain-research-

Marijuana has helped my shoulder/neck pain so much. Combined with yoga it helps all my aches and pains.

I think that cannabis is a miracle for bad menstrual cramps, and some girls that I know only smoke when on their period. Personally nothing works better for me, because it not only takes away the cramps, but the nausea they cause as well. There are so many different aches and pains that all people deal with on a daily basis, and the great thing about medical cannabis is that it can treat almost all of them. I have known so many opiate pill addicts who switched to cannabis and I personally use cannabis for what is diagnosed to be Lupus, I don't have some of the symptoms of a regular Lupus patient. I do have widespread pain throughout my body mainly hurting in my neck and shoulder area, also I have pain in my joints and even my skin hurts. I was diagnosed with this a month after graduating high school, I had horrible heart pain one night when I laid down and I went to the ER only to find out I had liquid surrounding my heart and that my heart was inflamed, this went away. Only for a year later the same thing to happen, which was much more severe and I was scheduled for heart surgery that night. I found out that the lupus was causing inflammation of my body causing fluids building up with nowhere to go, I have lived with lupus complications and wide-spread body pains for 4 years now and cannabis helps greatly now that my heart is healthy and showing no signs of problems. I didn't smoke for around a year after the surgery. I

When you have been broke up as much as I have without the medical marijuana, you can't hardly get out of bed let alone function. It works on your brain to the point you feel like you can't handle life. Without the smoke, I can't even stand myself let alone my family stands me. If you have real intense pain give it a try whether it is by smoking, vap, or tinctures

I also use MMJ for my severe fibro pain but I also have endometritis and it works great. Menstrual cramps that are near debilitating has benefits, as well as degenerative bone loss. The relief for chronic pain is so wide spread everyone should

I just have to add one more comment and that is just how much happier and easier my day to day life has been when I started using the Medical Marijuana and how grateful I am to live in such a wonder place that they do not frown upon me

I turned to Medical Marijuana to end the Oxycodone and Morphine addiction my Doctor had me on for chronic back and neck pain and am much better off. I just wish insurance would pay for it, after all it costs less than the $1500.00 a month it works for shoulder dislocation pain to baaammarvin-marijuana-harvest | June 1, 2011 who would have known i could take cannabis for my pain...I have severe (Chronic) pain in my back.My spine is not right,one of my joints in my spin has shifted and it bothers me.Sometimes when it hurts it would hurt so bad that i cant walk,not even bend over a inch.

I have not tried MMJ yet, but I have bulging lower disks and an anular tear in the spine from a fall. The Doctors have prescribed me narcotics that I hate because addiction runs so high in my family. Would MMJ help with my condition? If anyone could let me know, I would appreciate this very much. I have mood swings because of the pain and it has been hard The older I get the more reasons I have to use MMJ. Always new aches and pains, this is my only relief, besides a hot bath or steam room. It helps with relieving chronic pain.

My wisdom teeth are coming in on one side and smoking works better to soothe the pain than that numbing stuff. But there's no medical in TN and I don't know anybody in town, so I'm left to suffer.
I have chronic pain as a result of breast cancer surgery. It was explained to me by my Doctor that the breast has so many nerves and nerve centres that it is not known how long this agony will persist. I am on a diet of pain pills, 2 kinds of anti-depressants, nerve blockers, anti-anxiety medicine (2 kinds) and a variety of other Chinese herbal medicines (which I have not yet reaped any benefit from). Someone offered me some edibles (brownies, cookies, fruit bars, butter, and gummies. My body has responded so well to this that this is the first time that I have been able to actually sit in my chair pain-free.

I have suffered half my life with debilitating back pain from Degenerative disc disease after fracturing a vertebrae in college while playing baseball. I was also recently diagnosed with Akylosing Spondylitis and was basically crippled for months before I was able to find a diagnosis and get prescribed injections to keep my body from attacking itself. MMJ has been a savior for me for my chronic pain and insomnia. I have been prescribed every pain killer and muscle relaxer known to man, but nothing works as well as MMJ. I have had two friends who have died from Pain killer abuse and quit taking them to ensure, I too would not get addicted. Anyone who thinks marijuana is the gateway drug, addicting, etc has never suffered from pain, insomnia, etc. Luckily, I live in CA where they are compassionate and understand what it is like to

I have my medical card and use medical grade marijuana for stump pain, lost my leg in a motorcycle accident, and find edibles work wonders for pain. Been using the pain patch for over ten years, and hope to get off of narcotics one day. Smoke for the nausea caused by hiato hernia, and other stomach problems, have a history of bleeding ulcers going back 35

Cannabis is a life-saver for me. I have severe chronic pain through both arms, all the way from my hands to shoulders and across my chest (the anchor muscles for arm movement), nearly 24/7. Without cannabis, sometimes in combination with

Medical marijuana helps me with nausea, I don't take pills but every time I eat I feel sick and often vomit. When I smoke marijuana it gives me hella appetite, and I don't feel nauseated any more. It's great

I have lupus and fibromyalgia. Cannabis has saved my life! Taking the medications to doctors prescribed put me in the hospital with bad drug reactions. MMJ has given me my life back. It takes away the pain, clears my mind and lets me be the mom I want to be. I can play with my children, maintain my home and work all thanks to a glorious plant when

I have been dealing with some nasty sciatica pain the past couple of years and last spring I asked one of my docs what I could take for it and although he could not legally tell me to use
Marijuana he did bring it up twice. I am a spinal injury patient and my sciatica pain is caused by the way I sit in my wheelchair but there's no way of correcting it. I am still trying to find the right strain but tried Headband yesterday and liked it. I use a vaporiser and like it, I do not smoke until I'm stoned I don't like the feeling of being stoned plus I'm afraid I

I would absolutely love to try MMJ to see if it would help with my severe chronic back pain. However, I have no idea where to go to get it. I live in the St Louis, Mo area and would be too afraid to just walk up to strangers and ask. My luck,

I too have major back problems. After a fusion and two "cleanings" I now have spinal stenosis, which is a narrowing of the spinal cord passage, basically the vertebrae are growing and crushing the spinal cord. After having going through five different doctors to try to find relief, four of which refused to see me again after looking at my medical file and seeing my condition, I have finally ended up at a pain management clinic. Their answer to my pain, they want another surgery to implant a full time spinal nerve block, so I can get off the narcotics. I have another solution for them, get this state (KS) to

I think the major thing marijuana does for my pain is that it changes the channel...my brain starts to concentrate on something else...it works YAYGuest | Jan 12, 2012
Quote:
It helps with a lot of stuff a lot of people say all the time :)
A lot of people say its great and it is not a gate way drug choice is the gate way
i have had back problems for years and i hate taking pills so even though weed is illegal in my state i use it to help with the pain and sleep i come home and use every day after work so i can function without pain so legal marijuana would be best

I have been in severe pain for years ! with back and neck pain. also tmj which is very painful. I live in Indiana and Im not sure how this works. can I just find me a Dr in Michigan ?

I have chronic neck, back and shoulder pain along with tmj , I live in Indiana. how do I go about this ?

How can a person who lives in a Bible Belt state go about getting medically prescribed mmj? I have ankylosing spondylitis in my back, and the pain isn't helped much by anti-inflammatories (NSAIDS), or the weak pain meds my dr. prescribes. I not only benefit from the pain relief, but am actually able to get some work done that I normally wouldn't if on prescribed drugs. I can't pack up and move to a MMJ state, or I would have months ago, when the pain cost me a very nice pay check.

You didn't mention what state you live in. Unless you live in a MM state then discussing this with your doctor won't get you any closer to the MM you need. Since you can't move and you need MM then the answer is to find it on the street and take care of yourself. The Feds and your State Police don't have to suffer the pain, you do. So it's up to you to decide. Do

Can anyone name the highest concentrate of cbd strain, this is the type my doctor says will help me most. I have had good luck with the Northern Lights, but feel I will do better with a different strain. Along with Fibromyalgia I have chronic

I live in Canada, once you get your MMJ approval, it is national.. I have lived with back pain for years. When someone offered me some indica to smoke, that was the first time in years that I was able to sleep through the night.. I came across a recipe where you take the bud and slowly cook it with Organic Coconut Oil, cool it and then put it into gel-caps, this Fall

Hey Everyone, I'm looking for a strain that's good for chronic pain relief but doesn't get you too high, It'd be nice to find a strain were i can carry on with my day and not just sit there stoned. I am searching all over the internet for advice so any

HI,I smoked weed since my 13 to my 25,when i became a mom.i´m 33 now,and for the last 3 years I´ve suffered chronic back and neck pains. last week my best friend gave me a little sack with weed and oh!!! how i missed it!!! my kids are in holidays with their dad so i can go sit outside and enjoy more especially because my pains are gone!!! if i could i would of started using a long time ago!!! i recommend it to everyone especially who´s in pain everyday and is desperately using all kinds of painkillers just to get through the day!!!here it´s illegal and expensive,but if where you live is legal,go for it,and

More of the medicinal benefits of this plant come from eating edibles made from cannabis butter, or by eating the essential

When smoking it, the plant is not able to reach all of the endocannabinoid receptors throughout the body. Instead they just reach the brain, lungs and blood stream. By ingesting cannabis, the endocannabinoid system is deeply infiltrated, allowing

If you haven't tried ingesting it for pain, you are missing out...give it a try, you will be glad you did.

I just tried it for severe chronic pain and it gives me a lot of relief. I am going to try and make edibles since it seems they

I have been on strong narcotics for chronic back and leg pain for the past 23 years. I was on Methadone for 12 years and now my doctor switched me to Morphine, 75mg a day. I don't like the side effects and will be moving (back) to MMJ for relief. I've tried several types of hard candy and chocolate, but I'm still looking for that *right* dose to help relieve the pain

I have severe back pain, every three months it puts me on my ass for a few days, where I can't move or anything.. I always feel weird when I smoke weed, but taking muscle relaxers makes me want to pass out and do absolutely nothing... I am trying to figure out how to get my medical card. But thanks to voters, its now legal in Washington State for recreational

Well,I have Sjogren's Syndrome similar to lupus widespread pain body feels like it has the flu,all joints hurt muscles from the inflammation of arthritis and sjogrens i take hemp-seed oil it helps, I'm tired of taking oxys and roxies but need to till i

I to am in the bible belt, I've chanced it for 20 years.do what i gotta do steve

Hello all, I am looking for some advice. My grandmother has had 2 back surgeries in the past year and she is in severe pain. The meds that the doctors give to her make her very sick and she usually refuses to take them. Does anyone have a recommended strain for her? She has severe chronic back pain and numbness. Also, it would be best if you could suggest Thank You!

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Whole Medicinal System Medicines

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Naturopathy

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Herbal Medicine

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Homoeopathy

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Ayurvedic Medicine

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Acupuncture

Acupuncture

http://www.integrativemedicine.co.za/acupuncture.html

Acupuncture is an ancient healing art developed by the Chinese over 5000 years ago. Its philosophy and principles are so solid that they have changed little with time, and have now been validated by modern scientific research.

In order to understand acupuncture it helps to appreciate some aspects of Traditional Chinese Medicine [of which acupuncture forms an integral part]. Acupuncture is often used together with Chinese herbs, massage, and nutritional

For all living systems in the human body to function properly, and to work in harmony, they have to maintain balance. The Chinese have described this balance in terms of yin and yang , which represent opposite pole e.g. up and down, light and

The Life Force, Chi or Qi [pronounced "chee"] is said to circulate throughout the body with a diurnal [daily] rhythm to maintain the balance between yin and yang. This energy moves along pathways or meridians, which the Chinese have charted very precisely over thousands of years. There are 14 meridians, which link all the acupuncture points together. In a state of health, the Qi flows along these meridians without interruption. In disease or injury, this flow is interrupted or

Qi can be accessed and manipulated via acupuncture points, which are small windows into this energy system of the body. The acupuncture points can be activated by means of needles, finger pressure, heat, suction cups, laser beams, or the SCIO. The correct stimulation of the relevant acupuncture points stores the free-flow of Qi, which results in relief of pain.

TOOLS OF ACUPUNCTURE

[a] Acupuncture needles are very slender and made of stainless steel, copper, or other metals. The sizes vary from a 3mm stud used on the earlobe, to 15cm long needles used in deep muscles. The insertion of a needle should not be painful, apart from the initial prick; this is followed by a deeper "needling sensation", which is similar to the sensation experienced when

[b] *Electro-acupuncture:* In certain circumstances it may be necessary to attach electrical clips to some of the needles so that they can be electrically stimulated with an almost imperceptible current.

[c] *Moxibustion:* Certain conditions such as osteo-arthritis, may require heat, which can be applied by burning the herb Artemisia vulgaris [Mugwort] on the needles or near the acupuncture points. This painless but very effective treatment is

[d] *Laser acupuncture:* If all this talk about needles is making you squirm, there is an alternative; acupuncture points can also be effectively stimulated with a low energy laser beam, which is harmless and painless. Many clinical acupuncturists use a laser, which is a modern Western modification. Laser has the distinct advantage of being able to treat children, and

They have several other advantages:
Speeding up the healing of injured tissues e.g. ulcers and fever blisters, following injury or surgery.

Stimulating circulation.

Reducing inflammation.

Stimulating new cell growth.

Reducing fibrous tissue formation e.g. following burns and surgery.
See also Laser Therapy.

WHAT CONDITIONS CAN BE TREATED?
Acupuncture should be the treatment of choice for the following:
All back problems including sciatica, lumbago, pinched nerves, muscular spasms, stiff neck etc.
Headaches and migraines.
Shingles and neuralgia.

Acupuncture is also very useful in the following painful conditions:
Rheumatic and arthritic conditions e.g. tennis elbow, fibrositis, frozen shoulder, and carpal tunnel syndrome.
Sports injuries and repetitive strain injuries [RSI].
Neurological problems such as trigeminal neuralgia and Bell's palsy.
Dysmenorrhoea and spastic colon.

Acupuncture is often used in treating a vast range of other acute and chronic conditions such as:
Allergies e.g. hay fever, sinusitis, asthma, and eczema.
Addictions.
General improvement of function, strengthening the immune system, and management of stress.

WHAT DOES TREATMENT INVOLVE?
After a detailed history and clinical examination, the practitioner will discuss treatment options.

While lying down the needles are inserted in selected acupuncture points; then the patient is left to relax for about 30 minutes. Electrical stimulation, moxa or low level laser may also be applied.

WHAT CAN ONE EXPECT FROM ACUPUNCTURE TREATMENTS?

In general, most people should see some benefit within one to four treatments. Often there will be an aggravation or worsening of symptoms after the first or second treatment, which should cause alarm. This quickly gives way to improvement as the treatments continue. At first, the benefits may only be short-lived, but quickly become sustained.

As the benefits of acupuncture are not only symptomatic, any perceived improvement is a real improvement, equivalent to the tuning of a car engine. Depending on the cause of the problem, it may take a shorter or a longer time to become "out of tune" again, which may require booster treatments from time-to-time. It is important to understand that acupuncture can only improve function; but it cannot effect structural changes. For example, it can reduce the pain and stiffness associated

ARE THERE ANY SIDE EFFECTS?

All modern acupuncture needles are disposable to prevent transmission of HIV. In experienced hands, complications from needling are rare and never serious. If you are pregnant, acupuncture can still be used, although caution will be exercised

WHAT ARE THE ADVANTAGES OF ACUPUNCTURE?

As acupuncture is so safe, it is always worth trying, before resorting to drugs and surgery, which themselves often have side effects. Anti-inflammatory drugs are the conventional mainstay of treatment for musculo-skeletal conditions, but are notorious for causing unwanted irritation of the stomach and intestines. Excessive painkillers can also damage the kidneys. In many instances, surgery can be avoided with acupuncture, or at least the condition can be improved to the point where

On the other hand, many conditions that have failed to respond to conventional treatment can be eased [thus enabling a

SCIENTIFIC VALIDATION

Contrary to popular belief, there has been a lot of scientific research into acupuncture over the last 20 years. The ancient principles, which where hard to understand, have now been largely validated by scientific methods.

[a] *Bio-energetic:* There is much evidence to show that the nature of Qi is electro-magnetic. Acupuncture points have a lower electro-magnetic potential, which can easily be demonstrated with a sensitive ohmmeter. Disturbances in bio-energy

[b] *Neurological:* Although meridians do not correlate with nerve or circulatory pathways, it has been shown that acupuncture has an inhibitory effect on nerve pain transmission. It also has a direct effect on parts of the brain by

[c] *Chemical:* The body, in response to acupuncture stimulation, releases various chemical substances. These include endorphins, bradykinins and prostaglandins. Endorphins are pain relieving and mood elevating and are probably responsible for the euphoria that is often experienced after a treatment. Bradykinins are also pain relieving, and

[d] *Placebo effect:* Proponents of acupuncture often argue that the benefits are all in the mind. The scientific term for this concept is the "placebo effect". It is generally accepted that in any healing, the placebo or psychological effect accounts for about 30% of the benefit, and that one's state of mind can affect the outcome of any treatment. Despite this benefit, one does not have to believe in acupuncture for it to work; notably, acupuncture works in children and animals, which are not

Acupuncture does not work any more effectively in one racial group compared to others, nor does it form part of any

REGULATION OF ACUPUNCTURE IN SOUTH AFRICA

The Allied Health Professions Council of South Africa (AHPCSA) is the statutory council that regulates Acupuncture in South Africa, in accordance with Act 63 of 1982. AHPCSA controls all matters relating to students and practitioners -

See also Laser therapy and Intramuscular Stimulation.

Information provided by Dr D M Nye www.greenhousehealth.com

ARC Medicine

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Unani Tibb Medicine

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Scientific Scepticism

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People with no Integrity

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Snake oil

Snake oil

http://en.wikipedia.org/wiki/Snake_oil

This article is about medicinal compounds.

Snake oil is intentionally promoted fraudulent or unproven Medicine. The expression is also applied metaphorically to any product with questionable or unverifiable quality or benefit. By extension, a snake oil salesman is someone who sells There are two hypotheses for the origin of the term. The more common theory is that the name originated in the Western regions of the United States, and is derived from a topical preparation made from the Chinese Water Snake (Enhydris chinensis) used by Chinese laborers to treat joint pain. The preparation was promoted in North America by traveling One source, Dr. William S. Haubrich in his book Medical Meanings (1997, American College of Physicians) claims that the name came from the Eastern United States. The Native Americans of New York and Pennsylvania region would rub cuts and scrapes with the petroleum collected from oil seeps that occurred naturally in the area. European settlers observed this habit, and began bottling and selling the substance as a cure-all. The preparation was sold as "Seneca oil" in mid-nineteenth century, after the local tribes. Haubrich claims through mispronunciation this became "Sen-ake-a oil" and

History

Chinese labourers on railroad gangs involved in building the First Transcontinental Railroad first gave snake oil to Europeans with joint pain. When rubbed on the skin at the painful site, snake oil was claimed to bring relief. This claim was ridiculed by rival medicine salesmen, and in time, snake oil became a generic name for many compounds marketed as panaceas or miraculous remedies whose ingredients were usually secret, unidentified, or mischaracterized and mostly inert

Patent medicines originated in England, where a patent was granted to Richard Stoughton's Elixir in 1712. Since there was no federal regulation in the USA concerning safety and effectiveness of drugs until the 1906 Food and Drugs Act and various medicine salesmen or manufacturers seldom had enough skills in analytical chemistry to analyze the contents of

The snake oil peddler became a stock character in Western movies: a travelling "doctor" with dubious credentials, selling fake medicines with boisterous marketing hype, often supported by pseudo-scientific evidence. To increase sales, an accomplice in the crowd (a shill) would often attest to the value of the product in an effort to provoke buying enthusiasm. The "doctor" would leave town before his customers realized they had been cheated. This practice is also called grifting

From cure-all To quackery

A report of the 1917 decision of the US District Court for Rhode Island, fining Clark Stanley $20 for "misbranding" its

The composition of snake oil medicines varies markedly between products.

Stanley's snake oil--produced by Clark Stanley, the "Rattlesnake King"--was tested by the United States government in

mineral oil

1% fatty oil (presumed to be beef fat)

red pepper

turpentine

camphor

This is similar in composition to modern-day capsaicin-based liniments. None of the oil content was found to have been

The government sued the manufacturer for misbranding and misrepresenting its product, winning the judgement of $20 against Clark Stanley. Soon after the decision, "snake oil" became synonymous with false cures and "snake-oil salesmen"

Popular culture

Poppy: W. C. Fields's film about a Western frontier American snake oil salesman complete with a surreptitious crowd accomplice. His demonstration from the back of a buckboard (transparently fraudulent to the movie audience) of a

Disney's Pete's Dragon : The greedy "Doc" Terminus, played by Jim Dale, gave a testament to the persuasive power of

The Adventures of Tom Sawyer : Mark Twain presents Aunt Polly as a true believer in various sorts of snake oil, though not always in the form of an alleged medicine.

Flåklypa Grand Prix: In this animated movie, Snake Oil is used as a name for a shady oil company.

Steve Earle's "Snake Oil": Singer-songwriter Steve Earle recorded a song critical of the Ronald Reagan administration entitled "Snake Oil" for the album Copperhead Road, released in 1988.

Red Dead Redemption: A number of missions involves John Marston working with a snake oil salesman, Nigel West Dickens, as a shill, so he can sell his tonics to ignorant farmhands, despite them not doing anything.

Gypsies, Tramps and Thieves: In the song by Cher, the singer's father sold bottles of "Doctor Good" at a traveling show.

Emmet Otter's Jug-Band Christmas: In the TV special, a running joke explains the title character's sold snake oil, "but

"Harry Potter and the Half Blood Prince" sees Arthur Weasley head up a department restricting the sale of counterfeit magical protection items that wizards claim will protect others from Dark magic.

The Chinese water snake

http://en.wikipedia.org/wiki/Chinese_Water_Snake

The **Chinese water snake** or **Chinese smooth water snake** (*Enhydris chinensis*) is a species of snake found in China, Taiwan, and Vietnam. As the common name suggests, it is a highly aquatic species, adapting well to human-altered environments such as fish pools and rice paddies. It is considered common although it has declined in Taiwan and is protected there. *Enhydris chinensis* is a relatively small snake reaching total length up to 80 cm (31 in). It

Enhydris chinensis are harvested for food and skins, but this is not considered to be threatening its populations.

Enhydris chinensis is used in folk medicine. It is commonly used in the production of
Chinese snake oil. It is known for treating ailments such as fever, joint pain, and headache. It is typically ingested to gain the medicinal effects.[citation needed]

Clark Stanley's Snake Oil

Clark Stanley's Snake Oil

http://en.wikipedia.org/wiki/Quackery#Anti-quackery_organizations

In the United States, false medicines in this era were often denoted by the slang term snake oil, a reference to sales pitches for the false medicines that claimed exotic ingredients provided the supposed benefits. Those who sold them were called "snake oil salesmen," and usually sold their medicines with a fervent pitch similar to a fire and brimstone religious sermon. They often accompanied other theatrical and entertainment productions that traveled as a road show from town to town, leaving quickly before the falseness of their medicine was discovered. Not all quacks were restricted to such small-time One among many examples is that of William Radam, a German immigrant to the USA who, in the 1880s, started to sell his "Microbe Killer" throughout the United States and, soon afterwards, in Britain and throughout the British colonies. His concoction was widely advertised as being able to "Cure All Diseases" (W. Radam, 1890) and this phrase was even embossed on the glass bottles the medicine was sold in. In fact, Radam's medicine was a therapeutically useless (and in large quantities actively poisonous) dilute solution of sulphuric acid, coloured with a little red wine. Radam's publicity material, particularly his books (see for example Radam, 1890), provide an insight into the role that pseudo-science played

Similar advertising claims to those of Radam can be found throughout the 18th, 19th, 20th and 21st centuries. "Dr." Sibley, an English patent medicine seller of the late 18th and early 19th centuries, even went so far as to claim that his Reanimating Solar Tincture would, as the name implies, "restore life in the event of sudden death". Another English quack, "Dr. Solomon" claimed that his Cordial Balm of Gilead cured almost anything, but was particularly effective against all venereal complaints, from gonorrhoea to onanism. Although it was basically just brandy flavoured with herbs, it retailed Not all patent medicines were without merit. Turlington's Balsam of Life, first marketed in the mid-18th century, did have genuinely beneficial properties. This medicine continued to be sold under the original name into the early 20th century, and can still be found in the British and American Pharmacopoeias as "Compound tincture of benzoin". It can be argued The end of the road for the quack medicines now considered grossly fraudulent in the nations of North America and Europe came in the early 20th century. February 21, 1906 saw the passage into law of the Pure Food and Drug Act in the United States. This was the result of decades of campaigning by both government departments and the medical establishment, supported by a number of publishers and journalists (one of the most effective of whom was Samuel Hopkins Adams, whose series "The Great American Fraud" was published in Colliers Weekly starting in late 1905). This American Act was followed three years later by similar legislation in Britain, and in other European nations. Between

Quackery

Quackery

http://en.wikipedia.org/wiki/Quackery#Anti-quackery_organizations

Quackery is the promotion of unproven or fraudulent medical practices. Random House Dictionary describes a "quack" as a "fraudulent or ignorant pretender to medical skill" or "a person who pretends, professionally or publicly, to have skill, The word "quack" derives from the archaic word "quacksalver", of Dutch origin (spelled kwakzalver in contemporary Dutch), literally meaning "hawker of salve". In the Middle Ages the word quack meant "shouting". The quacksalvers sold "Health fraud" is often used as a synonym for quackery, but quackery's salient characteristic is aggressive promotion ("quacks quack!") rather than fraud, greed or misinformation. "Pseudo-medicine" is a term for treatments known to be

Definition

Since there is no exact standard for what constitutes quackery, and how to differentiate it from experimental medicine, protoscience, religious and spiritual beliefs, etc., accusations of quackery are often part of polemics against one party or In determining whether a person is committing quackery, the central question is what is acceptable evidence for the efficacy and safety of whatever treatments, cures, regimens, or procedures the alleged quack advocates. Because there is some level of uncertainty with all medical treatments, it is common ethical practice (and in some cases, a legal requirement) for pharmaceutical companies and many medical practitioners to explicitly state the promise, risks, and Since it is difficult to distinguish between those who knowingly promote unproven medical therapies and those who are mistaken as to their effectiveness, U.S. courts have ruled in defamation cases that accusing someone of quackery or calling a practitioner a quack is not equivalent to accusing that person of committing medical fraud. To be both quackery and fraud, the quack must know they are misrepresenting the benefits and risks of the medical services offered (instead of, for

In addition to the ethical problems of promising benefits that can not reasonably be expected to occur, quackery also includes the risk that patients may choose to forego treatments that are more likely to help them, in favor of ineffective Stephen Barrett, who runs the alternative medicine watchdog website, Quackwatch, a consumer information organization with several websites dedicated to exposing quackery, defines the practice this way:

To avoid semantic problems, quackery could be broadly defined as "anything involving over promotion in the field of health." This definition would include questionable ideas as well as questionable products and services, regardless of the sincerity of their promoters. In line with this definition, the word "fraud" would be reserved only for situations in which

Quacksalver

Unproven, usually ineffective, and sometimes dangerous medicines and treatments have been peddled throughout human history. Theatrical performances were sometimes given to enhance the credibility of purported medicines. Grandiose claims were made for what could be humble materials indeed: for example, in the mid-19th century Revalenta Arabica was advertised as having extraordinary restorative virtues as an empirical diet for invalids; despite its impressive name and
Even where no fraud was intended, quack remedies often contained no effective ingredients whatsoever. Some remedies contained substances such as opium, alcohol and honey, which would have given symptomatic relief but had no curative properties. The few effective remedies sold by quacks included emetics, laxatives and diuretics. Some ingredients did have medicinal effects: mercury, silver and arsenic compounds may have helped some infections and infestations; willow bark contained salicylic acid, chemically closely related to aspirin; and the quinine contained in Jesuit's bark was an effective

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History in Europe and the United States

History in Europe and the United States

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With little understanding of the causes and mechanisms of illnesses, widely marketed "cures" (as opposed to locally produced and locally used remedies), often referred to as patent medicines, first came to prominence during the 17th and 18th centuries in Britain and the British colonies, including those in North America. Daffy's Elixir and Turlington's Balsam were among the first products that used branding (e.g., using highly distinctive containers) and mass marketing to create and maintain markets. A similar process occurred in other countries of Europe around the same time, for example with the
The number of internationally marketed quack medicines increased in the later 18th century; the majority of them originated in Britain and were exported throughout the British Empire. By 1830, British parliamentary records list over 1,300 different "proprietary medicines," the majority of which were "quack" cures by modern standards.
Dalbys Carminative, Daffy's Elixir and Turlingtons Balsam of Life bottles dating to the late 18th and early 19th centuries. These "typical" patent or quack medicines were marketed in very different, and highly distinctive, bottles. Each brand
In 1909, in an attempt to stop the sale of such medicines, the British Medical Association published Secret Remedies, What They Cost And What They Contain. The publication was composed of 20 chapters, organizing the work by sections according to the ailments the medicines claimed to treat. Each remedy was tested thoroughly, the preface stated: “Of the accuracy of the analytical data there can be no question; the investigation has been carried out with great care by a skilled analytical chemist.” The book did lead to the end of some of the quack cures, but some survived the book by several
British patent medicines started to lose their dominance in the United States when they were denied access to the American market during the American Revolution, and lost further ground for the same reason during the War of 1812. From the early 19th century "home-grown" American brands started to fill the gap, reaching their peak in the years after the American Civil War. British medicines never regained their previous dominance in North America, and the subsequent era of mass marketing of American patent medicines is usually considered to have been a "golden age" of quackery in the
The Dutch Society Against Quackery was established in 1880. Within a short time the Society grew to more than 1,100 members. Initially, quackery mainly consisted of the unauthorized practice of medicine and the peddling of "secret remedies". By the 1950s, their energy mostly shifted to magnetizers. Since the 1980s the society has fought against so-called alternative medicine. Their primary targets are Chinese acupuncture, homoeopathy, manipulative therapy,

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Old wives' tale

Old wives' tale

http://en.wikipedia.org/wiki/Old_wives%27_tale

For the English novel, see The Old Wives' Tale.

An old wives' tale is a type of urban legend, similar to a proverb, which is generally passed down by old wives to a younger generation. Such "tales" usually consist of superstition, folklore or unverified claims with exaggerated and/or untrue details. Today old wives' tales are still common among children in school playgrounds. Old wives' tales often

Origin

In this context, the word wife means woman rather than married woman. This usage stems from Old English wif (woman) and is akin to the German Weib, also meaning "woman". This sense of the word is still used in Modern English in
Most old wives' tales are false and are used to discourage unwanted behavior, usually in children, or for folk cures for ailments ranging from a toothache to dysentery. Among the few tales with grains of truth, the veracity is likely
The concept of old wives' tales is ancient. In the 1st century, the Apostle Paul wrote to his young protégé Timothy, "But refuse profane and old wives' fables, and exercise thyself [rather] unto godliness" (I Timothy 4:7 KJV).

The oral tradition

Old wives' tales originate in the oral tradition of storytelling. They were generally propagated by illiterate women, telling stories to each other or to children. The stories did not attempt to moralise, but to teach lessons and make difficult concepts like death or coming of age easy for children to understand. Also these stories are used to scare children so they don't do
These tales were often collected by literate men, and turned into written works. Fairy tales by Basile, Perrault, and the Grimms have their roots in the oral tradition of women. These male writers took the stories from women, with their plucky,

Usage

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Examples of old wives' tales include:

Ice cream leads to nightmares.

Toes pointed up signify low blood sugar.

High heart rates lead to female foetuses.

Don't swallow gum or it will stay in your stomach for seven years.

Making silly faces when the wind direction changes will make the silly face permanent.

Chocolate leads to acne.

Shaving your legs makes the hair grow back thicker.

Eating crusts (of a sandwich) makes your hair go curly/ you grow hair on your chest

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Medical quackery ...

Medical quackery

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Medical quackery and promotion of nostrums and worthless drugs were among the most prominent abuses that led to formal self-regulation in business and, in turn, to the creation of the NBBB.

Contemporary culture

The examples and perspective in this article deal primarily with the United States and do not represent a worldwide view of the subject. Please improve this article and discuss the issue on the talk page. (November 2010)
Electro-metabograph machine on display in the "Quackery Hall of Fame" in the Science Museum of Minnesota, St. Paul,

"Tho-radia powder" box, an example of radioactive quackery.

Scientology's E-Meter, a quack device for measuring 'engrams'

The 1929 Revigator (sometimes misspelled Revigorator) was a pottery crock lined with radioactive ore that emitted radon.
"Quackery is the promotion of false and unproven health schemes for a profit. It is rooted in the traditions of the marketplace", with "commercialism overwhelming professionalism in the marketing of alternative medicine". Considered by many an archaic term, quackery is most often used to denote the peddling of the "cure-alls" described above. Quackery continues even today; it can be found in any culture and in every medical tradition. Unlike other advertising mediums, rapid advancements in communication through the Internet have opened doors for an unregulated market of quack cures and marketing campaigns rivaling the early 20th century. Most people with an e-mail account have experienced the
While quackery is often aimed at the aged or chronically ill, it can be aimed at all age groups, including teens, and the FDA has mentioned some areas where potential quackery may be a problem: breast developers, weight loss, steroids and growth hormones, tanning and tanning pills, hair removal and growth, and look-alike drugs.

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In a 1992 article in the journal Clinical Chemistry ...

http://en.wikipedia.org/wiki/Quackery#Anti-quackery_organizations

In a 1992 article in the journal Clinical Chemistry, then president of The National Council Against Health Fraud, William

The U.S. Congress determined quackery to be the most harmful consumer fraud against elderly people. Americans waste $27 billion annually on questionable health care, exceeding the amount spent on biomedical research. Quackery is characterized by the promotion of false and unproven health schemes for profit and does not necessarily involve imposture, fraud, or greed. The real issues in the war against quackery are the principles, including scientific rationale, encoded into consumer protection laws, primarily the U.S. Food, Drug, and Cosmetic Act. More such laws are badly needed. Regulators are failing the public by enforcing laws inadequately, applying double standards, and accrediting pseudo-medicine. Non-scientific health care (e.g., acupuncture, ayurvedic medicine, chiropractic, homoeopathy, naturopathy) is licensed by individual states. Practitioners use unscientific practices and deception on a public who.
For those in the practice of any medicine, to allege quackery is to level a serious objection to a particular form of practice. Most developed countries have a governmental agency, such as the Food and Drug Administration (FDA) in the US, whose purpose is to monitor and regulate the safety of medications as well as the claims made by the manufacturers of new and existing products, including drugs and nutritional supplements or vitamins. The Federal Trade Commission (FTC) also participates in some of these efforts. To better address less regulated products, in 2000, US President Clinton signed Executive Order 13147 that created the White House Commission on Complementary and Alternative Medicine. In 2002, the commission's final report made several suggestions regarding education, research, implementation, and reimbursement
Individuals and non-governmental agencies are active in attempts to expose quackery. According to Norcross et al. (2006) several authors have attempted to identify quack psychotherapies; (e.g., Carroll, 2003; Della Sala, 1999; Eisner, 2000; Lilienfeld, Lynn, & Rohr 2003; Singer and Lalich 1996). The evidence based practice (EBP) movement in mental health emphasizes the consensus in psychology that psychological practice should rely on empirical research. There are also "anti-quackery" web sites, such as Quackwatch, which help consumers evaluate particular claims. Quackwatch's information is

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People's Republic of China ...

People's Republic of China

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Zhang Wuben, a quack who posed as skilled in traditional Chinese medicine in the People's Republic of China, based his operation on representations that raw eggplant and mung beans were a general cure-all. Zhang, who has escaped legal liability as he portrayed himself as a nutritionist, not a doctor, appeared on television in China and authored a best-selling book, Eat Away the Diseases You Get from Eating. Zhang, who charged the equivalent of $450 for a 10 minute examination, had a two-year waiting list when he was exposed. Investigations launched after a run on mung beans revealed that contrary to his representations, he did not come from a family of accomplished traditional practitioners (中医世家) and never had the medical degree from Beijing Medical University he claimed to have. His only education was a brief correspondence course or night school course, completed after he was laid off from a textile factory. Zhang, despite
Hu Wanlin, who did hold himself out as a doctor, was exposed in 2000 and sentenced to 15 years in prison. He adulterated his concoctions with sodium sulfate, Glauber's salt, a poison in large doses. That case resulted in creating a system of

Presence and acceptance

Opponents of quackery have suggested several reasons why quackery is accepted by patients in spite of its lack of

Ignorance

Those who perpetuate quackery may do so to take advantage of ignorance about conventional medical treatments versus alternative treatments, or may themselves be ignorant regarding their own claims. Mainstream medicine has produced

placebo effect

Medicines or treatments known to have no pharmacological effect on a disease can still affect a person's perception of their illness, and this belief in its turn does indeed sometimes have a therapeutic effect, causing the patient's condition to improve. This is not to say that no real cure of biological illness is effected—though we might describe a placebo effect as being "all in the mind"", we now know that there is a genuine neurobiological basis to this phenomenon. People report reduced pain, increased well-being, improvement, or even total alleviation of symptoms. For some, the presence of a

regression fallacy

Certain "self-limiting conditions", such as warts and the common cold, almost always improve, in the latter case in a rather predictable amount of time. A patient may associate the usage of alternative treatments with recovering, when recovery

Scientific skepticism

Scientific skepticism

http://en.wikipedia.org/wiki/Scientific_skepticism

Carl Sagan, originator of the expression scientific scepticism

Scientific scepticism (also spelled scepticism) is the practice of questioning whether claims are supported by empirical research and have reproducibility, as part of a methodological norm pursuing "the extension of certified knowledge". For example, Robert K. Merton asserts that all ideas must be tested and are subject to rigorous, structured community scrutiny.

About the term and its scope

Scientific scepticism is also called rational scepticism, and it is sometimes referred to as sceptical inquiry.

The term scientific 000epticism appears to have originated in the work of Carl Sagan, first in Contact, and then in Billions

Scientific scepticism is different from philosophical scepticism, which questions our ability to claim any knowledge about the nature of the world and how we perceive it. Scientific scepticism primarily uses deductive arguments to evaluate claims which lack a suitable evidential basis. The New Scepticism described by Paul Kurtz is scientific scepticism.

Overview

Scientific sceptics believe that empirical investigation of reality leads to the truth, and that the scientific method is best suited to this purpose. Considering the rigor of the scientific method, science itself may simply be thought of as an organized form of scepticism. This does not mean that the scientific sceptic is necessarily a scientist who conducts live experiments (though this may be the case), but that the sceptic generally accepts claims that are in his/her view likely to be
Scientific sceptics attempt to evaluate claims based on verifiability and falsifiability and discourage accepting claims on faith or anecdotal evidence. Sceptics often focus their criticism on claims they consider to be implausible, dubious or clearly contradictory to generally accepted science. Scientific sceptics do not assert that unusual claims should be automatically rejected out of hand on a priori grounds - rather they argue that claims of paranormal or anomalous
From a scientific point of view, theories are judged on many criteria, such as falsifiability, Occam's Razor, and explanatory power, as well as the degree to which their predictions match experimental results. Scepticism is part of the scientific method; for instance an experimental result is not regarded as established until it can be shown to be repeatable
By the principles of scepticism, the ideal case is that every individual could make his own mind up on the basis of the evidence rather than appealing to some authority, sceptical or otherwise. In practice this becomes difficult because of the amount of knowledge now possessed by science, and so an ability to balance critical thinking with an appreciation for
Not all fringe science is pseudo-science. For instance, some proponents of repressed memories apply the scientific method carefully, and have even found some empirical support for their validity, though the theories have not received complete
Empirical or scientific sceptics do not profess philosophical scepticism. Whereas a philosophical sceptic may deny the very existence of knowledge, an empirical sceptic merely seeks likely proof before accepting that knowledge.

Examples

Main article: List of topics characterized as pseudo-science

Some of the topics that scientifically sceptical literature questions include health claims surrounding certain foods, procedures, and alternative medicines; the plausibility and existence of supernatural abilities (e.g. tarot reading) or entities (e.g. poltergeists, angels, gods - including Zeus); the monsters of cryptozoology (e.g. the Loch Ness monster); as well as creationism/intelligent design, dowsing, conspiracy theories, and other claims the sceptic sees as unlikely to be true on Sceptics such as James Randi have become famous for debunking claims related to some of these. Paranormal investigator Joe Nickell cautions, however, that "debunkers" must be careful to engage paranormal claims seriously and without bias. He explains that open minded investigation is more likely to teach and change minds than debunking. Many sceptics are atheists or agnostics, and have a naturalistic world-view; however, some committed sceptics of pseudo-science including

Pseudo-scepticism

Richard Cameron Wilson, in an article in New Statesman, wrote that some advocates of discredited intellectual positions such as AIDS denial and Holocaust denial engage in pseudo-sceptical behavior when they characterize themselves as "sceptics" despite cherry picking evidence that conforms to a pre-existing belief. According to Wilson, who highlights the phenomenon in his book Don't Get Fooled Again (2008), the characteristic feature of false scepticism is that it "centres not Scientific scepticism is itself sometimes criticized on this ground. The term pseudo-scepticism has found occasional use in controversial fields where opposition from scientific sceptics is strong. For example, in 1994, Susan Blackmore, a parapsychologist who became more sceptical and eventually became a CSICOP fellow in 1991, described what she termed "There are some members of the sceptics' groups who clearly believe they know the right answer prior to inquiry. They appear not to be interested in weighing alternatives, investigating strange claims, or trying out psychic experiences or altered states for themselves (heaven forbid!), but only in promoting their own particular belief structure and cohesion..." Commenting on the labels "dogmatic" and "pathological" that the "Association for Sceptical Investigation" puts on critics of paranormal investigations, Robert Todd Carroll of the Sceptic's Dictionary argues that that association "is a group of pseudo-sceptical paranormal investigators and supporters who do not appreciate criticism of paranormal studies by truly genuine sceptics and critical thinkers. The only scepticism this group promotes is scepticism of critics and [their] criticisms

Dangers of pseudo-science

See also: Anti-cult movement

Scepticism is an approach to strange or unusual claims where doubt is preferred to belief, given a lack of conclusive evidence. Sceptics generally consider beliefs in the extraterrestrial hypothesis (ETH) and psychic powers as misguided, since no empirical evidence exists supporting such phenomena. The Ancient Greek philosopher Plato believed that to release another person from ignorance despite their initial resistance is a great and noble thing. Modern sceptical writers Bertrand Russell argued that individual actions are based upon the beliefs of the person acting, and if the beliefs are unsupported by evidence, then such beliefs can lead to destructive actions. James Randi also often writes on the issue of fraud by psychics and faith healers. Critics of alternative medicine often point to bad advice given by unqualified practitioners, leading to serious injury or death. Richard Dawkins points to religion as a source of violence (notably in his book, The God Delusion), and considers creationism a threat to biology. Some sceptics, such as the members of The Sceptics' Guide to the Universe podcast, oppose certain cults and new religious movements because of their concern about

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Contrary Viewpoints

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Persons accused of quackery

Persons accused of quackery

http://en.wikipedia.org/wiki/Quackery#Anti-quackery_organizations

Franz Anton Mesmer (1734–1815), born Friedrich Anton Mesmer, was a German physician and astrologist, who invented

Thomas Allinson (1858–1918), founder of naturopathy. His views often brought him into conflict with the Royal College of Physicians of Edinburgh and the General Medical Council, particularly his opposition to doctors' frequent use of drugs, his opposition to vaccination and his self-promotion in the press. His views and publication of them led to him being

Lovisa Åhrberg (1801–1881), the first Swedish female doctor. Åhrberg was met with strong resistance from male doctors and was accused of quackery. During the formal examination she was acquitted of all charges and allowed to practice medicine in Stockholm even though it was forbidden for women in the 1820s. She later received a medal for her
Johanna Brandt (1876–1964), a South African naturopath who advocated the "Grape Cure" as a cure for cancer.
Hulda Regehr Clark (1928–2009), was a controversial naturopath, author, and practitioner of alternative medicine who claimed to be able to cure all diseases and advocated methods that have no scientific validity.
Samuel Hahnemann (1755–1843), founder of homoeopathy. Hahnemann believed that all diseases were caused by "miasms," which he defined as irregularities in the patient's vital force.He also said that illnesses could be treated by substances that in a healthy person produced similar symptoms to the illness, in extremely low concentrations, with the
Lawrence B. Hamlin (in 1916), was fined under the 1906 Pure Food and Drug Act for advertising that his Wizard Oil
L. Ron Hubbard (1911–1986), was the founder of the Church of Scientology. He was an American science fiction writer, former United States Navy officer, and creator of Dianetics.
John Harvey Kellogg (1852–1943), was a medical doctor in Battle Creek, Michigan, USA who ran a sanatorium using holistic methods, with a particular focus on nutrition, enemas and exercise. Kellogg was an advocate of vegetarianism and
D.D. Palmer (1845–1913), was a grocery store owner that claimed to have healed a janitor of deafness after adjusting the alignment of his back. He founded the field of chiropractic based on the principle that all disease and ailments could be fixed by adjusting the alignment of someone's back. His hypothesis was disregarded by medical professionals at the time and despite a considerable following has yet to be scientifically proven.[verification needed] D.D. Palmer established a magnetic healing facility in Davenport, Iowa, styling himself 'doctor'. Not everyone was convinced, as a local paper in 1894 wrote about him: "A crank on magnetism has a crazy notion that he can cure the sick and crippled with his magnetic hands. His victims are the weak-minded, ignorant and superstitious, those foolish people who have been sick for years and

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Pseudoscience

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Pseudoscience …

Pseudoscience

http://en.wikipedia.org/wiki/Pseudoscience

Pseudo-science is a claim, belief, or practice which is presented as scientific, but does not adhere to a valid scientific method, lacks supporting evidence or plausibility, cannot be reliably tested, or otherwise lacks scientific status. Pseudo-science is often characterized by the use of vague, contradictory, exaggerated or unprovable claims, an over-reliance on confirmation rather than rigorous attempts at refutation, a lack of openness to evaluation by other experts, and a general
A field, practice, or body of knowledge can reasonably be called pseudo-scientific when it is presented as consistent with the norms of scientific research, but it demonstrably fails to meet these norms. Science is also distinguishable from revelation, theology, or spirituality in that it offers insight into the physical world obtained by empirical research and testing. Commonly held beliefs in popular science may not meet the criteria of science. "Pop" science may blur the divide between science and pseudo-science among the general public, and may also involve science fiction. Pseudo-scientific
The demarcation problem between science and pseudo-science has ethical political implications, as well as philosophical and scientific issues. Differentiating science from pseudo-science has practical implications in the case of health care, expert testimony, environmental policies, and science education. Distinguishing scientific facts and theories from pseudo-scientific beliefs such as those found in astrology, medical quackery, and occult beliefs combined with scientific concepts,
The term pseudo-science is often considered inherently pejorative, because it suggests something is being inaccurately or even deceptively portrayed as science. Accordingly, those labeled as practising or advocating pseudo-science normally

See also *List of topics characterized as pseudo - science.*

Scientific methodology - Pseudo-science

Overview

http://en.wikipedia.org/wiki/Pseudoscience

Scientific methodology

A typical 19th century phrenology chart: In the 1820s, phrenologists claimed the mind was located in areas of the brain, and were attacked for doubting that mind came from the non-material soul. Their idea of reading "bumps" in the skull to predict personality traits was later discredited. Phrenology was first called a pseudo-science in 1843 and continues to be
While the standards for determining whether a body of knowledge, methodology, or practice is scientific can vary from field to field, a number of basic principles are widely agreed upon by scientists. The basic notion is that all experimental results should be reproducible, and able to be verified by other individuals. These principles aim to ensure experiments can be measurably reproduced under the same conditions, allowing further investigation to determine whether a hypothesis or theory related to given phenomena is both valid and reliable. Standards require the scientific method to be applied throughout, and bias will be controlled for or eliminated through randomization, fair sampling procedures, blinding of studies, and other methods. All gathered data, including the experimental or environmental conditions, are expected to be

Falsifiability

In the mid-20th century, Karl Popper put forth the criterion of falsifiability to distinguish science from non-science. Falsifiability means a result can be disproved. For example, a statement such as "God created the universe" may be true or false, but no tests can be devised that could prove it either way; it simply lies outside the reach of science. Popper used astrology and psychoanalysis as examples of pseudo-science and Einstein's theory of relativity as an example of science. He subdivided non-science into philosophical, mathematical, mythological, religious and/or metaphysical formulations on

Merton's norms

In 1942, Robert K. Merton identified a small set of "norms" which characterized what makes a "real" science. If any of the norms were violated, Merton determined the enterprise to be non-science. His norms were defined as:
Originality: The tests and research done must present something new to the scientific community.

Detachment: The scientists' reasons for practicing this science must be simply for the expansion of their knowledge. The scientists should not have personal reasons to expect certain results.
Universality: No person should be able to more easily obtain the information of a test than another person. Social class, religion, ethnicity, or any other personal factors should not be factors in someone's ability to receive or perform a type of
Scepticism: Scientific facts must not be based solely on faith. One should always question every case and argument and constantly check for errors or invalid claims.
Public accessibility: Any scientific knowledge one obtains should be made available to everyone. The results of any research should be openly published and shared with the scientific community.

Criticism - Pseudoscience

http://en.wikipedia.org/wiki/Pseudoscience

Refusal to acknowledge problems

In 1978, Paul Thagard proposed that pseudo-science is primarily distinguishable from science when it is less progressive than alternative theories over a long period of time, and its proponents fail to acknowledge or address problems with the theory. In 1983, Mario Bunge has suggested the categories of "belief fields" and "research fields" to help distinguish between pseudo-science and science, where the first is primarily personal and subjective and the latter involves a certain

Criticism of the term

Philosophers of science, such as Paul Feyerabend, argued that a distinction between science and non-science is neither possible nor desirable. Among the issues which can make the distinction difficult is variable rates of evolution among the theories and methodologies of science in response to new data. In addition, specific standards applicable to one field of
Larry Laudan has suggested pseudo-science has no scientific meaning and is mostly used to describe our emotions: "If we would stand up and be counted on the side of reason, we ought to drop terms like 'pseudo-science' and 'unscientific' from our vocabulary; they are just hollow phrases which do only emotive work for us". Likewise, Richard McNally states, "The term 'pseudo-science' has become little more than an inflammatory buzzword for quickly dismissing one's opponents in media sound-bites" and "When therapeutic entrepreneurs make claims on behalf of their interventions, we should not waste

Etymology

The word "pseudo-science" is derived from the Greek root pseudo meaning false and the Latin word scientia meaning knowledge. Although the term has been in use since at least the late 18th century (used in 1796 in reference to alchemy,) the concept of pseudo-science as distinct from real or proper science appears to have emerged in the mid-19th century. Among the first recorded uses of the word "pseudo-science" was in 1844 in the Northern Journal of Medicine, I 387: "That opposite kind of innovation which pronounces what has been recognized as a branch of science, to have been a pseudo-science, composed merely of so-called facts, connected together by misapprehensions under the disguise of principles". An earlier recorded use of the term was in 1843 by the French physiologist Francois Magendie. During the 20th century, the

History - Pseudoscience

History

http://en.wikipedia.org/wiki/Pseudoscience

Main article: **History of pseudoscience**

The history of pseudo-science is the study of pseudo-scientific theories over time. A pseudo-science is a set of ideas that presents itself as science, while it does not meet the criteria to properly be called such.

Distinguishing between proper science and pseudo-science is sometimes difficult. One proposal for demarcation between the two is the falsification criterion, most notably attributed to the philosopher Karl Popper. In the history of science and "history of pseudo-science" it can be especially hard to separate the two, because some sciences developed from pseudo-

The vast diversity in pseudo-sciences further complicates the history of science. Some modern pseudo-sciences, such as astrology and acupuncture, originated before the scientific era. Others developed as part of an ideology, such as Lysenkoism, or as a response to perceived threats to an ideology. Examples are creation science and intelligent design,

Despite failing to meet proper scientific standards, many pseudo-sciences survive. This is usually due to a persistent core of devotees who refuse to accept scientific criticism of their beliefs, or due to popular misconceptions. Sheer popularity is also a factor, as is attested by astrology, which remains popular despite being rejected by a large majority of scientists.

Identifying pseudo-science

A field, practice, or body of knowledge might reasonably be called pseudo-scientific when it is presented as consistent with the norms of scientific research, but it demonstrably fails to meet these norms.

Karl Popper stated it is insufficient to distinguish science from pseudo-science, or from metaphysics, by the criterion of rigorous adherence to the empirical method, which is essentially inductive, based on observation or experimentation. He proposed a method to distinguish between genuine empirical, non-empirical or even pseudo-empirical methods. The latter case was exemplified by astrology, which appeals to observation and experimentation. While it had astonishing empirical evidence based on observation, on horoscopes and biographies, it crucially failed to adhere to acceptable scientific

To demonstrate this point, Popper gave two cases of human behavior and typical explanations from Freud and Adler's theories: "that of a man who pushes a child into the water with the intention of drowning it; and that of a man who sacrifices his life in an attempt to save the child." From Freud's perspective, the first man would have suffered from psychological repression, probably originating from an Oedipus complex, whereas the second had attained sublimation. From Adler's perspective, the first and second man suffered from feelings of inferiority and had to prove himself which drove him to commit the crime or, in the second case, rescue the child. Popper was not able to find any counterexamples of

In contrast, Popper gave the example of Einstein's gravitational theory, which predicted "light must be attracted by heavy bodies (such as the sun), precisely as material bodies were attracted." Following from this, stars closer to the sun would appear to have moved a small distance away from the sun, and away from each other. This prediction was particularly striking to Popper because it involved considerable risk. The brightness of the sun prevented this effect from being observed under normal circumstances, so photographs had to be taken during an eclipse and compared to photographs taken at night. Popper states, "If observation shows that the predicted effect is definitely absent, then the theory is simply

Paul R. Thagard used astrology as a case study to distinguish science from pseudo-science and proposed principles and criteria to delineate them. First, astrology has not progressed in that it has not been updated nor added any explanatory power since Ptolemy. Second, it has ignored outstanding problems such as the precession of equinoxes in astronomy. Third, alternative theories of personality and behavior have grown progressively to encompass explanations of phenomena which astrology statically attributes to heavenly forces. Fourth, astrologers have remained uninterested in furthering the theory to deal with outstanding problems or in critically evaluating the theory in relation to other theories. Thagard intended this criterion to be extended to areas other than astrology. He believed it would delineate as pseudo-scientific

Science is also distinguishable from revelation, theology, or spirituality in that it offers insight into the physical world obtained by empirical research and testing. For this reason, the teaching of creation science and intelligent design has been strongly condemned in position statements from scientific organisations. The most notable disputes concern the evolution of living organisms, the idea of common descent, the geologic history of the Earth, the formation of the solar system, and the origin of the universe. Systems of belief that derive from divine or inspired knowledge are not considered pseudo-science if they do not claim either to be scientific or to overturn well-established science. Moreover, some specific
Some statements and commonly held beliefs in popular science may not meet the criteria of science. "Pop" science may blur the divide between science and pseudo-science among the general public, and may also involve science fiction. Indeed, pop science is disseminated to, and can also easily emanate from, persons not accountable to scientific
If the claims of a given field can be experimentally tested and methodological standards are upheld, it is not "pseudo-science", however odd, astonishing, or counter-intuitive. If claims made are inconsistent with existing experimental results or established theory, but the methodology is sound, caution should be used; science consists of testing hypotheses which may turn out to be false. In such a case, the work may be better described as ideas that are "not yet generally accepted". Protoscience is a term sometimes used to describe a hypothesis that has not yet been adequately tested by the scientific method, but which is otherwise consistent with existing science or which, where inconsistent, offers reasonable account of

Pseudoscientific concepts

Pseudoscientific concepts

http://en.wikipedia.org/wiki/Pseudoscience

Examples of pseudo-science concepts, proposed as scientific when they are not scientific, are creation science, intelligent design, orgone energy, cold fusion, N_rays, ch'i, Scientology founder L. Ron Hubbard's engram theory, enneagram, iridology, the Myers-Briggs Type Indicator, New Age psychotherapies (e.g., re-birthing therapy), reflexology, applied kinesiology, astrology, biorhythms, facilitated communication, paranormal plant perception, extrasensory perception (ESP), Velikovsky's ideas, ancient astronauts, craniometry, graphology, metoposcopy, personology, physiognomy,
Robert T. Carroll stated in part: "Pseudo-scientists claim to base their theories on empirical evidence, and they may even use some scientific methods, though often their understanding of a controlled experiment is inadequate. Many pseudo-scientists relish being able to point out the consistency of their ideas with known facts or with predicted consequences, but they do not recognize that such consistency is not proof of anything. It is a necessary condition but not a sufficient
In 2006, the U.S. National Science Foundation (NSF) issued an executive summary of a paper on science and engineering which briefly discussed the prevalence of pseudo-science in modern times. It said, "belief in pseudo-science is widespread" and, referencing a Gallup Poll, stated that belief in the 10 commonly believed examples of paranormal phenomena listed in the poll were "pseudo-scientific beliefs". The items were: "extrasensory perception (ESP), that houses can be haunted, ghosts, telepathy, clairvoyance, astrology, that people can communicate mentally with someone who has died, witches, reincarnation, and channelling". Such beliefs in pseudo-science reflect a lack of knowledge of how science
[edit]Use of vague, exaggerated or untestable claims

Assertion of scientific claims that are vague rather than precise, and that lack specific measurements.

Failure to make use of operational definitions (i.e. publicly accessible definitions of the variables, terms, or objects of interest so that persons other than the definer can independently measure or test them)

Failure to make reasonable use of the principle of parsimony, i.e. failing to seek an explanation that requires the fewest possible additional assumptions when multiple viable explanations are possible (see: Occam's razor).
Use of obscurantist language, and use of apparently technical jargon in an effort to give claims the superficial trappings of

Lack of boundary conditions: Most well-supported scientific theories possess well-articulated limitations under which the predicted phenomena do and do not apply.
Lack of effective controls, such as placebo and double-blind, in experimental design

Lack of understanding of basic and established principles of physics and engineering

Over-reliance on confirmation rather than refutation

Assertions that do not allow the logical possibility that they can be shown to be false by observation or physical

(**see also**: falsifiability)

Assertion of claims that a theory predicts something that it has not been shown to predict. Scientific claims that do not confer any predictive power are considered at best "conjectures", or at worst "pseudo-science" (e.g. Ignoratio elenchi) Assertion that claims which have not been proven false must be true, and vice versa

Over-reliance on testimonial, anecdotal evidence, or personal experience: This evidence may be useful for the context of discovery (i.e. hypothesis generation), but should not be used in the context of justification (e.g. Statistical hypothesis Presentation of data that seems to support its claims while suppressing or refusing to consider data that conflict with its claims. This is an example of selection bias, a distortion of evidence or data that arises from the way that the data are Reversed burden of proof: In science, the burden of proof rests on those making a claim, not on the critic. "Pseudo-scientific" arguments may neglect this principle and demand that sceptics demonstrate beyond a reasonable doubt that a claim (e.g. an assertion regarding the efficacy of a novel therapeutic technique) is false. It is essentially impossible to Appeals to holism as opposed to reductionism: Proponents of pseudo-scientific claims, especially in organic medicine, alternative medicine, naturopathy and mental health, often resort to the "mantra of holism" to dismiss negative findings.

Absence of progress - Pseudoscience

http://en.wikipedia.org/wiki/Pseudoscience

Lack of openness to testing by other experts

Evasion of peer review before publicizing results (called "science by press conference"): Some proponents of ideas that contradict accepted scientific theories avoid subjecting their ideas to peer review, sometimes on the grounds that peer review is biased towards established paradigms, and sometimes on the grounds that assertions cannot be evaluated adequately using standard scientific methods. By remaining insulated from the peer review process, these proponents forgo Some agencies, institutions, and publications that fund scientific research require authors to share data so others can evaluate a paper independently. Failure to provide adequate information for other researchers to reproduce the claims Appealing to the need for secrecy or proprietary knowledge when an independent review of data or methodology is

Absence of progress

Failure to progress towards additional evidence of its claims. Terence Hines has identified astrology as a subject that has changed very little in the past two millennia.

(**see also**: scientific progress)

Lack of self-correction: scientific research programmes make mistakes, but they tend to eliminate these errors over time. By contrast, ideas may be accused of being pseudo-scientific because they have remained unaltered despite contradictory evidence. The work Scientists Confront Velikovsky (1976) Cornell University, also delves into these features in some detail, as does the work of Thomas Kuhn, e.g. The Structure of Scientific Revolutions (1962) which also discusses some of Statistical significance of supporting experimental results does not improve over time and are usually close to the cut-off for statistical significance. Normally, experimental techniques improve or the experiments are repeated, and this gives ever stronger evidence. If statistical significance does not improve, this typically shows the experiments have just been repeated

Personalization of issues

Tight social groups and authoritarian personality, suppression of dissent, and group-think can enhance the adoption of beliefs that have no rational basis. In attempting to confirm their beliefs, the group tends to identify their critics as enemies. Assertion of claims of a conspiracy on the part of the scientific community to suppress the results.

Attacking the motives or character of anyone who questions the claims

Use of misleading language

Creating scientific-sounding terms to add weight to claims and persuade non-experts to believe statements that may be false or meaningless: For example, a long-standing hoax refers to water by the rarely used formal name "dihydrogen monoxide" and describes it as the main constituent in most poisonous solutions to show how easily the general public can

Psychological explanations - Pseudoscience

http://en.wikipedia.org/wiki/Pseudoscience

Demographics

In his book The Most Precious Thing Carl Sagan discusses the government of China and the Chinese Communist Party concern about Western pseudo-science developments and certain ancient Chinese practices in China. He sees pseudo-science occurring in the U.S. as part of a worldwide trend and suggests its causes, dangers, diagnosis and treatment may be universal. In Spain, another science writer Luis Alfonso Gámez was sued after he notified the public about the lack of efficacy to support the claims of a popular pseudo-scientist. In the US, 54% of the population believe in psychic healing and 35% believe in telepathy. In Europe, the statistics are not that much different. A significant percentage of Europeans consider homoeopathy (34%) and horoscopes (13%) to be reliable science. Over the past decade, consumer interest in the The National Science Foundation stated that pseudo-scientific beliefs in the U.S. became more widespread during the 1990s, peaked near 2001, and declined slightly since with pseudo-scientific beliefs remaining common. According to the NSF report, there is a lack of knowledge of pseudo-scientific issues in society and pseudo-scientific practices are commonly followed. Bunge states, "A survey on public knowledge of science in the United States showed that in 1988 In the Journal of College Science Teaching, Art Hobson writes, "Pseudo-scientific beliefs are surprisingly widespread in our culture even among public school science teachers and newspaper editors, and are closely related to scientific

Psychological explanations

Pseudo-scientific thinking has been explained in terms of psychology and social psychology. The human proclivity for seeking confirmation rather than refutation (confirmation bias), the tendency to hold comforting beliefs, and the tendency to over-generalize have been proposed as reasons for the common adherence to pseudo-scientific thinking. According to Beyerstein (1991), humans are prone to associations based on resemblances only, and often prone to misattribution in Lindeman states that social motives (i.e., "to comprehend self and the world, to have a sense of control over outcomes, to belong, to find the world benevolent and to maintain one's self-esteem") are often "more easily" fulfilled by pseudo-science than by scientific information. Furthermore, pseudo-scientific explanations are generally not analyzed rationally, but instead experientially. Operating within a different set of rules compared to rational thinking, experiential thinking regards an explanation as valid if the explanation is "personally functional, satisfying and sufficient", offering a description In our culture and thinking, people appear to have trouble distinguishing science from pseudo-science. The prime reason people believe in wishful things is because they want to, it feels good and it is consoling. Many weird beliefs give immediate gratification. Immediate gratification of a person's belief is made a lot easier by simple explanations for an often complicated and contingent world. The scientific and secular systems of morality and meaning are generally unsatisfying to most people. Humans are, by nature, a forward-minded species pursuing greater avenues of happiness and satisfaction, Psychology has much to discuss about pseudo-science thinking, as it is the illusory perceptions of causality and effectiveness of numerous individuals that needs to be illuminated. Research suggests that illusionary thinking happens in most people when exposed to certain circumstances such as reading a book, an advertisement or the testimony of others are the basis of pseudo-science beliefs. It is assumed that illusions are not unusual, and given the right conditions, illusions are able to occur systematically even in normal emotional situations. One of the things pseudo-science believers quibble most about is that academic science usually treats them as fools. Minimizing these illusions in the real world is not simple.

Boundaries between science and pseudoscience

Boundaries between science and pseudoscience

http://en.wikipedia.org/wiki/Pseudoscience

Main article: Demarcation problem

In the philosophy and history of science, Imre Lakatos stresses the social and political importance of the demarcation problem, the normative methodological problem of distinguishing between science and pseudo-science. His distinctive historical analysis of scientific methodology based on research programmes suggests: "scientists regard the successful theoretical prediction of stunning novel facts – such as the return of Halley's comet or the gravitational bending of light rays – as what demarcates good scientific theories from pseudo-scientific and degenerate theories, and in spite of all scientific theories being forever confronted by 'an ocean of counterexamples'". Lakatos offers a "novel fallibilist analysis of the development of Newton's celestial dynamics, [his] favourite historical example of his methodology" and argues in light of this historical turn, that his account answers for certain inadequacies in those of Sir Karl Popper and Thomas

Many philosophers have tried to solve the problem of demarcation in the following terms: a statement constitutes knowledge if sufficiently many people believe it sufficiently strongly. But the history of thought shows us that many people were totally committed to absurd beliefs. If the strengths of beliefs were a hallmark of knowledge, we should have to rank some tales about demons, angels, devils, and of heaven and hell as knowledge. Scientists, on the other hand, are very sceptical even of their best theories. Newton's is the most powerful theory science has yet produced, but Newton himself never believed that bodies attract each other at a distance. So no degree of commitment to beliefs makes them

Thus a statement may be pseudo-scientific even if it is eminently 'plausible' and everybody believes in it, and it may be scientifically valuable even if it is unbelievable and nobody believes in it. A theory may even be of supreme scientific
—Imre Lakatos, Science and Pseudo-science

The boundary lines between the science and pseudo-science are disputed and difficult to determine analytically, even after more than a century of dialogue among philosophers of science and scientists in varied fields, and despite some basic agreements on the fundamentals of scientific methodology. The concept of pseudo-science rests on an understanding that scientific methodology has been misrepresented or misapplied with respect to a given theory, but many philosophers of science maintain that different kinds of methods are held as appropriate across different fields and different eras of human history. According to Lakatos, the typical descriptive unit of great scientific achievements is not an isolated hypothesis but
To Popper, pseudo-science uses induction to generate theories, and only performs experiments to seek to verify them. To Popper, falsifiability is what determines the scientific status of a theory. Taking a historical approach, Kuhn observed that scientists did not follow Popper's rule, and might ignore falsifying data, unless overwhelming. To Kuhn, puzzle-solving within a paradigm is science. Lakatos attempted to resolve this debate, by suggesting history shows that science occurs in research programmes, competing according to how progressive they are. The leading idea of a programme could evolve, driven by its heuristic to make predictions that can be supported by evidence. Feyerabend claimed that Lakatos was
—David Newbold and Julia Roberts, "An analysis of the demarcation problem in science and its application to therapeutic touch theory" in International Journal of Nursing Practice, Vol. 13

Laudan maintained that the demarcation between science and non-science was a pseudo-problem, preferring to focus on the more general distinction between reliable and unreliable knowledge.

[Feyerabend] regards Lakatos's view as being closet anarchism disguised as methodological rationalism. It should be noted that Feyerabend's claim was not that standard methodological rules should never be obeyed, but rather that sometimes progress is made by abandoning them. In the absence of a generally accepted rule, there is a need for alternative methods of persuasion. According to Feyerabend, Galileo employed stylistic and rhetorical techniques to convince his reader, while

—Alexander Bird, "The Historical Turn in the Philosophy of Science" in Routledge Companion to the Philosophy of

Political implications - Pseudoscience

Politics, health, and education

http://en.wikipedia.org/wiki/Pseudoscience

Political implications

The demarcation problem between science and pseudo-science brings up debate in the realms of science, philosophy and politics. Imre Lakatos, for instance, points out that the Communist Party of the Soviet Union at one point declared that Mendelian genetics was pseudo-scientific and had its advocates, including well-established scientists such as Nikolai Vavilov, sent to a Gulag and that the "liberal Establishment of the West" denies freedom of speech to topics it regards as
Pseudo-science is used recurrently in political, policy-making discourse in allegations of distortion or fabrication of scientific findings to support a political position. The Prince of Wales has accused climate change sceptics of using pseudo-science and persuasion to hinder the world from adopting precautionary principles to avert catastrophic global warming. People have given attention to the climate sceptics and have tried to understand the kind of pseudo-science they are canvassing. But he insisted the "environmental collapse" evidence is already here, not only in climbing temperatures but
It becomes pseudo-scientific when science cannot be separated from ideology, scientists misrepresent scientific findings to promote or draw attention for publicity, when politicians, journalists and a nation's intellectual elite distort the facts of science for short-term political gain, when powerful individuals in the public conflate causation and cofactors (for example, in the causes of HIV/AIDS) through a mixture of clever wordplay, or when science is being used by the powerful
A large percentage of the United states population lacks scientific literacy, not adequately understanding scientific principles and methodology. Instead of seeking scientific professionals for expert medical advise, people increasingly put their trust in pseudo-science, with its claims that are not supported and not testable. Research scientists and doctors have been drowned out by pseudo-scientists, in topics from evolution to animal models of human biology. The backlash against science threatens to halt progress in combating disease and erodes public support for research and development. The

Health and education implications

Distinguishing science from pseudo-science has practical implications in the case of health care, expert testimony, environmental policies, and science education. Treatments with a patina of scientific authority which have not actually been subjected to actual scientific testing may be ineffective, expensive, and dangerous to patients, and confuse health providers, insurers, government decision makers, and the public as to what treatments are appropriate. Claims advanced by pseudo-science may result in government officials and educators making poor decisions in selecting curricula; for

The extent to which students acquire a range of social and cognitive thinking skills related to the proper usage of science and technology determines whether they are scientifically literate. Education in the sciences encounters new dimensions with the changing landscape of science and technology, a fast-changing culture, and a knowledge-driven era. A reinvention of the school science curriculum is one that shapes students to contend with its changing influence on human welfare. A scientifically literate person is able to distinguish science from pseudo-science such as astrology, are among the attributes that enable students to adapt to the changing world. Science literacy characteristics are embedded in a curriculum where

Scientists do not want to get involved to counter pseudo-science for various reasons. For example, pseudo-scientific beliefs are irrational and impossible to combat with rational arguments, and even agreeing to talk about pseudo-science indicates acceptance as a credible discipline. Pseudo-science harbors a continuous and an increasing threat to our society. It is impossible to determine the irreversible harm that will happen in the distance. In a time when the science literacy of the public has declined and the danger of pseudo-science has increased, revising the conventional science course to current science through the prism of pseudo-science could offer a way to improve science literacy and help society to eliminate

Pseudo-sciences such as homoeopathy, even if generally benign, are magnets for charlatans. This poses a serious issue because incompetent practitioners should not be given the right of administering health care. True-believing zealots may pose a more serious threat than typical con men because of their affection to homoeopathy's ideology. Irrational health care

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Behavior Modification

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Placebo Effect

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Psychology

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Psychology

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Sport Psychology

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Sports Therapy and Sport Psychology

Sports Therapy and Sport Psychology *was discussed in Book 1 Chapter 8 (Sports Massage is at the end of this duct).*
Body Language will be discussed in this Volume.
If any subject is only named in this duct, somewhere in Volume One to Three there will be a discussion on the subject.

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Eustress - good stress

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PSYCHOLOGICAL TRAINING FOR COMPETITIVE SPORT

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What is 'suggestion' in psychology

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CHAPTER TEN

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CHAPTER 10

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10 Research

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Other Whole Medical Systems and Treatments

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Siddha

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BEST System

BEST System

http://www.integrativemedicine.co.za/best-system.html

This is a device that combines ancient techniques with modern medicine. The basic principle is electro-acupuncture and by using this tool the function of every organ and system in the body can be measured.

It is a non-invasive method, using a probe to detect the electron flow in the body via the acupuncture points on the hands and feet. Every living thing has an electromagnetic blueprint or resonance, which means that every cell in the body has a vibration. When we are in a state of good health it means that our cellular vibration is in harmony: when there is

The beauty of the BEST system is that the patient's body shows the technician where the stresses or weaknesses are, and It is built upon assessment of organ function and not diagnosis of pathology.

It can be used to test for chemical, environmental and food sensitivities and can help to determine the benefits of vitamins and supplements. It can measure the effects of stressors and complements all healing modalities.

Most of the technology used in the medical field is designed to define the parameters of disease. The problem is that many people are not healthy, but they do not have a specific diagnosis or disease label. These people may show negative on blood tests, scans etc. and that is when a functional health evaluation with the BEST system gives invaluable information

Information provided by Dr E Coertzen. erikacoert@mweb.co.za

BEST System

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Heavy Metal Toxicity

Heavy Metal Toxicity

http://www.integrativemedicine.co.za/heavy-metal-toxicity.html

OUR TOXIC ENVIRONMENT

We live in a very toxic world; we are constantly exposed to more chemical toxins than at any other time in human history.

The air we breathe is polluted with thousands of chemicals and heavy metals from industry and exhaust fumes.
The food we eat has been exposed to chemical fertilisers, pesticides, radiation, additives, improvers, preservatives, colour-
The water we drink is either polluted or adulterated.
Cooking utensils, such as aluminium pots and Teflon coated pans and plastic microwave dishes, all add toxins to our food.
Household cleaners, laid carpets, paints, glues and solvents release many hidden pollutants.
Body products often contain harmful chemicals, which accumulate in the body.
Our work environment is filled with electro-magnetic radiation from cell-phones, computers and other electronic devices.
Our minds are polluted with negative thoughts and emotions, which have an impact on our health and those around us.
In addition to all this, some choose to smoke tobacco, inhaling many more chemicals.

EFFECTS OF TOXIC METALS

The effects on the human body are wide ranging. The most serious effect is that of directly or indirectly causing cancers.
Toxic metals are carcinogenic in several ways:
damage to DNA or genes
depletion of protective anti-oxidants
suppression of the immune system
activation of oestrogen receptors.
Many metals, such as aluminium and mercury, severely attack the nerves and brain causing hyperactivity in kids and seizures, dementia, Alzheimer's and other serious nerve diseases in adults. Any other organ system can be susceptible, especially the gastro-intestinal tract, kidneys, liver and bone marrow. Toxicity may not be apparent for many years until

Toxic metal build-up may be the reason for unexplained symptoms such as:
lack of energy, vertigo, headaches, numbness, pins and needles, muscle weakness, neuralgia.
behavioural changes, hyperactivity, learning disability, depression, insomnia, irritability.
hypertension, anaemia.
abdominal pains, loss of weight.
allergies, asthma, skin problems.
overall immune system dysfunction.
For treatment of toxic metals see Chelation Therapy.

Information provided by Dr D M Nye www.greenhousehealth.com

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Biopuncture

Biopuncture

http://www.integrativemedicine.co.za/biopuncture.html

What is Biopuncture?

Biopuncture is a new therapy consisting of injecting biological products (herbs and homoeopathic products) into specific areas. The name Biopuncture originated from combining the word biotherapeutics [bio-] with acupuncture [-puncture].

Most of these injections are given under the skin or in the muscles. Examples of products commonly used in biopuncture for many years are: Arnica, Calendula, Echinacea, Nux vomica and Chamomilla.

Arnica is used for haematomas, and muscle pain, Nux vomica is injected for digestive problems, Ignatia is used for stress related symptoms, Echinacea is used to increase the natural defence system of the body. One can also inject cocktails of

These cocktails contain several biotherapeutic products in one ampoule. Several such diluted products are mixed together in one ampoule, which has its own specific therapeutic characteristics. Traumeel for example is used for inflammations and

Where are these injections given?

Most people - especially those who are apprehensive about injections because they may have had bad experiences with injections in their childhood - are surprised how easily and quickly these injections are given. In fact, these injections cannot be compared with the usual injections given in conventional medicine. They are not as painful as a normal injection because the needle used is very fine and the quantity injected is very small. Most of them are given into or just under the skin, others are given into specific muscle points or into and around joints. In most cases, several little injections are given
It is important to be aware that the products used in biopuncture are not as strong as conventional medication (e.g. painkillers, cortisone), and that they may not be as rapidly effective in the short term. This means that you may need 3 or more sessions before any improvement is noted. If you have had problems for several months or even years, it means looking for deeper causes and working on these. As a result, you may need ten or more sessions to feel better. When you realise that these products are natural products that do not have any major side effects, you may be motivated to be more patient than usual. In the long run, however, the results of this form of natural medicine are longer lasting because your

What about the safety and efficacy of this technique?

Biopuncture will always be performed according to the latest technical and safety standards. This includes a correct injection technique, and of course the use of sterile disposable material, so that transmission of disease (e.g. hepatitis,
The low dose herbal and homoeopathic content of the injection ampoules mean that the side-effects are negligible. Most of the ampoules used for injection are made in Germany and are submitted to very strict quality control regulations and systems. In other words, both the technique and the products match today's standards of quality and safety.
Many of these products used have also been tested in double blind tests and drug monitoring. This means that many patients have received these products with good results before you.

How does Biopuncture work?

These natural products are injected with the primary aim of stimulating your own defence systems, i.e. the body is invited to start healing itself. In many cases, this is sufficient to get the body in balance again. You may receive injections in your neck for whiplash, on your chest for bronchitis, on your abdomen for gastro-enteritis, in your knee for joint pain, etc.
But there is much more to it than that. Local injections can also be given to stimulate the local blood circulation, and to support the ongoing inflammatory processes, if indicated, such as when treating sports injuries.
Some of the products are designed to relax muscles. They are used, for example, when dealing with neck pain and low back pain. Even pain in the knee or in the hip region can have a muscular origin and can sometimes be treated without
One can also approach the issues by working on the nervous system and the ground regulation system (the matrix of the body). When working on that level, biopuncture can actually regulate the neural reflexes.

Another important issue is the detoxification of the body. It literally means cleaning the body. All the toxins that have accumulated in your body, for example from the environment, from bad nutrition, or from medication (e.g. antibiotic and steroid pollution) can block your immune defence system. They are called homo toxins because they are toxic for the homo sapiens. See Homotoxicology. They can also disturb the reflex responses of your nervous system. All these toxins in your body are the reason why your body may not be functioning optimally, as it did when you were younger. Eliminating all these toxins is an important strategy, especially when dealing with chronic diseases. Biopuncture can help you enormously with that. Some products (so-called anti-homotoxic products) are designed for this purpose; they eliminate or

Which conditions are best treated with Biopuncture?

Biopuncture is mostly used for minor orthopaedic and musculo-skeletal problems, whether they are acute or chronic. Neck pain, back pain, sciatica, sprained joints, frozen shoulder and Achilles tendonitis all respond well to this treatment.
Biopuncture is also very successful in treating sports injuries, tennis elbow, and repetitive strain injuries.
However, Biopuncture is not just used for pain problems, but other conditions such as allergies and inflammations respond well, e.g. asthma, eczema and hay fever. Patients with arthritis, bronchitis, cystitis and sinusitis can also be treated with this

The use of biopuncture should be considered by those patients who have tried conventional medicine but have had no success, or those who have had to stop taking conventional medication because of side effects. It is an interesting healing technique for those patients who want to avoid an operation (for example for sciatica or sinusitis). In some patients it may be advantageous to combine the conventional approach together with biopuncture. Many people still believe that one has to stop conventional treatments when choosing natural medicine. This is not true. When you are being treated with

What to expect with treatment

Biopuncture cannot heal all your medical problems. This is not a miracle therapy and your health practitioner must decide what can be treated, and what can't. The majority of patients choose to be treated with biopuncture because they are in pain and do not support the use of conventional painkillers. However, it is important to realise that biopuncture cannot take away the pain as with conventional medication. Pain is seen as an important signal from your body that something is going wrong. It is similar to a red light in the dashboard of your car: the aim is not to just take it away but to look for the deeper cause. This means that, if pain can be alleviated without prescribing painkillers, there is good reason to conclude that the deeper cause of that particular pain has been eliminated. However, it may take a few treatments before you actually feel

You may notice that after the first treatments (especially the day after the injection) you feel a little worse. This can be due to the traumatic effect of the needle injecting your soft tissues, but in most cases this happens because the healing processes are being activated. This is called the reaction phase. In other words, your body is working on the cause of the problem and that may produce some discomfort. One may experience even more pain than before treatment during the two or three first sessions, until a gradual recovery of the body defence systems and healing systems brings the functions of that area back to normal. Only then will the pain be better. But when you understand that this means that real healing is on its

When is Biopuncture not appropriate?

Biopuncture cannot heal you from cancer, a heart attack or AIDS. Nor is it appropriate to treat you when you have high blood pressure, diabetes, depression or epilepsy. In some cases, the disease is too serious or too aggressive, and can only be stopped through conventional medication or surgery. Your physician will confirm this. When serious damage has already occurred, biopuncture will be simply too late to reverse the damage and bring the body back into balance again. For example, a viral hepatitis can be treated with biopuncture in order to support the healing mechanism of the body, but liver cirrhosis is a phase where cells are damaged beyond repair and healing is impossible. The same goes for chronic

Conclusion

Biopuncture is a safe and efficient technique in complementary medicine. It uses biotherapeutic injections to stimulate the natural self-healing capacities of your body.

Information provided by Dr D M Nye www.greenhousehealth.com

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Homotoxicology

Homotoxicology

http://www.integrativemedicine.co.za/homotoxicology.html

Homotoxicology was developed over 50 years ago by a German medical doctor Hans-Heinrich Reckeweg. Today it is also