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# *Tradicional* homeopathy, nanotechnology and hormesis, in the light of quantum science

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#### Abstract

Homeopathy it is known as a field where the more diluted the less substances of the original material are found. To be precise, after the 12CH potency (or dilution), it passes the Avogadro's limit, mathematically speaking and no bulk material is found. However, some investigation showed that despite dilutions, nanoparticles are still present, even at 200CH dilution. Also, is claim by homeopaths that the more diluted the higher and deeper the clinical effect on patients. In this way, besides nanoparticles that produces hormesis, quantum science plays a role explaining homeopathy efficacy mainly through the principles of non-locality, entanglement, discontinuity and vital energy.

Keywords: Nanotechnology, hormesis, high dilutions, non-locality, entanglement, discontinuity, vital energy, morphic resonance

## Introduction

Homeopathy was born in Germany and its father was Dr. Samuel Hahnemann (1755-1843), a medical doctor. Homeopathy is a Greek derived word that can be splitted in two words: homoios - similar, and pathos - suffering. It consists of dilutions of an original material following defined and protocolized procedures. Back in that time, Dr. Hahnemann explained the homeopathic medicine through the concept of vital energy. That was his hypothesis. With the evolution of the field of medicine and the Newtonian view of medicine resulting in an evidence-base-medicine only, the concept of vital energy was harder to prove thought the lens of materialistic science. But there are people, doctors, scientists that know (knowing is different from believes) that homeopathy do its job and their obstinacy are leading homeopathy to science. On the field of research in homeopathy, hormesis is one important point. Hormesis is a dose-response relationship event. In this phenomenon, a little bit of something harmful might be good for the body in the right context. This concept is often discussed in the field of toxicology. Hugo Schulz (1853-1932) - a German pharmacologist, was the personality under this found, already at the end of 19th century <sup>[1]</sup>. There exists an unavoidable likeness among homeopathy and hormesis that can be the main cause for the discrimination of hormesis – since homeopathy has been suffering from a deep obloquy <sup>[2]</sup>. Recently the phenomenon of hormesis is being looked at again through the lens of science. Although, for this validity to happen, some authors try to dismiss the idea that hormesis and homeopathy are somehow corelated. However, numerous research studies indicate that through the process of serial dilution and succussion, solutions containing minute amounts of a specific drug or toxic substance (as done in homeopathy) can display physical, chemical, and biological characteristics that go well beyond what would be expected based on Avogadro's limit. This phenomenon challenges established beliefs and demonstrates hormesis, where even highly diluted substances can have significant effects. Homeopathy ususes this as medicine. Viewed from another angle, the interplay between hormesis and homeopathy suggests that the initial worsening of symptoms frequently noticed might stem from a complex interrelationship among dosage, time, and the body's reaction. This involves an initial response that corresponds to the dosage's potency, followed by a subsequent compensatory or rebound reaction. In this particular scenario, when given in small doses, the response ultimately goes beyond the initial starting point, surpassing the body's initial state before treatment <sup>[3]</sup>.

Nanoparticles have the potential to trigger a hormetic response depending on the amount administered <sup>[4]</sup>. In conjunction with the water surrounding on their surfaces, nanoparticles, forming exclusion zone shells at a minuscule scale.

These shells have the ability to retain specific information linked to the source drugs or toxic substances. During the production of homeopathic remedies, the intense shaking involved leads to a significant rise in water pressure within the glass bottle. This action leads to the creation of various bubbles, including extremely small nanobubbles. The collapse of these nanobubbles results in the release of heat and pressure, causing the water's physical state to deviate from its usual calm state. This highly pressurized water then propels tiny silica fragments that are suspended within it toward the medicinal substance present in the solution. Because nanoparticles possess a relatively large surface area, these silicate fragments can envelop the source nanoparticles, essentially forming a protective coating around them <sup>[5]</sup>.

The body encounters various external nanoparticles, including nanosilica, <sup>[6]</sup> as potential threats that could affect its survival. When cells interact with these nanoparticles at a local level, it can set off signaling that ripples through the entire biological system.<sup>[7]</sup>. Nanoparticles derived from a significant homeopathic remedy, when prepared with potency, can serve primarily as unconventional, minor stressors or threats from outside. These signals of perceived danger then trigger adaptive responses that influence the broader biochemical and physiological balance of the entire organism<sup>[8]</sup>. In this context, homeopathic remedies function as catalysts for systemic stress responses rather than engaging directly with specific receptors in localized tissues, a distinction from how conventional drugs operate. <sup>[9]</sup>. Specifically chosen nanoparticles from homeopathic remedies, known as "simillimum," play a role in shaping the essential adaptability of chronic illnesses. In their nanoparticle form, these remedies induce changes by influencing genetic pathways and the intricate, nonlinear functions of the body's defense mechanisms within its complex system. This process involves a shift from an established pattern of maladaptation to a more favorable pattern, promoting healthier states. <sup>[10]</sup>, shifting from a maladapted attractor pattern to a healthier attractor pattern [11]

As said, since the time of Dr. Samuel Hahnemann, the concept of vital energy was being used even though without the scientific explanation that at that time was not possible to know. With the emergence of quantum physics, which is the foundational theory explaining how matter and energy behave on the incredibly small scale of particles, scientific explanations can be given regarding the to the nature of information that travel from the original molecules from where homeopathic remedies are made to the final preparation and on how the healing process occur.

#### Methods

This is a literature review work. There are some investigation already made in nanotechnology and hormesis that give some scientific explanations on how homeopathic remedies work. It is missing however the scientific explanation for the vital energy phenomena both in the preparation of the remedies and on the healing process once homeopathic remedy is given. My investigation was to create a relation between what is already known and the missing part through the vision of quantum science.

### **Quantum Science approach**

Quantum science is based on several key principles, one of

those is tangled hierarchy that refers to the phenomenon where the properties of two or more particles become interconnected, even when they are separated by large distances. Other is the vital energy principle that can be described as a software that connects to one hardware (the physical/material manifestation). Basically, if the patient is missing some software, this person will develop one disease. Homeopathic remedies will therefore give the missing software to the body, when the right remedy is chosen. The information, or the so-called software, comes from the morphogenetic field. Morphogenetic field was proposed by a biologist, Dr. Rupert Sheldrake, in 1981. He theorized that all animals and plants draw upon and contribute to the collective memory of their species. Rupert Sheldrake suggested that memory - a collective kind of memory, is inherent in nature and it is transmitted by a process called morphic resonance and works through fields called morphic fields. Morphic resonance is probably to be the explanation on how information/vital energy travels from the original material source of the homeopathic remedy to the final preparation. A hypothesis was put forth suggesting that molecules could communicate and share information despite lacking physical connections. This notion implies that distinct energetic patterns found within particular molecules might be capable of emulating specific biological functions <sup>[12]</sup>. This is via non-locality principle, where communication happens if particles are co-related, even at a distance. Then, when the right software is present, possibilities collapse into actuality through electron jumps the quantum leaps (discontinuity principle) and then the healing process occurs.

### Conclusions

Hormesis phenomena can explain mainly low doses in homeopathy. Ultra-high dilutions of homeopathic remedies and its interaction with the organism seems to be electromagnetic in nature <sup>[13]</sup>. Therefore there the necessity of characterizing the active ingredient specially of ultra-high dilutions as a non-local quality. <sup>[14]</sup>. In this way it seems that the more dilutions a homeopathic remedy is exposed the more healing effect it will have through the entanglement with the human that is making the remedy. Intention probably will trigger an increase of electromagnetic field. Because in the material aspect of ultrahigh dilutions, it was shown that nanoparticles are still present even in the 200CH dilution, with no major differences in the nature of particles regarding shape, size and even concentration, comparing with a 6CH dilution. <sup>[15]</sup>. Entanglement and non-locality of quantum science are the key explanations of homeopathy besides the theory of hormesis and nanoparticles.

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