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A qualitative discussion on the principle of similar supporting the use of Arsenicum album against corona infectious diseases

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Abstract

The Law of Similars (*Similia Similibus Curentur*, or "Let likes be cured by likes", in brief LCL) is one of basic principle of Homeopathy. Intensive research exploring importance and the mechanism of functioning of this important principle has not been done. For further development of the Homeopathic medicine (or Homed), an in-depth understanding of the science behind the LCL principle is necessary. Recently it was proposed that the disease curing mechanism by a typical Homed was associated with the formation of hydrogen bonded nano and micro cluster (NAM) during preparation of the medicine. A disease is cured by NAM not by the medicinal molecules. The disease curing mechanism of NAM supports the LCL principle as discussed in this paper. Moreover, it was demonstrated that the incipient mechanism of the LCL principle is quantum mechanical in origin. There exists close relation between the mechanisms of curing diseases by the Homed and the body's self-healing mechanism (or homeostasis) which is governed mainly by the functioning of body's T-Cells. Externally applied Homed energise body's homeostasis activity to cure the disease. An attempt has also been made to justify the use of a medicinal molecule, for instance, arsenic molecules or arsenic salt (abbreviated as ASC) used to prepare Arsenicum album to fight against typical Covid-19 infectious diseases. It is demonstrated that the LCL principle has quantum biological foundation arising from quantum coherence (QC) between the ionic charges around the diseased cell and those associated with the disease curing agent NAM. The LCL principle favours the use of ASC, for example, against the Corona infection. The LCL principle has a deeper incipient mechanism rooted to the quantum mechanics (QM) which is also necessary to explain many other salient features of homeopathy curing different diseases.

Keywords: Law of similars, quantum entanglement, quantum biology, corona virus, arsenicum album

Introduction

It would be important to elucidate the impact of arsenic toxicity of Arsenicum album 30. The existing LCL principle which supports the body's self-curing mechanism (Homeostasis) might be helpful to justify or clarify the use of Arsenicum for curing Corona infection and other Homeds for the remediation of other diseases.

In this article an attempt has been made to explore the incipient scientific background of the LCL principle and based on this principle, an attempt has been made to justify, for instance, the use of a Homed (Arsenicum Album or arsenic compound, for example, hereafter referred to as ASC) produced from a toxic inorganic compound for the cure of corona related diseases.

Method

With the development of modern medical and physiological sciences close relation between Homeopathy and homeostasis has been revealed^[5,6]. In homeopathy, special importance had long been attributed to the principle of Similars (or LCL). The therapeutic contribution of this principle is made use in homeopathy where symptoms of a disease are viewed as a direct manifestation of the disease; on the other hand, symptoms might be considered as the signatures of body's attempt to start self-healing (homeostasis). Any toxic medicinal material (chemical, molecules, plant extracts etc.) or (virus, or bacteria) might produce some typical symptoms even when a healthy person consumes the material (or infected). For instance, an arsenic compound or molecule (referred earlier as ASC) that can produce toxic effects in the body if introduce to a body and the body would exhibit typical symptoms of ASC poisoning. The body's haemostasis immediately starts working to fight the disease showing the typical symptoms of the disease caused by ASC (due to arsenic toxicity).

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A Homed used to cure the disease attempts to stimulate/strengthen the patient's own healing capability supporting the homeostasis mechanism of self-healing. If the body is to rebalance itself when something has changed (disordering of cells in the body) then it makes sense that patients perceive these changes as symptoms. Homeopaths see these symptoms as good healthy responses made by the body to rebalance it and to inform that something is out of balance. The LCL principle indicates that a disease shows some symptoms and based on these characteristic symptoms, homeopathic medicine could be prepared to cure the suffering patients showing the similar symptoms. Different diseases should produce different symptoms (disease and symptom have cause and effect relations). For example, the main symptoms of the cholera patient are different from those of the corona virus or those exhibited by a cancer patient. However, some symptoms might be similar for different diseases. Sometimes it is also difficult to distinguish minute differences in two overlapping symptoms shown by two different diseases. As mentioned above, when a person is infected by a disease, the body itself tries to fight the disease using body's homeostasis indicating the rise of body temperature due to increase of cellular disorder and hence entropy which is related to the information change, for cell to cell communication, discussed earlier^[7, 8]. Diseased cells become disordered and disturbing the state of equilibrium. To cure the disease, body's homeostasis brings back the cells in their equilibrium state. Function of homeostasis is to start the healing process by activating or creating the body's T- cells to bring order and equilibrium with the normal cells. Homeopathic medicine (or Homed) energise or activate the Homeostasis functioning to fight against the disease.

Homeopathy, homeostasis and T-cells

A T-cell develops in the thymus gland and takes important part in the body's immune response. As mentioned earlier, in principle, Homeopathic medicines function cooperatively with the body's Homeostasis^[6, 9]. This means that the T-cells of the white blood take part in the disease curing in both the processes. The T-cells are responsible for detecting foreign or abnormal cells - including cancerous ones - and then latching onto them to tell the rest of the immune system that they need to be attacked. Antigens (Ag), according to immunology, are structures specifically bound by antibodies (Ab) or a cell surface version of Ab ~ B cell antigen receptor (BCR). The T and B cells are cellular components of adaptive immunity^[9, 10]. The antigen may originate from within the body which might be termed as self-antigen or from the external environment- non-self-antigen. The immune system is supposed to identify and attack non-self-invaders from the outside or other harmful substances present in the body and usually does not react to self-antigens under normal homeostasis conditions due to negative selection of T cells in the thymus^[10]. The mechanism how the T-cells distinguish the harmful substance and body's self-antigen is similar to that how NAM in a Homed recognize the diseased cell for interaction and cure (to be discussed elsewhere). Once the T cell has received a specific antigen signal and a general signal, it receives more instructions in the form of cytokines. These determine which type of responder the cell will become - in the case of helper T cells, it will push them into Th1 and Th2 types. In these types, the cells are exposed to the cytokine IL-1, IL-4 (for Th1) or IL-17(IL-6, IL-23) (for

Th2). Each one of these cells has a specific task to perform in the tissue and in developing further immune responses. The resulting cell population moves out to the site of the infection or inflammation in order to deal with the pathogen. Other cells like neutrophils, mast cells, and epithelial cells present at the tissue site of inflammation also release cytokines, chemokines, short peptides and other molecules which further activate and proliferate T- cells^[11]. Interestingly, the LCL principle also appears to be functioning in allopathic treatment (as in plasma therapy or T cell therapy). One may analyze T- cell Homeostatic functioning in allopath in the following way. In practice, adoptive T-cells are transferred. First the patient showing the disease symptom is selected and then T-cells of the same patient's blood is extracted (not from the blood of other bodies) and using gene transfer, introduce receptors that will aggressively target the specific diseased cell (say, cancer cell, or other deadly disease cells). When such T- cells are again transferred back inside the body, these newly engineered T-cells regenerate from the patients' blood and create an army of immune cells prepped to take down the disease even the cancerous tumours^[11, 12] or other virus cells. This is some sort of creating a vaccine from a patient's source to fight against the DC of the source (patient) itself. This is equivalent to the LCL principle of Homeopathy. That is, both the allopathic and homeopathic medicines work to stimulate the body's homeostasis.

Disease curing agent (NAM) in a Homed

It was elaborately discussed earlier^[7, 9] that H-bonded nano and micro clusters (NAMs) are formed in the Homed during succussion process and NAM works in resonance with the body's homeostasis^[5, 6]. NAMs carrying the signature (not the toxicity of the molecule) of the medicine molecule (ASC, for example) are responsible for curing the disease. The aqueous electrons present in the liquid helps formation of NAM clusters. It is well known that aqueous electrons^[13] exist and continuously persists in every liquid medium produced by breaking of H or other ionic bonds due to agitation or external radiation/ magnetic or electric field. Actually aqueous electron H- bond coupling helps forming NAMs. A NAM cluster is composed of different H- and ionic bonds and aqueous (or wet) electrons. They are coupled through electrostatic interaction. Figure -1 showed the representative picture of a dynamic NAM coupled with dynamic aqua electron [e_{aq}^-] (also known as wet electron) and other H-bonded ionic charges. The ionic structures of the H-bonded NAMs are differently modified by different medicine molecules due to succussion or mechanical stirring along with the medicinal molecules (in our present case arsenic compound) with the liquid. The aqua electrons [e_{aq}^-] along with H-bonded ions might form even in pure water or alcohol^[11, 14] by vigorous agitation, radiation etc. and even sun light and radiation produce aqua electrons which are coupled forming dynamic NAMs which may move, break and reform or re-join continuously.

The dynamic H-bonded NAM contains the signature of the medicine molecule and the disease curing potency, but not the medicine (say arsenic compound) molecule itself or its toxic effects as mentioned in our earlier work^[7, 8]. A signature carried by NAM corresponds to a typical CDP around NAM. CDP is the accumulation electrons and protons with their spins. Therefore, NAM cannot be toxic as toxicity can only be the property of a molecule. This means, the NAMs in the dilute Homed work without causing any

toxic effect whatever might be the toxic effect of medicinal material like that of arsenic or other toxic chemicals. The mechanism how NAM acquires the signature of the medicine molecules cannot, however, be explained from the standard classical concepts. One has to attribute quantum mechanical concepts discussed below.

Results and discussion

The following paragraphs deal with the formation of NAM with typical chemical, for example, Arsenic molecules used for preparing the medicine. Involvements of quantum mechanics (QM) in acquiring the signatures of Arsenic molecules by NAM and the NAM-disease cell interaction mechanism. It has also been discussed that the LCL principle supports the functioning of NAM and also the use of Arsenic compound against the Corona infectious diseases.

A. Arsenic molecules forming (NAM) in the homeopathic medicine

Let us consider the symbols $A_{\uparrow\downarrow}$ representing a typical disease produced by a pure Arsenic compound (ASC) exhibiting some symptoms represented by the up (\uparrow) and down (\downarrow) signs (arrows). Different symptoms are associated with different charge distribution patterns (CDPs) around the DCs. It has already been mentioned that CDP is formed^[8] with infinite number of electrons and protons (H^+) and ions associated with different enzymes, proteins etc. secreted by the DCs. Unlike the CDPs of the normal cell (NC where the spins are ordered and in equilibrium), the CDPs of the diseased cell (DC, where spins are disordered with higher entropy and asymmetric spin distribution)^[7, 8, 14] are different. Electrons and protons with their respective spins tunnel from the CDP of NAMs to the disordered CDP of the DC which brings equilibrium distribution of its spin structure and hence cure the disease. Different symptoms of the diseases correspond to different charge /spin distributions around the DCs.

However, some symptoms exhibited by the medicinal molecule (say, ASC) might be common with those of other medicinal molecules used for curing different diseases and, as a consequence, one Homed might be used to cure more than one disease. This can be explained from the consideration interaction between the CDPs of NAM and DCs. The CDP (or the electron spin distribution pattern) of a NAM produced by arsenic molecule/atom, for example, may also interact (i.e. transfer or ions, proton or electrons) with the CDP of different other diseased cells and if the interaction is favorable i.e. supports body's homeostasis, the NAM in the Homed produced with the arsenic molecules might also cure different other diseases at least to some extent. In this case, it is, however, difficult to assess which interactions process (ion tunneling from NAM to the DC) would be effective (as required by the DC for its normalization) to cure the disease. So, there is always a probability that a single Homed might have some healing effect of any disease (of course, it should also depend on the potency and other factors). This is because, as mentioned above, the ionic charge distribution pattern around NAM must have some favorable interactions (that is, tunneling of protons or other ions, as said above) with that around the diseased cell and in some cases such an interactions will be effective to stimulate the body's homeostasis (to bring the cells in order and equilibrium to the normal state) and can

cure the disease. However, if same medicine is used for different diseases, some adverse effects might also happen, if the said interaction does not favour the body's the homeostasis process. This is why; there is always uncertainty for the use of a particular medicine for healing different diseases. However, for our subsequent discussion, we consider signatures of different diseases are different.

B. Absence of arsenic in the Homed prepared from an arsenic atoms or arsenic compound

Every symptom (like \uparrow or \downarrow of the disease) has its own distinguished spin distribution pattern (CDP) with different structures around the diseased cell DC. This is true for every medicinal material (ASC or other atoms and molecules used for making Homeds) which has its own distinguished atomic or ionic spin distribution pattern forming the NAMs. A Homed prepared with an arsenic compound like ASC can be used to cure the disease of a patient showing the typical symptoms as produced by the arsenic compound itself, but the final Homed does not contain any ion or molecule of the arsenic salt at all. The medicine contains the signature of ASC embedded in NAM which is present in the Homed prepared from ASC. Signature is not the chemical with toxic property but a typical electronic pattern produced around NAM due to the succession with the chemical. This means one cannot get ASC back in any form (nano or micro particles) from the high diluted Homed produced from arsenic salt by using any physicochemical means (evaporating the medicine or by precipitation). The mechanism by which NAM acquires the signature of the medicinal molecules but not the toxic molecule can be focused on the basis of quantum mechanical principles as discussed in the proceeding sections.

C. Involvement of quantum mechanism with (NAM) and (LCL)

Several queries like how NAM acquires the signature of the medicinal molecules and why NAM interacts with the DC only had not been answered earlier and cannot be explained from the concepts of classical mechanics. The said mechanism of NAM formation with medicinal signatures and its interaction with the DC to cure the disease can only be explained by quantum mechanical concepts which are based on the probability theory of occurring incident. Without going to the mathematical calculations, a qualitative explanation of the above queries can be made considering the concepts of quantum coherence or quantum entanglement (QETM)^[15, 18] which allow recognition of the signature of the diseased cell (DCs) by the corresponding similar signature carried by the charge distribution pattern (CDP) of NAM produced from the medicinal molecules following the LCL principle, electrons or protons. Walach also proposed^[19] quantum entanglement model of Homeopathy in a different way. We also mentioned earlier the microscopic quantum coherence of water molecules discussed earlier^[15, 20]. In the present case, the situation is, however, different. Here quantum coherence (or some kind of synchronization) of the electrons /protons tunnelling from the CDP of NAMs to the corresponding CDP of the diseased cell are involved. One can introduce the concept of QETM to transmit quantum information from one place (cell or molecule) to another through a phenomenon known as quantum entanglement, or "spooky action at a distance", as Albert Einstein called it. Entanglement, in quantum

mechanics is known as Einstein-Podolsky-Rosen (EPR) correlatedness within quantum systems [21, 23]. The entanglement occurs between the quantum states of particles/objects/system concerned. In our present case, these states are the states associated with the protons, electrons and ions from the CDP of NAM tunnel to the CDP of the DCs to bring the equilibrium state of the DCs and to cure the disease. This means that any measurement done or incident happened on one system (of the particles) affects that of the entangled system of particle independent of distance between them [23, 26]. The systems might be located or separated even at large distances. That's where two quantum particles (or groups of particles) are coherently interlinked or entangled, so that one understands (recognizes) the properties of the other, no matter how far apart they are in physical terms. Here quantum information transformation, entropy as discussed in [16] is involved [27, 33] for cell to cell communication. Electrons/protons with different spin state (spin up and spin down signs) following LCA principle to perform quantum entanglement. This gives rise to the quantum origin of the principle of Similars (LCL). Similarly, because of quantum coherence spin of the NAM and that of the DC, the spin structure of the NAM only acknowledge that of the DCs not that of the normal cells. Here, the symptoms (spin structure) of the DC (not the spin structure of the NC) coherently coupled with the symptoms (spin structure) produced by the medicinal molecules or the NAM. This is possible because of QETM. Therefore, for QEMT to work, the symptom (spin structure) around NAM produced due to the medicinal molecule like ASC (for our present discussion) must commute with the symptom (spin ordering) produced by the diseased cell and in that case NAM can only coherently interact with the DCs because of adequate spin structure pattern (symptom) they recognize each other [30]. This coherent coupling between the spin structures of the two types of system (NAM and DC) is possible because of the LCP principle. Thus one may say that only because of quantum entanglement, the LCL principle in homeopathy works and *vice versa*. That is, the LCL principle is of quantum mechanical origin where knowledge of chemistry, biology along with the quantum concept of dualism of particle and wave of physics are involved.

It would be worthwhile to mention at this point that the probability of relation between two separate systems was discussed mathematically by Schrodinger [34, 35]. If there is a common observable in the two systems (in our case the sin/ion transfer between NAM and the diseased cell and between NAM and medicinal molecules to get the signature of the medicinal molecules) and when such two observable are related coherently to some of their states of the two systems, by some definite common observable (ions/sins transfer in both the MAM and DC systems) one to one correspondence persists as time advances and the observables of the first system (say NAM) change their ions/electrons in the way that the observables in the second system (say in the DC) undergo a certain contact-transformation [36, 37]. Definitely the situation is complex executing a new field of research, called Quantum Biology [38, 41] (where physics meets biology), which is still in the developing state. Further, research is required in this direction. The principle of Similars or "like cures the like" rule is a universal one with its foundation on quantum mechanism.

D. Principle of Similars (LCL) and the use of Arsenicum Album against corona infection (an example)

As mentioned above, the diluted medicine (Homed) actually does not contain material molecule ASC and its toxicity is removed but the NAM formed in the Homed contains the signature of the medicine molecules (ASC). The symptoms, appearing in a normal healthy man when the pure medicine molecules ASC is consumed by a healthy person exhibits some symptoms to be cured by the NAM that had earlier been produced in the medicine produce by medicinal molecule (ASC). In this case the CDP around NAM interact with that of the diseased cells and protons/electrons transfer takes place to normalize the diseased cells caused by ASC. The NAM electrons forming the CDP around NAM recognize the DC electrons because of quantum coherence an entanglement as mentioned above. The NAMs in the Homed within the body (because quantum coherence, a quantum mechanical phenomena) recognize the same signatures even if the two parent systems (NAM and the ASC medicine molecules) are separated and the NAM carry its (ASC's) signature within the homed at all potentials with varying potency. For interaction between the spins of CDPs of the patient's DCs and those of the CDP of the NAM carrying the signature of ASC, are coherently coupled. That is the signatures (electron patterns) of embedded in NAMs should be similar to those exhibited by the diseased (not by the normal cells as they are not coherently coupled or entangled with those of the DCs) patient to be cured by the said NAMs present in the Homed which had already been prepared from medicinal molecules (ASC) using standard procedure. If these signatures are different from those of the CDP of the NAM created by ASC, there will be no NAM-diseased cell interaction (no coherence, no entanglement of the electrons/protons of the states in NAMs and those in the DCs) and hence no cure of the disease. Here lies the justification of the well known principle of Similars or LCL. So because of quantum entanglement the spins around NAM recognize those around the DC. Thus acquiring the signature of the medicinal molecule ASC by NAM during succession process is a quantum mechanical phenomenon.

A deeper understanding of the LCL principle is complicated involved with quantum mechanical phenomena as mentioned above. For a qualitative analysis of this mechanism (or why this principle is universally valid), let us call the symptom (signature) of ASC carried by NAM in the Homed produced with molecules ASC be denoted by $(NAM)_{\uparrow\downarrow}$. The disease of the patient showing the symptoms $(NAM)_{\uparrow\downarrow}$ can be cured by the Homed produced from ASC. When medicinal molecule ASC produces the disease in a healthy man exhibiting symptoms (\uparrow and \downarrow), the entropy of the affected diseased cells (DCs) with its constituents increases (due to increase of disorder). This entropy change is associated with information change communicated to the brain through neurons [11]. The spin/charge distribution pattern with the signatures (\uparrow and \downarrow) of the typical Homed would only interact (or a resonance occurs) with the corresponding CDP of the DCs producing the similar symptoms (\uparrow and \downarrow). This indicates the origin and validity of the so called LCL principle in case of Home prepared from ASC. As the $(NAM)_{\uparrow\downarrow}$ produced from the medicine using ASC possesses the same signature as that of the medicinal molecule, it can recognize the electrons present in the CDP around the DCs because of identical spin structure (patterns

and symmetry) of the CDP and $NAM_{\uparrow\downarrow}$. Here both spin structures, one produced by ASC in the Homed during succussion and the other in the body around the DC, operate coherently (i.e. quantum mechanically entangled, discussed below) which is important for curing the disease by Homed produced from ASC. Such coherence was also reported in water solution [20, 42].

E. LCL principle and justification in favour of using Arsenicum Album against Corona infection

On the basis of the LCL principle, one may examine if ASC might be a suitable therapeutic agent against the Corona infection. ASC is toxic. As discussed above, the dilute Homed produced from ASC does not contain arsenic molecule in the medicine either in the molecular or atomic form. Only the signatures of arsenic are carried by NAMs in the medicine which cures the infection or the disease. Most common symptoms of arsenic poisoning [43, 48] may include: (i) red or swollen skin, (ii) skin changes, such as new warts or lesions, (c) abdominal pain, (d) nausea and vomiting, (e) diarrhoea, (f) abnormal heart rhythm, (g) muscle cramps, (h) tingling of fingers and toes, (i) Long-term exposure to arsenic can cause more severe symptoms. Following symptoms are also experienced after arsenic exposure viz. (i) darkening skin, (ii) constant sore throat, (iii) persistent

digestive issues.

Again, (a) the most common symptoms of Corona infection are: fever, tiredness, and dry cough; (b) less common symptoms: aches and pains, sore throat, diarrhoea, conjunctivitis, headache and loss of taste or smell, a rash on skin, or discolouration of fingers or toes and serious symptoms: breathing or shortness of breath, chest pain or pressure, loss of speech or movement.

Fever is a common symptom of many diseases. The symptoms of a disease might also be patient dependent. Moreover, there are almost twenty six types of corona type virus [47] and can be divided into four groups: Alpha, Beta, Gama and Delta. This division has been made on the basis of their different possible genetic changes. Depending on the host and environment their genetic modulations or mutation might occur. They have different antigenic cross-reactivity and genetic makeup might cause different symptoms in the patients' bodies.

So it appears, considering the LCL, that ASC or its equivalent might be useful for fighting against the corona and related diseases. Since Corona virus might undergo different genetic changes (mutations) with corresponding changes of symptoms, use of Arsenicum appears to have special importance. Other medicines exhibiting similar or different symptoms might also be helpful.

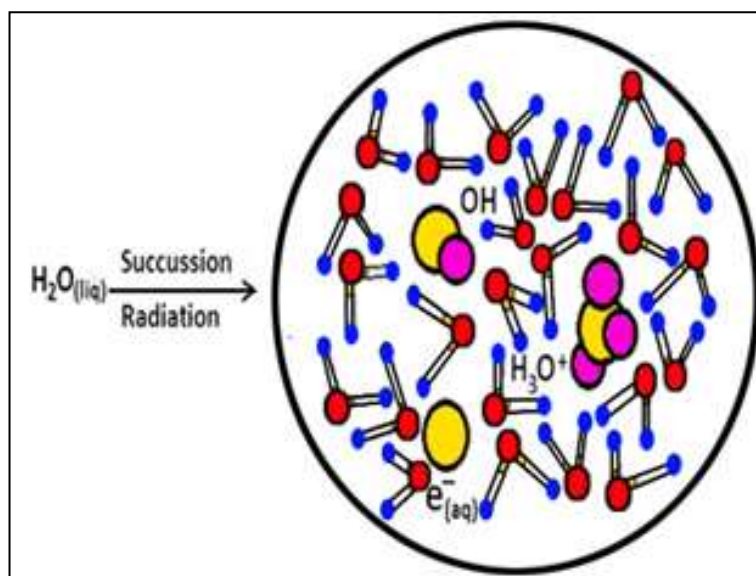


Fig 1: A representative picture of aqueous electrons (yellow balls) coupled with other H-bonded ions forming the dynamic NAM embedded in the homeopathic medicine. Copious aqueous electrons are formed during preparation of diluted medicine by succussion process.

Conclusion

The hydrogen bonded nano and micro clusters (NAMs) coupled with aqueous electrons and other ions carry the signature of the medicine which cures the disease. The body's Homeostasis (self-healing), associated with T-cells, is stimulated by Homeopathic medicines which are generally prepared following the principles of Similars (*Similia Similibus Curentur*, or "let likes be cured by likes." LCL). We have argued for quantum mechanical background of this principle used in homeopathic medicine and no alternative to this principle would be applicable to prepare Homed and cure the disease. This is because, there will be no quantum coherence between the electronic/ionic states surrounding NAM and those of the diseased cell spin distribution patterns. Using the LCL principle, the use of Arsenicum album or some other Homeds might be justified for the cure of Corona virus infection. As high diluted

medicine contains no medicinal molecules, the toxic effect of the medicine molecule does not arise. Finally we must mention that the contents of the present work done are based on new ideas where the concepts of quantum mechanics (QM) have been adopted. QM is considered to be necessary to explain the LCL principle as well as the disease curing mechanism. For understating the mechanism of homeopathy, attribution of the incipient quantum origin of the LCL principle is inevitable. Present analysis might shade some new light for the introduction of quantum mechanism for enlightening the longstanding problem of dilute homeopathy.

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- Physicist John Bell wrote in his article entitled "Bertelsmann's socks and the nature of reality", p. 143 of *Speakable and unspeakable in quantum mechanics: "For EPR that would be an unthinkable 'spooky action at a distance'. To avoid such action at a distance they have to attribute, to the space-time regions in question, real properties in advance of observation, correlated properties, which predetermine the outcomes of these particular observations. Since these real properties, fixed in advance of observation, are not contained in quantum formalism, that formalism for EPR is incomplete. It may be correct, as far as it goes, but the usual quantum formalism cannot be the whole story."* And again on p. 144 Bell says: "Einstein had no difficulty accepting that affairs in different places could be correlated. What he could not accept was that an intervention at one place could influence, immediately, affairs at the other." [Downloaded from Bell J S. *Speakable and Unspeakable in Quantum Mechanics (PDF)*.1987; CERN. ISBN 0521334950)].
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