

Reflections on the fundamental nature of homeopathic potencies: Plasma, Langmuir Adsorption and Vitalism

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Background: There is a pressing need to develop methods and approaches that will identify the fundamental nature of homeopathic potencies. **Aims:** To bring together recent basic research on potencies, especially that using solvatochromic dyes, and to supplement these results with reliable observations made by Hahnemann and his contemporaries from the very beginnings of homeopathy, together with a detailed examination of the process of trituration and succussion coupled to dilution, in order to significantly limit the number of possible explanations as to the identity of potencies. **Methodology:** A mixture of lab based and literature studies such that as far as possible all verified and substantiated observations about homeopathic potencies have been examined. **Results and Discussion:** An understanding of the fundamental nature of homeopathic potencies that includes all known and accepted observations (*in vitro*, *in vivo* and clinical) is not realistic without embracing hypotheses involving the emergent properties of complex systems and in particular, vitalistic concepts. Using a vitalistic model it is possible to explain a wide range of seemingly unrelated phenomena - such as the polarising effect of potencies on solvatochromic dyes, the ability to use a range of materials such as water, lactose and cellulose as carriers of potencies, the administering of potencies by olfaction, the antidoting effect of camphor on potency action, the non-linear dependence of potency strength on volume as well as succussion level, the oscillatory behaviour of potencies and experimenter/observer/practitioner effects. **Conclusion:** A hypothesis in which homeopathic potencies can be seen as self-actuating and autonomous plasma generated by trituration and/or succussion and carried according to Langmuir adsorption models fits the known observations about potencies.