Discussion

Samuel Hahnemann was a scientist. His writings appear to reveal a fundamental belief in God, but in his day to day work he was humanistic in outlook and had great difficulty reconciling human suffering with the medicines available to him. His writings indicate how distressed he became when he perceived the damage that inappropriate treatment inflicted on vulnerable patients. His indignation was heightened by the knowledge that death and suffering caused by poor medical treatment, could be prevented, if medical practice was more self-critical and the knowledge base was more reliable.

One of the few medical writers that Hahnemann had respect for, was the English Physician Thomas Sydenham. Sydenham had been working and writing around 140 years earlier, but had made a conscious decision to apply the scientific principles of Francis Bacon. The epistemology of clinical medicine relies heavily on observations of how ill patients respond to a treatment. Reliable conclusions can be drawn only when comparable cases are treated systematically, with preparations that are standardised. In addition the clinical observations require to be confirmed in comparable cases and compared to similar groups of individuals who are either treated differently, or left untreated.

Sydenham provided ways of identifying and classifying illness into diagnostic groups and also conducted clinical trials. His most notable discovery concerned the use of Peruvian bark (quinine) in the early clinical stages of infection (epidemic haemorrhagic viral fevers, plague). By carefully recording the circumstances of each case, he was able to determine that the mortality was much higher in patients whose fever was suppressed with quinine in the first stages of the infection.

These observations were mirrored during the 1918 Spanish 'flu, when American Homeopaths noted a much higher mortality in patients treated with Aspirin than those treated with homeopathy.

Hahnemann recognised that Peruvian bark (Quinine, or Cinchona) like many other materials had a role in medicine. However, he realised that most medicines were being misused in his own times. He was aware that a lack of consistency and rigor were largely responsible for poor practice. He was also aware that a scientific approach to clinical knowledge was possible, provided that doctors could standardise treatments and draw reliable conclusions.

Sourcing and Developing the Main Ideas

You will recall that Hahnemann formulated three key principals:

1. The Principle of Similars
2. The Principle of the Minimum Dose
3. The Principle of the Single (Individualised) Remedy

These ideas were drawn together as a result of several fields of study. The *Principle of Similars* had been proposed in a very basic form by Hippocrates in 500 bc (who treated chronic diarrhoea with a plant that had the capacity to induce diarrhoea - Aloes) and the medieval alchemist Paracelsus who applied the doctrine of signatures to medicinal plants. By experimenting directly with Cinchona on himself, Hahnemann realised that the action of quinine conformed to the *principle of similars*, in that it induced many of the symptoms that it can be successfully used to treat. Symptoms of the 'ague' which is a kind of chronic post-infective debility.

The principle of the minimum dose arose from a different set of influences. Hahnemann was a proficient chemist and was widely recognised as one of the finest translators of new works in the field of chemistry. During the years of the enlightenment, there was an explosion of new knowledge in the field. At this time, newly discovered elements were being isolated from their ores and compounds. An awareness of quantitative chemistry was influencing the scientific measurement of reactants in experimental work.

Hahnemann realised that many substances with a potential role in treatment were being given in quantities that were inappropriate. As a consequence many patients in those times, were harmed or killed, as a result of toxic exposure to drugs (which frequently contained things like mercury and arsenic.)

It seemed logical to Hahnemann, that these materials should be subjected to scientific enquiry and he decided to prepare the medicines to different dilutions, so that they could be tested for their clinical effects at different concentrations. With his sound grounding in chemistry and pharmacy, he was able to prepare insoluble substances by means of *trituration*. He used a highly standardised preparation method, which is still in use to this day.

The liquid dilutions were prepared in stoppered phials. One drop of the mother tincture (or the first liquid dilution made from a *triturated* solid) was added to 99 drops of diluent (water / ethanol mixture). This was shaken by hand through an angle of 90 degrees and made to collide against the leather bindings of a book. Then a single drop of the resulting mixture was added to another phial containing 99 drops of diluent. This one-in-one-hundred protocol is called the *centessimal* scale of dilution.

Hahnemann expected to find a level of dilution in which the medicinal properties of the substance were preserved, but at a level which prevented toxicity. He also expected that, if he continued to dilute, the concentration would become so low that the medicine would lose both its toxic and its medicinal effects.

Surprisingly, what Hahnemann found was that certain people with special sensitivity to the remedy, continued to respond to these preparations, no matter how far down the dilutional scale they were taken.

Clearly this raises many questions both about the material thresholds at which biological systems respond and also the very nature of these ultra-dilute preparations.

You will recall that the third key principle in homeopathy is the concept of *the single remedy*. It was common practice in Hahnemann's day for pharmcists and doctors to make up compound medicines on the basis of very notional recipes. These recipes contained active ingredients with different modes of action and like all herbals and drugs, they were essentially manipulatory. ie they materially interfere with biological processes and modify the physiological functions that are dependent on these processes.

When we are dealing with the effects of substances in vanishingly low concentrations, it is clear that, if there is a genuine biological effect, it must be mediated in another way. Edward Calabrese is a contemporary toxicologist who has identified that exposure to environmental toxins confers some protection to living organisms that are subsequently confronted with larger exposures.

Homotoxicity is a branch of therapeutics which exploits this phenomenon. It has been established that experimental animals artificially 'poisoned' with lead acetate or arsenic, will succeed in eliminating more of the toxin if they are first exposed to potencies of lead or arsenic. Post-mortem examination reveals lower tissue concentrations of the heavy metals in the treated animals, as compared to control groups. It appears that biological systems respond to *microdoses* and that tiny quantities of a toxin stimulate various cellular threshold effects.

This does not fully explain the apparent effect of highly diluted remedies when they are applied in illness. Ill people are usually in a state of flux, however. Physiologically and biochemically they are in alternating states of compensation - characterised by instabilities in their temperature control; vascular perfusion; bronchial tone; heart rate; renal function etc. In illness, these physiological systems are hyper-reactive and highly sensitive to tiny stimuli.

So when Hahnemann continued to observe effects from highly dilute substances, he found that the therapeutic responses were more dramatic in individuals who were 'sensitised' to the remedy by their illness, than those who were well.

In order to establish the nature of the systems-disturbance relevant to each remedy, (and hence their true homeopathic indications) Hahnemann tested each substance on healthy volunteers, using material doses. He then carefully recorded the specific symptoms that each material could evoke in these healthy individuals (Proving experiments ger. prufung). The data from the provers was collated into a symptom-profile for each remedy and these were published in a text entitled *Materia Medica Pura*.

It is important to realise that even biochemically simple substances have systems-effects that are reflected at many different levels in the living organism. For this reason, the concept of the single remedy which is used as a systems-stimulus is understandable - as long as we dispense with the idea that we are attempting to manipulate a pathway or receptor. The mechanistic models of pharmacology don't always fit neatly with systems-based medicine.

If these very fine stimuli are prescribed on the basis of a sensitised system: to mirror and stabilise a flux-state, it is clear that they need to be selected as 'systems-match' for the illness. Achieving this with the **smallest dose** of the **most specific substance** is the highest ideal in medicine.

Principle of Similars	Minimum Dose	Single Remedy	Avoidance of Suppression
Hippocrates		Hippocrates	
Paracelsus		Paracelsus	Sydenham
Hahnemann's reading (Library at Hermanstadt and translation work)	Hahnemann's observations of medical harm from drug toxicity	Hahnemann's skepticism regarding contemporary compound treatments	Hahnemann's reading and clinical experience
Cinchona Experiment (supported the theory)	Standardised dilution methods and clinical experiments. (Showed some surprising outcomes from infinitessimal doses.)	Cinchona experiment showed one medicine can be associated with complex symptomatology	Clinical experience of many homeopaths, showing negative effects of drug suppression
Subsequent Clinical Experiments	Clinical application of eg. Tiny material doses of Belladonna in Scarlet fever epidemics	Proving experiments of around 100 remedies over the following 35 years	
(Jenner - vaccination)	Protective effects from small material doses of toxins studied by Edward Calabrese & others.	(Conservative prescribing frequently taught in orthodox medicine but rarely observed)	
James Tyler Kent, explored the application of similars to mental, emotional, typological, behavioural features in the case. The so-called constitutional indications.	James Tyler Kent potentised well beyond the molecular threshold and treated with ultramolecular potencies. Clinical effects continued to be seen.	Often based around predicted individual sensitivity.	
Some modern drugs eg. Capsaicin (Capsicum extract) for treatment of post-herpetic neuralgia.	Clinical trials with ultramolecular potencies, (including Reilly et al.) Showing statistically significant effects from ultramolecular potencies.		
	Fractal models for the self organisation of fluid structures	Recent discussion of treatments individualised to genetics of the patient.	

SAQ 1.4

Before proceeding to the next section. Check your understanding of the historical background to homeopathy, by answering the following questions:

1. What are the three main principles that underpin homeopathic medicine?

2. Which people in the history of medicine contributed to these ideas?

3. How did Hahnemann come to re-engage with the *Principle of Similars* as a viable treatment model?

4. What motivated Hahnemann to explore the *Minimum Dose* principle?

5. What aspects of Hahnemann's 'exploration' of these principles can be considered scientific in their approach?

6. What do you understand by the term *Proving Experiment*?

7. How does the concept of the *Single Remedy* contrast with other tendencies in medicine?

8. How can homeopaths support the use of a single remedy in complex illness?

9. Which techniques of remedy preparation have been preserved in modern homeopathic pharmacy method?

10. What do you understand by the term *Homeotoxicity*?