# Hahnemann and the Explanation of the Homeopathic Phenomenon

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**Abstract**: Having discovered the homeopathic phenomena and the basic phenomenological laws of homeopathy, Hahnemann sought to explain these phenomena and laws by postulating causal mechanisms involving a certain "spirit-like" element. This article tries to identify the scientific and philosophical perspective from which Hahnemann worked out his explanatory theory. It is compared with other approaches to the issue of the explanation of the homeopathic phenomena that lately have become fashionable.
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## Introduction

Scientific theories can generally be classed in two groups, according to the nature of their propositions. When these propositions concern exclusively entities and processes directly observable, the theory is said to be phenomenological ("phenomenon:" that which is apparent). Theories of this kind aim to describe the phenomena systematically and to establish the basic laws connecting them. Such phenomenological laws allow us to predict the occurrence of a phenomenon from the occurrence of certain others, but afford little insight into the reasons why the phenomena are interrelated in certain specific ways. Progress in this direction can be made by framing hypotheses about the deeper causes of phenomena, generally involving the postulation of unobservable entities and processes. If such hypotheses are sufficiently elaborated and concatenated, they form theories of a different type, the *constructive* or *explanatory* theories

Given the nature of their laws, phenomenological theories are less speculative and more directly amenable to experimental test and confirmation than constructive theories. As a result, they are generally more stable, as compared with theories of the latter kind. However, they pay a high price for this advantage: a substantial loss of explanatory power. Constructive theories are much better in this respect, but their justification raises difficult epistemological problems.

We argued elsewhere that homeopathy, as developed by Hahnemann, encompasses theories of both kinds, and that the phenomenological theory satisfies the main requisites for a genuine science, according to a contemporary approach in philosophy of science.[1,2,3] Our present aim is to offer a preliminary analysis of a complementary topic: the explanation of homeopathic phenomena. We attempt to identify the reasons that may have led Hahnemann to propose such a theory and compare his general theoretical perspective with alternative directions along which an explanation of the homeopathic phenomena could be sought. However, the details of Hahnemann's theory will not be discussed here. The following section presents some central notions, theses and problems about scientific explanation to the unspecialized reader.

## Scientific Explanations

The notion of scientific explanation constitutes one of the main topics in the philosophy of science. According to an influential approach, known as the *deductive-nomological* model of scientific explanation, to explain a phenomenon is to *deduce* the proposition expressing it from a law; and to explain a law is to deduce it from another, more general law, or set of laws.[4,5] Thus, to explain why the pressure of a certain mass of gas kept at constant temperature doubled when its volume was halved, we may show that this fact follows deductively from Boyle's law. This law can, in its turn, be explained by showing that it is a logical consequence of the laws of mechanics, coupled with certain assumptions concerning the molecular constitution of gases.

Although this theory of explanation is open to several objections, it contributes to clarify some common misunderstandings. First, scientific explanations are never *ultimate*. Any explanatory scientific disci-

pline must involve unexplained hypotheses, namely those forming the starting point from which the theories, laws and phenomena to be explained are derived. Secondly, the deductive-nomological conception does not uphold the common intuition that explanations necessarily involve "reduction to the familiar." Although it is true that the search for explanations is motivated by the search for intelligibility, it should not be assumed that this search necessarily brings us closer to what is "simple," "usual" or "intuitive" Inspection of the history of science reveals that the best explanatory theories are often those postulating unfamiliar, remote, and even non-intuitive entities and mechanisms. Take, for instance, Boyle's law, which offers a first-level explanation of relatively simple, observable gas phenomena, but requires for its explanation the highly theoretical, complex laws and assumptions of statistical mechanics. [6,7]

Most of the objections leveled at this model of explanation hinge on the claim that deductive subsumption to laws *is not a sufficient condition* for a genuine explanation.[7,8] Many contemporary philosophers have argued that genuine explanations involve the specification of a *causal mechanism* by which the event or regularity is brought about.[9] With the "aid of postulated, unobservable entities," good explanatory theories "tell 'a likely story' behind the appearances" (ref 8, p. 80), helping us to understand why particular facts happen in specific circumstances, and why facts exhibit patterns of regularity (i.e., obey certain phenomenological laws). Although this approach enriches considerably the notion of explanation, it raises several philosophical difficulties, concerning for instance the notion of cause or the inclusion of unobservable items in our ontology.

Whatever the case may be, it is undeniable that most theories in the mature sciences do provide causal explanations by postulating objects and processes not directly accessible to observation. In other words, they are constructive theories, aiming to afford us a sense of "understanding" the world. Besides their greater explanatory power, theories of this class typically display greater *predictive power* than phenomenological theories, yielding, for instance, the possibility of foreseeing phenomena of entirely new kinds. Also, the postulation of unobservable explanatory mechanisms enhances the *heuristic power* of a theoretical framework, by opening up new perspectives for theoretical and experimental advancement. Philosophers espousing a position called *scientific realism* argue that, although constructive theories go beyond what can be directly ascertained on the basis of direct experience, these virtues can be taken as supplying additional evidence capable of justifying them. Simplicity, unity, coherence, broadness of scope, compatibility with theories of neighboring domains also count favorably, they maintain. But the discussion of this issue belongs to the specialized literature. [7,10,11]

## Hahnemann and the Explanation of Homeopathic Phenomena

The phenomenological homeopathic theory put forward by Hahnemann in the *Organon* [12] consists of several laws stating *direct* links between homeopathic phenomena. A compact formulation of the fundamental principle of this theory can be found in paragraph 70: "[the homeopathic therapy] uses in appropriate dosage against *the totality of symptoms* of a natural disease a medicine capable of producing, in the healthy, symptoms as similar as possible." Hahnemann correctly realized that this phenomenological theory is scientifically autonomous and epistemically prior to any explanatory extension. Furthermore, he insisted that it is sufficient to homeopathic practice. (See, for instance, paragraphs 28, 54, 70, 100 and 144. Further details on this point can be found in reference 1.)

However, like the majority of philosophers and scientists, Hahnemann believed that the aim of science involves the explanation and not simply the prediction of natural phenomena. It is for this reason that he went on and proposed a constructive theory aiming to explain the fundamental phenomenological laws of homeopathy. As we learn from paragraph 28 of the *Organon* and from several other passages of his writings, Hahnemann was aware that this was a risky enterprise. He knew that theories going beyond the mere systematic description of phenomena are always essentially hypothetical. He accordingly regarded his own constructive theory as only "the most likely" (paragraphs 28 and 29), in face of the existing evidence.

Hahnemann's explanatory theory is often identified with vitalism, but this identification is simplistic. This point deserves some attention since the unsympathetic stand taken by contemporary researchers against Hahnemann's theory derives in part from its

identification with unqualified vitalism. It is, of course, true that Hahnemann belonged to the vitalistic tradition, but he framed several new hypotheses to take into account specific phenomena he was investigating. Thus, for instance, the process of preparation of homeopathic medicines was supposed to involve the production or "development" of a certain "spirit-like" element, akin to the vital principle, and capable of interacting with it in certain specific ways. Even though the general idea of vitalism is very old, with Hahnemann it has been integrated into a coherent, sophisticated theoretical structure, capable of reducing its vagueness. This represents a step in the right direction since the main flaw identified by philosophers of science in the vitalistic explanations is just their lack of precision.[5] The trouble is that theories with imprecisely defined concepts and laws are not amenable to experimental tests, which betrays their non-scientific character.

Furthermore, contrary to what is often advanced, it is not clear that vitalism has been invalidated by scientific progress. Contemporary biology is not vitalistic, to be sure, but this fact does not automatically preclude the postulation of vitalistic theories. Despite all the notable advances of biology, the phenomenon of life remains puzzling in several respects and theories of new types may well be needed for achieving a more penetrating understanding of living beings. We are not necessarily referring here to theories competing with contemporary biology on the same level, but to theories capable of providing complementary explanations, in the same way as, for instance, psychology goes further than neurophysiology in the explanation of mental phenomena. In science there are *explanatory "layers"* involving complex theoretical interrelations and interpenetrating, or partly intertranslatable, ontologies.

In what concerns homeopathy, it is conceivable that Hahnemann's theory, or some variant thereof, may at last prove useful when explanations of a deeper, broader or complementary kind are envisaged for pathogenetic and therapeutical phenomena. In particular, we may have to appeal to theories of this kind when *new classes of phenomena,* such as homeopathic phenomena, are added to the scientific *explanandum* of biology and medicine. Also, the possibility of non-literal construals of the key theoretical notions of Hahnemann's constructive theory should not be excluded out of hand.

The second major general objection leveled at Hahnemann's theory is that it does not fit into the theoretical framework of chemistry and physics. These scientific disciplines are implicitly taken as providing the ontological and theoretical basis from which all our understanding of the world should ultimately rest. The belief that biological phenomena should in principle be explained by these fundamental disciplines, or even by physics alone, represents a reductionist position. Two classes of explanations for the homeopathic phenomena should, thus, be clearly distinguished: *1) reductionist explanations,* purporting to show that the phenomena and phenomenological laws are consequences of chemical, physical or physico-chemical processes; and *2) original explanations,* postulating new kinds of entities and mechanisms as the causal determinants of the phenomena. Let us now examine the reasons that may have led Hahnemann to opt for the latter class of explanations.

When the molecular theory of matter gained quantitative contours and confirmation at the dawn of the twentieth century, it became clear that homeopathic phenomena could have no *chemical* explanation. This point was not clear in Hahnemann's time, but as an expert in chemistry he correctly foresaw it. Furthermore, as a first rate amateur philosopher he recognized the epistemic priority of the phenomena that he was convinced he had discovered. He was thus able to avoid the unwarranted conclusion drawn by some of his adversaries that the phenomena themselves were chimerical.

Hahnemann knew, of course, that given the enormous complexity of biological phenomena, the reality of homeopathic phenomena should not be admitted too lightly. He accordingly devoted the best of his efforts to experimental research. Secondarily, he set out to explain the phenomena, but without appealing to chemistry, devising an entirely new, autonomous theory.

Many researchers who acknowledge the reality of the homeopathic phenomena tend, however, to reject Hahnemann's original constructive theory, hoping to find their explanation in physics. Though in principle respectable — since no clear-cut argument exists excluding physical explanations for the phenomena — this position has often led to premature speculations and unwarranted proposals. Any fruitful analysis of this possibility obviously presupposes a thorough acquaintance with the complex and highly

mathematical physical theories. As a matter of fact, few of those who venture into this area fulfill this prerequisite. The majority of publications purporting to link homeopathy with contemporary physics contribute nothing but to further discredit homeopathy in the official scientific circles.

Brief reference to Hahnemann's view of the relationship between homeopathy and physics may shed light on several aspects of the problem. In Hahnemann's time, it was unanimously believed that Newtonian mechanics provided definitive underpinnings on which all science would ultimately rest. Notwithstanding its unprecedented success, this theory had a puzzling conceptual difficulty — the gravitational force, a central notion in the theory, was apparently incapable of being mechanically explained, in the strict sense of an explanation involving only contact forces and what seventeenth century philosophers called "primary qualities."

Two typical reactions to the problem of gravitation were: 1) to entertain the hope, as Newton himself did, that sooner or later a mechanical explanation would be found; and 2) to propose that the gravitational force is of irreducibly non-mechanical origin, forming a new ontological category. Hahnemann adopted the latter position, as his comments in the footnote to paragraph 11 of the *Organon* clearly imply. In this same interesting footnote he extended the position to the magnetic force, about which a similar debate existed. Thus, Hahnemann regarded the gravitational and magnetic forces as non-mechanical. (Notice that this stand has been vindicated by physics.) Taking then "mechanical" and "material" as nearly synonymous, as was still common in his days, he concluded that such forces were "nonmaterial." As judged from a present-day perspective, this issue is largely verbal, but the point is essential to explain why Hahnemann maintained that the vital force was nonmaterial. In that footnote he drew an explicit analogy between the vital force and the gravitational and magnetic forces (see also paragraph 269). Among the general points of analogy are the facts that all these forces are "invisible" and act at a distance without any contact between the bodies. Magnetic forces yielded the further analogy of being transmissible (magnetization of iron by loadstone; transmission of homeopathic medicinal power in substances) and selective (loadstone acts only on iron and a few other metals; dynamized medicines act only on the vital force).

It should be remarked, however, that even though Hahnemann has, in his efforts to explicate the central concept of his constructive theory, appealed to analogies with notions belonging to physics, he never tried to *reduce* that concept to these notions. In other words, he did not seek to explain homeopathic phenomena by appealing to physics.

The basic stuff of the world had traditionally been classified into two mutually exclusive and exhaustive ontological categories: matter (the extended, impenetrable substance) and spirit (the thinking, willing and sentient substance). The vital principle (that which gives life to beings, the *anima* of ancient philosophy) had often been put into the material ontological basket. Hahnemann apparently felt uneasy with this option, probably in virtue of the abovementioned analogies. On the other hand, he thought that the vital principle should not be mistaken for the spirit (as we see, for instance, in paragraph 9 of the *Organon,* and in several other places in which he talks about the spiritual element in man). He resorted then to the intermediary and innovative option of qualifying the vital force or principle as "spirit-like" *(geistartige; Organon,* passim).

This position is not only methodologically sound, but also recommended by a careful comparative inspection of classical physics and homeopathy. In the same way in which homeopathic phenomenological laws are not explainable by molecular chemistry, it can be shown that they cannot be explained by Newtonian mechanics or any other classical theory. In particular, the now fashionable attempts to explain the action of homeopathic medicines in terms of "energy," "fields," "waves," "vibrations," etc. seem to be incapable of rigorous justification, serving at most as metaphors to be used with caution in some contexts.

In what concerns *contemporary* physics, the most that can be said is that its fundamental theories (especially quantum mechanics) seem no longer to exhibit some of the conceptual and theoretical traits of classical physics that impeded homeopathic laws from being physically explained. Despite its astonishing predictive success, quantum mechanics does not afford any intuitively clear picture of matter, as classical theories did, rendering the ontological comparison with putative constructive homeopathic theories much more difficult. Notwithstanding, some of the original theoretical features of quantum mechanics, such as

the presence of indeterminate and non-separable magnitudes, faintly suggest that theory is not incompatible with the occurrence of homeopathic effects. But there is a wide gulf from this tentative remark to the conclusion that the theory has positively explained or will be able to explain these strange effects. Apparently, no concrete, non-metaphorical and professionally articulated connections have as yet been established.

The theories of physics have been developed to deal with specific (and arguably simpler) classes of phenomena, and it is naive to expect that they may, by chance or inexpert manipulation, be adapted to explain homeopathic phenomena. Also, physicists will not corporately engage in this research while the evidence for the reality of the homeopathic phenomena is not overwhelming. The consolidation of experimental research in homeopathy is, thus, essential not only to improve its therapeutic efficacy, but also to trigger fundamental research, possibly (but not necessarily) involving physics.

## Concluding Remarks

For the time being, Hahnemann's old theory deserves to be regarded with renewed attention, as providing not only a coherent, original attempt to explain homeopathic phenomena, but also, perhaps, a valuable point of departure for further research. The founder of homeopathy had full right to try a new approach, introducing new kinds of entities and mechanisms, since he always promoted empirical adequacy, logical consistence, coherence, and unifying and explanatory power as the ultimate criteria on which his theory was to be evaluated. Also, it must be kept in mind that occasional ontological broadening is part of the development of any area of science.

Since today we no longer equate "material" with "mechanical," we are not compelled, as Hahnemann was, to regard the vital force as nonmaterial. But, again, this does *not* mean that it is *reducible* to the ontologies posited by the theories of contemporary physics. Furthermore, such a reduction, albeit in principle possible, is *not* requisite for the scientific validation of Hahnemann's constructive theory. Perhaps the overall lesson of the modem philosophy of science is that human imagination and ingenuity are allowed complete liberty in developing science, provided the above-mentioned criteria and other of lesser importance, are constantly kept at the foreground.

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