

HOMOEOPATHY AND MODERN MEDICAL SCIENCE*

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INTRODUCTION

Homoeopathy, a therapeutic method discovered in the early nineteenth century by the German physician, Samuel Hahnemann (1755-1843), has been practised by groups of physicians in most countries of the world for the past century and a half.

It was introduced into the United States in 1825. The American Institute of Homoeopathy (the first national medical association in this country) was founded in 1844. In the latter decades of the nineteenth century a large number of homoeopathic schools and hospitals existed there, and many states had separate licensing boards for homoeopathic physicians. Homoeopathic medical education was recognized as equal to allopathic.† And today, since the separate homoeopathic medical schools and licensing boards have disappeared, the homoeopathic M.D. has the same education as other physicians, passes the same examinations, and has the same qualifications.

While this therapeutic method is practised by only a minority of physicians, in the United States and elsewhere, it is experiencing a resurgence in all countries. Younger physicians are attracted to it not only for its therapeutic efficacy but also because of the absence of any problem with the 'side effects,' 'adverse reactions,' and iatrogenic diseases which increasingly plague conventional medicine.

In many countries steps have been taken to strengthen Homoeopathy's legal position. The most recent instance is the new drug law in the German Federal Republic (1978) which establishes a separate register for homoeopathic drugs and thus affords them legal protection. In England the Parliament adopted the Faculty of Homoeopathy Act in 1950, incorporating the faculty of the Royal London Homoeopathic Hospital and empowering it to issue diplomas of competence in Homoeopathy; the National Health Service reimburses homoeopathic physicians for treatment. In France the official pharmacopoeia has a separate section for homoeopathic medicines. The U.S.S.R., Rumania, and other countries of Eastern Europe give state support to homoeopathic clinics. In Pakistan the government recognised Homoeopathy officially in 1965 and has allocated funds for establishing homoeopathic colleges; homoeopathic prescriptions are also reimbursed under the

*The author would like to express his gratitude to the late W. W. Young, M.D. and to Prem Mital, N.D. who did some of the research upon which this study is based.

†In the following pages the words, 'allopathic medicine,' 'conventional medicine,' and 'orthodox medicine' are used interchangeably.

national health service. India has a large number of homoeopathic colleges, many of which are supported by the state governments or the federal government. In 1970 the government of Sri Lanka (Ceylon) passed a Homoeopathy bill which accorded official recognition to this method of practice. Mexico has several homoeopathic medical schools, both public and private, of which the leading one is the Escuela Nacional de Medicina Homoeopatica. The Greek government has recently taken an interest in Homoeopathy, and the 31st International Homoeopathic Congress (1976) was held in Athens under the auspices of the Greek Ministry of Culture and Science. In Brazil the government-financed Federal Medical School has a professor of clinical Homoeopathy.

And yet, despite the evidence of worldwide interest in Homoeopathy and the official support given to this method of practice in a number of countries, it still remains largely a mystery to the physicians who do not employ it themselves.

This short treatise aims to present the principles of Homoeopathy in a way which will be intelligible to allopathic physicians and medical students trained in allopathic medical schools. Thus the ensuing discussion is largely in the language, and based on the concepts, of allopathic medicine.

After a statement of homoeopathic principles, there follows a series of sections exemplifying these principles in terms of allopathic concepts, investigations, and practices. Another section discusses homoeopathic clinical experience. And the conclusion presents an overall contrast between Homoeopathy and Allopathy with particular reference to the principles of scientific method.

I. THE DOCTRINAL BASIS OF HOMOEOPATHIC PRACTICE

Homoeopathy differs from Allopathy in possessing a precise set of principles governing diagnosis and treatment. The physician who does not follow these principles more or less accurately cannot be said to practice Homoeopathy, even though he may on occasion employ homoeopathic medicines.

An American physician, Ian Stevenson, wrote in 1949 that "the basic laws of health and disease" have not yet been disclosed. Indeed, "the search for these laws has hardly begun. No discipline can claim a greater array of equipment by which its research is carried on, yet none is inferior to medicine in organizing its knowledge into coherent principles."¹

This critique of allopathic medicine is a useful point at which to commence an examination of Homoeopathy—which is the mirror image of the above picture, having always insisted on the necessity of practising medicine guided by a set of principles of disease and health. Homoeopathy has always adhered to a set of assumptions about the functioning of the human organism in health and disease, the nature of its relationship to the external world, and the effects of the medicines used to treat disease. Since these assumptions are

¹ Ian Stevenson, M.D., 'Why Medicine is Not a Science,' *Harpers*, April, 1949.

quite precise, the rules of homoeopathic practice are also precise.

Thus the first point to be borne in mind is that Homoeopathy consists of a body of principles forming a coherent whole. These principles have been tested in practice for about 175 years, and the homoeopathic physicians feel that their scientific validity has been conclusively demonstrated.

While the application of these principles has expanded somewhat from decade to decade with the entry of new medicinal substances into homoeopathic practice, the principles themselves have not altered.

The purpose of these principles, and of the rules of practice emanating from them, is to enable the physician to discover for each sick person the medicinal substance which most closely meets his needs.

Thus Homoeopathy is a system of pharmacological medicine, a set of rules for administering specially prepared drugs to sick people and thereby making them well. While surgery, diet, exercise, etc. are very important for health and are often recommended by the homoeopathic physician, they have nothing to do with the homoeopathic doctrine itself which is a set of rules for administering drugs.

Strict adherence to these rules enables the conscientious and painstaking physician to prescribe for each patient the precise medicine which will act curatively in his case.

Homoeopathy views the living organism as unceasingly reacting to its environment, attempting to ward off danger and repair damage. Thus, what is called 'sickness' actually represents the organism's striving after health. The patient's symptoms are not the impact of some morbid stimulus on his organism but are the reaction of the organism to the morbid stimulus.

One corollary of this assumption is that all illness is 'general'—representing the curative effort of the whole body. Homoeopathy does not recognize the existence of 'local' illness. It does not admit that several such 'local' illnesses can coexist in the body. Illness is always 'general,' and the patient can never suffer from more than one illness at a time, however many local manifestations this one illness may yield.

A second corollary is that the symptoms, however painful and undesirable, are beneficial phenomena, since they indicate the pathway taken by the organism in its attempt to restore health.

A third corollary is that the symptoms are more important for diagnosis and treatment than are the structural or material alterations in the organism. This is because symptoms are chronologically prior to structural changes and lead the way to the structural changes.

Hence the homoeopathic physician undertakes to promote the curative effort of the organism indicated by the symptoms. The homoeopathic therapeutic doctrine shows him how to assist the organism in this self-healing effort. It is a *set of rules* enabling him to select the medicine which, when administered to the sick person, will stimulate his self-healing effort along the lines already adopted.

The first of these rules is that the medicine must be prescribed according to the 'law of similars'—meaning that the appropriate remedy for each sick person is the substance which would give rise to precisely his set of symptoms if administered to a healthy person.

The concept of treating with 'similars' is very ancient and was resurrected in the early nineteenth century by Edward Jenner's use of cowpox vaccination as a preventive of smallpox. The 'similar' cowpox was seen to confer immunity against smallpox. Later in the century Pasteur developed a vaccine against rabies which was made from the dried spinal cords of rabbits dead of rabies—thus, also a 'similar'. In the twentieth century immunization techniques have been developed for yellow fever, plague, poliomyelitis, and other diseases: the principle of treatment by 'similars' received extensive application.

In the above instances the 'similarity' is between the causal agents of the diseases: rabies in rabbits, rabies in man; cowpox and smallpox, polio in monkeys, polio in man, etc. Homoeopathy investigated this interpretation of 'similarity' in the 1830's but rejected it in favour of similarity, not of cause, but of *symptom*.

To clarify, the powers of medicines are discovered in the homoeopathic school by administering these medicines in very small quantities to healthy persons for an extended period of time—weeks or months. This is called 'proving' the medicine, from the German word, *Pruefung*, meaning 'test' or 'trial.' Every substance in the world—animal, vegetable, or mineral—produces its own specific and peculiar set of symptoms when administered systematically to healthy persons. The literature of the homoeopathic school consists of such collections of the symptoms of about 1500 medicines.

Hahnemann was led to his discovery of the rules of Homoeopathy by his curiosity about the reason for the curative effect of quinine in malaria. He experimented on himself, taking quinine in moderate doses for a period of time, and found that he manifested the typical symptoms of an attack of malaria. From this he concluded that quinine is curative in malaria through its ability to generate the typical symptoms of this disease.

The homoeopathic medicines include many substances used traditionally in Western medicine—Belladonna, Aconite, Colchicum, Camphor, Veratrum, Mercury, Sulphur, Digitalis, Nitroglycerine, Arsenic, Gold, Lead, Ergot, etc. (Many of which are still in use today), but to them have been added hundreds more, including some—such as Silica or Sodium chloride (table salt)—which have not been regarded by Allopathy as possessing therapeutic powers.

The provings of these substances yield groups of symptoms which define precisely how the healthy organism reacts to the specific stimulus represented by each such substance. And these proving-symptoms thereby indicate precisely how the given substance is to be used for treatment. Since the symptoms of the sick person represent his curative reaction to the morbid stimulus, the most effective way to cure him will necessarily be through prescribing

the substance which intensifies these curative symptoms.

When confronted with a sick person, therefore, the homoeopathic physician first undertakes to elicit from him all his symptoms. This is a lengthy and complex process, requiring more time and effort than the anamnesis performed by the non-homoeopathic physician. He will inquire into the patient's past history, and perhaps the medical history of his parents and siblings, to obtain a full picture of his medical background.

Then the physician investigates the literature of the provings to ascertain precisely which substance produces a set of symptoms identical with that of the patient. This is the indicated remedy because it will intensify the incipient healing process. The patient's symptoms represent the commencement of this healing process, and the medicine generating these symptoms is the one which helps carry through the healing process to cure (or to the next stage of recovery).

The use of one single remedy at a time is preferred, and considered better Homoeopathy. By finding the one remedy whose symptoms match the totality of the patient's symptoms, the homoeopathic physician is prescribing the one remedy which meets the needs of the patient's whole organism. This makes Homoeopathy a holistic mode of practice.

Although the homoeopathic physician is guided by the patient's symptoms, he is not prescribing 'symptomatically.' He treats, not the patient's symptoms, but his whole organism—whose needs are made manifest through the totality of his symptoms.

The homoeopathic physician must use the 'minimum dose.' The reason for this rule is easy to understand. When medicines are employed according to the principle of similars, a large dose will tend to exacerbate the patient's existing symptom-pattern. Only a 'minimum dose' will effect cure without a severe aggravation of the patient's symptoms.

Thus it is customary in Homoeopathy to talk of Hahnemann's three rules of prescribing: (1) strict adherence to the law of similars, (2) the single remedy, and (3) the minimum dose.

It must be confessed, however, that the meaning of 'minimum' in this context is ambiguous in view of the homoeopathic principle that medicines become more powerful with greater dilution. Hahnemann himself lowered his doses to thousandths and millionths of a grain, causing allopathic physicians in the nineteenth century to scoff at Homoeopathy's supposed use of placebos. It was only with the twentieth century's discovery of hormones and other substances which are also effective in microscopically small quantities that allopathic physicians have to some extent ceased deriding the homoeopathic 'high dilutions.'

Hahnemann claimed that these high dilutions are effective because the sick person is ultra-sensitive to the action of the similar remedy. He wrote, as early as 1810, that "there are patients whose impressionability, compared to that of unsusceptible ones, is in the ratio of 1000 to 1."

This ultra-sensitivity of the sick persons to the 'similar,' together with the stimulant effect of the similar remedy on the reactive process in the organism, means that the correct homoeopathic prescription is often followed by a momentary aggravation of the symptoms.

The homoeopathic use of the small dose may be viewed from a different angle. Hahnemann discovered that any medicinal substance gives rise initially to a set of 'primary' symptoms, followed in time by a different set of 'secondary' symptoms more or less the 'opposite' of the 'primary' symptoms. If a large dose is used, the 'primary' symptoms are prominent, and the 'secondary' ones (representing the reaction of the organism) are weak. If the dose is small, the 'primary' symptoms are less apparent, and only the 'secondary' ones appear. Thus it is customary to speak of the 'opposite' effects of large and small doses.

In the light of this discussion, the homoeopathic small dose is seen to be the one which, without initially depressing the organism, stimulates its reactive healing power.

The only major addition to Hahnemann's original doctrine is known as Hering's Law in honour of its discoverer, Constantine Hering (1800-1880) of Philadelphia—called the 'Father of American Homoeopathy' for his many valuable therapeutic contributions.

Hering's law holds that as a disease passes from an acute to a chronic form the symptoms move from the surface of the body to the interior, from the lower part of the body to the upper, and from the less vital organs to the more vital. This is also true, in part, for the movement of symptoms in acute disease. Under correct homoeopathic treatment this movement is reversed, and the symptoms will then move from the more vital organs to the less vital, from the upper part of the body to the lower, and from the interior to the skin. Furthermore, they will disappear in the reverse order of their appearance.

An important corollary of Hering's law, and also of the homoeopathic principle that all illness is general, is that so-called 'mental' illness is only an extreme form of a general morbid process—one whose symptoms have penetrated (1) deep inside the body, (2) high up in the body, and (3) to one of the most vital organs, the brain. All disease processes have a mental aspect (mental symptoms) as well as a somatic one. So-called 'mental' illness is only a morbid process in which the mental aspects are more prominent than the somatic ones. Since the homoeopathic provings all yield mental as well as somatic symptoms, 'mental' illnesses are treated in Homoeopathy according to the same method that is used to treat 'physical' illness.

Another very important corollary of Hering's law is that skin eruptions and skin diseases are to be regarded as very positive manifestations, signs of passage of the illness from the inside of the body to the outside. Hence, topical applications are never used in Homoeopathy for the treatment of so-called 'skin diseases,' as such applications are considered to act suppressively, root-

ing the illness into the organism and causing it to assume a chronic form.

Hering's law is extremely important for homoeopathic practice since it outlines the natural course which must be followed by morbid and curative processes. As Hering himself stated: "Only such patients remain well and are really cured who have been rid of their symptoms in the reverse order of their development." The physician is not justified in attempting short cuts. He must respect the stages of illness. He can only prescribe on the basis of the symptoms presenting during the given stage, and he hopes that the prescribed remedy will move the disease in the direction of cure.

It follows that failure to respect the natural process of illness and recovery will cause harm to the patient. Specifically, the homoeopathic school has found from experience that improper treatment of acute illness may engraft on the patient an incurable chronic illness.

This homoeopathic interpretation of chronic disease has definite implications for the attitude to be taken to the epidemic of chronic disease in modern industrialized societies.

From the preceding discussion we may isolate eight elements of homoeopathic doctrine in support of which evidence may be marshalled from the non-homoeopathic literature:

—The reactivity of the organism to external stimuli; disease as an expression of the adaptive effort of the whole organism; priority of symptomatic changes over structural or pathological changes.

—The biphasal action of medicines.

—The provings.

—Ultrasensitivity of the organism to the similar medicine aggravation.

—The infinitesimal dose; homoeopathic rejection of the monotonicity rule.

—The single remedy.

—The similar remedy.

—Hering's law and chronic disease.

These eight elements of doctrine are discussed in the eight sections which follow.

II. REACTIVITY OF THE ORGANISM TO EXTERNAL STIMULI, DISEASE AS AN EXPRESSION OF THE ADAPTIVE EFFORT OF THE WHOLE ORGANISM, PRIORITY OF SYMPTOMATIC CHANGES OVER STRUCTURAL OR PATHOLOGICAL CHANGES.

(a) Reactivity of the organism to external stimuli: The capacity of the organism to respond in a variety of ways, and at different levels, to environmental stimuli is a commonplace of medicine. The adjustment and adaptation of the organism to its environment are mediated through the endocrine and nervous systems and undoubtedly through other modes of dynamic adjustment still unknown to medical science and unexplained by it. S. Solis-Cohen wrote: "life is a continuous adjustment of internal relations to external relations.....living beings maintain a moving equilibrium in harmony with their

changing environment by automatically effecting internal changes to counter-balance external ones. The ability to effect such counterbalancing adjustments promptly and adequately constitutes health."² Hans Selye's numerous writings on 'stress' assume the existence of this purposive reactive capacity of the organism and its parts: "stress responses are purposeful homeostatic reactions,"³ "stress is defined as the nonspecific response of the body to any demand,"⁴ "even a single cell can respond in qualitatively different (specific or non-specific) ways."⁵

Selye emphasizes that the stress reaction—which he also calls the "general adaptation syndrome"—is largely independent of the nervous system and in some way innate to the body's tissues: it can be produced in plants (which do not have a nervous system), in a limb from which the nerves have been removed, and even in a cell culture grown outside the body⁶

At some point the interplay between organism and environment begins to work against the organism; the balance is tipped in favour of the environment and against the living body. Here the symptoms of health are transformed into what we regard as the symptoms of disease, painful manifestations which are disagreeable to the sufferer. However, this state of 'ill-health' is not qualitatively different from the state of health, being merely a quantitative move along the spectrum of the interaction between organism and environment. Many allopathic authorities have maintained that 'pathology' does not differ qualitatively from 'physiology' and that 'disease' is only a continuation of processes occurring during the state of 'health.' W. H. Perkins wrote in 1938: "Every function can be stressed beyond the limits of its accepted normal; when this is so, the altered function is called abnormal, and the evidence of it is pathology. In so doing, an arbitrary indefinite line has been created between the two states, which is variably called the 'borderline of disease,' the 'limit of safety,' the 'limit of tolerance,' or the 'normal limit' it must be admitted that disease cannot accurately be defined."⁷

Karl Menninger stated in 1948: "I believe that clinicians have come to think of disease more and more in terms of a disturbance in the total economics of the personality, a temporary overwhelming of the efforts of the organism to maintain a continuous internal and external adaptation to continuously changing relationships, threats, pressures, instinctual needs, and reality demands. . . . It is the imbalance, the organismic disequilibrium, which

² S. Solis-Cohen and T. S. Githens, *Pharmacotherapeutics* (N.Y. and London): Appleton, 1928), 37.

³ Hans Selye, *The Stress of Life*, Revised Edition (New York: McGraw-Hill, 1978), 358.

⁴ *Ibid.*, 55.

⁵ *Ibid.*, 336.

⁶ *Ibid.*, 62.

⁷ W. H. Perkins, *Cause and Prevention of Disease* (Philadelphia: Lea and Febiger, 1938), 23.

is the real pathology, and when that imbalance reaches a degree or duration that threatens the comfort or survival of the individual, it may be correctly denoted disease."⁸

A modern text proclaims: "Disease syndromes are transient aspects of the whole individual to his total environment.....their occurrence is governed as much by the relation of the individual to his social environment as by his random contact with specific etiologic factors. The effect of the stimulus depends in great degree not only on the type of stimulus but on the state of the individual and his response. Some adapt more readily than others. These data tell us how little we really know of the underlying factors producing host reactions."⁹

And Selye writes: "Textbooks usually define health as the absence of disease, and vice-versa. The 'definitions' rest upon the assumption that the two conditions are the opposites of each other. Is this really so? Are they not rather different only in degree and in the position of vital phenomena proceeding within time-space?"¹⁰

"Disease is not mere surrender to attack but also fight for health; unless there is a fight there is no disease."¹¹

"Disease is not just suffering, but a fight to maintain the homoeostatic balance of our tissues, despite damage."¹²

Even diseases associated with bacteria, viruses, and other microorganisms depend to a large, and still unclear, extent on the reactivity or susceptibility of the organism. Zinsser wrote that pathogenic microorganisms may reside in the body for extended periods without producing manifest disease: "thus, perfectly normal individuals may on occasion harbour organisms of the latter variety over varying periods of time."¹³

More recently Rene Dubos has observed: "The ability of microorganisms to produce pathologic changes is under the influence of large biologic forces as yet poorly understood.....the mechanism through which microbial agents reach their potential victims and elicit pathologic reactions are known in their broad outline, but this knowledge has not yet been reconciled with the fact—now well established—that extremely virulent pathogens are often present in the tissues of normal individuals, who exhibit neither signs nor symptoms of disease. Today, the most puzzling problem of medical microbiology is no longer: 'How do microorganisms cause disease?' but rather, 'Why do pathogens so often fail to cause disease after they have become

⁸ Karl Menninger, 'Changing Concepts of Disease,' *Annals of Internal Medicine* 29 (1948), 318-325, at 324-325.

⁹ W. A. Sodeman and W. A. Sodeman, Jr., *Pathologic Physiology* (Philadelphia: Saunders, 1967), 5.

¹⁰ Selye, *op. cit.*, 321.

¹¹ *Ibid.*, 12.

¹² *Ibid.*, 13.

¹³ Hans Zinsser, John F. Enders, and LeRoy D. Fothergill, *Immunity* (New York: Macmillan, 1939), 1-2, 20-22.

established in the tissues?' Curiously enough, this question is rarely asked and even more rarely submitted to experimental analysis."¹⁴

This same interpretation of disease and health is found in the science of allergology. Warren T. Vaughan, a leading allergist of the 1930's, wrote that the allergic state is merely a more extreme manifestation of a condition found in the healthy individual: "There is no fundamental difference between the allergic and the so-called non-allergic individual. The response of the allergic person differs from the non-allergic in degree, not kind.....Allergy is not a pathologic state. It is a pathological exaggeration of a normal physiologic response."¹⁵

(b) *Disease as an expression of the adaptive effort of the whole organism; symptoms as positive phenomena.* Homoeopathy maintains that all disease is general and denies the possibility of 'local' disease or 'local' treatment. The patient's symptoms represent the totality of his response to a given morbid stimulus (insult). Selye's "general adaptation syndrome" is the most striking modern expression of this idea: "I called this syndrome *general* because it is produced only by agents which have a general effect upon large portions of the body. I called it *adaptive* because it stimulates defense and thereby helps in the acquisition and maintenance of a state of inurement. I called it a *syndrome* because its individual manifestations are coordinated and even partly dependent upon each other."¹⁶

Other allopathic writers are ambiguous on this point, regarding some types of illnesses as 'general' or systemic and others as 'local':

"The chronic inflammatory bowel diseases are incurable systemic diseases with the gut as their target organ."¹⁷

"For more than 50 years research in cancer has been based on the concept that cancer is a disease of cells and therefore that the cause and cure of cancer are to be found within the cell.....Work of the past several decades has demonstrated clearly that the central nervous system and the peripheral endocrine system are intricately involved in the organism's response to stress.This concept requires a new approach to the cancer problem—an approach which demands a study of the organism as a whole."¹⁸

"Theories on the nature of cancer may be classified into two categories. One regards cancer strictly as a local phenomenon while the second looks at cancer as a local manifestation of a systemic process or disease. Although

¹⁴ Rene J. Dubos, *Bacterial and Mycotic Infections of Man*, Third Edition (Philadelphia: Lippincott, 1958), v. 14.

¹⁵ W. T. Vaughan, 'A Theory Concerning the Mechanism and Significance of the Allergic Response,' *Journal of Laboratory and Clinical Medicine* 31 (1935-1936), 629-649, at 632.

¹⁶ Selye, *op. cit.*, 38.

¹⁷ J. L., Achord, ed., *Chronic Inflammatory Bowel Disease* (Medcom Press, 1974), 94.

¹⁸ Kathleen J. Deighton, 'Cancer—A Systemic Disease with Local Manifestations,' *Medical Hypotheses* 1:2 (March-April, 1975), 37-40, at 37.

the first dominates current medical thought, the theories of immunological surveillance and of provirus-oncogene implicitly assume cancer to represent a local manifestation of a systemic process or disease."¹⁹

"Arteriosclerosis could be regarded as a prototype of a systemic disease. It presents itself clinically solely by its local manifestation, like myocardial infarction or stroke. These local manifestations may be followed by secondary systemic sequelae like congestive heart failure."²⁰

From the homoeopathic point of view, Allopathy here is often inconsistent since, even when a disease is classified as 'systemic,' treatment may be local. For example, cortisone enemas are sometimes used to treat ulcerative colitis (a "systemic disease with the gut as.....target organ").

If disease is seen as a reactive effort of the organism, it would seem logical to interpret the symptom as a manifestation of this reactive effort, i.e., as a positive and beneficial phenomenon, pointing the way to health. In allopathic medicine this interpretation of the symptom is encountered rather rarely:

"The symptoms of bacterial disease express the effort made by tissues and humors to adapt themselves to the new conditions, to resist them, and to return to a normal state.....Each tissue is capable of responding, at any moment of the unpredictable future, to all physico-chemical or chemical changes of the intraorganic medium in a manner consistent with the interests of the whole body."²¹

"Most of the clinical symptoms of infectious disease are due to the reaction of the body."²²

"The mode of action of a pathogenic agent in the body of a suitable host is evidenced.....principally by the symptomatic reaction on the part of the individual."²³

Selye demonstrates that the symptoms of inflammation—heat, reddening, swelling, and pain—are part of the body's defense reaction, serving to limit and contain injury.²⁴

But Allopathy most commonly interprets the symptom as the sign of a morbidic change or pathological alteration within the body; this, of course, is logically incompatible with the idea that 'disease' is an expression of the organism's *reaction* to a morbidic stimulus.

A third interpretation seen sometimes in allopathic writings holds that

¹⁹ G. Zajick, 'Cancer as a Systemic Disease,' *Medical Hypotheses* IV (1978), 193-207, at 193.

²⁰ *Loc. cit.*

²¹ Alexis Carrel, *Man, the Unknown* (New York: MacFadden, 1961), 139.

²² A professor in a British medical school, quoted in T. R. Waugh, 'The Trend of Modern Pathology,' *Journal of the American Institute of Homoeopathy* 25 (1932), 1141-1147.

²³ F. P. Gay, *Agents of Disease and Host Resistance* (Springfield: Thomas, 1935), 255.

²⁴ Selye, *op. cit.*, 131 ff.

symptoms are a mixture of the signs of pathological alteration and the signs of the body's reactive effort, i.e., "symptoms include phenomena of two opposite orders: (a) those of derangement, and (b) those of restorative adjustment or recovery.....almost from the first they exist side by side..... the physician must discriminate between the two orders of phenomena."²⁵ Selye writes: "reactions which tend to repair wear and tear are not strictly stress, but rather responses to stress. However, in practice it is rarely (if ever) possible to distinguish clearly between damage and repair."²⁶

The idea that symptoms represent a beneficial reaction is encountered in the field of allergy. Warren T. Vaughan stated that "the allergic response is primarily a protective reaction," and gave the following justification:

"When a noxious substance enters the nose, its removal is accomplished by sneezing and the secretion of mucus. The cough, smooth muscle spasm, and increased bronchial secretion of asthma may be looked upon as an attempt to remove a supposed foreign body. Asthma may develop for the first time in connection with a tumor growth in the lung. This is often true asthma and may be relieved by adrenalin or ephedrin. It represents a physiologic reaction, an attempt to remove a foreign body from the lungs. Prompt vomiting which sometimes follows the ingestion of an allergenic food is again a protective response, as is the hyperperistalsis and diarrhoea associated with mucous colitis which often follows the ingestion of an allergenic food which the stomach has not repelled. The serous exudation of a contact dermatitis represents an effort to wash away the noxious substance. Lichenification in chronic dermatitis indicates an effort to establish a protective thickening of the skin at the point of contact. Urticaria and angioneurotic edema which involve internal structures probably to nearly as great an extent as they do the visible integument manifest an effort to dilute the allergenic substance in the tissues, thus protecting the living cells."²⁷

If this argument is followed a little further, the anaphylactic state is seen to be an extreme form of the protective condition represented by allergy:

"There is no fundamental difference between clinical allergy and experimental anaphylaxis."²⁸

"It was and still is our opinion that the allergic reaction is an integral part of the specific immune response and represents an increased reaction capacity of the protective mechanism to contact with the invading organisms."²⁹

"Antibodies are not only produced as a defense mechanism against invading pathogenic organisms or their toxic products, but are the response

²⁵ Solis-Cohen and Githens, *op. cit.*, 22.

²⁶ Selye, *op. cit.*, 65.

²⁷ Vaughan, *op. cit.*, 639-640.

²⁸ *Ibid.*, 631.

²⁹ Zinsser *et al.*, *op. cit.*, 432.

of the host to the introduction of any kind of foreign antigenic material, especially foreign proteins.....Therefore, it becomes obvious that the production of antibodies is a general biologic phenomenon rather than a specialized mechanism designed to protect against infection.....Antibody production means not only protection but also hypersensitization, as revealed by experimental anaphylaxis in animals and asthma in man."³⁰

(c) *Symptomatic changes prior to structural or pathological changes:* The idea that symptoms are chronologically prior to structural change or pathological alteration, and hence of more importance as diagnostic guides, is occasionally encountered in orthodox medical thought: "Symptoms are apt to appear some time before striking physical signs of disease are evident and before laboratory tests are useful in detecting disordered physiology."³¹

A patient's sore tongue and mouth may be the only grossly visible sign that he has nutritional deficiency disease. Yet he is sick in every cell of his body and, indeed, has been biochemically sick for a variable period of time (the prodromal period of the deficiency state) prior to the appearance of the first gross or microscopic lesion.³²

(To be continued)

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³⁰ Noel R. Rose, Felix Milgrom, and Carel J. Van Oss, *Principles of Immunology* (New York: Macmillan, 1973), 4.

³¹ Cyril MacBride, ed., *Signs and Symptoms: Applied Pathologic Physiology and Clinical Interpretation*, Fifth Edition (Philadelphia: Lippincott, 1970), 1.

³² *Ibid.*, 35.

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THE BIPHASAL ACTION OF MEDICINES

Interpreting the patient's symptoms as positive signs of reaction, Hahnemann logically concluded that cure would be brought about by any drug or medicinal substance which supported this reaction, and it was this which led him to the idea of cure through similars. The medicine which, in a healthy person, gives rise to precisely the symptom-pattern of the given patient is the medicine which will cure that patient.

But the concept of cure through similars has its complexities. Hahnemann discovered that any drug administered to a sick or healthy person gives rise to two successive symptom-patterns. The first, which he called the 'primary' symptoms, may be taken as the immediate effect of the drug on the organism; the second, which Hahnemann called the 'secondary' symptoms, may be regarded as the reaction of the organism to the immediate drug effect. The 'secondary' symptoms are more or less the opposite of the 'primary' symptoms.

Hahnemann found that the relationship between the 'primary' and 'secondary' symptoms was a function of dose size. When he gave a large dose, the 'primary' symptoms were more striking, while the 'secondary' symptoms hardly appeared. But when he employed very small doses, the 'primary' symptoms were less manifest and lasted only a short time, being soon succeeded by the 'secondary' symptoms.

Because of this relationship to dose size, the biphasal action of medicines often described as the 'opposite' effect of small and large doses. But this is inaccurate, since the two sets of symptoms are present in all cases, the difference being in their relative strength and prominence.

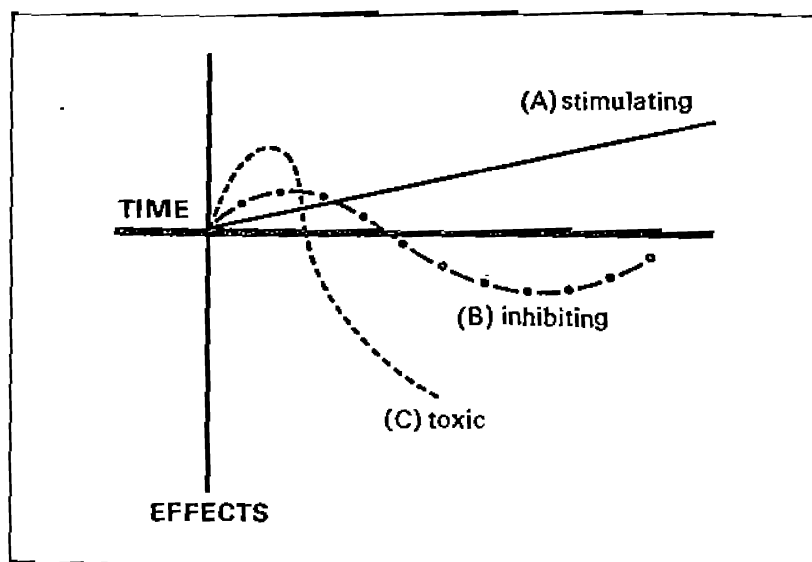
Hahnemann decided that if the 'primary' symptoms of the medicine, when administered to a healthy person, were identical with the symptoms of the sick patient, the 'secondary' symptoms of the medicine would act to remove the patient's symptoms and thus restore him to health.

Hahnemann's discovery was taken up by conventional medicine in the late nineteenth century and expressed as the so-called Arndt-Schulz law: "every drug has a stimulating effect in small doses, while larger doses inhibit, and much larger doses kill." It was further refined by the German physician, Karl Koetschau, in the 1920s as the "type effect hypothesis" which posits three typical effects of a medicinal drug, depending upon dose:

- (1) with small doses a stimulant effect (the A curve),

(2) with moderate doses an effect which is at first stimulant but then depressive, with the patient eventually returning to normal (the B curve), and
 (3) with large doses a very brief stimulant effect followed by a severely depressive effect leading to death (the C curve).

The "type effect hypothesis" is represented by the following diagram:



In this connection it is understood that the meaning of 'large' and 'small' doses will depend upon the medicine used. And with certain substances the reverse curves appear (the A curve, for example, will be a depression).²³

In the early 1930s Joseph Wilder proposed a reformulation of the Arndt-Schulz and Koetschau rules. His law of Initial Value reads as follows:

"Not only the intensity but also the direction of a response of a body function to any agent depend to a large degree on the initial level of that function at the start of the experiment. The higher this 'initial level,' the smaller is the response to function-raising, the greater is the response to function-depressing agents. At more extreme initial levels there is a progressive tendency to 'no response' and to 'paradoxical reactions,' i.e. a reversal of the usual direction of the response."²⁴

²³ Linn J. Boyd *A Study of the Simile in Medicine* (Ann Arbor: University of Michigan, 1936) 335. Karl Koetschau, 'The Type Effect Hypothesis as a Scientific Basis for the Simile Principle,' *Journal of the American Institute of Homoeopathy* 23 (1930), 972-1046.

²⁴ Joseph Wilder, M.D., 'The Law of Initial Value in Neurology and Psychiatry: Facts and Problems,' *J. Nervous and Mental Disease* 125 (1957) 73-86, at 73. See, also, Joseph Wilder, *Stimulus and Response: the Law of Initial Value* (Bristol, Wright, 1967).

By the same token, the lower the 'initial level,' the greater the response to 'function raising' agents and the less the response to 'function depressing' ones.

Wilder noted that his proposed law contradicts common-sense opinion in medicine:

"It is necessary to emphasize that most investigators do not take the initial levels into account at all. If they do, they operate usually with the tacit assumption that the opposite of our law is true, e.g. that a hypertensive individual will respond to adrenalin with a higher rise in pressure than one who is normotensive."³⁵

Thus, where the Arndt-Schulz and Koetschau rules were formulated in terms of the size of the pharmacological dose, Wilder's rule is expressed in terms of the varying sensitivity of the organism to a given dose. In all cases, however, the phenomenon of particular interest is the 'reversal of the usual direction of response' in function of the change in dose size or the altered sensitivity of the organism.

Selye gives an example of the Wilder Law of Initial Value: while excessive stimulation of a muscle can produce local inflammation, intense muscular work suppresses the ability of the overworked muscular tissue to become inflamed by local application of an irritant substance.³⁶

Wilder observed in 1957 that few, if any, pharmacological investigations take the initial state of the organism into account even though this "is at least as important as the establishment of proper controls."³⁷ Indeed, the biphasal action of drugs on the human and animal organism is an ignored topic in modern allopathic pharmacological treatises. And yet it is a rather pervasive phenomenon which is frequently mentioned in anecdotal accounts of pharmacological (and other) trials.

The following examples are only a representative selection*:

Duke in 1915 reported on experiments to influence the platelet count in rabbits by injecting them with toxins, bacterial emulsions, or chemical poisons in varying doses. "It was possible to reduce the platelet count by using a large dose of any agent which in smaller doses caused a rise in the count, and vice versa.....The agents with which it was possible to produce the most

³⁵ *Loc. cit.*

³⁶ Selye, *op. cit.*, 334.

³⁷ Wilder, *op. cit.*, 74.

* The living organism undoubtedly reacts biphasally to *all* external stimuli, not merely the subclass represented by medicinal drugs and x-rays. Selye notes that the 'stress reaction' or 'general adaptation syndrome' is itself biphasal: exposure to stress first evokes an 'alarm reaction' which is followed by a 'stage of resistance.' "The manifestations of this second stage were quite different from, and, in many instances the exact opposite of, those which characterized the alarm reaction." The 'alarm reaction' is described by Selye as the 'primary change, or damage,' while the 'stage of resistance' is characterized as the 'secondary change, or defence' (Hans Selye, *The Stress of Life*. Revised Edition [New York: McGraw-Hill, 1978], 37, 71).

rapid and extreme rises in the count, namely, diphtheria toxin and benzol, were also the ones with which the most rapid and extreme falls in the count were produced.....The most powerful stimulants are also the most powerful poisons, as a rule."³⁸

Perfusion of kitten heart with dilute cobra venom (1971) is seen to have the following effects: a concentration of 1:150,000 stimulates the heartbeat, a concentration of 1:60,000 stimulates it slightly while decreasing the amplitude, one of 1:30,000 causes irregular beats of shorter amplitude, 1:27,000 makes the beat quite irregular and decreases the amplitude, and a concentration of 1:15,000 stops the beat entirely.³⁹

Searle in 1920 found that colloidal copper injected intravenously in large doses aggravates boils; injected intramuscularly in smaller doses it causes them to heal.⁴⁰

Wolf in 1940 stated that glandular extracts in small doses stimulate an activity while larger doses act to depress that activity.⁴¹

Seiffert in 1928 reported that many substances used in treating infectious diseases act *in vivo* against microorganisms much more intensely in small doses than in large ones.⁴²

Almroth Wright, a pioneer of immunology, pointed out early in this century that there is a great difference between treating typhoid with large, as against small, doses of vaccine. If a very small dose is employed, such as to cause very slight constitutional disturbance, there is a brief 'negative' phase of diminished bactericidal power in the patient's blood. Where the dose is larger, the 'negative' phase lasts longer; and when a very large dose of vaccine is used, the negative phase is extremely prolonged—perhaps indefinitely.⁴³

Alexander Fleming observed in 1946 that in early work on sulfanilamide complete bacteriostasis was achieved with a small *in vitro* inoculum, while the microbes grew freely if the inoculum was large.⁴⁴ Garrod in 1951 observed that the use of chemotherapeutic drugs in concentrations lower than those required to inhibit growth of bacteria can actually stimulate growth of the

³⁸ W. W. Duke, 'Variation in the Platelet Count. Its Cause and Clinical Significance,' *Journal of the American Medical Association* 65 (1915), 1600-1606, at 1603.

³⁹ W. Buecherl and E. Buckley, *Venomous Animals and Their Venoms*. Three Volumes (New York and London: Academic Press, 1971), II, 34.

⁴⁰ A. B. Searle, *The Use of Colloids in Health and Disease* (London: Constable, 1920), 96.

⁴¹ W. Wolf, *Endocrinology in Modern Practice*. Second Edition (Philadelphia: Saunders 1939), 26-27.

⁴² W. Seiffert, 'Die Grundlagen der Chemotherapie,' *Klinische Wochenschrift* 7 (1928), 1497-1502.

⁴³ Almroth E. Wright, *Studies on Immunization*. First Series (London: Heinemann, 1943), 170.

⁴⁴ Alexander Fleming, *Chemotherapy. Yesterday, Today and Tomorrow* (Cambridge: University Press, 1946), 26.

same bacteria.⁴⁵ This suggests that the so-called 'superinfections' and emergence of 'drug resistant' bacterial strains observed in modern hospital practice may be due, in part, to stimulation of such bacteria by the chemotherapeutic drugs employed so widely.

Eppinger in 1934 observed that four to five minutes after injection with adrenalin the blood pressure is briefly lower than prior to the injection.⁴⁶ A 1960 letter to the editor of the *AMW Journal* elicited the response that a subcutaneous injection of 1 cc. of the 1:1000 solution of epinephrine causes vasodilation and decreased cardiac output.⁴⁷

The opposite effects of high and low doses of x-radiation have been reported by several workers. Duke noted this in connection with his work on the platelet count in rabbits.⁴⁸ Taylor and Weld (1931) noted that the effect of irradiated ergosterol on calcium metabolism is reversed as the dose is increased from small to very large amounts.⁴⁹ Workers in the Strangeways Laboratory of Cambridge University found that the minimum dose of gamma rays sufficient to affect cellular mitosis at first caused a reduction, but that this reduction was then followed by a compensatory increase.⁵⁰ The International Atomic Energy Agency reported in 1963 that the sperm of insects sterilized by low doses of nitrogen mustard had the capacity to fertilize more eggs than normal (yielding sterile eggs).⁵¹ A similar effect was found in the chemical sterilization of male flies with apholate: they turned out to be more sexually aggressive than unsterilized flies and produced more (sterile) eggs.⁵²

Wilder himself adduced a series of instances in support of his law.

Novocaine, which in large doses stimulates the central nervous system, nevertheless counteracts the tonic phase of the electroshock convulsion, as do benzadrine and other similar substances.⁵³ All organs, and especially the nervous system, are, up to a point, more sensitive to stimuli under narcosis, and paradoxical reactions are often encountered; this is true for the respira-

⁴⁵ L. P. Garrod, 'The Reactions of Bacteria to Chemotherapeutic Drugs,' *British Medical Journal* (1951), i. 205-210.

⁴⁶ Hans Eppinger, 'Ueber Kollapszustände,' *Wiener Klinische Wochenschrift* 47 (1934), 47-50.

⁴⁷ *Journal of the American Medical Association* 174 (1960), 443.

⁴⁸ Duke, *op. cit.*, 1603.

⁴⁹ N. B. Taylor and C. B. Weld, 'A Study of the Action of Irradiated Ergosterol and of its Relationship to Parathyroid Function,' *Journal of the Canadian Medical Association* 25 (1931), 20-34, at 34.

⁵⁰ Privy Council. Medical Research Council. *Medical Uses of Radium. Summary of Reports from Research Centres for 1931* (London: Published by His Majesty's Stationery Office, 1932), 32-33.

⁵¹ IAEA, *Radiation and Radioisotopes Applied to Insects of Agricultural Importance* (Vienna, 1963), 371.

⁵² G. C. LaBrecque, D. W. Meifert, and Carroll N. Smith, "Mating Competitiveness of Chemosterilized and Normal Male House Flies," *Science* 136 (May 4, 1962), 388-389.

⁵³ Wilder, *op. cit.*, 77.

tion of plants under the influence of various narcotics, and even for enzymes.⁵⁴ Additional doses of the same narcotic, or addition of another narcotic at a certain point of the narcosis (a certain initial level), reverses the narcotic effect of the previous dose.⁵⁵ Tranquillizers often tend to excite the patient rather than calm him.⁵⁶ Ataractics have paradoxical effects: thus, chlorpromazine may stop or cause nausea, depress or elevate the temperature, etc.⁵⁷ The dose-response effect of amphetamine on locomotor activity in mammals such as the rat takes the form of a U-shaped function: low doses increase locomotor activity, while high doses cause an apparent reduction in behavioral output.⁵⁸ Cortisone and ACTH have dual psychotic effects—both manic and depressive.⁵⁹ Hypertension has been treated successfully with adrenalin.⁶⁰ Under the effect of electroshock or novocaine, capillary fragility—considered as an indication of stress—rises if it was initially low but drops if it was initially elevated.⁶¹ Fear has been shown to raise or depress the number of blood leucocytes as an inverse function of their initial value, i.e. increasing them when they were few in number and decreasing them when they were numerous.⁶²

Rinkel commented recently that: "A major difficulty.....drug and biochemical studies in general is the fact that the same substance administered in different concentrations or for different lengths of time may have different, and even quite opposite, effects. This situation also applies in *in vitro* studies of cell and of isolated enzyme systems and is more complicated when one deals with the intact organism as a whole. Reasonable chemical hypotheses for these quantitative relationships have been advanced, but a clear understanding of drug action is still for the future."⁶³

Often the phenomenon of reversal of effect is described as 'paradoxical'.

Drugs such as dextroamphetamine or methylphenidate are stimulants, arousing the metabolism and increasing alertness. When used to excess, they can cause overstimulation, restlessness, insomnia, agitation, etc. And yet these substances have been found useful in treating hyperkinetic children. The HEW Report of the Conference on the Use of Stimulant Drugs in the Treatment of Behaviorally Disturbed Young School Children (1971) noted that

⁵⁴ *Loc. cit.*

⁵⁵ *Loc. cit.*

⁵⁶ *Loc. cit.*

⁵⁷ *Ibid.*, 78.

⁵⁸ See Sahakian, B. J. and Robbins, T. W., 'Are the Effects of Psychomotor Stimulant Drugs on Hyperactive Children Really Paradoxical?' *Medical Hypotheses* III:4 (July-August, 1977), 154-158.

⁵⁹ Wilder, *op. cit.*, 79.

⁶⁰ *Ibid.*, 83.

⁶¹ *Ibid.*, 76.

⁶² *Ibid.*, 84.

⁶³ Max Rinkel, *Specific and Non-Specific Factors in Psychopharmacology* (New York: Philosophical Library, 1963), 72.

"much has been made of the 'paradoxical sedative' effect of stimulants in such children."⁶⁴

A similar instance is the use of coffee in the hyperkinetic child. Schnackenberg found that hyperkinetic children tend to drink coffee more than usual and, when asked why, respond, 'It calms me down' or 'I can do better in school.'⁶⁵

The relationship between iodine and goiter is full of paradoxes. Goiter is well known to be caused by insufficient iodine in the diet. At the same time, administration of iodine salts in excess causes both hyperthyroidism and myxoedema with goiter.⁶⁶ A modern authority writes: "A curious and as yet not fully explained antithyroidal effect is produced by large doses of iodides; for example, in man $\frac{1}{2}$ to $\frac{1}{4}$ g. of potassium iodide a day, or several hundred times the normal daily intake. This effect has been made use of in the treatment of hyperthyroidism."⁶⁷

In 1969 physicians in the Hartford Burn Clinic reported excellent effects from the use of a 0.5% silver nitrate solution, applied twice a day, in deep third-degree burns. There was absence of pain, control of infection, ease of management, formation of eschars that separated painlessly, and better acceptance of skin grafts. Silver nitrate, of course, is used in large doses to burn off erosions of the cervix, warts, etc., so its use in burn treatment must be considered 'paradoxical.' The authors warn that a solution stronger than 0.5% will necrotize and destroy the tissue.⁶⁸

The use of x-rays for treating cancer and tumors could be considered paradoxical (as it was when initially introduced), since such radiation is known to cause tumors and cancers. It is perhaps significant that the first person to make therapeutic use of x-rays for this purpose was Emil Grubbe, a professor of chemistry and a student of Homoeopathy at the Hahnemann Medical College of Chicago. He treated breast cancer and lupus with x-rays in 1896.⁶⁹

⁶⁴ USDHEW, *Report of the Conference on the Use of Stimulant Drugs in the Treatment of Behaviorally Disturbed Young School Children*. Washington, D.C., January 11-12, 1971, at 4.

⁶⁵ Robert G. Schnackenberg, 'Caffeine as a Substitute for Schedule II Stimulants in Hyperkinetic Children,' *American Journal of Psychiatry* 130 (1973), 796-798.

⁶⁶ P. F. D'Arcy and J. P. Griffin, *Introgenic Diseases* (Oxford: at the University Press, 1972), 109.

⁶⁷ Starling and Lovatt Evans, *Principles of Human Physiology*, 14th edition (London, J. & A. Churchill, 1968), 1492.

⁶⁸ Julius A. Howell, 'Silver Nitrate vs. Sulfamylon in the Treatment of Burns,' *North Carolina Medical Journal* 29 (1968), 280-283.

⁶⁹ Emil Grubbe, 'X-Ray Treatment: Its Introduction to Medicine,' *Journal of the American Institute of Homeopathy* 39 (1946), 419-422. Grubbe's hand became blistered from overexposure to X-rays during the course of his experiments, and this led one of the professors at the homoeopathic college to suggest its therapeutic use in similar conditions.

Clearly this issue of the opposite effects caused by the same medicine under different circumstances is far from having been exhausted by modern allopathic medicine. Homoeopathy, however, avoids the problem by assuming that the 'biphasal' action of drugs is merely an instance of a more general phenomenon—the compensatory reaction developed by the living organism to a morbidic stimulus. Homoeopathic medical practice works to strengthen and support this compensatory reaction.

Part of the resistance in conventional medicine to the concept that drugs have a dual action doubtless stems from the assumption that drugs do not act on the body of the patient but rather on the 'disease' or, at least, on the microorganism assumed to be the disease cause. Homoeopathy has always maintained that medicines act only on the body of the patient, stimulating a reaction. Even in the case of disease processes associated with a microorganism Homoeopathy considers that the medicine stimulates the body's defenses, and these, in turn, act to suppress the microorganism.

While conventional medicine has generally adhered to the first view above, the alternative—homoeopathic—interpretation of drug action also figures there. Throughout the 1920s and 1930s, for example, a dispute was carried on between those who ascribed the curative effect of mercurial medicines in syphilis to their direct action on the spirochete and those who felt that these medicines stimulated the defensive reaction of the host. Alexander Fleming wrote in 1946, after the dispute had been settled in favor of the latter view: "there were no tests proving that [mercury] ever reached the circulation in concentrations inimical to the spirochete, but from the clinical results we may presume that something happened after a strenuous course of mercury which influenced the disease."⁷⁰

A similar dispute raged at the same time over the action of quinine in malaria. While this medicine was initially considered to act directly against the malaria microorganism (plasmodium), research in the 1920s and 1930s showed that the levels of quinine attained in the blood during treatment (less than 1:24,000) were far too low to kill the plasmodium *in vitro* (1:5000).⁷¹ After much discussion of how this could be so, the subject was eventually abandoned. The *Encyclopedia Britannica* wrote about quinine in 1957: "The manner of its highly specific action on the malaria parasite was still not clearly understood at mid-20th century. It does not prevent the establishment of the infection after inoculation by the mosquito (prophylaxis), nor does it cause a complete eradication of the parasites (parasitic cure). Its only action is in suppressing the infection, thus allowing time for the development of the processes of immunity."⁷²

This last comment seems compatible with the explanation of the action of

⁷⁰ Alexander Fleming, *op. cit.*, 16.

⁷¹ Linn J. Boyd, *op. cit.*, 250-251.

⁷² 'Quinine' in *Encyclopedia Britannica*, 1957.

quinine given by Hahnemann at the beginning of the nineteenth century.

While it is assumed that the antibiotics used so commonly in modern Allopathy act directly against the bacteria or other microorganism, this may be an inadequate explanation. These antibiotics have been shown to have a stimulant effect on the growth and health of farm animals, increasing vitality and viability, and this may account for at least part of the observed beneficial effect of these medicines in the treatment of disease.⁷³

(To be continued)

—*Journal of American Institute of Homeopathy*, June 1980

⁷³ See T. D. Luckey, 'Antibiotic Action in Adaptation,' *Nature* 198 (1963), 263-265. T. D. Luckey, 'Hormoligosis in Pharmacology,' *Journal of the American Medical Association* 173 (1960), 44-48. T. D. Luckey, 'Modes of Action of Antibiotics in Growth Stimulation,' *Recent Progress in Microbiology* (VII International Congress for Microbiology, 1958). T. D. Luckey, 'Stimulation of *Turbatrix aceti* by Antibiotics,' *Proceedings of the Society for Experimental Biology and Medicine* 113 (1963), 121, 124. T. D. Luckey, 'Insecticide Hormoligosis,' *Journal of Economic Entomology* 61 (1968), 7-12.

HOMOEOPATHY AND MODERN MEDICAL SCIENCE

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(Continued from page 107)

IV. THE PROVINGS

Having become convinced of the biphasal action of medicines on the human organism, Hahnemann undertook a program of provings. The proving of medicinal substances on healthy persons, to ascertain their curative powers, is the specific homoeopathic contribution to medicine and the methodological basis of homoeopathic practice.

By the end of the nineteenth century records had been compiled of the provings of about 600 substances, and these have been collected in the classic works of Constantine Hering* and Timothy Field Allen.† The other standard text in homoeopathic practice is James Tyler Kent's *Repertory of the Homoeopathic Materia Medica*‡ which is based in part upon the compilations of Hering and Allen and constitutes an analytic index of these works.

These three massive compendia, published from 70 to 100 years ago, are still the fundamental materials of the homoeopathic school and the indispensable tools of homoeopathic medical practice. This is naturally surprising to persons unacquainted with Homoeopathy, who regard it as a sign of backwardness to use books of such antiquity. However, the reason for the longevity of the homoeopathic classics is not far to seek. They are the records of *symptoms*. While theories of disease etiology, and of the pathological or biochemical involvement of the internal organs and tissues, change from decade to decade with the movement of medical thought, the symptoms manifested by the sick patient are unchanging. Provers today will display precisely the same symptoms as those of the nineteenth century when exposed to the same medicinal substances. Hence the homoeopathic records of provings are as up-to-date today as they were at the time of their first appearance.

But research on the provings did not come to an end with publication of the works of Hering and Allen. Several hundred other substances have been proven since that time, more or less fully, and this information is also available in the homoeopathic publications.

One prominent collection of 20th-century provings is James Stephenson's *Hahnemannian Provings, 1924-1959. A Materia Medica and Repertory* (Bom-

* *The Guiding Symptoms of Our Materia Medica* (Philadelphia: The American Homoeopathic Publishing Society, 1878-1891), Ten Volumes.

† *Encyclopedia of Pure Materia Medica* (New York and Philadelphia: Boericke and Tafel, 1874-1880), Eleven Volumes.

‡ This work has had numerous editions and reprintings.

bay, 1963), containing the symptoms of: Alloxan, amniotic fluid, *Araneus ixobolus*, *Aristolochia clematitis*, *Bellis perennis*, *Beryllium metallicum*, *Buthus australis*, *Butyricum acidum*, *Cadmium metallicum*, *Calcareo fluorica*, *Carcinosis*, *Cobaltum nitricum*, *Corticotropin*, *cortisone*, *Cytisus scoparius*, *sarcocollactic acid*, *Eysenhardtia polystachia* (Ortega), *Guatteria gaumeria*, *Hedera helix*, *Hippuricum acidum*, *Histaminum hydrochloricum*, *Ipomea stans*, *cav.*, *Laburnum anagyroides*, *Latrodectus mactans*, *Lophophora Williamsii*, *Magnesium sulphuricum*, *Mandragora officinarum*, *Natrum fluoricum*, *Ocimum sanctum*, *posterior pituitary gland*, *Rauwolfia serpentina*, *Strophanthus sarmentosus*, *sulfanilamide*, *Taraxacum*, *Thymol*, *Viscum album*, and *X-ray*. Stephenson also points out that the homoeopathic provings are by no means complete: for example, only 41 of the inorganic chemical elements have been proven, while more than 50 still remain.²⁴

The view has sometimes been expressed that the homoeopathic proving method is not 'scientific' in, allegedly, not being subject to control for the observational and repertorial skills of the provers or even their honesty in reporting symptoms or failing to report them. Doubt has been cast on the provings of such supposedly inert substances as silica or others—like sodium chloride (table salt), presumed devoid of therapeutic power.

In its extreme form this argument would hold that twenty or thirty volumes of homoeopathic provings are a fabrication, a figment of the nineteenth-century medico-religious imagination. Indeed, the interpretation of Homoeopathy given by some of the allopathic medical historians is not far from this.

Fortunately, such allegations are not difficult to disprove.

In the first place, it can hardly be denied that some substances, in particular those known as 'poisons' do affect the organism in a way which is typical and characteristic of each such 'poison.' The homoeopathic provings of poisonous substances, of which there are a considerable number, do, in fact, reveal the typical poisoning symptoms, not because the provers are sacrificed for science but because these same poisoning symptoms appear in a milder form during proving with a highly diluted poison. For instance, the proving of the saliva of a rabid dog (*Hydrophobinum*) yields such symptoms as "a large quantity of viscid saliva in mouth, causing me to spit an unusual quantity" and "slight sore throat, difficulty in swallowing liquids"—milder forms of the typical "foaming at the mouth" and hydrophobia of the rabid animal.²⁵

On a more mundane level, the proving of strychnine (*Strychnos nux vomica*) gives, *inter alia*, "sensitive to all impressions," "jaws contracted," "spasmodic constriction [of the breathing]," "shallow respiration," "oppressed

²⁴ James Stephenson, 'The Need for Provings of the Chemical Elements,' *Journal of the American Institute of Homoeopathy*, 50 (1957), 265.

²⁵ T. F. Allen, *Encyclopedia of Pure Materia Medica* (New York and Philadelphia: Boericke and Tafel, 1874-1880), V. 17.

breathing."⁷⁶ And a modern treatise on poisoning gives as symptoms of strychnine poisoning: "feeling of uneasiness and heightened sensibility to external stimuli," "strange feeling in the jaw muscles," "catching of the respiration," etc.⁷⁷

The proving symptoms of *Aconitum napellus* include, *inter alia*, "red, dry, constricted . . . burning throat," "cold sweat . . . cold waves pass through him," "oppressed breathing on least motion," "weak and lax ligaments of all joints," "retention of urine."⁷⁸ The above-mentioned treatise on poisoning gives for Aconite: "feeling of constriction and burning extending from mouth to stomach," "cold," "anxious oppressive feeling in chest," "cold sweat," "muscular weakness," "no urine."⁷⁹

The provings of *Belladonna* include "pupils dilated," "throat dry, as if glazed," "difficult deglutition," "hoarse, loss of voice," "ocular illusions," "spasms," "delirium."⁸⁰ The treatise on poisons gives: "dilatation of pupils," "dryness of mouth and throat," "difficulty swallowing," "change in voice (hoarseness)," "derangement of vision," "choice spasms," "in delirium picks at clothes and talks to self."⁸¹

While the provings of these substances yield hundreds more symptoms than those listed above, the overall picture is close enough to the ordinary descriptions of poisonings in the medical literature to place beyond any doubt the accuracy of the homoeopathic observations.

But it will then be alleged that poisons are a special case and that non-poisons do not yield such a variety of symptoms. The homoeopathic answer to this is that the distinction between 'poisons' and 'non-poisons' is arbitrary—not a matter of the essence of the substance but purely one of the quantity ingested. Hahnemann wrote in 1806 that no substance is poisonous when taken in its correct dose.⁸² A 'poison' is a substance which is harmful to the organism even in small doses; at the same time, such otherwise innocuous substances as table salt can be 'poisonous' if consumed in large amounts. The more powerful the effect of a substance on the living organism, the smaller the toxic, and, *a fortiori*, the therapeutic, dose.

Thus the 'poison,' the 'medicine,' and the supposedly 'inert substance' lie along a spectrum—their effect on the organism being determined by their dose and mode of preparation, in perfect harmony with the Arndt-Schulz and Koetschau rules.

⁷⁶ William Boericke, *Materia Medica with Repertory*, Ninth edition (Philadelphia: Boericke and Tafel, 1927), 475-478.

⁷⁷ A. W. Blyth, *Poisons, Their Effects and Detection*, Fifth edition (London: Griffin, 1920), 338.

⁷⁸ William Boericke, *op. cit.*, 7-11.

⁷⁹ A. W. Blyth, *op. cit.*, 377.

⁸⁰ William Boericke, *op. cit.*, 110-115.

⁸¹ A. W. Blyth, *op. cit.*, 394.

⁸² Samuel Hahnemann, 'Was sind Giften, was sind Arzneien' [What are Poisons, What are Medicines?]. *Journal der practischen Heilkunde* XXIV (1806), st. III, 40-57.

Indeed, it concerns the supposedly 'inert' substances used in Homoeopathy have occasionally been the object of ridicule. Everyone knows, for instance, that ingested grains of sand will pass through the body without producing a discernible effect. However, when the sand is ground up very fine, it can have an effect. L. U. Gardner reported in 1937 that the inhalation of fine particles of silica by guinea pigs, or their injection in colloidal form, can cause serious and even lethal pathology. "Silica can cause every type of cellular response found in tuberculosis."⁸³ Miners breathing silica dust are known, furthermore, to develop scleroderma (hardening of the skin), polyarthritis, and involvement of the lungs, heart, and kidneys.⁸⁴

In an experiment, to be described below, on 200 guinea pigs, systematic administration of table salt in a high dilution produced marked pathology in the test group, lowered weight, and higher morbidity and mortality.⁸⁵

A further objection to the provings might be that they contain masses of extraneous data attributable solely to the prover's imagination or to his particular idiosyncrasy.

This is a serious theoretical issue. When a prover takes a medicinal substance for a period of time, are all of his subsequent symptoms, feelings, and sensations to be ascribed to the effect of this substance? Or can some be ignored on the ground that they relate to the prover's idiosyncrasy or imagination?

Hahnemann himself laid down the condition that the prover should be healthy, not suffering from any illness. Then whatever symptoms he manifested after ingesting the substance (until the end of the period during which it was known to be active) were to be regarded as the effects of the substance.

In support of Hahnemann it must be admitted that to distinguish between the symptoms caused by such a substance and those not caused by it, but appearing after ingestion of the substance, is impossible. To state that certain symptoms are the fruit of the prover's imagination is no answer, since the substance might be working through his imagination. To state that it is the effect of idiosyncrasy is also no answer, since who of us does not have some physical or mental idiosyncrasy? Medicines are continually being used to treat persons with idiosyncrasies, and in Homoeopathy the symptoms of the

⁸³ Silica in Homoeopathy is known to have such an affinity for the pulmonary tuberculosis process that the prescriber is expressly warned of this danger: "In phthisis [Silica] must be used with care, for here it may cause the absorption of scar-tissue, liberate the disease, walled in, to new activities." (William Boericke, *Materia Medica with Repertory*, ninth edition, 590.)

⁸⁴ L. U. Gardner, 'The Similarity in the Lesions Produced by Silica and by the Tubercle Bacillus,' *American Journal of Pathology* 13 (1937), 13-23, at 13.

⁸⁵ Michael Mason and H. L. F. Cnrry, *An Introduction to Clinical Rheumatology*, second edition (Tonbridge Wells, Kent: Pitman Medical, 1975), 115.

⁸⁶ Guy Beckley Stearns, 'Experimental Data on One of the Fundamental Claims in Homoeopathy,' *Journal of the American Institute of Homoeopathy* 18 (1925), 433-444, 790-792.

individual's idiosyncrasy are precisely the most useful ones.

Despite this theoretical argument, however, the homoeopathic physicians engaged in provings have attempted to exert some control over the symptoms reported. The problem of ensuring accuracy in the reporting of symptoms was commented on as follows by Hering:

We certainly cannot do anything except to find some observations more, and others less, probable, and, of course, confirmation increases the probability until a higher law decides. . . . It is fifty years now since I joined the Homoeopathic School, and I have never met a single prover who "believed" the symptoms he obtained and who did not seek confirmations. We not only repeated experiments again and again, but we were anxious to have other provers, and if their results were published, we always compared anxiously those of others with our own. . . . What we had repeatedly found confirmed by cures, day after day, week after week, and year after year, is what we took as our basis, as a true gain in the new science, these were what we called the characteristics of the drug.⁵⁶

If Homoeopathy is not to be shifted from its reliance on symptoms to some other basis (in which case it would cease being Homoeopathy), the method of registering symptoms set forth by Hahnemann and Hering and practised for more than 175 years will have to be left alone. It cannot be criticized as inherently false or inaccurate even though, like any technique for gathering and recording data, it is sometimes difficult to apply. The ultimate test of the proving method is therapeutic practice, and Homoeopathy has found this practice to be more than satisfactory.

If further evidence is needed of the validity of the homoeopathic provings, it may be noted that some of the homoeopathic substances have been proved a second time under controlled conditions, with the provers not knowing which substance they were proving. The results have only confirmed the original provings.

The best example is the reproving of *Belladonna* done in the beginning of the twentieth century under the auspices of the American Homoeopathic Ophthalmological, Otological, and Laryngological Society.⁵⁷

For this reproving a central director was appointed (Howard Bellows, professor of otology at the Boston University School of Medicine), with regional and associate directors in ten major cities. Fifty provers were recruited, and in each of these cities they were examined during the course of the proving by homoeopathic specialists. Neither the provers themselves nor these specialists knew that the reproving was of *Belladonna*. The provers recorded their symptoms from day to day and went periodically to discuss them

⁵⁶ Harris L. Coulter, *Divided Legacy: A History of the Schism in Medical Thought*. Three Volumes (Washington, D.C.: Wehawken Book Co., 1973-1977), III, 490.

⁵⁷ Howard P. Bellows, *The Test Drug-Proving of the O. O. & L. Society* (Boston: Published by the O. O. and L. Society, 1906).

with the specialists. They also discussed them with the regional director (who knew that the drug being proved was Belladonna).

Thus the reprovings of Belladonna was partly 'blind' in the sense that the provers themselves and the special examiners, (who did most of the verification of symptoms) did not know what the substance was. Furthermore, it was controlled in that the provers were initially given placebo and only after a few days were transferred to Belladonna. The director, Howard Bellows, stated: "that the prover should not know when he is taking a drug and when a blank, I believe all will agree, is most reasonable and is, indeed, an absolute necessity for scientific accuracy."⁸⁸

The result was a book of 665 pages, of which 121 contain a condensed list of the symptoms recorded. The pattern is identical with the symptomatology of Belladonna given in the nineteenth-century texts. This would appear to indicate that the earlier provers did their work well.

Other substances have been reprovved in more recent decades, although in a less comprehensive fashion. Since 1945 the *Journal of the American Institute of Homeopathy* has presented reprovings of Peruvian Bark,⁸⁹ Thuja,⁹⁰ Taraxacum officinale,⁹¹ Cinchona officinalis,⁹² Cactus grandiflorus,⁹³ and others.⁹⁴ Again, the patterns obtained in the reprovings have been similar or identical to those obtained in the nineteenth century.

V. ULTRASENSITIVITY OF THE ORGANISM TO THE SIMILAR MEDICINE. THE HOMOEOPATHIC AGGRAVATION

Another of the fruitful concepts introduced into medicine by Hahnemann was that the patient is hypersensitive to the similar medicine. In this way he explained the effectiveness of his very small doses.

And since the similar remedy stimulates the patient's existing symptom-pattern, its administration is usually followed by a momentary aggravation of the symptoms.

Both of these concepts are discussed in conventional medicine.

Hypersensitivity was discovered in 1891 by Robert Koch who noted that tuberculin could be injected in considerable quantities into normal animals, while tuberculous animals reacted very violently, even to small doses, some

⁸⁸ *Ibid.*, 649.

⁸⁹ Donald Macfarlan, 'A Reproving of Peruvian Bark,' *Journal of the American Institute of Homeopathy* 40 (1947), 1-3.

⁹⁰ Donald Macfarlan, 'A Reproving of Thuja,' *Journal of the American Institute of Homeopathy* 55 (1962), 12-13.

⁹¹ William Gutman, 'Taraxacum Officinale—A New Proving,' *Journal of the American Institute of Homeopathy* 49 (1956), 105.

⁹² Anthony Shupis, 'Cinchona Officinalis,' *Journal of the American Institute of Homeopathy* 56 (1963), 395.

⁹³ Garth Boericke, 'A Reproving of Cactus Grandiflorus with Laboratory Data,' *Journal of the American Institute of Homeopathy* 39 (1946) 194-196, 212.

⁹⁴ Donald Macfarlan, 'Reprovings of Medicines,' *Journal of the American Institute of Homeopathy* 49 (1956), 135.

dying within a few hours.⁹⁵ Hypersensitivity was initially associated with infectious disease, but Portier and Richet in 1902 showed that hypersensitivity (anaphylaxis) could be produced by repeated injections of albumin. The hypersensitive state then came to be understood as representing the body's reaction to any external insult, not only to highly toxic or infectious substances. It is found in various diseases.⁹⁶ The assumption that only a protein is capable of inducing hypersensitivity broke down with Landsteiner's discovery that non-antigenic substances can unite chemically with a protein 'carrier' and thus become antigens. And today the problem of drug hypersensitivity raises the possibility that hypersensitization arises in a variety of ways, not only through introduction of a protein into the organism.⁹⁷

The hyper-reactivity, or symptom-aggravation, of the hypersensitive organism when exposed to the 'similar' remedy is also discussed in the allopathic medical literature. Crowe, who treated rheumatic diseases with vaccines made from the bacteria associated with the disease, noted the extreme sensitivity of his patients—compelling him to reduce his doses to levels many times lower than those earlier employed.⁹⁸ Walbum, who in the 1920's developed a technique of treating infectious diseases with injections of colloidal metals, found an inverse relationship between the curative effect of the injection and the degree of aggravation; he reduced his doses to the level which minimized the aggravation and found that this yielded optimum therapeutic results.⁹⁹ The well-known Jarisch-Herxheimer reaction in the treatment of syphilis—fever, headache, malaise, and sweating commencing 2-12 hours after the initiation of treatment and lasting one day—is doubtless an instance of therapeutic aggravation of symptoms. It was noted when syphilis was treated with arsphenamine, and it is still noted today with treatment by penicillin.¹⁰⁰

The concepts of sensitivity and therapeutic aggravation of symptoms in the presence of the 'similar' medicine are quite common in immunology and allergology. Crowe in 1931 observed that the vaccine treatment of chronic rheumatic disease often gives rise to an initial aggravation, which is to be

⁹⁵ Robert Koch, 'Fortsetzung der Mittheilungen ueber ein Heilmittel gegen Tuberculose.' *Deutsche Medizinische Wochenschrift* 17 (1891), 101-102.

⁹⁶ J. Kolmer, *Infection, Immunity, and Biologic Therapy*, Third Edition (Philadelphia: Saunders, 1923), 645. W. W. C. Topley and G. S. Wilson, *Principles of Bacteriology*, Second Edition (Baltimore: Wood, 1936), 910, 914. C. H. Dash and H. E. H. Jones, *Mechanisms in Drug Allergy* (Baltimore: Williams and Wilkins, 1972), 100.

⁹⁷ Dash and Jones, *op. cit.*, 14. P. F. D'Arcy and J. P. Griffin, *Iatrogenic Diseases* (Oxford: at the University Press, 1972), v.

⁹⁸ H. W. Crowe, *Handbook of the Vaccine Treatment of Chronic Rheumatic Diseases* (Oxford: at the University Press, 1931), 1-8.

⁹⁹ Walbum, 'Metallsalztherapie, Sterilization de infizierten Organismus,' *Zeitschrift fuer Tuberculose* 48 (1927), 193-216.

¹⁰⁰ A. King and C. Nicol, *Veneral Diseases*, Third Edition (Baltimore: Williams and Wilkins, 1975), 150.

considered a positive phenomenon.¹⁰¹ Zinsser stated the same in his text on immunology.¹⁰² Writers on the treatment of allergy stress that the desensitizing dose is the one just below the dose which causes an aggravation (i.e., Koetschau's A curve where the "primary symptoms" are not apparent, and only the "secondary symptoms" are seen).¹⁰³

VI. THE INFINITESIMAL DOSE. HOMOEOPATHY'S REJECTION OF THE MONOTONICITY RULE.

Homoeopathy is most closely associated in the public mind with the supposedly 'illogical' principle that the power of a medicine increases with dilution, and with the corollary of this principle: that the greatest power is to be found in the small or infinitesimal dose.

These have been major points of criticism by non-homoeopathic physicians. And, indeed, both of these principles have been sources of amazement to the homoeopathic physicians themselves (who are medically well-informed and fully aware of the scientific issues involved).

(a) *The infinitesimal dose*: Since the early decades of the twentieth century homoeopathic investigators in Europe and the United States have sponsored a variety of physical, chemical, botanical, and biological experiments in an effort to demonstrate the existence of some medicinal power in these small doses.

It should be made clear at the outset that the use of the small, or ultra-molecular dose is not an integral part of homoeopathic doctrine. The accepted rule is that the physician should employ the 'minimum dose' capable of eliciting the desired response, and Hahnemann himself employed tinctures as well as medicines at all stages of dilution.

The small dose was only an empirical discovery by Hahnemann. When he administered medicines according to the law of similars, he found that the patients reacted very violently (their 'primary symptoms,' Koetschau's B and C curves), and he reduced his doses in order to moderate the patient's reaction.

Allopathic medicine should not be amazed at the homoeopathic small doses, since the power of minute quantities is recognized today outside Homoeopathy as well as inside it. A milligram of acetylcholine dissolved in 500,000 gallons of blood can lower the blood pressure of a cat; even smaller amounts will affect the beat of a frog's heart.¹⁰⁴ Florey reported in 1943 that pure penicillin will inhibit the development of sensitive microorganisms *in vitro* at dilutions of 1:50,000,000 to 1:100,000,000; morphological effects on

¹⁰¹ Crowe, *op. cit.*, 1-8.

¹⁰² Zinsser, Enders, Fothergill, *op. cit.*, 478 (syphilis), 489 (tuberculosis).

¹⁰³ W. T. Vaughan, *Allergy and Applied Immunology*, second edition (St. Louis: Mosby, 1934), 361, Lawrence D. Dickey, *Clinical Ecology* ((Springfield: Thomas, 1976), 544-553.

¹⁰⁴ *Science* 72 (1930), 526.

streptococci were seen at dilutions of 1:250,000,000.¹⁰⁵ Fleming noted that diluting penicillin 80,000,000 times was like taking one drop of water and dividing it among "over 6000 whisky bottles."¹⁰⁶ Zinsser found that sensitization could be achieved with 1/1,000,000 of a cc. of horse serum, and with even smaller quantities of egg albumin.¹⁰⁷ The human body manufactures 50-100 millionths of a gram of thyroid hormone per day, and the concentration of free thyroid hormone in the normal blood is one part per 10,000 million parts of blood plasma.¹⁰⁸

Hahnemann was a contemporary of Amadeo Avogadro who discovered that the number of molecules in one mole of any substance is 6.0253×10^{23} . Once the existence of this Avogadro Constant had penetrated the medical consciousness, orthodox physicians turned from criticism of the homoeopathic small doses to criticism of the ultramolecular dose, since it became clear that medicines diluted beyond 10^{23} —i.e. the 12C or 24X dilutions—fell outside the range within which it could be expected that a single molecule of the original medicinal substance remained in the dilution.

In the following pages we will present some of the experiments done to demonstrate the existence of a force (of undefined nature) in the homoeopathic small doses, including those diluted beyond the Avogadro Limit.

(i) Biochemical investigations: The most striking experiment conducted under homoeopathic auspices to demonstrate the power of the "high dilutions" was that of William Boyd in Edinburgh, published in 1954.¹⁰⁹

In the early 1930's V. M. Persson in Leningrad had investigated microdilutions (up to 120X) of mercuric chloride for their effect on the fermentation of starch by salivary amylase and on the lysis of fibrin by pepsin and trypsin, obtaining significant results in controlled studies.¹¹⁰ In 1933 he repeated the experiments and published new confirmatory observations.¹¹¹

The purpose of Boyd's experiments was to confirm Persson's results. He repeated the experiments with fanatical attention to procedural detail and after making every conceivable effort to eliminate observer bias (the description of this experiment, which is rather simple in principle, takes 53 pages in the *Journal of the American Institute of Homeopathy*).

The microdilutions used were mercuric chloride 61X (10^{61}) which, by

¹⁰⁵ *British Medical Journal*, 1943 (ii), 654.

¹⁰⁶ Fleming, *op. cit.*, 26.

¹⁰⁷ Zinsser, Enders, Fothergill, *op. cit.*, 344.

¹⁰⁸ Starling and Lovatt Evans, *op. cit.*, 1493-1494.

¹⁰⁹ W. E. Boyd, 'Biochemical and Biological Evidence of the Activity of High Potencies,' *British Homoeopathic Journal* 54 (1954). Reprinted in *Journal of the American Institute of Homeopathy* 62 (1969), 199-251.

¹¹⁰ W. M. Persson, 'The Principle of Catalysis in Biochemistry and Homoeopathy,' *Journal of the American Institute of Homeopathy* 23 (1930), 1055-1090.

¹¹¹ W. M. Persson, 'Effects of Very Small Amounts of Medicaments and Chemicals on Urease, Diastase, and Trypsin,' *Archives Internationales de Pharmacodynamie et de Therapie* 46 (1933), 249-267.

present physical theory, should contain no molecules of the original mercuric chloride but only the distilled water used as diluent.

The experiment sought to establish whether addition of a small quantity of mercuric chloride microdilution affected the speed of hydrolysis of starch with diastase. Control flasks containing starch, diastase, and distilled water were compared with flasks containing these plus the mercuric chloride microdose. The rates of hydrolysis were studied colorimetrically with an absorptiometer, and since the results showed biological scatter, the frequencies of the differences were analyzed statistically.

The experiment showed that addition of mercuric chloride 61X accelerated the rate of hydrolysis.

Boyd conducted more than 500 comparisons, in several series from 1946 to 1952. Analysis was done by independent statisticians who reported that they showed significance (P less than .001). One wrote: "significant difference is shown from the controls by every set of the series. The probabilities are very strong indeed. This means that there is certainly a difference between your solutions and the controls."

The minutest precautions were taken to avoid introducing sources of error.

The laboratory temperature was thermostatically controlled. The air was filtered at input and extracted by a fan.

The temperature of incubation of the starch mixture was controlled to within 0.005 degrees centigrade.

The glass bottles and jars used were systematically interchanged between test and control groups to exclude the possibility of absorption of mercuric chloride as a cause of the observed differences between test and control series.

A very complex procedure was utilized for boiling the glassware, involving multiple washing in distilled water and baking for 2½ hours in an oven at 150° centigrade.

A single-blind procedure was employed in that the technician dosing the starch solution with either mercuric chloride or distilled water did not know which bottle contained which until after completion of the series.

It was necessary to train a technician for 18 months before she was able to perform all the procedures with the requisite accuracy.

The outcome of this experiment was reported in extenso in *The Pharmaceutical Journal* (September 11, 1954) which quoted the president of the (London) Faculty of Homoeopathy to the effect that this "would prove to be one of the greatest medical advances recorded." Reports appeared also in the British newspapers.¹¹²

Experiments similar to Boyd's, and controlled in the same way, have been performed by homoeopathic physicians in France, although with "lower" dilutions. Laeharme *et al.* in 1965 showed that a SC dilution of Physostigma

¹¹² *The Daily Telegraph*, August 19, 1954.

venenosa accelerates the acetyl-cholinesterase reaction.¹¹³ Boiron and Marin in the same year showed that low decimal dilutions of sodium fluoride affect the hydrolysis of saccharose by invertase.¹¹⁴

(ii) Botanical investigations: A number of well-controlled botanical experiments have been performed by homoeopathic investigators, the reason perhaps being (as stated by one French physician)—“is there anyone who will claim a placebo effect on plants?”¹¹⁵

Kolisko, in 1923, was a pioneer in this field, soaking wheat seeds and others in microdilutions (up to 10^{-30}) of such substances as iron sulfate, antimony trioxide, and a double-salt of copper. She found that growth was promoted by the lower dilutions, then inhibited with higher dilutions, and then again stimulated at even higher dilutions. Both measurement and weighing of the shoots gave the same result. Her work continued for decades, and a full report of all her experiments was published in 1959.¹¹⁶

She was followed in this by Wilhelm Pelikan and Georg Unger who published similar results in 1965.¹¹⁷ One of their experiments investigated the effects of microdoses of silver nitrate on the growth of wheat seeds. It tested the effect of 12 different microdoses of silver nitrate (8X to 19X), plus one control, on the germination and sprouting of the seeds; the series was repeated 240 times, and statistical analysis of the results showed the effect of the different potencies. The length of shoots increased from 8X to 11X, then dropped at 12X, rose again through 13X and 14X, dropped at 16X, rose at 17X and 18X, and dropped at 19X. Thus the effects of progressively “higher” potencies took the form of a sinusoidal curve.¹¹⁸

Joseph Roy in 1932 made microdilutions of barley stems, then soaked barley seeds in these dilutions before planting them. He found that the 3C, 6C, 9C, 12C, and 18C microdilutions each gave a different weight of barley shoots as compared with the controls.¹¹⁹

Boiron and Zervudacki soaked wheat seeds in water and allowed them to germinate for three days; then they cut off the shoots and soaked them in either distilled water (the controls) or various microdilutions of sodium arse-

¹¹³ M. Plazy, *Recherche Experimentale Moderne en Homoeopathie* (Angoulême: Coquemard, 1967), 23.

¹¹⁴ *Loc. cit.*

¹¹⁵ *Ibid.*, 67.

¹¹⁶ L. Kolisko, *Physiologischer und physikalischer Nachweis der Wirksamkeit kleinster Entitäten, 1923-1959* (Stuttgart: Arbeitsgemeinschaft anthroposophischer Aerzte, 1959).

¹¹⁷ Wilhelm Pelikan and Georg Unger, *Die Wirkungen potenziierter Substanzen* (Dornach: Philosophisch Anthroposophischer Verlag am Goetheanum, 1965).

¹¹⁸ Wilhelm Pelikan and Georg Unger, “The Activity of Potentized Substances Experiments on Plant Growth and Statistical Evaluation,” *British Homoeopathic Journal* 60 (1971), 233-266.

¹¹⁹ Joseph Roy, “La Dilution Homoeopathique, sa Justification Experimentelle,” *Le Bulletin Medical* 46 (1932), 528-531.

nate (AsO_4Na_2H). They found that the subsequent emission of oxygen by the shoots was affected by the microdilution used: 3X, 4X, and 5X were strongly inhibiting, 10X, 12X, and 14X had no particular effect, while 16X and 18X were very stimulant.¹²⁰ These experiments were duplicated by Boiron and Marin.¹²¹

Netien performed a different set of experiments, using as test material the peas from plants raised in soil heavily impregnated with copper sulfate. After determining that the germination potential (i.e., the proportion of peas germinating in a given period of time) was the same for these as for peas raised under normal conditions (used as controls), he soaked the controls and half the test peas in bidistilled water for 24 hours, while the rest of the test peas were soaked for the same period of time in various microdilutions (5X, 7X, 9X, and 15X) of copper sulfate. After three days the test peas had germinated slightly further than the control peas, but no difference could be detected between the test peas soaked in water and those soaked in the various microdilutions. Then the batches of shoots were soaked in microdilutions corresponding to the microdilutions in which the peas themselves had initially been soaked. The subsequent development of the sprouts then varied considerably from the controls, with all of the batches of test material showing much greater development of roots and branches. The author's photographs are quite convincing.¹²² This experiment was duplicated by Boiron and Gravioux with wheat seeds soaked in arsenical solutions.¹²³

Netien, Boiron, and Marin* performed a similar experiment with pea plants impregnated with copper sulfate, showing that addition of copper sulfate microdilutions to the growth medium intensified the excretion of copper by the plants.¹²⁴

In the United States Wannamaker conducted experiments over a period of years to test the effect of sulphur microdilutions on the growth of onion plants. She planted seedlings obtained from a commercial grower in large trays, 96 seedlings per tray, and added 12X, 24X, 30C, 60X, and 20M sulphur microdilutions to the trays. Trays were also set aside as controls. The microdilutions were found to affect, in a significant way, the weight and dimensions of the onion bulbs and seedlings, and also their calcium, magnesium, potassium, and sodium content.¹²⁵

Wannamaker has performed similar experiments measuring the effect of boron microdilutions on onion growth; she concludes that the weight and

¹²⁰ Plazy, *op. cit.*, 19-22.

¹²¹ *Ibid.*, 22.

¹²² *Ibid.*, 68-72.

¹²³ *Ibid.*, 72.

¹²⁴ *Ibid.*, 73-78.

¹²⁵ Anna Koffler Wannamaker, 'Effects of Sulphur Dynamizations on Onions,' *Journal of the American Institute of Homeopathy* 59 (1966), 287-295.

length of the plants are affected, as well as their boron and sulphur content.¹²⁶

(iii) Bacteriological investigations: H. Junker, in 1927, investigated the effect of various microdilutions on paramecia cultures. He added microdilutions, up to 10^{27} , of cocaine sulfate, atropin sulfate, caffeine, orange juice, lemon juice, a sodium salt, potassium oleate, octyl alcohol, oleic acid, hydrochloric acid, acetic acid, uric acid, magnesium sulfate, copper sulfate, nonylic acid, sodium desoxycholate and others, and found that differences—measured in terms of the daily changes in growth of each paramecia culture in function of the degree of dilution of the substance added—took the typical sinusoidal form found by other investigators.¹²⁷

Patterson and Boyd in 1941 reported alteration of the Schick test from positive to negative following peroral administration of alum precipitated toxoid 30C or Diphtherinum 201C (made from diphtheria bacillus).¹²⁸

(iv) Zoological investigations: Krawkow in 1923 was apparently the first to use homoeopathic microdilutions in experiments on animals, investigating how they affected the blood supply of the isolated rabbit ear. He connected the ear arteries through rubber tubes to a bottle containing Ringer's lactate and compared the flow of the lactate with and without addition of various microdilutions. Bichloride of mercury 24X gave a 30% reduction in blood flow in one trial and a 22% increase in another. Histamine 30X gave a 23% reduction in blood flow. Strychnine nitrate gave a 7% increase etc. Krawkow, moreover, noted a biphasal effect: many poisons in relatively strong concentrations widened the capillaries, while in weaker ones they narrowed them, and vice-versa. Typical vasoconstrictors such as adrenalin and histamine relaxed the capillaries in small doses, chloroform, ether, and other narcotics which widen the capillaries in large doses narrowed them in small doses.¹²⁹

Stearns in New York (1925) added arsenic trioxide (Arsenicum album), mercuric nitrate, and triturated tumor material, in microdilutions of from 6X to 400X, to cultures of fruit flies (*Drosophila melanogaster*) of a strain in which approximately half of all males died of an inherited tumor. Addition of microdilution caused a reduction in the male death rate from inherited tumor, the difference being approximately four times greater than in the con-

¹²⁶ Anna Koffler Wannamaker, 'Further Work with Boron Dilutions and Dynamizations,' *Journal of the American Institute of Homeopathy* 61 (1968), 28-29.

¹²⁷ Hermann Junker, 'Die Wirkung extremer Potenzverduennungen auf Organismen,' *Pflueger's Archiv* 219 (1928), 647-672.

¹²⁸ J. Paterson and W. E. Boyd, 'A Preliminary Test of the Alteration of the Schick Test by a Homoeopathic Potency,' *British Homoeopathic Journal* 31 (1941), 301-309.

¹²⁹ N. P. Krawkow, 'Ueber die Grenzen der Empfindlichkeit des lebenden Proto-plasmas,' *Zeitschrift fuer die gesammte Experimentelle Medizin* 34 (1923), 279-306.

trols. Of 218 separate larva cultures 22 were used as controls.¹³⁰

In that same year Stearns reported two series of experiments on a total of 212 guinea pigs, of which 147 were used in the trial and 65 retained as controls. The animals were grouped in pens containing three males and 12 females and allowed to live the normal guinea-pig life except that the test animals were given daily doses of sodium chloride 30X, 200X, 400X, 600X, 800X, 1000X, 1200X, and 1400X in distilled water, while the controls received only the distilled water. The trial was run two years in succession, its duration being about six months in each case. Stearns noted that the test animals: (1) lost appetite, (2) lost weight, (3) were less active than the controls, (4) sat in odd positions as though losing the strength of their legs, (5) had dull and shaggy coats, (6) had dull and watery eyes, (7) had a lower reproduction rate and higher death rate than the controls, and (8) gave birth to young weighing less than those of the controls.¹³¹

Koenig in 1927 raised tadpole embryos in water to which microdilutions of lead nitrate or silver nitrate had been added and measured how many died in a given period. He found differing responses to differing degrees of dilution. Lead nitrate gave low death rates at the 1X, 2X, 3X, 13-16X, 21X, 24X, and 26-29X. High death rates were registered at 5X, 8X, 20X, 23X, 25X, and 30X. Thus the sinusoidal curve of effects was discovered here also. In addition, the 5X dilution of lead nitrate and the 26X dilution of silver nitrate caused early metamorphosis of all tadpoles.¹³²

In 1929 Vondracek repeated Koenig's experiment, using Prague city water and gold chloride microdilutions (from 4X to 24X). Mortality was measured throughout the whole period of the trial—48 days, being calculated as the number of tadpoles dying multiplied by the day of the experiment. Five control glasses were used, and mortality was both higher and lower among the test animals than in the controls. The curve of mortality was sinusoidal.¹³³

In 1951 Jarricot reported success in experiments altering neuromuscular excitability of isolated frog and turtle heart through perfusion with 18C to 118C dilutions of *Iberis amara* and the 60X dilution of veratrine sulfate.¹³⁴

¹³⁰ G. B. Stearns, 'Experiments with Homoeopathic Potentised Substances Given to *Drosophila Melanogaster* with Hereditary Tumors,' *The Homoeopathic Recorder* 40 (1925). Discussed in James Stephenson, 'A Review of Investigations into the Action of Substances in Dilutions Greater Than 7×10^{-24} (Microdilutions),' *Journal of the American Institute of Homeopathy* 58 (1955), 327-335.

¹³¹ see note 85.

¹³² Karl Koenig, 'Ueber die Wirkung extremverduennter (homoeopathisierter) Metallsalzlösungen auf Entwicklung und Wachstum von Kaulquappen,' *Zeitschrift fuer die gesammte experimentelle Medizin* 56 (1927), 581-593.

¹³³ Vladimir Vondracek, 'Die Sterblichkeit der Kaulquappen in Ultraloesungen,' *Zeitschrift fuer die gesammte Experimentelle Medizin* 66 (1929), 535-538.

¹³⁴ Jarricot, *L'infinitesimal des Homoeopathes* (Lyon: Editions des Laboratoires P.H.R., 1951).

In 1954 Boyd reported on *Strophanthus sarmentosus* experiments in frogs, using electronic circuitry to register the heart rate and its response to direct application (at the auriculo-ventricular junction) of a 32C microdilution of *Strophanthus*. Controls received the same injections, but of distilled water only. Out of the 71 frogs, used first as controls and then as test subjects, 2 reacted to the distilled water (2.8%), while 35 reacted to the *Strophanthus* (49.2%).¹³⁵

Bagros and Boiron communicated in 1955 their experiments with 30C microdilutions of ovarian follicular fluid (Folliculine) to counteract the effects of large doses of estradiol. The test was performed on about 2000 female rats, divided into test and control groups. All the rats were injected with estradiol, and those in the test group were then injected with microdilutions of Folliculine. The authors found that the microdoses of Folliculine had an effect on the rats, and that this effect was antagonistic to the effect of estradiol in ponderal doses.¹³⁶

In these same years Lapp, Wurmser, and Ney investigated the effect of infinitesimal doses of poisons on the body's elimination of these same poisons in ponderal doses. They injected guinea pigs with ponderal but sub-lethal doses of arsenic or bismuth and then administered 4C, 5C, or 7C microdoses of arsenic or bismuth; the effect was greatly to increase the quantities of urinated arsenic or bismuth.¹³⁷

In 1961 Mouriquand *et al.* investigated the effect of 7C doses of sodium arsenate on normalization of the vestibular chronologic index in pigeons injected previously with a sub-lethal dose of arsenic. Arsenic microdoses accelerated normalization of vestibular chronaxie while simultaneously increasing the arsenic content of the stools.¹³⁸

In 1964 two non-homoeopaths working in the Pasteur Institute discovered a similar phenomenon: in mice made tolerant to an endotoxin they were able to bring about elimination of the endotoxin by injecting 1/10,000 of a microgram of the endotoxin.¹³⁹

In 1966 Cier and Boiron reported on the prophylactic effect of injections of a 9C dilution of alloxan against the induction of alloxan diabetes. In mice and rabbits preliminary injection of alloxan 9C totally inhibited the hyperglycemic response to a 40 mg/kg injection of alloxan. This same injection moderated the diabetogenic response to a 60 mg/kg alloxan injection.

¹³⁵ *Journal of the American Institute of Homeopathy* 62 (1969), 230-231.

¹³⁶ Plazy, *op cit.*, 25-40.

¹³⁷ *Ibid.*, 40-49.

¹³⁸ *Ibid.*, 51-62.

¹³⁹ *Ibid.*, 112 (L. Chedid, M. Parent, F. Boyer, and R. C. Skarnes, 'Non-Specific Host Response in Tolerance to the Lethal Effect of Endotoxin' in M. Landy and W. Braun, eds., *Practical Endotoxins* [Rutgers, the State University, 1964]).

tion, and it was successfully employed in the treatment of alloxan-induced diabetes.¹⁴⁰

In another publication these authors presented photographs of the Beta-cells in the islets of Langerhans of the test animals.¹⁴¹

They reported also on the prophylactic effect of 7C intraperitoneal injections of horse serum against the Arthus phenomenon in rabbits repeatedly injected with horse serum. With ten rabbits in the test sample and ten in the control group, after 7 injections all the controls manifested the Arthus reaction, and only 6 of the test animals. In the same way they succeeded in modifying the Shwartzman reaction by a 7C endotoxin dilution.¹⁴²

Julian and Launey were able to inhibit and modify the effects of a physiologic dose of reserpine (in mice) by preliminary 7C and 9C injections of *Rauwolfia serpentina*. The same experiment was performed successfully with *Cicuta virosa*.¹⁴³

Lallouette and Boyer reported in 1967 on the inhibiting effect of calcium sulphide microdilutions on inflammation and edema provoked by injections of staphylococcal toxin. Other researchers demonstrated the prophylactic effect of endotoxin microdoses (in guinea pigs) against response to histamine aerosols.¹⁴⁴

J. and M. Tetau reported in 1969 on modifying Thuja intoxication in rats by a 9C Thuja injection. The rats were first taught a conditioned reflex; then they were injected with Thuja to intoxication (shown by loss of the reflex); the test group was then injected with Thuja 9C and returned to normalcy (as shown by restoration of the conditioned reflex) more rapidly than the controls.¹⁴⁵

I. A. Boyd reported in 1968 on the action of a microdilution (10^{-10} g/ml) of acetylcholine on the frog heart in a controlled study; he concluded that "certain substances are capable of affecting biological tissues in dilutions which cover a large part of the homeopathic low potency range." Furthermore, that "small amounts of substances may have stimulatory action in the human body when larger amounts have the opposite effect, and that this stimulatory effect may be most marked in diseased or failing tissue."¹⁴⁶

In 1976 Van Mansvelt and Amons reported on the effect of mercuric

¹⁴⁰ *Ibid.*, 80-87.

¹⁴¹ *Ibid.*, 88.

¹⁴² *Ibid.*, 88-95.

¹⁴³ O. A. Julian and J. Launay, 'Psycho-Pathological Test on Animals by Reserpine and *Cicuta Virosa*, According to the Homeopathic Laws of Analogy and Identity,' *Cahiers de Biotherapie* (December, 1965). Reprinted in *Journal of the American Institute of Homeopathy* 59 (1966), 155-164.

¹⁴⁴ Plazy, *op. cit.*, 109-118.

¹⁴⁵ *Ibid.*, 62-67.

¹⁴⁶ I. A. Boyd, 'Homeopathy Through the Eyes of a Physiologist,' *British Homeopathic Journal* 57 (1968), 86.

chloride, at dilutions as low as 0.9×10^{-23} , on the proliferation of a mouse lymphoblastic cell strain; growth inhibition was detected down to a level of 0.9×10^{-17} but the curve, instead of being flat as expected, had peaks of toxicity at 10^5 , 10^6 , 10^{16} , and 10^{17} . The authors do not try to explain the findings but call their results a "substantial indication towards some as yet unconceived phenomenon which needs further study."^{147*}

(v) Investigations using the techniques of physics: Wurmser and Loch in 1948 investigated the effect of microdilutions on the wave-length and intensity of light from a fixed source. They filtered the light to permit passage of wavelengths from 3800 to 4200 Å; this was passed through a receptacle filled with solution, changes being registered by a photoelectric cell. They found measurable changes for quinine sulfate, *Taraxacum dens leonis*, and *Aesculus hippocastanum* at dilutions from 24X to 30X.¹⁴⁸

In the early 1950's Gay and Boiron found that the dielectric index of distilled water was altered by adding to it a small amount of sodium chloride 27C; by dielectric testing they were able to select the bottle with the sodium chloride microdose out of 99 other bottles containing only distilled water.¹⁴⁹

Stephenson and Brucato in 1966 repeated Gay's work, measuring changes in the dielectric constant of water to which had been added mercuric chloride in various microdilutions (from 1X to 33X). They found that the dielectric constant was altered from the control for all dilutions up through 33X. The dielectric constant for the control varied between 6.05 and 5.60, with an average at 5.83, while the highest peak attained for any of the

* Anyone familiar with this extensive series of homoeopathic animal trials will be startled to read, under the entry 'Homoeopathy' in the recently published *Stein and Day International Medical Encyclopedia*: "Although many eminent physicians have given their approval to Homoeopathy, it is remarkable that this theory, which could be quite easily put to the test in animal experiments, has never in fact been so tested, and one can only conclude that its practitioners are aware of the fallacies involved."

Homoeopathy since its origin has had to bear the burden of much uninformed criticism similar to the above.

¹⁴⁷ J. D. Van Mausvelt and F. Amons, 'Inquiry into the Limits of Biological Effects of Chemical Compounds in Tissue Culture, I: Low Dose Effects of Mercuric Chloride,' *Zeitschrift der Naturforschung* 30 (1975), 643-649. Abstracted in *British Homoeopathic Journal* 64 (1976), 233-234.

¹⁴⁸ James Stephenson, 'A Review of Investigations into the Action of Substances in Dilutions Greater than 1×10^{-24} (Microdilutions),' *Journal of the American Institute of Homeopathy* 48 (1955) 327-335.

¹⁴⁹ A. Gay, *Presence d'un Facteur Physique dans les Dilutions Homoeopathiques* (Lyon: Editions des Laboratoires P.H.R., 1951). A. Gay, *Etude Physique de la Dynamisation* (Lyon: Editions des Laboratoires P.H.R., 1952). A. Gay and I. Boiron, *Demonstration Physique de l'Existence Réelle du Remède Homoeopathique* (Lyon: Editions des Laboratoires P.H.R., 1953).

microdilutions was 4.40, and the peak for the 33X microdilution was 3.70.¹⁵⁰

In 1963 Boericke and Smith used nuclear magnetic resonance techniques to investigate the differences among: 1) ordinary 87% hydroalcohol, 2) a 12X dilution of sulphur prepared with succussion at each stage of dilution, and 3) a 12X dilution of sulphur prepared without succussion. They were able to distinguish (2) from (1) and (3) and concluded that "some form of energy is imparted by succussion to a homoeopathic drug, resulting in a slight change of the alcohol in these dilutions. There is a structural change in the solvent as the potency is made from the tincture to a higher dilution when the solvent is 87% alcohol."¹⁵¹

If this preliminary conclusion is correct, it provides an explanation for the observed clinical effect of the homoeopathic ultramolecular dilutions: the 'power' of the medicine resides in the solvent phase, not in the solute.

More nuclear magnetic resonance work has been done recently by Young at the Hahnemann Hospital in Philadelphia. Using a 60 Mhz Perkin-Elmer R-12 nuclear magnetic resonance spectrometer he observed changes in alcohol-water solutions as a result of serial dilution and succussion. Dilutions of sulphur, from 5X to 30X, with succussion at each stage, showed measurable changes in the spectra at each stage of dilution and succussion, and the changes followed the sinusoidal curve which seems to be typical in these investigations. The same sinusoidal curve was not detected in Young's investigations of: (1) a series of dilutions of 87% alcohol without any solute added and with rotation at each stage instead of succussion; (2) a series of dilutions of 87% alcohol without any solute and without succussion or rotation at each stage; (3) a series of dilutions of 87% alcohol without any solute added and with succussion at each stage; (4) a series of dilutions of sulphur with rotation at each stage; or (5) a series of sulphur dilutions with neither rotation nor succussion.¹⁵²

(vi) Theoretical explanations of the ultramolecular dilutions: Several articles suggesting a physical theory of the action of the ultramolecular dilutions have been published by Stephenson and Barnard. They suggest that

¹⁵⁰ Albert Brucato and James Stephenson, 'Dielectric Strength Testing of Homoeopathic Dilutions of HgCl₂,' *Journal of the American Institute of Homeopathy* 59 (1966), 281-286.

¹⁵¹ Garth W. Boericke and Rndolph B. Smith, 'Modern Aspects of Homeopathic Research,' *Journal of the American Institute of Homeopathy* 56 (1963), 363-366; 58 (1965), 158-167. Rudolph B. Smith and Garth W. Boericke, 'Modern Instrumentation for the Evaluation of Homoeopathic Drug Structure,' *ibid.*, 59 (1966), 263-280. Rudolph B. Smith and Garth W. Boericke, 'Changes Caused by Succussion on N.M.R. Patterns and Bioassay of Bradykinin Triacetate (BKTA) Succussions and Dilutions,' *ibid.*, 61 (1968), 197-212.

¹⁵² Timothy M. Young, 'Nuclear Magnetic Resonance Studies of Succussed Solutions,' *Journal of the American Institute of Homeopathy* 68 (1975), 8-16. Timothy M. Young, 'Anomalous Effects in Alcohol-Water Solutions,' *Review of Mathematical Physics* 13 (1975), 10-12.

the water phase in the 87% hydroalcohol solution takes on a specific polymeric form reflecting the configuration of the molecules of the solute.

These succussed high dilutions represent stereospecific isotactic polymers imprinted in the solvent by the solute, with self-replicating qualities in the absence of the initial solute. Thus, as in cytoplasmic molecular chemistry, the information content of the solute may reproduce itself separate from its chemical action. As this process may also occur in cellular fluids, it provides an hypothesis for explaining the clinical action of succussed high dilutions, almost on an antigen-antibody basis.¹⁵³

Thus Hahnemann found a "means of separating the structural content of a chemical from its associated chemical mass."¹⁵⁴

Van Mansvelt and Amons, whose work is mentioned above, also suggest that modifications in the structure of the water used for the serial dilutions of mercuric chloride may permit information to be passed from one dilution to the next.¹⁵⁵

While this theory of the medicinal action of high potencies is still in the form of a hypothesis, it seems to resemble Bridgman's work on the barometric pressure specificity of ice crystallization patterns in water.¹⁵⁶ He found that water crystallizes in a particular pattern for each barometric pressure, and this pattern reproduces itself when the ice is melted and then refrozen at a lower pressure. The homoeopathic high dilutions thus seem to form part of the area of research dealing with the effect of physical field phenomena on solvents.

(b) *Homoeopathy's rejection of the monotonicity rule*: The 'monotonicity rule' may be defined as meaning that an increased dose of medicine gives an increased effect while a lower dose gives a lesser effect. This has always been rejected by Homoeopathy which generally holds that: (1) the effect is increased by diluting and succussing the substance according to the accepted homoeopathic principles, but (2) more specifically, this increased effect is not a straight-line function of the successive stages of dilution but is sinusoidal (see the discussion in Section III above).

Homoeopaths have attempted to explain this phenomenon in terms of the greater fineness of the active medicinal substance in the 'higher' potencies—due to their greater degree of trituration. Greater fineness means larger surface area, consequently a larger area of contact between the medicine and

¹⁵³ James Stephenson, 'On Possible Field Effects of the Solvent Phase of Succussed High Dilutions,' *Journal of the American Institute of Homeopathy* 59 (1966), 259-262. See also G. P. Barnard and James Stephenson, 'Microdose Paradox: A New Biophysical Concept,' *ibid.* 60 (1967), 277-286, and G. P. Barnard and James Stephenson, 'Fresh Evidence for a Biophysical Field,' *ibid.* 62 (1969), 73-85.

¹⁵⁴ G. P. Barnard, 'Microdose Paradox—A New Concept,' *Journal of the American Institute of Homeopathy* 58 (1965), 205-212, at 211.

¹⁵⁵ See note 147.

¹⁵⁶ P. W. Bridgman, *The Physics of High Pressure* (London, 1949), 424—cited in *Journal of the American Institute of Homeopathy* 59 (1966), 260.

the organism of the person ingesting it. But this explanation is inadequate in view of the nuclear magnetic resonance studies discussed above indicating that *succussion* of the medicine at each stage of dilution is an essential step in preparing the homoeopathic medicines and suggesting that the polymeric form of the hydroalcohol is the bearer of the energy of homoeopathic high dilutions.^{157*}

Whether or not the homoeopaths have provided a satisfactory explanation for the heightened power of their infinitesimal doses, it is still true that many objections to this homoeopathic principle are based on the unproven assumption that larger doses of medicines always provoke a more powerful response than smaller doses.

In a 1978 article S. H. Kon described this assumption of monotonicity as a rule "of unknown origin, invoked only implicitly, and . . . nameless, unverballed and unproven for chronic dose-response curves."¹⁵⁸ It is "unproven and unreasonable" in chronic low-toxicity studies. Citing 71 references, Kon concluded that "non-monotonic stimulus-response relationships are common in nature and well explored," that "chronic toxicities of food additives have often been underestimated by those who disregard the experimental data that do not conform to the monotonicity rule," and that "mechanisms of long-term low-level toxicities are unknown."

Of particular interest to homoeopaths is Kon's observation that well-documented effects of low-level exposure have on occasion been simply disregarded by investigators when they did not fit the assumption of monotonicity. He cites the following passages from representative studies:

"tumors . . . occurred only in rats given low doses [of propylene glycol] and thus showed no dose-relationship in their incidence.

"Focal hyperplasia . . . occurred with a frequency which was not correlated to increasing doses [of EDTA]. Thus, it may be concluded that these changes were not causally related to test dosage.

Although mortality was highest in the 1% low-dose group (all animals dying by the end of the test), no correlation existed between dose-level and

* The homoeopaths attribute enhancement of the medicine's power by *succussion* to the physical transfer of energy to the medicine. Oddly enough, some support for this idea was provided by an experiment in England comparing two influenza vaccines—one using an ordinary saline solution as its base and the other using an emulsion. The emulsified vaccine acted more powerfully and over a longer period than the saline preparation and with fewer general or local reactions. Although no explanation for this was offered, the formation of an emulsion requires an input of physical energy (see F. Himmelweit, "Serological Responses and Clinical Reactions to Influenza Virus Vaccines," *British Medical Journal*, December, 1960 [ii] 1690-1694.

¹⁵⁷ Timothy M. Young, 'Nuclear Magnetic Resonance Studies' and 'Anomalous Effects in Alcohol-Water Solutions.'

¹⁵⁸ S. H. Kon, 'Underestimation of Chronic Toxicities of Food Additives and Chemicals: the Bias of a Phantom Rule,' *Medical Hypotheses* 4 (1978), 324-339.

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4. Sharma, R. R. (1979): 'Scientific Bases of Homoeopathy: Operational Laws of Homoeopathy as Comprising New Science of Ultramicroxenopathy', *THE HAHN. GLEAN.*, 46 (4), 156-165 (*Ind. J. Hom.*, Nov. 1980).

5. Sharma, R. R. (1982): 'Scientific Bases of Dynamization', *THE HAHN. GLEAN.*, 49 (1), 14-24.

6. Sharma, R. R. (1982): 'Scientific Bases of Homoeopathy, Xenobiology, Ultramicroxenopathy, Unified Therapeutics, and More'. *THE HAHN. GLEAN.*, 49 (2), 51-61.

7. Folin, O. and Wu H. (1920): *J. Biol. Chem.*, 41, 367. (Details in H. Varley's *Practical Clinical Biochemistry*, 4th ed., Arnold-Heinemann 1969, Indian ed. 1976, New Delhi, pp. 86.

8. Hahnemann, S. (1842): *Organon of Medicine*, 6th ed., 2nd Indian ed. (1968), Calcutta, Roy Singh & Co.

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mortality. Survival was therefore considered to be unaffected by the intake of coloring [C.I. Food Red No. 5]."

Homoeopaths have frequently complained that their results are not accepted by allopathic physicians because they contradict such implicit assumptions as the monotonicity rule. Thus it is a consolation to know that allopathic investigators sometimes reject their own results for the same reason.

While Kon expressly limits his conclusions to long-term chronic exposure, this whole area is unexplored, and his analysis casts doubt on the monotonicity assumption in respect of other dose-response relationships.

(To be continued)

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DR. HARRIS L. COULTER, PH.D.

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VII. THE SINGLE REMEDY

Hahnemann advocated the single remedy on practical and theoretical grounds. He thought that the use of medical mixtures led to over-drugging of the patient, but, more specifically, he realized the impossibility of predicting the synergistic effect of several drugs administered simultaneously.

The homoeopathic provings, of course, are all of single substances and chemical compounds (considered as single substances)—never of medical mixtures.

This principle has not been adopted by Allopathy. Although a voice here and there is raised in opposition to the use of polypharmaceutical mixture, e.g. "Nothing could promote more greatly confusion and ineffectiveness of drug therapy than to fix several function-modifiers together. If the dose of the mixture is increased so that function-modifier A produces a maximum therapeutic effect, function-modifier B may already be in highly toxic dosage. Drug A may be rapidly excreted, drug B may be retained in the body.....Physicians who take any drug therapy seriously no longer employ prescriptions in which important function-modifiers are compounded."¹⁵⁹

More typical is the following: "It is the responsibility of the physician to elicit a good drug history from his patient so that he is aware of what other drugs the patient is receiving and can draw a rational plan as to what medications may be prescribed when they are indicated.....Because of specialization, many different physicians may see the same patient for several ailments."¹⁶⁰

VIII. ACCEPTANCE OF THE SIMILARS PRINCIPLE IN ALLOPATHY

The principle of similars is broadly applied in allopathic medicine, being regarded as one of the bases of therapeutics. The whole development of immunology and serum therapy is founded on this principle, as is the speciality of allergology. There are also a number of drugs in common allopathic use whose efficacy is due to the fact that they are employed (unconsciously in most cases) according to the principle of similars.

(a) *Immunology and Serum Therapy*: This subject is too extensive, as well as too familiar to the physician, to be developed here, and we may limit ourselves to quoting Emil von Behring, one of the founders of this discipline

¹⁵⁹ W. R. Houston, *The Art of Treatment* (New York: Macmillan, 1936), 22.

¹⁶⁰ *Chronic Disease, Advances in Diagnosis and Treatment* (June, 1974), 1.

in the late nineteenth and early twentieth centuries. As the following indicates, he was aware of its close doctrinal relationship to Homoeopathy: "In spite of all scientific speculations and experiments concerning smallpox vaccination. Jenner's discovery remained an erratic boulder in medicine until biochemically thinking Pasteur, devoid of all classroom knowledge, traced the origin of this therapeutic boulder to a principle which cannot be better characterized than by Hahnemann's word, "homoeopathic".

Indeed, what else causes the epidemiological immunity in sheep vaccinated against anthrax than the influence previously exerted by a virus similar in character to that of a fatal anthrax virus." And by what technical term could we more appropriately speak of this influence exerted by a similar virus than by Hahnemann's word: "Homoeopathy?"¹⁶¹

(b) *Allergology*: This is another extensive subject requiring little elaboration by us here. The use of pollen extracts, house-dust extracts, etc. to reduce and eliminate sensitivity to these and other substances is clearly an instance of the application of similars and is recognized as such.

(c) *Use of drugs according to the similars principle*: Many drugs are used homoeopathically in allopathic medicine today. In other words, they are used to treat conditions whose symptoms are identical with those produced by this drug on a healthy person. Since the same drugs are often employed in Homoeopathy for approximately the same conditions, to this extent their allopathic and homoeopathic uses overlap.

Allopathy does not recognize these homoeopathic parallels and hypothesizes various physiological and pathological mechanisms to explain the action of these medicines (see below). Whether or not these "explanations" are scientifically valid, and they vary from one decade to the next in any case, they do not necessarily contradict the homoeopathic law of similars—which is only another way of observing and interpreting the very same phenomena.

Thus conventional medicine relies unconsciously on the homoeopathic law of similars for many of its more effective drugs, although applying this law in a crude way—without the individualization which is a necessity in Homoeopathy.

However, the following discussion encompasses a broader area than merely the parallels between the allopathic and homoeopathic uses of drugs. It includes the whole range of phenomena falling under the concepts of 'opposite' effects of large and small doses, 'paradoxical' effects, etc.—in short, the biphasal action of medicines on the living organism as a function of dose size.

The following examples are only a few of the many which could be mentioned:

¹⁶¹ *Beträge zur exper. Therapie*, 11 (1906), H. 2, page 26. See, also, Brian Inglis, *The Case for Unorthodox Medicine* (New York: G. P. Putnam's Sons, 1964), 84.

Colchicum, which has been used since time immemorial in the treatment of gout, produces numerous gout symptoms in its homoeopathic provings: "tingling in right big toe, as if it would go to sleep; pain in left big toe, as if nail would grow into flesh, pain in ball of left big toe, as if inflamed," etc.¹⁶² It is used homoeopathically as one of the remedies for the gout syndrome.

Colchicum has also been found useful allopathically in a rare disease known as Familial Mediterranean Fever (Familial Paroxysmal Polyserositis), marked by arthritic joint pains as well as sharp pains in the chest which make breathing difficult.¹⁶³ The proving of Colchicum has, in addition to the arthritic joint pains, also "violent cutting pain in the chest, interrupting breathing. Lancinating pain, as with a knife, in right side of chest," etc.¹⁶⁴

The homoeopathic proving of digitalis gives several pages of heart symptoms, including "thready, slow and intermittent pulse. Pulse very slow and weak. Irregular small pulse,"¹⁶⁵ etc. It is the homoeopathicity of digitalis to these heart symptoms which has made it a favourite in certain heart conditions for almost two centuries.¹⁶⁶

Marijuana has been used in Homoeopathy since the mid-nineteenth century. Its provings yield such symptoms as "pressure from back of eyes forwards. Cornea becomes obscured.....Cornea becomes opaque.....Cataract."¹⁶⁷ And, of course, there is much discussion today of the curative effect of Cannabis in glaucoma and corneal opacity, with the parallel observation that its mode of action is unclear or unknown.¹⁶⁸ In 1900 John Henry Clarke's (homoeopathic) *Dictionary of Practical Materia Medica* was recommending Cannabis sativa for "eyes; corneal opacity," on the strength of its provings.¹⁶⁹

It is known that the IUD with a copper element in it works in some way to prevent conception, presumably because minute quantities of copper leach into the wearer's reproductive system. The proving of Cuprum metallicum gives a variety of symptoms for the female reproductive organs, including "spasms," "delayed or suppressed menstruation," "violent cramps,"¹⁷⁰ etc.

In the 1920's a Belladonna derivative was discovered by Allopathy to be effective, in minute doses, for the treatment of infantile colic. Colic symptoms

¹⁶² Hering, *Guiding Symptoms*, IV, 338.

¹⁶³ *New York Times*, May 27, 1974.

¹⁶⁴ Hering, *Guiding Symptoms*, IV, 334.

¹⁶⁵ *Ibid.*, V, 115.

¹⁶⁶ D'Arcy and Griffin, *op. cit.*, 48-50, R. I. Shader, *Psychiatric Complications of Medical Drugs* (New York: Raven Press, 1972), 25-47.

¹⁶⁷ Hering, *Guiding Symptoms*, III, 276.

¹⁶⁸ *New York Times*, July 28, 1972. *Washington Post*, May 12, 1976.

¹⁶⁹ J. H. Clarke, *A Dictionary of Practical Materia Medica*, I, 380.

¹⁷⁰ *Time*, December 11, 1964 (Obituary of Sidney Haas, M.D., who introduced this use of Belladonna into Allopathy). For the homoeopathic use of Belladonna in infantile colic see W. P. Baker, W. W. Young, and A. C. Neiswander, *Introduction to Homoeotherapeutics* (Washington, D.C.: American Institute of Homoeopathy, 1974), 49.

appear in the provings of Belladonna, and it had long been in common use by homoeopaths for treating colic in infants.¹⁷¹

The proving of *Rauwolfia serpentina* shows increased blood pressure with irregular heartbeat.¹⁷² Both Homoeopathy and Allopathy use this substance to reduce blood pressure. Its mental symptoms in the homoeopathic proving include "increased emotional excitability and lability of moods. Alternation of irritability, excitability, and mild depression.....Inner restlessness," and, of course, allopathic reserpine is used to treat "agitated psychotic states."^{173*}

Nitroglycerine was first introduced into medicine by Constantine Hering. He found that the provings yielded a number of cardiac symptoms and used nitroglycerine (known in Homoeopathy as Glonoin) to treat angina pectoris and other heart conditions.¹⁷⁴ A century later this medicine is used both homoeopathically and allopathically for the management of angina pectoris.

Metallic gold, whose proving yields a series of rheumatic symptoms, and which has been used commonly in Homoeopathy for rheumatic complaints, was introduced into Allopathy in 1935 by Forestier who observed that gold salts seem to have no direct antibacterial action and must thus operate by stimulating the defense reaction of the host.¹⁷⁵ He tested it, with reported good results, in more than 550 cases of rheumatoid arthritis, and gold salts are still used in Allopathy today to treat rheumatoid arthritis and other chronic forms of polyarthritis.¹⁷⁶ Gold preparations have also been used in both Allopathy and Homoeopathy for the treatment of tuberculosis.¹⁷⁷

Veratrum viride, which in homoeopathic proving yields both increased and decreased pulse rate, is used both homoeopathically and allopathically to treat hypertension.¹⁷⁸

This medicine has been out of fashion in Allopathy recently because the

¹⁷¹ *Ibid.*

¹⁷² William Gutman, 'Proving Symptoms of *Rauwolfia Serpentina*,' *Journal of the American Institute of Homoeopathy*, 50 (1957), 140.

¹⁷³ *Physicians' Desk Reference* (1975 Edition), 1454.

* One reserpine investigator wrote: "although, in the light of our present dosage regime, the 1 mg. given daily verged on the homoeopathic, the results were still conclusive enough to demonstrate that the number of assaults, the number of restraints, and the general noise and disturbance in the ward were all reduced as a result of medication" (*Annals of the New York Academy of Sciences* LXI [1955], Art. 1, 85).

¹⁷⁴ Harris L. Coulter, *Homoeopathic Influences in Nineteenth-Century Allopathic Therapeutics* (Washington, D.C.: American Institute of Homoeopathy, 1973), 71.

¹⁷⁵ Jacques Forestier, 'Rheumatoid Arthritis and its Treatment by Gold Salts,' *Journal of Laboratory and Clinical Medicine*, 20 (1935), 827-840.

¹⁷⁶ F. J. Wagenhauser, *Chronic Forms of Polyarthritis* (Bern: Hans Huber, 1976), 16. *Physicians' Desk Reference* (1970 Edition), 1177.

¹⁷⁷ F. J. Clarke, *A Dictionary of Practical Materia Medica*, I, 223-234. Boericke, *Materia Medica with Repertory*, 96. Paul Talalay, ed., *Drugs in Our Society* (Baltimore: Johns Hopkins, 1964), 22.

¹⁷⁸ Hering, *Guiding Symptoms*, X, 433, John Henry Clarke, *The Prescriber* (Devon, England: Health Science Press, 1977), 231. *Physicians' Desk Reference* (1970 Edition), 1080. *Journal of the American Institute of Homoeopathy*, 46 (1953), 339-341, 343.

therapeutic dose is too close to the toxic dose. Of course, from the homoeopathic point of view this is an advantage, indicating that the substance has an inherently powerful effect on the organism and thus is a valuable remedy when used skilfully.

The provings of Stramonium and Lobelia yield many lung symptoms: extremely difficult breathing caused by a very strong constriction at middle of chest, which impedes respiratory movements," "spasmodic asthma," excessive sense of suffocation," etc.,¹⁷⁸ and both of these remedies are used to treat asthma in the homoeopathic school. Consequently the use of cigarettes ("Asthmador") made of these substances as inhalent remedies in asthma is homoeopathic. Some years ago the U.S. Food and Drug Administration queried whether Asthmador cigarettes were truly effective in relieving asthma, presumably because the mechanism of action of these substances had not been clarified in the allopathic school but also perhaps because of a lingering feeling that no inexpensive medicine can be really beneficial. As a *Washington Post* columnist noted: "asthma may not be the kind of illness that can be effectively treated by puffing on a jimson-weed cigarette that retails for a nickel."¹⁷⁹

Ephedrine (from the *Ephedra vulgaris*) also yields a number of asthma symptoms in the homoeopathic proving: "ordinary exertions caused respiration to be wheezing in character," etc.¹⁸⁰ And several allopathic asthma preparations today are based upon ephedrine.

The homoeopathic provings of adrenalin also give rise to asthma symptoms: "sensation of thoracic constriction," "depression of respiratory center," "cough," "expectoration of gelatinous mucus which is hard to detach," etc.¹⁸¹ And, of course, adrenalin (epinephrin) has been used allopathically to relieve paroxysms of asthma. Because of its biphasal action, however, an overdose will intensify the symptoms this medicine is designed to relieve. In the early 1960's several thousand asthmatics died in England from using adrenalin dispensed in too large a dose from a pressurized aerosol container—probably the greatest epidemic of iatrogenic death in recent history.¹⁸² A homoeopathic physician had warned as early as 1910 that an overdose with the crude drug leads to: "increase of respiratory movements, soon followed by suffocation and death from paralysis of medulla and pneumogastric."¹⁸³

The allopathic anti-coagulant drug, dicumarol, is made from spoiled clover (*Melilotus*) which, in its homoeopathic provings, yields a variety of hemorrhages, especially from the nose and lungs.¹⁸⁴ Consequently, in

¹⁷⁹ Colman McCarthy, 'A Minor Drug and a Major Problem,' *Washington Post*, January 1, 1971.

¹⁸⁰ *Homoeopathic Recorder*, 45 (1930), 184-186.

¹⁸¹ Boericke, *Materia Medica with Repertory*, 14. H. C. Allen, *Materia Medica of the Nosodes* (Philadelphia: Boericke and Tafel, 1910), 4.

¹⁸² *The Lancet*, 1965 (2), 104, 1968 (2), 426.

¹⁸³ Allen, *Materia Medica of the Nosodes*, 4.

¹⁸⁴ Clarke, *Dictionary of Materia Medica*, II, 420-421.

Homoeopathy this drug is used to prevent hemorrhage, and not to prevent blood clotting.¹⁸⁵

An allopathic experiment demonstrating the law of similars was reported some years ago in the *New England Journal of Medicine*. It involved three substances—caerulein, cholecystokinin, and pentagastrin—known for their ability to stimulate gastric acid secretion. When secretion was stimulated by intravenous administration of pentagastrin, addition of either of the other two substances to the intravenous drip was found to inhibit secretion rather than (as anticipated) to reinforce the influence of the pentagastrin.¹⁸⁶ In an editorial entitled "Treating Like with Like" the editor noted: "at first glance it might be supposed that gastrin, cholecystokinin, and caerulein, with their identical terminal peptide sequences and overlapping functions, would exert an additive effect if simultaneously released or administered. It has become quite clear, however, that this is not necessarily so; to the contrary, these substances often act antagonistically....."¹⁸⁷

Students of medical history know that ergot of rye—a fungus growing on rye under damp conditions—causes the disease known as St. Anthony's Fire: constriction of the blood vessels, especially in the arms and legs, and progressive gangrene. One historian described this condition: "an icy chill developed in the arms and legs, and this was succeeded by a torturing burning sensation. As though consumed by internal fire, the limbs became black and then shriveled and fell from the body. Some of those afflicted by the disease died, but many recovered, maimed and distorted even by the loss of all their limbs, so that there was left only the trunk and head.....As late as the eighteenth century the hospital of the Order of St. Anthony in Vienna had a collection of withered and blackened limbs, relics of the afflicted who had received succor there."¹⁸⁸

The symptoms of ergot poisoning (and, consequently, of the ergot provings) thus include numbness of the hands and arms with loss of sensation, painful swelling, cramps, a burning sensation, contraction of the fingers, etc., and homoeopaths have long used ergot (*Secale cornutum*) to treat gangrene, Raynaud's Disease, and circulatory difficulties of various kinds.¹⁸⁹ In 1933 an allopathic physician reported successful treatment of several cases of Raynaud's Disease with small doses of ergot, some of the patients manifesting aggravation of the symptoms for a short time after the commencement of therapy.¹⁹⁰ And in the 1940's an ergot-based medicine (hydergine) was intro-

¹⁸⁵ Boericke, *Materia Medica with Repertory*, 427.

¹⁸⁶ A. M. Brooks, A. Agosti, et al., 'Inhibition of Gastric Acid Secretion in Man by Peptide Analogues of Cholecystokinin, *New England Journal of Medicine*, 282 (March 5, 1970), 535-538.

¹⁸⁷ *Ibid.*, 565.

¹⁸⁸ Howard Haggard, *Devils, Drugs, and Doctors* (New York: Halcyon, 1929), 217.

¹⁸⁹ Clarke, *Dictionary of Materia Medica*, III, 1132.

¹⁹⁰ W. Gerlach, 'Secale Cornutum gegen Gangraen,' *Muenchener Medizinische Wochenschrift*, 80 (1933), 1743-1745.

duced into Allopathy for the treatment of intermittent claudication and peripheral vascular diseases.¹⁹¹

The provings of ergot also yield a variety of headaches, and the homoeopathic school pioneered the use of ergot for headaches in the nineteenth century.¹⁹² Today such ergot compounds as methysergide malcate and ergotamine tartrate are used in Allopathy to treat migraine and other types of headache.

Even the hallucinatory symptoms of LSD (an ergot derivative) are pre-figured in the nineteenth-century homoeopathic provings, and the (allopathic) suggestion that schizophrenia should be treated with LSD is an incipient application of the law of similars.¹⁹³

Snake and insect poisons have a very powerful effect upon the human and animal organism and for that reason were incorporated into Homoeopathy at an early stage in its history. One of Hering's first books (in 1837) was on this subject.¹⁹⁴ Some decades later Allopathy also came to realize the significance of snake and insect poisons for medicine, and today they are used in both schools.

The homoeopathic proving of rattlesnake venom (*Crotalus horridus*) yields many lung and chest symptoms: "cough with bloody expectoration. Tickling from a dry spot in larynx," etc.¹⁹⁵ Today both schools treat bronchial asthma and upper respiratory tract diseases with rattlesnake venom.¹⁹⁶

Cobra venom (*Naja tripudians*) has been employed in Homoeopathy since the nineteenth century to treat heart muscle damage following infectious disease or a heart attack.¹⁹⁷ A recent publication mentions the allopathic use of a cobra venom fraction to treat myocardial infarction.¹⁹⁸

The provings of this substance also yield a variety of facial pains: "pain in left temple and in left orbital region, extending to occiput," etc., and both schools use it to treat trifacial neuralgia.¹⁹⁹

¹⁹¹ Henry W. Eisfelder, 'Some Homoeopathic Remedies in Modern Use,' *Journal of the American Institute of Homoeopathy*, 49 (1956), 239-240.

¹⁹² Harris L. Coulter, *Homoeopathic Influences in Nineteenth-Century Allopathic Therapeutics*, 60.

¹⁹³ Hering, *Guiding Symptoms*, IX, 248. H. A. Abramson *et al.*, 'Production of Tolerance to Psychosis-Producing Doses of Lysergic Acid Diethylamide, *Science* 126 (November 15, 1957), 1020. C. Savage and L. Cholden, 'Schizophrenia and the Model Psychoses,' *Journal of Clinical and Experimental Psychopathology*, 17 (1956), 405-413.

¹⁹⁴ Constantine Hering, *Wirkungen des Schlangengiftes, zum aerzlichen Gebrauche vergleichend zusammengestellt* (Allentown, Pennsylvania, 1837).

¹⁹⁵ Allen, *Encyclopedia of Pure Materia Medica*, III, 593. Boericke, *Materia Medica with Repertory*, 241.

¹⁹⁶ W. Buecherl and E. Buckley, *Venomous Animals and Their Venoms* (Three volumes) (New York and London: Academic Press, 1971), III, 458 and 466. Hering, *Guiding Symptoms*, IV, 487-488.

¹⁹⁷ Boericke, *Materia Medica with Repertory*, 454. Hering, *Guiding Symptoms*, VII, 530-531.

¹⁹⁸ *Science* 173 (30 July 1976), 387.

¹⁹⁹ Boericke, *Materia Medica with Repertory*, 453. Buecherl and Buckley, *Venomous Animals and Their Venoms*, III, 450-451.

One of the commonest applications of snake poisons is for their effect on the coagulation of the blood. This is biphasal—promoting or inhibiting coagulation depending upon dose size, as was shown by a researcher in 1904.²⁰⁰ Homoeopaths tend to use these substances for their anticoagulant properties (in phlebitis, thrombophlebitis, etc.), while allopaths seem to use them more for their antieagulant properties (in hemorrhages, hemophilia, prevention of Shwartzman's phenomenon, etc).²⁰¹

The homoeopathic provings of bumble bee venom (*Apis mellifica*) give a variety of arthritis and rheumatism symptoms, and bee venom is used to treat arthritis and rheumatism in both schools.²⁰² Other indications in Homoeopathy for the use of bee venom are edema and nephritis, and the allopathic literature also contains reports of the treatment of these conditions with bee venom.²⁰³

The (allopathic) 'side effects' of a drug, representing the long-term poisonous effect of a drug on the patient's organism, are the approximate equivalent of the homoeopathic proving symptoms. Consequently, 'side effects' will often indicate the area of application of the medicine. Quinine, for instance, when used for long periods, causes irregularities of the heart beat, and homoeopaths have used quinine for more than a century to treat some cardiac arrhythmias.²⁰⁴ The use of quinine to treat auricular fibrillation was discovered by Allopathy in 1912.²⁰⁵ Streptomycin was introduced in the mid-1940's for the treatment of tuberculosis and was at once seen to give rise to various ear symptoms: deafness, vertigo, and associated ear noises. This led researchers in both the homoeopathic and allopathic schools, in the late 1940's, to use streptomycin in the treatment of Meniere's disease.²⁰⁶ The drug, alloxan (mcsoxalyl urea), used by allopathic investigators in various nutrition experi-

²⁰⁰ Buecherl and Buckley, *Venomous Animals and Their Venoms*, III, 456.

²⁰¹ Homoeopathic uses: viper venom as an anticoagulant in phlebitis (*Journal of the A.H.*, 56 [1963], 328), rattlesnake venom in thrombophlebitis (*British Homoeopathic Journal*, LXIV, No. 1 [January, 1975], 36). Allopathic uses: 'prevention of Shwartzman's phenomenon and treatment of hemorrhage with 1 cc. of 1:3000 dilution of moccasin venom (*Aneistrodon piscovoras*) (*Journal of the American Medical Association*, 104 [1935], 1066-1070), treatment of hemophilia with Russel's viper venom (*The Lancet* 1934 [ii], 985).

²⁰² Boericke, *Materia Medica with Repertory*, 63, B. F. Beck, *Bee-Venom Therapy* (New York and London: D. Appleton-Century Co., 1935).

²⁰³ Boericke, *Materia Medica with Repertory*, 61. Buecherl and Buckley, *Venomous Animals and their Venoms*, III, 465-466.

²⁰⁴ Boericke, *Materia Medica with Repertory*, 209. J. A. Pollia, 'A Few Contributions to Modern Medicine that are Based on the Law of Similars,' *Journal of the American Institute of Homoeopathy* 44 (1951), 49-51.

²⁰⁵ Paul Talalay, ed., *Drugs in Our Society* (Baltimore: (Johns Hopkins, 1964), 25.

²⁰⁶ H. W. Eisfelder, 'Clinical Homoeopathy,' *Journal of the American Institute of Homoeopathy*, 45 (1952), 162-163. H. W. Eisfelder, 'Today's Trend in Homoeopathy,' *Journal of the American Institute of Homoeopathy*, 43 (1950), 221-222. M. Foxen, 'Use of Streptomycin in Meniere's Disease,' *Proc. Royal Soc. Med.*, 47 (August), 1954), 671-672.

ments, is known to cause diabetes, and it has been used successfully by homoeopathic physicians to treat diabetes: glycosuria disappears, and the blood sugar level returns to normal.²⁰⁷

Many drugs used in Allopathy to treat cancers are known to be carcinogenic.²⁰⁸ The appearance of secondary tumors and cancers in patients undergoing treatment for cancer is thus a striking parallel to the appearance of 'superinfections' in patients with bacterial diseases undergoing treatment with anti-bacterial substances. In both cases the 'similar' effect of the medicines used intensifies the very condition which is being treated.

While numerous other examples could be given, the above are sufficient to demonstrate that the use of 'similars' in Homoeopathy can be supported by much empirical evidence from allopathic practice.

The rough parallels between the symptoms from homoeopathic provings and the allopathic disease entities in which these medicines are used should not, of course, be considered an exhaustive analysis of the homoeopathic indications for use of these remedies. They are only suggestions about the kinds of morbid states in which these drugs may be used homoeopathically provided the remainder of the patient's symptoms match the drug pathogenesis.

IX. HERING'S LAW AND CHRONIC DISEASE

The concept of chronic disease is extremely important in the homoeopathic therapeutic doctrine. Mention has already been made of Hering's Law of the movement of symptoms, and of how it governs the relationship between acute and chronic disease as well as between somatic and mental disease. On the basis of their experience with this law and its effects homoeopathic physicians attribute much of today's chronic disease to the indiscriminate use of medicines by Allopathy which has a suppressive effect on acute conditions and thus transforms them into chronic ones.

The concern of homoeopathic physicians is entirely justified. About one half of the American population suffers from a chronic disease, and over 23 million (about 1 in 9) suffer some impairment of their mobility as a consequence.²⁰⁹

Of the 23 million whose mobility is impaired, 15.5% have heart disease,

²⁰⁷ A. Cier, J. Boiron *et al.*, 'Experimental Diabetes Treated with Infinitesimal Doses of Alloxan,' *Journal of the American Institute of Homoeopathy*, 62 (1969), 86-91.

²⁰⁸ Susan M. Sieber and Richard H. Adamson, 'Toxicity of Antineoplastic Agents in Man: Chromosomal Aberrations, Antifertility Effects, Congenital Malformations, and Carcinogenic Potential,' *Advances in Cancer Research*, 22 (1975), 57-155. In 1957 a case was reported of a woman with breast cancer which went into remission for nine months when treated with methylcholanthrene, a powerful carcinogen (*Journal of the American Institute of Homoeopathy*, 54 [1958], 15-16).

²⁰⁹ Anselm L. Strauss, *Chronic Illness and the Quality of Life* (St. Louis: Mosby, 1975), 1.

14.1% arthritis or rheumatism, 6.9% an impairment of the back or spine, 6.7% an impairment of the lower extremities or hips, 5% asthma or hay fever, 4.8% a visual impairment, 4.6% hypertension without heart involvement, and 4.4% a mental or nervous condition.²¹⁰ To this listing should be added the various kinds of cancer which Homoeopathy regards as chronic diseases and which claimed the lives of 350,000 Americans in 1973 and over 400,000 in 1980.²¹¹ By the end of the century about 500,000 Americans are expected to die from cancer every year; one man in five, and one woman in four, will develop this disease.²¹²

Various explanations and theories of chronic disease, and its rising incidence, have been propounded by Allopathy. But little or no attention has been paid to the possibility that it results in part from the incorrect medical treatment of acute conditions.

As the following passages indicate, the homoeopathic school holds that the natural progress and stages of a patient's illness have to be respected by the physician—at the risk of turning acute conditions into chronic ones: "I find that very often it is lucky for a patient when his skin remains uncured, that is, not cured at the expense of health.....skin eruptions are, for Hahnemann, nature's way of quieting an internal disease which threatens vital organs, by developing an external local malady; the object being to keep diseased this non-essential part.....In regard to local affections even the popular mind has traditions as to the danger of curing them locally. Many an old woman (in the past, anyway) jealously guarded her 'bad leg' because she had, or knew of, the dire consequences following the cure of such an affliction. And has not one been told 'he had a rash all over his back before, and when that was cured, his asthma came: he always thought it was that.' So much so that one has got into the habit of asking a new asthma patient, 'When did you have an eruption?' 'Never,' and the next time, 'you asked me about an eruption, and I told you I never had it, but now I remember.'²¹³

"Many forms of suppression will be brought out by the homoeopathic remedy, such as the reappearance of skin eruptions suppressed by various ointments, catarrhal complaints, and gonorrhoeal discharges suppressed by injections, followed by rheumatic troubles. Leucorrhoeal discharges stopped by local treatments, followed by ovarian and uterine troubles. Symptoms will disappear in the reverse order of their appearance: that is, under homoeopathic treatment the last symptoms to come are the first to go.....The return

²¹⁰ USDHEW PHS, *Limitation of Activity Due to Chronic Conditions, United States, 1969 and 1970* (Rockville, Md., 1973), 1, 3, 10.

²¹¹ David Schottenfield, *Cancer Epidemiology and Prevention* (Springfield: Thomas, 1975), 4. *Time* (March 31, 1980).

²¹² J. A. Del Regato and Harlan Spjut, *Ackerman and Del Regato's Cancer Diagnosis, Treatment and Prognosis*, Fifth edition (St. Louis: Mosby, 1977), 2.

²¹³ *Journal of the American Institute of Homoeopathy*, 69:1 (March, 1976), 34.

of old symptoms is one of the best signs that you are really curing your patient and must not be interfered with."²¹⁴

"Miss D., 51, had a tumor in left breast for years which continued to grow and become painful.....At the first examination I found a hard tumor adherent to the skin in the left breast the size of an apple, with strongly retracted nipple and at times severe burning and stitching pains. For years she had been plagued by facial acne which disappeared a long time ago. This was followed by rapid growth of the then small tumor.....She was given a dose of Sulphur 12C every night; her diet was regulated, and the breast covered with cotton. After two months the patient reported that lately the facial aene had returned and that the entire back was covered with acne. The breast pains were much relieved, and the tumor seemed to become smaller. I discontinued Sulphur and regulated the diet. In a month I found the tumor decidedly decreased, and the pain practically gone. During the next month it was reduced to the size of a bean. Today, after 13 years, the patient is still entirely well and never had the slightest recurrence."²¹⁵

The following case illustrates the importance of allowing internal disorders to be discharged through the skin, rather than suppressing them with treatments directed at the skin. It also illustrates the concept of homoeopathic 'aggravation' discussed earlier.

About two years ago a man in his forties came to my office. For six months he had made the rounds of dermatologists, visiting 7 or 8 of the best known men in New York and Brooklyn. Lotions, salves, oral medications, and injections had all been tried without result. At all times he wore white cotton gloves because the reddish-brown eruption on both hands emitted a foul odor and watered constantly. At least 3 or 4 daily changes of gloves were necessary, and he feared to approach his clients because of the condition of his hands.....He feared loss of his mind and contemplated suicide.

Careful questioning did not reveal any marital discord although he admitted a lack of interest in sex. Venereal disease was denied, both personally and in his family.....In spite of the denial of luetic history and report of negative tests by previous doctors, the patient's exhaustion and emaciation, the mental picture, and the need for alcoholic stimulation, together with the modalities, made me decide on *Syphilinum* as the remedy of choice.*

The patient had never had homoeopathic treatment previously and was therefore warned that the drug he was to receive was a very potent one and might cause him to become much worse within 12 to 36 hours.....It was most fortunate that I had so impressed him, for as he related to me a week later, he felt dreadful about 18 hours after taking the remedy. Fluid poured

²¹⁴ *Ibid.*, 45:8 (August, 1952), 171.

²¹⁵ *Ibid.*, 38:5 (May, 1945), 154-155.

* *Syphilinum* is a remedy prepared from the diseased tissue of a person with syphilia.

from his hands at such a rate that he could not wear gloves, and the burning became intense. He became frightened and would have sought other attention had he not remembered my telling him that a severe reaction would be followed by a quick cure. After six hours of intense suffering relief set in, and in one week there was hardly any evidence of the dreadful disease he had had. In the almost two years since his recovery there has been no return of symptoms.....²¹⁶

Since Allopathy is unaware of Hering's Law and its implications, the literature does not discuss this concept systematically, but, even so, occasional *obiter dicta* can be found which illustrate it.

Tuft wrote in 1931: "In such acute exanthematous diseases as measles, scarlet fever, smallpox, or chickenpox, the presence of a marked skin eruption has always been considered of good prognostic import, and not infrequently when the eruption was scanty, measures were used to bring it out more strongly.....Again, in syphilis, it is well known that patients with marked primary or secondary skin manifestations practically never develop nervous or severe visceral involvement and that an arsphenamine dermatitis always appears to offer a favourable prognosis in patients with visceral syphilis. Finally, it is a clinical fact that patients with skin tuberculosis rarely develop pulmonary involvement. These are all evidence of the fact that, in addition to purely mechanical protection, the skin also seems to have a specific biological function, designed to protect the internal organs from disease agents....."²¹⁷

Zinsser reported in 1939 on "evidence which suggests that by virtue of its chemical composition the skin may possess the function of removing toxic substances introduced into the body.....this accounts...for a variety of dermal reactions such as toxic erythema, urticaria, etc."²¹⁸

The commonly observed association in allopathic practice between gonorrhoea and gonococcal arthritis, or rheumatism and rheumatic heart disease, is also evidence of the operation of Hering's Law. In treating rheumatic fever homoeopaths first endeavor to clear up the heart symptoms. Thereupon the joints become *more* painful and inflamed, but further treatment enables them also to return to normal. It is vitally important that symptoms disappear in the reverse order of their appearance²¹⁹

The concepts, 'suppression' and 'rebound,' commonly encountered in the allopathic literature, are further evidence of the truth of Hering's Law.

'Suppression' means that symptoms may disappear while the pathological

²¹⁶ *Journal of the American Institute of Homoeopathy*, 45 (1952), 162-163.

²¹⁷ Louis Tuft, "The Skin as an Immunological Organ, *Journal of Immunology*, 21 (1931), 85.

²¹⁸ Zinsser, Enders, Fothergill, *op. cit.*, 418.

²¹⁹ Herbert A. Roberts, *The Principles and Art of Cure by Homoeopathy* (London: Homoeopathic Publishing Company, 1936), 47.

process continues.* Thus a recent work on the treatment of syphilis states: "it is possible that much syphilis is suppressed, but possibly not cured, by the widespread and not always discriminating use of antibiotics."²²⁰ The consequence of such suppression is the development of neurological sequelae in patients treated for syphilis with antibiotics, and this has been suggested in a recent work by Vithoulkas.²²¹

But when the medication causing the suppression is stopped, the symptoms often recur in a more intense and violent fashion than prior to the therapy. This is known as 'rebound,' and it occurs in a variety of therapeutic situations.

A common effect of the treatment of chronic acid indigestion with alkaline medicines is 'acid rebound'—an even higher level of gastric acidity (hence, a common homoeopathic treatment for gastric acidity in the past has been with acid medicines).²²² Use of fluorinated corticosteroids to treat certain skin conditions often leads to 'rebound,' with intensification of the disease, upon cessation of therapy. Burry wrote in 1973: "Rosacea is suppressed by these steroids only to 'rebound' once they are withdrawn. Further application of the steroid will give symptomatic relief and control the rebound inflammation, leading to prolonged use which promotes and spreads a steroid-induced, rosacea-like entity composed of erythema, edema, pustulation, and telangiectasia."²²³ Feinstein wrote about steroid therapy in rheumatic fever: "the

* "Suppression"—meaning disappearance of the symptoms while the underlying deterioration of the vital force continues—is alien to Homoeopathy. Not that careless prescribing cannot affect the patient's health adversely (especially if there is advanced pathology)—all the authorities have warned against (1) employing the wrong medicine, (2) in too high a potency, (3) too frequently repeated, and (4) mixed with other medicines prescribed equally incorrectly. But if and when the patient's health is undermined in this way, it will become manifest through a change in his symptoms. Some of the symptoms will disappear, and new ones will appear. This is called by Vithoulkas a "homoeopathically disordered" case (*The Science of Homoeopathy*, 348), and such cases are often difficult to treat, but they are not instances of suppression, because the patient is still manifesting the symptoms of his "disorder."

No remedy, however badly selected, can cause all the patient's symptoms to disappear, so that he appears healthy while his health is actually deteriorating. And homoeopathic experience indicates, in any case, that a wrong remedy will usually have no effect at all on the patient.

²²⁰ King and Nicol, *op. cit.*, 3.

²²¹ G. Vithoulkas, *The Science of Homoeopathy: a Modern Textbook, Volume 1* (Athens: A.S.O.H.M., 1978), 135. See, also, an article on this subject by George Vithoulkas which is to appear shortly in the *Journal of Energy Medicine*.

²²² Bastanier, 'Koennen wir von der Homoeopathie lernen,' *Deutsche Medizinische Wochenschrift*, 55 (1929), 1041-1043. Coulter, *Homoeopathic Influences in Nineteenth-Century Allopathic Therapeutics*, 41-42. Editorial in *Minnesota Medicine* (August, 1971), 627.

²²³ John Burry, 'Topical Drug Addiction: Adverse Effects of Fluorinated Corticosteroid Creams and Ointments,' *Medical Journal of Australia* (February 24, 1973), 393-396. See King and Nicol, *op. cit.*, 3 and 137, for discussion of the suppressive effects of antibiotics and mercurial medicines in syphilis.

rebounds, in all likelihood, represented the clinical appearance of the 'accumulated' inflammatory stimulus whose overt expression had been previously suppressed by the anti-inflammatory treatment.²²⁴ The use of sedatives to calm hyperactive children has the effect of making the children more hyperactive than before, once therapy is stopped.²²⁵

Thus 'suppression' and 'rebound' are recognized by Allopathy, but its interpretation of these phenomena differs diametrically from that accepted by Homoeopathy. Allopathy regards the symptoms as intrinsically harmful, being the external signs of an internal morbid process; hence their suppression is justified, and 'rebound' only means a recurrence of the underlying 'disease.' Homoeopathy, however, regards the symptoms as in *all instances beneficial phenomena*: their suppression thus means suppression of the organism's own self-healing effort. 'Rebound,' in turn, means the desperate attempt of the body's healing power to assert itself against *both* the 'disease' *and* the improper suppressive medicine.

This all brings to mind comments made not long ago by Dickinson W. Richards, a Nobel Prize winner in medicine and professor emeritus of the Columbia University College of Physicians and Surgeons. In discussing the toxic effects of many modern drugs, he asked: "Are we indeed trying to work with nature or are we trying to work against and control it?it would appear that man is moving along rather complacently in the belief that he will one day conquer nature and bring all its forces under his control. Perhaps he will. On the other hand there is increasing evidence that he is not controlling nature at all but only distorting it.....his powers have extended so far that nature itself, formerly largely protective.....seems to have become largely retaliatory. Let man make the smallest blunder in his far-reaching and complex physical or physiological reconstructions, and nature, striking from some unforeseen direction, exacts a massive retribution."²²⁶

Sometimes, however, no 'rebound' occurs. While the disease has not been cured, the drugs employed have imposed a new and different form upon the curative efforts of the organism, perverting them into different channels. This is what is called a drug-induced chronic disease.

The incipient development of this process is seen in the much-discussed 'adverse reactions' or 'side effects' of therapeutic drugs. The literature of this problem is very extensive and needs no recapitulation by us here. But, while extensive, it does not go far enough. Specifically, as has been noted by Gardner and Cluff, studies of 'side effects' and 'adverse reactions' do not deal with the "delayed untoward effects of drugs, such as: (1) the role of drugs in the etiology or exacerbation of 'auto-immune' or degenerative diseases, (2) the

²²⁴ Alvan R. Feinstein, *Clinical Judgment* (Huntington, N.Y.: Krieger, 1967), 7.

²²⁵ See the address by D. M. Martin, M.D., to the American Academy of General Practice, as reported in *Time* (October 18, 1968).

²²⁶ Paul Talalay, ed., *Drugs in Our Society*, 34.

role of drugs as oncogenic agents, and (3) the effect of drugs on fetal wastage and teratogenicity."²²⁷

One may logically assume that the long-term, 'delayed untoward effects' of drug abuse are similar to the observed short-term effects. And the typical short-term 'side effects' of drugs are the development of tumors and cancers, heart and circulatory difficulties, arthritis and rheumatism, and other degenerative conditions. Hence there is a good *prima facie* case for the belief that the presently observed epidemic of chronic illness in industrialized societies is due, at least in part, to the—also observed—overprescribing of drugs in these same societies. Iatrogenic disease is converted into chronic disease.

At the very least, the truth of Hering's Law in its relationship to this problem is well worth considering.

Modern discussion of the principal chronic diseases emphasizes the obscurity surrounding their causation:

With the exception of gout, neither the cause nor cure of chronic joint disability is known.²²⁸

There are many theories of the etiology of ulcerative colitis, but few established facts.²²⁹

[Bronchitis is] a chronic disease of which the cause is unknown.²³⁰

Now, of course, we do not know the cause of [ulcerative colitis and Crohn's Disease]. We are dealing with disorders that have been described as idiopathic or nonspecific, and this terminology reflects our limited knowledge.²³¹

About cancer the National Academy of Sciences wrote recently: "The enormity of our ignorance about cancer receives less emphasis than it merits. Much is said about the lines of research that appear promising today—virology, cellular immunology, and genetics, for example—but too little is made of the genuine possibility that any or all of today's leads.....could turn out to be wrong leads."²³²

Medical authorities attempt to elucidate the causes of such diseases following traditional paths when a new approach is needed. While investigation along the lines suggested by our analysis above would encounter considerable political opposition within the medical profession, it offers a hope of resolving a major, and growing, problem of twentieth-century medicine.

²²⁷ Pierce Gardner and Leighton E. Cluff, 'The Epidemiology of Adverse Drug Reactions, A Review and Perspective,' *Hopkins Medical Journal* 126 (February, 1970), 85.

²²⁸ *Modern Treatment* 8:4 (November, 1971), 751.

²²⁹ *Ibid.*, 944.

²³⁰ *Chronic Bronchitis—A Symposium* (London: The Chest and Heart Association, 1959), 4.

²³¹ J. L. Achord, ed., *Chronic Inflammatory Bowel Disease*, 1.

²³² Quoted in *Journal of the International Academy of Preventive Medicine* 2:2 (1975), 37.

X. CLINICAL EVIDENCE IN HOMOEOPATHY

Homoeopathy does not make use of the disease entities of Allopathy but defines the illness of the given patient in terms of the symptoms from provings. For this reason it is extremely difficult, perhaps impossible, to develop homoeopathic series which would be comparable with the series accepted in Allopathy. Nonetheless, homoeopaths have from time to time attempted to develop such series, and a sampling of their efforts is presented here.

(a) *Mixed series*: The earliest recorded publication in Homoeopathy of a series of mixed cases was that of Quinton in 1945, who analyzed 100 consecutive cases of nearly as many different 'diseases': 8 fibrositis, 6 prostatic ulcers, 6 peptic ulcers, 5 chronic catarrh, 5 chronic migraine, 4 fibroids, 4 hypotension, 3 each of menopausal syndrome, rheumatoid arthritis, obesity, chronic mastitis, cholecystitis, chronic colds, hyperthyroid, tuberculosis, etc. Quinton evaluated his own results as "brilliant" in 6 cases, "good" in 54 cases, "fair" in 32 cases, and "failure" in 8 cases.²³³

Stephenson in 1956 published a comprehensive analysis of 100 consecutive case histories: 6 headaches, 6 rheumatic pain, 6 hemorrhoids, 5 skin rash, 4 asthma, 4 fatigue with insomnia, 3 bronchitis, 3 constipation, 3 obesity, 3 epigastric pain, 3 cholecystitis, 3 genito-urinary infection, and others. He found that 1/5 of the cases, by their own account, had at least 50% relief of the complaint, one-fourth had less than 25% relief (also by their own account), while the remainder fell somewhere in between.²³⁴

In 1961 Stephenson published a series of 26 pediatric cases, ranging in age from newborn to 16, with the following complaints: 4 tonsillitis, 3 frequent colds, 3 easily fatigued, 2 sinusitis, 2 sore throats, 2 personality disorders, 1 multiple caries, 1 frequent abdominal pains, 1 strabismus, and 1 ulcerative colitis with a colostomy. By Stephenson's own evaluation the results of treatment were "excellent" in 4 cases, "good" in 10 cases, "fair" in 3, "poor" in 3, and "unknown" in 6.²³⁵

It is not easy to determine the significance of these series.

On one hand, homoeopathic physicians have always maintained that any patient who is curable at all is curable by homoeopathic medicines. Thus, to the extent that the conditions mentioned in the above series are actually curable, the failure rates reported reflect mainly the physician's inability to find the correct medicine. On the other hand, some conditions are incurable by whatever method is used. If a consensus could be reached as to which

²³³ P. G. Quinton, 'Analysis of 100 Consecutive Cases,' *British Homoeopathic Journal*, 35 (1945), 6-21.

²³⁴ James Stephenson, 'The Clinical Application of Homoeopathy--an Analysis of 100 Consecutive Case Histories,' *Journal of the American Institute of Homoeopathy*, 49 (1956), 39-53.

²³⁵ James Stephenson, 'Twenty-six Consecutive Pediatric Cases,' *Journal of the American Institute of Homoeopathy*, 54 (1961), 78-79. See, also, Edward M. Mead, 'An Analysis of 31 Consecutive Homoeopathic Case Histories,' *ibid.* 50 (1957), 271-273.

conditions these are, it would aid the evaluation of homoeopathic series.

(b) *Specific "diseases"*: In 1957 Hubbard and Stephenson published their results in 100 consecutive cases of arthralgia, concluding that the majority (all of whom had suffered for at least ten years) obtained subjective relief within one month of treatment. Ninety-two of the patients obtained subjective relief within 6 months. Thirteen obtained objective relief (joint changes) within six months.²³⁶

McGrath in 1948 reported on 50 cases of vasomotor rhinitis, in which about 18 different medicines were employed. However, he did not indicate the results of treatment.²³⁷

Stephenson in 1959 reported on 33 consecutive cases of sinusitis treated with a variety of medicines and all in dilutions higher than 30C: one-third reported relief within one month.²³⁸ In 1963 Stephenson reported on 17 consecutive allergy cases from one month's practice: all responded to treatment.²³⁹

In 1958 Redfield and Stephenson reported on 35 consecutive cases of duodenal ulcer. All received the same drug—*Anacardium orientale*—in dilutions lower than 30C, and about three-fourths responded to treatment within one month.²⁴⁰

Patel in 1973 discussed 100 cases of asthma in children. All were treated with *Luffa operculata*. Thirty-six had relief for 1-3 months, 26 for 3-6 months, 11 for 6-9 months, and 10 for 9-12 months.²⁴¹

In 1958 Hubbard reported on 51 consecutive cases of headache. More than 2/3 reported relief within one month, even in cases where the headache had been present for more than ten years.²⁴² In the same year Stephenson reported on 28 consecutive cases of headache with the same results.²⁴³ All patients of both physicians received medicines in dilutions higher than 30C.

In 1957 Hubbard and Stephenson presented 86 consecutive cases of

²³⁶ E. W. Hubbard and James Stephenson, 'Arthralgia—100 Consecutive Cases,' *Journal of the American Institute of Homoeopathy*, 50 (1957), 240-241.

²³⁷ Raymond J. McGrath, 'Vasomotor Rhinitis and Homoeopathic Treatment,' *Journal of the American Institute of Homoeopathy*, 41 (1948), 211-213.

²³⁸ James Stephenson, 'Sinusitis—33 Consecutive Cases,' *Journal of the American Institute of Homoeopathy*, 52 (1959), 118, 120.

²³⁹ James Stephenson, 'Seventeen Consecutive Allergy Cases from One Month's Practice,' *Journal of the American Institute of Homoeopathy* 56 (1963), 326.

²⁴⁰ Robert L. Redfield and James Stephenson, 'Duodenal Ulcer—35 Consecutive Cases,' *Journal of the American Institute of Homeopathy* 51 (1958), 154.

²⁴¹ R. P. Patel, 'Luffa Operculata in Asthma,' *Journal of the American Institute of Homeopathy* 66 (1973), 219-222.

²⁴² E. W. Hubbard, 'Headache—51 Consecutive Cases,' *Journal of the American Institute of Homeopathy* 51 (1958), 102.

²⁴³ James Stephenson, 'Headaches—28 Consecutive Cases,' *Journal of the American Institute of Homeopathy* 51 (1958), 130.

eczema. About half obtained relief within one month of commencing treatment, the relief lasting for one to three months.²⁴⁴

In 1966 Stewart reported on 40 consecutive patients with heart disease at the Glasgow Homoeopathic Hospital, treated with a number of different medicines. He did not analyze the results.²⁴⁵

In 1973 Mossinger presented a discussion of 18 cases of cysts treated with Silica. He concluded that there was a 95% probability that 2/3 of the cysts will have disappeared within 4-8 months of commencing treatment.²⁴⁶

The same observations may be made about these series as about the earlier ones. It may also be stressed that, in series where only one medicine was used, the results cannot be considered to demonstrate anything valid about Homoeopathy. The *sine qua non* of homoeopathic practice is selection of the remedy to match the totality of the patient's symptoms, precluding any selection of the remedy in function of the patient's 'disease.'

Finally, mention may be made of an experiment conducted in England during the Second World War on human volunteers to determine the efficacy of homoeopathic medicines in preventing and treating the effects of mustard gas. A 2 mm. drop of a 10% solution of mustard gas provided by the Ministry of Home Security was applied to the forearms of 127 subjects. Another 113 persons were used as controls. A 30C potentiation of mustard gas given preventively was found to inhibit development of the lesion. A 30C potentiation of Rhus toxicodendron (poison ivy) applied curatively was found to have the same effect.²⁴⁷

(c) *Homoeopathic veterinary medicine*: The use of Homoeopathy in veterinary medicine is of particular interest because the psychosomatic factor in treatment is largely excluded.

In 1945 Cross presented several cases of treatment of pruritus and furuncles in dogs (mostly with ultramolecular dilutions).²⁴⁸

Bardoulat published a book in 1949 on the treatment of pyelonephritis, nephritis, nephritic colic, urinary lithiasis, essential haematuria, cystitis, urethritis, anuria, and ulcerous balanitis in farm animals, using 3C, 4C, 5C, 6C, and 7C potencies.²⁴⁹

²⁴⁴ E. W. Hubbard and James Stephenson, 'Eczema, A Symposium of Collective Cases,' *Journal of the American Institute of Homeopathy* 50 (1957), 206-211.

²⁴⁵ T. Fergus Stewart, 'Treatment of Coronary Disease in the Glasgow Homoeopathic Hospital,' *Journal of the American Institute of Homeopathy* 59 (1966), 6-19.

²⁴⁶ Paul Missinger, 'Treatment of Cysts with Silicea,' *Journal of the American Institute of Homeopathy* 66 (1973), 225-226.

²⁴⁷ 'Report on Mustard Gas Experiments' (Glasgow and London) by the Special Sub-Committee of the British Homoeopathic Society to the Ministry of Home Security (January 25, 1943), *Journal of the American Institute of Homeopathy* 37 (1944), 47-50 and 88-92.

²⁴⁸ W. J. Cross, 'Veterinary Case Reports,' *Journal of the American Institute of Homeopathy* 38 (1945), 215-217.

²⁴⁹ M. Bardoulat, *Precis d'Urologie* (Toulouse, 1949).

Plantureux in 1950 published reports of his experiments in preventing and treating rabies in dogs with microdilutions of rabies virus and such medicines as Lachesis (poison of the Bushmaster snake) and Belladonna. While the experiments in preventive immunization and preventive treatment after infection were not conclusive, the author obtained 35 cures (33 with injected rabies and 2 with natural rabies). The report does not state the number of animals participating, but, since rabies is regarded as incurable, the results are of interest.²⁵⁰

Bardoulat in 1961 reported on trials of 5C, 7C, and 10C microdilutions of diphtheria toxin in treating avian diphtheria. In 8 sets of observations on as many flocks of chickens, he concluded that the diseased birds healed in about 12 days and that the disease did not spread to the remainder of the flock.²⁵¹

MacLeod in 1972 reported on the treatment of pulmonary emphysema, bovine mastitis, bowel edema, vibronic dysentery, and enteric colihacillosis in a variety of farm animals, using remedies from the lowest to the highest potencies.²⁵² In another article he presented his treatment for infertility in cows, horses, sheep, dogs, and cats.²⁵³

Campbell in 1975 described an interesting series of cases, consisting of three litters from the same mother guinea pig. All were infected with an eye disease at birth; the pup treated with chloramphenicol became almost blind in that eye, while the 4 pups treated homoeopathically recovered completely.²⁵⁴

Finally, as a curiosity, mention may be made of an account by a lion-tamer of his treatment of young lions with teething problems; "Teething, including that part of the nutrition cycle connected with teething, is the single greatest difficulty in rearing lions in captivity, and I have experimented for many years and evolved what I think is almost foolproof medication. The means used are homoeopathic.....if a young lion is given, twice daily, two crushed pills of *Calcareo carbonica* [calcium carbonate], *Calcareo phosphorica* [calcium phosphate], and *Silica* in 3X strength, it will have effortless denti-

²⁵⁰ Plazy, *op. cit.*, 119-121. The French have been particularly active in veterinary Homoeopathy: the September, 1979 issue of *L'Homoeopathie Francaise* was devoted entirely to veterinary Homoeopathy and contains 16 articles on such topics as: fever, mastitis, cough, diarrhoea, lithiasis, cystitis, dermatitis, joint troubles, rheumatism, paralysis, neuritis, and behavioral disorders.

²⁵¹ *Ibid.*, 121.

²⁵² G. MacLeod, 'Some Diseases of Farm Animals,' *British Homoeopathic Journal* 61 (1972), 144-152.

²⁵³ G. MacLeod, 'Infertility in the Domestic Animals,' *British Homoeopathic Journal* 64 (1975), 177-183.

²⁵⁴ Anthony Campbell, 'Homoeopathic Treatment of Ocular Infection in Guinea-Pigs,' *British Homoeopathic Journal* 64 (1975), 68-69.

tion and a bone structure at maximum, having reference to its genetic inheritance."²³⁵

(d) *The serum flocculation test*: The serum flocculation test, as a technique for selecting the 'similar' remedy, was developed by George Russell Henshaw, M.D.

After examining and questioning the patient, the physician decides on several remedies which appear more or less to match the patient's symptoms. The serum flocculation test is designed to facilitate the physician's selection of the one 'most similar' medicine out of this group.

The apparently indicated remedies are placed in vials to which is added physiological saline solution (1 cc.). Then 5 cc. of this solution is placed in a second vial to which is added about 2 cc. of serum from the patient (previously centrifuged and diluted). Three possible reactions will then take place on the plane of contact between the saline solution and the patient's blood serum: 1) a distinct heavy base at the plane of contact with a lighter area rising up through the serum, 2) the same distinct heavy base with the area above of equal density, 3) a distinct precipitate at the line of contact which widens in a downward direction. The first of these indicates the similar remedy, while the others represent varying departures from 'similarity' with the patient's symptoms.²³⁶

The serum flocculation test has been used by a number of homoeopathic physicians and apparently with success.

XI. CONCLUSION: HOMOEOPATHY AND SCIENTIFIC METHOD

The preceding pages have shown that there exists a considerable area of overlap between the principles of Homoeopathy and the ideas and practices accepted by conventional allopathic medicine. At the same time, the differences between the two systems are great, and it is well to draw attention to them, if only to throw light on the reasons for the continuing allopathic incomprehension of Homoeopathy.

The principal difference is that Homoeopathy is a precisely structured doctrine. Even though most of its ideas find their parallels in Allopathy, it differs from the latter in that the homoeopathic ideas are mutually consistent and coherent. Whatever is not compatible with these ideas is excluded from Homoeopathy. In this discipline medicines may not be prescribed otherwise than in conformity with Hahnemann's three rules.

While these physicians resort to surgery, give dietary instruction, and may employ acupuncture or manipulation, they do not recognize other principles of pharmacological prescribing as compatible with Homoeopathy.

²³⁵ Hans Brick, 'The Nature of the Beast' (New York: Crown, 1962), cited in *Journal of the American Institute of Homeopathy* 58 (1965), 185.

²³⁶ G. R. Henshaw, 'Serum Remedy Diagnosis by Flocculation,' *Annals of International Therapeutics* (June, 1969). See also, G. R. Henshaw, *A Scientific Approach to Homoeopathy* (Hicksville, N.Y.: Exposition Press, 1980).

Allopathy, in contrast, lacks a precisely defined and delineated set of ideas. It accepts concepts, principles, and procedures from a variety of sources, with the result that the various parts of allopathic doctrine are at times inconsistent, and even incompatible, with one another (for instance, the symptom in Allopathy is sometimes regarded as beneficial, sometimes as harmful, and no justification or explanation is given for this arbitrary division). As was noted at the outset, in Allopathy "the basic laws of health and disease" have not yet been disclosed. "No discipline can claim a greater array of equipment by which its research is carried on, yet none is inferior to [allopathic] medicine in organizing its knowledge into coherent principles."

The precision and rigor of Homoeopathy make it harder to practice than the more diffuse Allopathy. The homoeopathic physician has little leeway in his selection of the patient's prescription; he must at all times be guided by the symptoms, and if he chooses a wrong remedy, it will usually have no effect.

These difficulties of practice, about which the homoeopaths themselves have often complained and which even led to a split in the homoeopathic profession in the late nineteenth century,²⁵⁷ make this therapeutic system less attractive to the ordinary physician—who feels that it restricts his therapeutic freedom and creativity. Therefore, although the homoeopathic profession is a well-entrenched minority in most countries, and has a large and devoted following of patients, it seems unlikely ever to become a majority of the medical profession anywhere.

It is paradoxical that Allopathy—which sees itself as searching for the ultimate laws of sickness and health, i.e., for the knowledge which will make medical practice scientific and hence rigorous—should reject the homoeopathic claim to possess this knowledge.

The reason for this rejection is that a rigorously structured medical discipline is burdensome for the practitioner in imposing limitations on his freedom of action (hence the assumed goal of allopathic research—to establish a firm and unwavering structure of cause-and-effect relations to serve as an infallible guide to the practitioner—will never be attained but, like the mirage that it is, will continually recede into the future).

Of course, the allopathic majority is unable to admit (or even recognize) this largely subconscious motive for its hostility to Homoeopathy, and instead it relies on the accusation that Homoeopathy is 'unscientific'.

This raises the issue of the true meaning of scientific method in medicine. Much has been written on it elsewhere*, and we will limit ourselves to a few general remarks.

²⁵⁷ Harris L. Coulter, *Divided Legacy: A History of the Schism in Medical Thought*, Volume-III, Chapter VI: The Split in Homoeopathy—"Highs" vs. "Lows".

* See the author's *Divided Legacy: A History of the Schism in Medical Thought*. Three volumes (Washington, D.C.: Wehawken Book Co., 1973-1977). Also, Harris L. Coulter, *Homoeopathic Medicine* (St. Louis Forum, 1975).

While the allopathic argument against Homoeopathy has never been formulated clearly and comprehensively (one of the odder aspects of the 175 years of conflict between the two systems), from the occasional critical pieces appearing here and there one can see that the principal bone of contention is Homoeopathy's lack of a physiological-pathological-pharmacological theory. Homoeopaths do not follow the ordinary allopathic technique of first defining an internal patho-physiological process and then selecting a remedy for its supposed capacity to counteract or otherwise influence this patho-physiological process. Instead, they base their selection of remedies exclusively on the symptoms in the provings.

Some examples will make this contrast clear.

We have already noted that both homoeopaths and allopaths use colchicum in gout, digitalis and nitroglycerine in heart conditions, and gold compounds in rheumatism. While the former base these uses on the provings (and hence feel that the allopaths are unconsciously relying on the law of similars), the allopaths themselves justify these applications in terms of prevailing pathological and pharmacological theory:

"Colchicine inhibits migration of granulocytes to the inflammatory area and reduces the increased lactic acid production associated with phagocytosis. By these and possibly other effects on leukocytes colchicine interrupts the cycle of urate crystal deposition and inflammatory response that sustains the acute attack."²⁵⁸

"The main pharmacodynamic property of digitalis is its ability to increase the force of myocardial contraction.....a positive inotropic action.....by increasing the rate at which tension or force is developed."²⁵⁹

The basic pharmacological action of nitrites is to relax smooth musclenitrite produces a more sustained dilatation of the larger coronary vessels, as determined by arteriography in man.....the myocardial ischemia associated with coronary artery disease and particularly with attacks of angina pectoris results in decreased lactate extraction or actual net lactate production by the myocardium.....nitroglycerine can normalize the lactate and potassium gradients. This reflects a decrease in ischemia.²⁶⁰

"Most drugs used in the treatment of polyarthritis have been anti-inflammatories.....Recourse to an additional parameter of activity—i.e., ability to influence lysosomal enzymes which, via their cleavage products, give rise to new antigens—has shown that gold salts, for example, which do not belong

* And yet a case is reported where gouty arthritis was cured with colchicine even though the synovial fluid contained virtually no leucocytes (R. Wade Ortel and David S. Newcombe, 'Acute Gouty Arthritis and Response to Colchicine in the Virtual Absence of Synovial-Fluid Leucocytes,' *New England Journal of Medicine* (June 13, 1974), 1363-1364.

²⁵⁸ L. S. Goodman and Alfred Gilman, *The Pharmacological Basis of Therapeutics*, Fifth Edition (New York: Macmillan, 1975), 351.

²⁵⁹ *Ibid.*, 655.

²⁶⁰ *Ibid.*, 728-730.

to the category of classic anti-inflammatory agents, exert an up to 100% inhibitory effect on lysosomal enzymes and are thus able to interrupt at a particular stage the process of auto-immunization.²⁶¹

Clearly Allopathy holds that the duty of pharmacological science is to elucidate the cause-and-effect relationship between the remedy and the patient's physiological or pathological condition. Homoeopathy just as clearly avoids cause-and-effect explanations and interprets the action of a medicine on the organism in terms of the more general law of similars.

In a sense, the two 'explanations' are not mutually exclusive, at least at this level. Thus, gold compounds do give rise to certain rheumatic symptoms in the provings, and they may also very well 'exert an up to 100% inhibitory effect on lysosomal enzymes.' But for certain practical, as well as theoretical, reasons the homoeopaths prefer their mode of 'explanation' to the allopathic one.

To start with the practical advantages, the homoeopaths consider that their provings permit the development of a large body of information about each medicinal substance, the law of similars enabling the practitioner to apply this knowledge directly to the needs of the particular patient. They ask: if these medicines can be employed with great accuracy purely on the basis of the provings, why is it necessary to resort to theoretical 'explanations' which, as is generally admitted, are unreliable and subject to continual change?

Thus the homoeopaths feel that the reliability of the information developed in the provings is a great practical advantage. This information has been in steady use for about 175 years without requiring substantial revision. In contrast, allopathic theories change from decade to decade and year to year. How can they be considered reliable?

Thus Homoeopathy considers its own approach to be eminently practical, since the information from provings is precise, concrete, and reliable.

Homoeopathy prefers its own approach on more general theoretical grounds as well.

It feels that Allopathy's interpretation of medical science as a body of causal relations is outmoded. This reductionist view was accepted in all sciences until the early nineteenth century but has now been discarded by everyone except the allopathic physicians.

And it is perhaps time to discard it here as well. As Rene Dubos stated some years ago: "The reductionist approach, which has come to dominate so much of medical science, is not sufficient to deal with the complex situations created by the response of men or animals to the administration of biologically active substances."²⁶²

Needed is a medical science whose postulates and structure resemble those of the other sciences, eschewing 'causal' explanations in favour of

²⁶¹ F. J. Wagenhauser, *Chronic Forms of Polyarthrits*, 16.

²⁶² Paul Talalay, ed., *Drugs in Our Society*, 44.

general hypotheses and laws which describe the behaviour of the phenomena and permit prediction.

Homoeopathy meets the formal requirements of such a science and is thus a more up-to-date formulation than Allopathy. Its principles and postulates are a coherent body of knowledge describing the behaviour of the organism in sickness and health and prescribing the method which must be followed to bring it from sickness to health.

And, as already noted, the greater rigor and precision of the homoeopathic principles would suggest that this discipline is the more 'scientific' of the two.

Using the language of scientific method we can say that the homoeopathic principles, together with the detailed rules of their application, constitute a unified hypothesis. When the homoeopathic physician treats a patient according to these principles and rules, he is testing the validity of the hypothesis that cure is through similars. The observed successes of this mode of treatment serve as provisional confirmation of the truth of the homoeopathic hypothesis.

Of course, no hypothesis in science is ever proven correct once and for all, as new evidence may always emerge to contradict or refute the hypothesis. However, to date such contradictory evidence has not come forward, and the provisional truth of the homoeopathic hypothesis is accepted by all who have had experience with it.

It is not possible to test in the same way the correctness of the allopathic 'principles' or 'rules of application,' because none exist. No allopathic 'theory' has ever been explicitly formulated, although bits and pieces of one can be found implicit in the allopathic assumptions and underlying allopathic procedures.* Thus the allopathic view of medical science—as a body of cause-and-effect relations—is not only outmoded from the purely formal standpoint, it has never even been adequately developed as an operational theory governing medical practice. A number of trenchant criticisms have been launched against it by homoeopathic and by allopathic thinkers.

In general, the allopathic 'causal' explanations often confuse the ascription of causes with the description of mechanisms. What is presented as the pinpointing of a cause turns out to be merely the description of an intermediate mechanism dependent upon a still unknown and concealed cause. The examples given above 'explaining' the action of eolehicine, digitalis, nitrites, and gold salts all suffer from this defect, and one wonders if *all* such 'explanations' will not be equally defective. As Goodman and Gilman have pointed out, "the more a presumed action is studied, the more likely it is to become an effect, and the real action retreats beyond our present means of discovery."²⁶³

* The author is working on a critical study of allopathic 'theory'.

²⁶³ Goodman and Gilman, *The Pharmacological Basis of Therapeutics*, Third edition (New York: Macmillan, 1965), 19.

Even as 'descriptions of mechanisms' the allopathic formulations are unsatisfactory and inconclusive, often relying ultimately on vague references to the central nervous system to supply missing links in the causal chain.

In truth, the incredible complexity of the body's physiology makes all such would-be cause-and-effect explanations seem highly simplistic. A recent allopathic text on drug design states that the effect of a drug on the organism can be divided into its chemical or molecular action and, then, the chain reaction through the body's other levels of organization: molecular systems, polymolecular systems, cellular systems, polycellular or tissue systems, poly-tissue or organ systems, etc. With respect to the chemical or molecular effect of the medicine this author observes: "The relation between the constitutional and chemobiodynamically potential aspects of molecules in terms of the first level of chemobiodynamic action is only beginning to be understood"²⁶⁴....."† And he goes on to note that even possession of this chemical or molecular knowledge would not tell the investigator anything about higher-level reactions, since these are determined by the organizational characteristics of the higher-level aggregates.

"A crucial problem for chemobiodynamics, in the light of the complexity and functional integrity of biologic systems, is the assessment of the potency of drugs in regard to their primary effects. This is a difficult problem, because the existence of many feedback mechanisms often tends either to nullify or to exaggerate responses to a drug. It is of course possible to isolate or insulate various systems making up the biologic system from one another by various means, in order to assess the magnitude of primary or immediate secondary drug effects. These methods require the use of surgical procedures or the blockade of various processes by chemicals whose actions are already fairly well understood. In any case, the experimental details and labour involved, as well as the control procedures that are necessary, are enormous....."²⁶⁵

Even if such a mechanism could be isolated, could it be applied reliably to a single individual patient? Allopathic clinical and physiological research relies upon results achieved with groups of animals or groups of patients. As was observed by Bradford Hill, a pioneer in the elaboration of statistical methods in medicine: "Individuals are not necessarily equivalent. It is a group reaction that is under study."²⁶⁶ But the physician, as opposed to the public health scientist, deals with individuals, not groups, and this gives rise to a severe methodological difficulty:

* A 1963 text had stated: "I think it is fair to say that we do not know as yet with certainty in specific detail how molecules of any drug affect those of any cell," but some progress may have been made since that time (see Max Rinkel, *Specific and Non-specific Factors in Psychopharmacology* [New York: Philosophical Library, 1963], 72).

²⁶⁴ F. W. Schueler, *Chemobiodynamics and Drug Design* (New York: McGraw-Hill, Blackiston, 1960), 43.

²⁶⁵ *Ibid.*, 71.

²⁶⁶ A. Bradford Hill, *Principles of Medical Statistics*, Ninth edition (New York: Oxford University Press, 1971), 255.

"The statistical analysis and descriptions usually employed tell us little of a sufficiently predictive nature about the probable response of a given individual within the group. Yet the latter is one of the most challenging problems of biology and the most pressing problem of the physician, whose concern is with the individual."²⁶⁷

Allopathy looks to the normal or average individual as its standard, but the normal individual does not even exist. The biochemist, Roger Williams, has written:

"Each individual has a distinctive 'metabolic pattern,' as reflected, for example, in the distinctive composition of his saliva, urine, and blood..... Such patterns are mirrored very imperfectly by any set of measurements we are now able to make; they are much more deeply rooted than their observed outward manifestations might suggest.....the differences between the patterns of two normal individuals may be large and of far more than academic interest."²⁶⁸

And "the probable connection between variations in drug responses and biochemical individuality has not been generally recognized."²⁶⁹ Response to drugs is affected by a whole series of factors: (1) species and strain variability, (2) age of the subject and presence of disease, (3) environmental factors such as climate, altitude, season, temperature, time of day, (4) the subject's nutritional status, (5) his previous history, training, and experience, and, finally, his (6) constitution or temperament:

"Constitutional factors also affect the drug response. An individual exhibits in general or in particular a vigor or a feebleness, a susceptibility or insusceptibility to environmental influences, a readiness or lack of self-defense, a completeness or insufficiency of self-repair, which cannot be located in any organ, tissue, or plasma. However obscure in character and origin, such constitutional factors must be recognized and considered.....These characteristics have been shown to be under genetic control, and the literature is replete with references to temperament and personality as important variables affecting the qualitative and quantitative response to drugs."²⁷⁰

Despite these theoretical and practical obstacles, allopathic medicine remains intensely committed to causal explanations. While a technique is occasionally justified in terms of its outcome alone:

"The significance of each immunologic event in immunotherapy is not yet clearly defined, nor is the interrelationship of the various parameters understood. Even in the absence of a clear definition of immunologic func-

²⁶⁷ John N. Nodine and Peter E. Siegler, *Animal and Clinical Pharmacologic Techniques in Drug Evaluation* (Chicago: Yearbook Medical Publishers, 1964), 21.

²⁶⁸ Roger J. Williams, 'Normal Young Men,' *Perspective in Biology and Medicine* 1 (1957/1958), at 98.

²⁶⁹ Rinkel, *Specific and Non-Specific Factors in Psychopharmacology*, 137.

²⁷⁰ Nodine and Siegler, *op cit.*, 19.

tion, clinicians throughout the world feel that injection therapy is an effective procedure."²⁷¹

In the overwhelming majority of instances a theoretical justification is demanded. *Therapeutic procedures are legitimated in Allopathy by being provided with causal explanations.**

Homoeopathy takes a different approach, assuming that a well-founded practice is its own justification and can dispense with support from ever-changing pathophysiological and pharmacological theory. The absence of any fundamental change in homoeopathic practice over the past 175 years is taken by these physicians to show that the practice was good at the outset.

Thus Homoeopathy justifies practice by practice. The provings are pure experiments, and no attempt is made to 'explain' why a given medicine yields a given symptom pattern. Homoeopathic doctrine is not, and can never be, a theory of physiology or of the intimate effects of drugs on the organism. It is a set of precise rules for practice. It is the crystallized practice of the generations of physicians who have applied and developed the hypothesis proposed by Hahnemann and expanded by Hering.

By rejecting physiological theory as a guide to medical practice Homoeopathy avoids many of the problems encountered by Allopathy. As already noted, these stem in part from the conflict in Allopathy between the theory, derived from experience with groups, and the practice, which is necessarily with individuals. Homoeopathy's elaborate symptomatic descriptions permit an extreme degree of individualization in case-taking—on the basis of a rigorous method—and eliminate the necessity of regarding the patient as merely the representative of a pathological category.

Homoeopathy rejects the allopathic belief that the mechanisms of medicinal substances can be ultimately explained. The 'real action' of a drug will *always* retreat beyond the investigator's means of discovery if it is sought at the cellular, molecular, or sub-molecular level, since mechanisms at all of these levels are determined by the behaviour of the organism *as a whole*.

When the whole body is seen to be the cause of all the changes occurring in it, and it is realized that the behaviour of the whole body can be understood through the visible symptoms, the 'real action' of the medicine will

²⁷¹ Ben F. Feingold, M.D., *Introduction to Clinical Allergy* (Springfield: Thomas, 1973), 313.

* *One of the main functions of medical theory is thus to furnish the physician with reasons and explanations for the procedures he applies when treating his patients. Lewis Thomas writes that the physician of his father's generation "first of all.....was expected to walk in and take over. And second, and this was probably the most important of his duties, he had to explain what had happened, and, third, what was likely to happen" (Lewis Thomas, "The Right Track," Wilson Quarterly, Spring, 1980, 90). Theory is structured in the form of cause-effect relationships precisely because it serves the social function of legitimizing the physician's therapeutic procedures. This is as true today as a generation ago, if only because the physician must justify his failure.*

then be seen to lie on the surface, available to the physician's perception and intelligence.

In this sense Homoeopathy is the model of a holistic medical doctrine, and at this time of search for the true meaning of a holistic therapeutics Homoeopathy is steadily coming to the fore.

Homoeopathy was singularly unfortunate to emerge in the nineteenth century whose pervasive engineering and scientific advances made it an age of reductionist thinking in the investigation of nature. As a unique form of holistic medicine Homoeopathy naturally met with incomprehension from physicians trained in the belief that reductionism was the only true method in science.

Many of the homoeopaths themselves failed to understand the reason for the intellectual gulf between themselves and their allopathic colleagues.

Today the intellectual atmosphere in science is different. Reductionism is seen to be an inadequate method in all other scientific disciplines, and only the large intellectual, emotional and economic investment in this mode of thought perpetuates reductionism in medicine.

At the same time, voices can be heard in allopathic medicine today calling for a reevaluation of its approach and method. Homoeopathy offers itself as an answer to those persons who seek a break with the past and an unprecedented flowering of therapeutic thought in the future. *(Concluded)*

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