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INTERNATIONAL JOURNAL OF SEX-ECONOMY AND ORGONE-RESEARCH

OFFICIAL ORGAN OF THE INTERNATIONAL INSTITUTE
FOR SEX-ECONOMY AND ORGONE-RESEARCH

DIRECTOR: WILHELM REICH, M. D.

EDITOR: THEODORE P. WOLFE, M. D.

*Love, work and knowledge are the well-
springs of our life. They should also govern it.*

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ORGONE INSTITUTE PRESS NEW YORK

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CONTENTS, Vol. 1, 1942

ARTICLES

<i>Arnold, Carl</i> The Treatment of a Depression	163
<i>Frank, Walter</i> Vegetotherapy	65
<i>Hirning, Stefan</i> The Place of Literature in the Cultural Struggle	238
<i>Leistikow, Gunnar</i> The Fascist newspaper campaign in Norway	266
<i>Martin, Paul</i> Sex-economic "Upbringing" The Dangers of Freedom	18 226
<i>Reich, Wilhelm</i> About the History and the Activities of Our Institute The Orgasm Reflex. A case history Biophysical Functionalism and Mechanistic Natural Science The Discovery of the Orgone The Carcinomatous Shrinking Biopathy The Natural Organization of Protozoa from Orgone Energy Vesicles (Bions) Character and Society	1 55 97 108 131 193 247
<i>Robert, Mary</i> Shock Therapy as a Subjective Experience	156
<i>Thorburn, William F.</i> Mechanistic Medicine and the Biopathies	257
<i>Walter, Ernst</i> A Talk with a Sensible Mother	11
<i>Wolfe, Theodore P.</i> The Sex-economic Concept of Psychosomatic Identity and Antithesis A Note on "Integration" in Science A Sex-economic Note on Academic Sexology	33 171 259

EDITORIALS

Sex-economy and medicine	94
Ill-advised surgical procedure	94
The "dangers" of sexual intercourse	94
Sex-economy and everyday life	175
Character armor in everyday life	175
Mechanistic medicine and national health	176
Physiological anchoring of psychic conflicts	177
Present-day situation and infantile historical background	177
An infantile fear as expressed in a specific inhibition of the orgasm reflex	178
Warning against the application of sex-economic knowledge	192
On the technique of irrationalism in social life	280

REVIEWS

The cardiovascular system in puberty (<i>P. Martin</i>)	88
Anxiety and sexual organs (<i>P. Martin</i>)	88
Experimental confirmation of respiratory inhibition (<i>P. Martin</i>)	89
Sexology (<i>T. P. Wolfe</i>)	90
"Character-analysis" (<i>T. P. Wolfe</i>)	90
Psychoanalysis and orgasmic potency (<i>T. P. Wolfe</i>)	185
General semantics: the mysticism of words (<i>T. P. Wolfe</i>)	186

CORRESPONDENCE

Letter from a mother	191
On the psychology of adolescence	274
The old question of magnifications over 2000x	276
Disastrous fads in infant upbringing	276
Realization of change	278

IN MEMORIAM

Bronislaw Malinowski (<i>W. Reich</i>)	173
EXCERPTS from <i>A. S. Neill's "The Problem Teacher"</i>	180, 282

International Journal of Sex-Economy and Orgone-Research

VOLUME I, NUMBER I

MARCH 1942

ABOUT THE HISTORY AND THE ACTIVITIES OF OUR INSTITUTE

By WILHELM REICH, M.D.

The psychiatric aspects of the biological energy are discussed in my book, "The Function of the Orgasm." In the present first number of the Journal, some co-workers of the Institute give a picture of our pedagogical and clinical work. Thus, I can forgo a general survey of our field and devote the following pages to a different subject.

The reader of this new periodical will ask an important question: *What kind of an organization is behind this work?* For, the organization of a field of science reflects its nature and its history. But, there is organization and "organization." The following little story illustrates what I mean by this distinction:

It happened one day in Hell. The Devil was in his throne-room, when suddenly one of his messengers from the Earth rushed in breathless, distraught, with a hopeless expression on his face. "Master, we are lost," he cried, "all is ruined for us, we are finished!" "What has happened?" said the Devil. "Something terrible," moaned the messenger, "I have just returned from the Earth as quickly as possible, to tell you the news that someone has discovered TRUTH, the real TRUTH, just what we have feared all these years!" "Tut, tut, my boy, don't let that worry you," said the Devil. "You just hurry back to the Earth and get them to organize."

Sex-economic research has always endeavored—and thus far successfully—to avoid this truly diabolical side of organization. It is—I may say for this very reason—still in full development. In spite of recog-

nition from many quarters, and in spite of organization, it is far from having passed the pioneering stage. He who is familiar with such work knows that it is incompatible with routine research. For this reason, the work is "isolated" and has many enemies. This is an essential sign of its maturing, and proof of the fact that it presents something which is fundamentally new. For this reason, it cannot possibly be put into the framework of a routine kind of organization. The work continually poses highly unpopular questions, finds embarrassing answers and often operates with assumptions; in brief, it endangers emotional security and disturbs the peace of mind. That is an inherent part of it.

Between 1920 and 1934, sex-economy (nobody had as yet even an inkling of the existence of the orgone energy) developed within the framework of the International Psychoanalytical Association. When the differences of opinion with this organization became increasingly acute, it became necessary to found a publishing house of our own (Berlin, 1931). At the outbreak of the catastrophe in Germany, this publishing house moved to Scandinavia, and in 1937 it established a branch in Holland. It published works by me and my co-workers which could not have been published in any other kind of publishing house. For one thing, the subject of our work was new and at first not comprehensible to any neurologist or psychiatrist. For another thing, it was taboo. The seri-

ous study of sexual energy, scientifically, clinically and experimentally, was an unusual undertaking. General medicine continued to eschew the subject. It committed—and still does—the serious mistake of avoiding the subject of sexual pathology instead of taking it out of the hands of quacks and making it a legitimate part of science and medicine. We, on the other hand, by calling our science “sex-economy,” made it clear that we were going to call a spade a spade. We did not want to hide the fact that we assumed the scientific responsibility for a field which is generally avoided and is left to the devices of pornographic business interests. What I mean is not cell-division or the conjugation of ovum and spermatozoon, but the *biosexual excitation* in the autonomic nervous system.

True, there was some opposition to the name of sex-economy even in our own group. But finally the realization prevailed that if one wants to engage in the fight, medical and social, against a universal disease such as the plague of the neuroses and psychoses, one cannot escape exposing oneself fully to it. If one is to take up this fight, such hypocrisy as talking about eugenics and really meaning sexual abstinence is out of the question. We knew that for years to come we would continually be confused with the pornographers, and that we would be the butt of all kinds of perverse sexual phantasies. But there was no other way. Thus, sex-economy came to be what it is today: a scientific, clinically and experimentally confirmed discipline which explores the laws of *biological energy*. As is well known, biological energy manifests itself first of all in sexual excitation. Every animal breeder knows that. In spite of great difficulties, we have had no reason to regret our decision to choose the name of sex-economy.

This name first came to signify an organization when in 1934 the “Zeitschrift für Politische Psychologie und Sexualöko-

nomie” was founded. This periodical was published in Scandinavia until 1938. The requirement for membership in this informal organization of sex-economists was that each co-worker found his own field of activity within it. He kept his membership as long as he justified it by actual achievement. Thus, one of the most essential sex-economic findings—biological self-regulation on the basis of actual achievement—found its expression in the nature of the organization. In this way, we succeeded in reducing the dangers of formalism to a minimum.

After my separation from the organization of the psychoanalysts in the summer of 1934, study groups formed consisting of German, Austrian and Scandinavian physicians, educators and social workers. They acquainted themselves in special courses with the medical and pedagogical significance of sex-economy. Among them were physicians who previously had attended my courses at the psychoanalytic clinics. This group of students originated the plan of centralizing the work in an “Institute for Sex-economic Research.”

The Institute was founded in February 1936, with its central office in Oslo. There was, from the beginning, a group of very active nursery and kindergarten pedagogues in Denmark, under the leadership of a sex-economically trained physician and two educators; there was a group in Oslo, consisting essentially of neurologists, psychiatrists, psychologists and a few educators. Soon, a group of physicians and social workers was formed in Holland; they translated several of our publications into Dutch and independently published several sex-economic treatises. The war has interrupted the connection with these groups. In 1937, A. S. Neill, director of the Summerhill School in Suffolk, England, and prominent as a modern educator in the best sense of the word, joined our group. In addition, there were more informal pedagogical and medical study

groups in Palestine and Switzerland. As early as 1935, one of the presidents of the “World League for Sexual Reform,” director of a birth control clinic, joined our group, and the World League was dissolved.

The gathering of these people into an organization thus was not the result of an urge for formal organization, but of a real common interest. Between 1924 and 1933, the basic concepts of sex-economy had been taught at the Vienna Psychoanalytic Clinic and later at the Berlin Clinic. During the years from 1934 to 1936, the thing had a name but no home. Co-workers and students were held together by a strong tie of common interest, but the organization was a very loose one. Finally, the development of the work itself created the necessity for the establishment of an institute.

In 1934, together with my lectures at the Psychological Institute of the University of Oslo, I started experiments concerning the bio-electrical nature of sexuality and anxiety. In part, these experiments were the result of the controversies, between 1930 and 1934, about the psychoanalytic theory of the death instinct. For sex-economy, these controversies resulted in a major step ahead: the progression from the field of the psychology of the instincts into that of *experimental biology of the instincts*. I had shown that a biological will to suffer and to die, as postulated by the psychoanalysts, the so-called death instinct, could not be demonstrated clinically. What was being interpreted as a death instinct, was found to be the result of physiological tensions due to lack of genital gratification. Unrelieved sexual excitation and muscular spasms provided the explanation of all kinds of sadistic and masochistic tendencies. The generally prevailing social inhibition of natural genital love life creates not only neuroses, psychoses and sexual criminality, but also destructive impulses. When these destruc-

tive impulses are inhibited, they give the impression of a will to suffer. The will to suffer, the tendency to self-deprecation, to blind obedience, infantile dependence, to suicide and self-ruin, are the result of a fear of libidinous gratification in the biological system, a fear which is at first socially conditioned and then becomes psychically and physiologically anchored in the organism. Chronic sexual stasis (damming-up of sexual energy) results in a distortion of the perception of the organs and of their functions; this distortion is most clearly seen in schizophrenic or melancholic hypochondriasis. Its biophysiological nature cannot be doubted. In this way, the sexual chaos prevailing in our society distorts the basic biological functions in the human into something pathological, and produces secondary, antisocial, impulses.

The consistent study of the disturbances of vegetative sensations led, in 1935, to the experimental (oscillographic) finding that pleasure and anxiety correspond to two opposite directions in the flow of biological energy. *Pleasure* is functionally identical with a parasympatheticotonic plasma current in the direction of the periphery, that is, a biological *expansion*. Conversely, *anxiety* is functionally identical with a sympatheticotonic, centripetal plasma current, that is, a biological *contraction*. It was shown that all emotional disturbances and a great many vegetative neuroses are due to a disturbance of the *biological energy pulsation*.

These findings represented the breakthrough from depth psychology into biophysiology. Gradually, a biophysical laboratory was developed. From 1936 on, our Institute consisted of the publishing house, the experimental laboratory, and the teaching institute. The teaching courses produced various specialists in our field, who today are training and guiding their own medical and pedagogical groups.

But with that the development had not

come to an end. The physiological experiments on pleasure and anxiety led in a straight line to the function of expansion and contraction in protozoa. The Psychological Institute of the University of Oslo, where the work had been started, was not equipped for this kind of work. We were confronted with the problem of equipping our Institute with biological instruments. Thanks to the efforts of the Norwegian group, this became possible in 1936. The laboratory was equipped with what were then the most powerful microscopes (up to 4500x magnification) and has now a number of special instruments for the study of the phenomena of biological current and charge in protozoa and the human.

The experimental work on protozoa was guided by the so-called formula of "tension and charge." Sex-economic research had shown this formula to be valid for the orgasm. That is to say, the orgasm, like any other autonomic function, is based on a four-beat of *mechanical tension* → *bio-electric (orgonotic) charge* → *bio-electric discharge* → *mechanical relaxation*. I would like to emphasize the fact that the step from depth psychology to experimental biology was not the result of any conscious deliberation. It resulted logically and by itself, from the energy concept of the sexual instinct. According to Freud's basic discovery, psychic functioning is governed by unconscious and repressed instincts. These instincts are rooted in the biophysical realm. Early psychoanalysis had attempted to apply the principle of energy to psychic life: "libido" meant the energy of the sexual instinct. But, being a psychology of the unconscious, psychoanalysis was far from penetrating into the field of biophysics of the instincts. Sex-economy, on the other hand, focused its attention from the very beginning on the sexual stasis neuroses; for, sexual stasis is the central problem in cardiac neurosis and vascular hypertension. These syn-

dromes present the pathology of the autonomic nervous system in pure form. From the consistently functional point of view of biological unity, no distinction can be made between pulsation in the vascular apparatus and pulsation in the protozoon. On the basis of our formula of biological functioning (the formula of tension and charge), the functioning of the autonomic nervous system is identical with living functioning in general. Thus, our biological laboratory grew logically out of the unification of psychological, physiological and biological questions, or, rather, their general reduction to *biological pulsation*. From there on, the avenue of approach from psychiatry to the biological basis of emotional life lay wide open before us. It is still impossible to foresee how far this road will lead; at any rate, the biological pulsation of the autonomic system and of the protozoa was—and still is—a central sphere of our experimental work.

One of the most important results of this work was the discovery of the vesicular disintegration which occurs in all substances when they are heated to incandescence and made to swell. These vesicles, which are charged with energy, I termed *bions* or "energy vesicles." The basic experiment was confirmed by the French Academy of Science in 1938. In 1937 the bion experiments were also confirmed by Dr. Du Teil of the Centre Universitaire Méditerranéen in Nice. Du Teil became the most outstanding advocate of bion research in France and was responsible for many valuable contacts with French science, though these contacts have become limited by present conditions. In 1939, the bion research was also recognized by the Société Internationale de Plasmogénie.

From the bions, protozoal cells develop. As I related in my book, "Die Bione" (1938), a magnification of over 2000x allows the direct observation of the development of amebae, paramecia and other protozoa from moss which is in the process

of bionous disintegration. Our biological archives contain several thousand meters of microfilm which record the main observations.

Hand in hand with the bion experiments, systematic experiments in cancer mice have been carried out since 1937. The presentation of the cancer experiments, as they developed from the bion experiments, will be one of the main objectives of this Journal. The news of psychiatrists engaged in cancer experiments usually arouses surprise and distrust. I hope to be able to show, in subsequent issues of this Journal, the logical way in which the knowledge of the emotional basis of sympatheticotonia gave access to the cancer problem.

For, the extension of the study of the physiological manifestations of the emotions into the biological basis of instinctual life resulted in an elucidation of the nature of psychosomatic interrelation. Emotions are reflected in variations of the electric skin potential. The results of measuring the bio-electrical skin phenomena of emotional excitation were incompatible with any of the existing concepts of the mind-body problem. They contradicted the concept that psychic functioning is an expression or superstructure of physiological processes. Similarly, they were at variance with the concept that the physical manifestations of emotions are the expression of psychic excitations. Neither did they fit the concept that psychic and somatic excitations are two parallel and distinct processes which merely influence each other. Only one concept was in accordance with the facts, the concept that biological emotion is a *simultaneous physical and psychic excitation*; in other words, the psychic and the somatic are an inseparable biological unity. An emotion may be precipitated by an experience or by a chemical, physiological, agent. For example, anxiety causes an outpouring of adrenalin into the blood stream; an injection of adrenalin causes anxiety. Anxiety and adrenalin are func-

tionally identical; at the same time they mutually condition each other. This *psychosomatic unity and antithesis* became the most essential theoretical guiding principle of our clinical and experimental work.

In America, psychosomatic medicine showed a great impetus in the early 1930's. One of its few outstanding representatives, Dr. Theodore P. Wolfe, Associate in Psychiatry at Columbia University, found in the sex-economic concept of instinctual anxiety an essential key to the problems of psychosomatic medicine. Thus, in 1938, he did not shrink from the great sacrifice of a trip to Europe and the interruption of his practice for many months in order to study the work on the spot and to become thoroughly acquainted with sex-economy. In this way, an important connection with the United States was established.

In the meantime, political conditions in Scandinavia became such as to make the continuation of a work with such radical and far-reaching implications extremely difficult. During 1938, social and scientific life took an increasingly rapid turn in the direction of Fascism; this was a general process, taking place unconsciously rather than consciously. The publication of my books, "Orgasmusreflex, Muskelhaltung und Körperausdruck" and "Die Bione," precipitated a newspaper campaign against sex-economy instigated by psychiatrists of the hereditarian school and reactionary politicians. The Fascists did their best to capitalize this campaign which was a matter of public debate almost daily for ten months. In spite of vigorous support from various circles of the Norwegian public it was impossible to re-establish that quiet without which the work could not be fruitfully carried on. The typical moment in the social process where latent Fascism becomes manifest had arrived. Bacteriologists no longer looked into the microscope to find out whether substances treated in a certain manner turn into con-

tractive and expansive bions. They began to ask only whether the discoverer of the bions was "Aryan" or "Non-Aryan," a distinction which, as is well known, has no scientific basis in fact. True, in the long run, sex-economy emerged from this painful struggle—which finally was waged by attorneys against police officials who were in the Nazis' service—with increased inner strength and further public recognition; but, the unintended publicity was too much. One cannot make measurements of biological excitation or microscopic examinations of cancer cells under the watchful eyes of reporters. Under these circumstances, Dr. Wolfe's assurance that in the United States such things were not likely to happen, was a great relief. There, in the United States, seemed to be opportunities for unhampered work and an open mind for new problems.

In May 1939 the whole biophysical laboratory was dismantled and shipped to New York. Two months later I followed, having been granted a professor's non-quota visa. From 1939 to 1941 I lectured at the New School for Social Research to physicians and teachers on the subject of character formation on a biophysical basis. From these lectures came a group of students who now form the nucleus of the American branch of the International Institute. The chief emphasis of this group was from the beginning the physiological basis of psychic disturbances and the emotional basis of organic disease. This work is organized in the "*Orgone and Cancer Research Laboratory*." There is as yet no pedagogical group, nor one for therapeutic gymnastics. After two years of intensive work, this group felt ready to take the responsibility for the official organ of the International Institute, and for its publishing medium, the *Orgone Institute Press*. Nobody will blame them if the first attempt to establish contact with the American public will show some unevenness. As a result of our determination to maintain

our independence, we have no outside financial help, and thus, lack of funds forces the work to be done without the necessary technical assistance. Nor can they be blamed for the fact that the Journal makes great demands on the reader; in particular, by expecting him to adjust himself to functional thinking and to do his part in the assimilation of the material. In addition, our Journal presents a highly emotional subject, to which every reader will react not only objectively but also personally. This is unusual. The subject cannot be taught like a mechanically memorized text. For this reason, the training to be a character-analytic vegetotherapist or a worker in the orgone laboratory makes great demands on the student:

He must be trained in some specialized discipline in which he can apply the knowledge of biological energy. That is, he must be a physician, a pedagogue, social worker, laboratory worker, biologist or physicist. The training takes several years and requires an alteration in the student's personality structure. He has to shed many attitudes which are at variance with scientific pioneer work. He may not let social anxiety influence his attitude toward truth. He must be biosexually healthy, i.e., free from sexual disturbances and perversions. He must acquire the ability to defend his scientific conviction against prevailing misconceptions and not to dodge attacks. He must shed the customary ambition to be recognized immediately. And last but not least, he must get to know his own irrational reactions and learn to master them. This is asking much, but it is, in the long run, the only basis for genuine research and practice in our field.

The Institute is composed of three groups: The first and central group consists of professional workers who, in years of productive practical work, have demonstrated their knowledge and their intellectual independence. They are the members of the Institute. The second group

consists of specialists who are training themselves in the practice of sex-economy. They form the "Association of Sex-economic Therapists and Pedagogues." The third group comprises all actively co-operating friends of the Institute. One such friend, say, may take it upon himself to raise funds, another to establish connections with scientific or other organizations. During the Norwegian newspaper campaign, for example, journalists used to inform the public about misinterpretations and about the real character of the work. Every bit of advice, every aid from this group is welcome. However, decisions regarding the fundamental work and functions of the Institute rest with the membership, that is to say, with that body of individuals who have made the work their life work and who have made our method of research their own.

Our method of working is based on the functional energy concept of living processes and not on chemical, mechanical or physical concepts. The chemical substance, as, e.g., the hormone, means to us nothing more in biological functioning than does the coal in the steam engine. It is not the coal that moves the wheel; the coal is nothing but the source of energy which creates the motion.

Many a reader will register surprise at the fact that we mention the amoeba and the autonomic system in the human in one breath, that we consider them as functionally identical, biologically speaking. It is customary to consider the amoeba as belonging to biology and the autonomic nervous system to physiology; in other words, to consider them as basically different things. One has learned to make a sharp distinction between a heart and a medusa, and to think of innervation in terms of sharply defined nervous pathways. We do not overlook the anatomical and physiological differences between a heart and a medusa; we also know that there are pathways in the vegetative system.

But what interests us above all is that which the heart, the medusa and the autonomic nervous system have in common: the alternating expansion and contraction, in other words, *the basic function of biological pulsation*. The very fact that we make these pulsations—which so clearly demonstrate the biological functioning of energy—the center of our work, enables us to gain a better understanding of the functions of the autonomic system in the human, and of the vegetative nature of the emotions.

To the reader, psychology is one thing, and physiology another. We, on the other hand, cannot think of an emotion, like pleasure or anxiety, without thinking, spontaneously, of the corresponding activity or disturbance of the biological energy in the parasympathetic or sympathetic system.

To the reader, the activities of the psychiatrist and those of the cancer researcher will have no conceivable connection. Psychiatry and cancer research seem to be sharply differentiated fields. We, on the other hand, have learned from our patients that the biological organism, in *all* its functions, represents an *inseparable unity*. We have found that a chronic emotional rigidity ("psychology," character-analysis) functions practically as a muscular spasm ("physiology," vegetotherapy). The muscular spasm, in turn, forms an important predisposition to cancer ("biology," "organic pathology") because in a spastic organ, biological functioning is severely disturbed (e.g., anal inhibition of affect → spastic constipation → disturbance of tissue respiration → bionous tissue disintegration → cancerous protozoal growth).

Such a theoretical position in medicine requires a flexible and many-sided knowledge. But it also opens avenues of understanding which, without it, remain barred. It leaves, of course, a great many questions unanswered. That is the essence of any

work in a new field; errors, as long as we are willing to correct them, prove only the aliveness of the work. We do not aspire to be infallible.

Once one has learned to think of a nerve not as an organ separate from the muscle, but to think of both as *one* functional unit which executes an impulse originating from the *total* organism; once one has learned, further, that the inhibition of the total body impulses results in a rigidity of character, one begins to understand our language. Then, one begins to see the vast biophysical field of our *vegetotherapy* and *character-analysis*. The enormous popularity of non-medical practitioners of therapeutic gymnastics with people suffering from rheumatism, muscular tension and pathological posture, shows two things: First, it points to the existence of a vast field of pathology in which the patient feels that he cannot expect any understanding on the part of the average medical man; second, it shows a deep appreciation on the part of intelligent lay people of the disturbances of the autonomic system. One has only to remember the many methods and cults which attempt to correct respiratory disturbances by way of diaphragm exercises. These respiratory disturbances, however, are part and parcel of instinctual repression which is accompanied by spastic conditions of the diaphragm. According to everyday experience, the medical man himself feels that the disturbances of the vegetative system, including the neuroses and psychoses, are neglected and not understood from a biological point of view. Every practitioner of medicine knows the state of helplessness in which he is left by the usual medical education when he is confronted by a spasm of the diaphragm, by vascular hypertension, by a tic, a chorea, or a functional sexual disturbance. The object of character-analytic vegetotherapy is just this field of autonomic functions which is so neglected in medical education. By elucidating the inhibitions

of biological energy in such disturbances as asthma, tuberculosis or a psychosis, it establishes the long sought-for connection between psychiatry, internal medicine and biology. The character-analytic vegetotherapist knows, e.g., when a chronic pain in the lower back is due to a chronic fixation of the pelvis in a retracted position, or when an unco-ordinated gait is due to a fear of falling, which in itself is the expression of disturbed vegetative innervation.

A specific technique enables him first to make such inhibitions clearly evident, and then to reduce them to infantile repressions and to dissolve them. Pathological character development is represented in a frozen form, as it were, in pathological body innervation. Inhibition of expiration, fixation of the chest in inspiratory position, a stiff neck and retracted shoulders, e.g., express a chronic attitude of anxiety. Myopia is often due to spasm of the eye muscles.

The vegetotherapist does not attempt to cover up the pathological bodily attitudes and innervations by exercises or by the establishment of artificial attitudes. On the contrary, he attempts to elicit the characterological significance and the origin of such disturbances, and, above all, to release the anxiety which, by way of muscular spasms or chronic sympatheticotonia of groups of vessels, has become anchored in them.

It goes without saying that the vegetotherapist looks, in every case, for the sexual disturbance which acts at the basis of the disturbances in the vegetative system. Many diseases take their origin from these disturbances: vascular hypertension which may lead to organic heart lesions, the so-called cardiac neuroses, rheumatism, chronic constipation, pseudodementia as expressed in a fogging of intellectual activity, lumbago, many menstrual disturbances, and, last but not least, cancer. Cancer, as we shall try to show, does not consist

in the appearance of a cancerous growth in this or that place, but in a disturbance of innervation of the total organism. Of course, character neuroses, psychopathy and schizophrenias also belong here. Without a knowledge of the laws of biological energy which govern the autonomic apparatus, none of these diseases is comprehensible; consequently, none of them can be treated correctly without this knowledge.

Thus, the work of our Institute is carried on in a wide gap left open by organic medicine and by psychiatry—a gap which makes quackery flourish and which makes every real physician feel dissatisfied in his practice. Our responsibility is great. For this reason, we do not send this Journal on its way light-heartedly. The task before us requires the collaboration of patients, physicians and various specialists. It involves social problems as well as biological and moral questions. In this new field of research, there are no authorities in the customary sense. The factual authority can be acquired only in the struggle against the misery which stems from the ignorance and the maltreatment of living functioning. We are dealing with an all-embracing disease which leaves untouched not a single corner of individual and social living. We have come to use the term "emotional plague" for it. It ruins human happiness, reduces achievement in work, disrupts social living and thus exacts a far heavier toll in life and health than the bubonic plague ever did. It is no exaggeration to say—as every human knows who has maintained contact with life beyond the noise and political rigmarole of the day—that *humanity is biologically and psychiatrically ill*. True, it has mastered technic, but it is far from having mastered the human organism. What we need, therefore, is modest, but vigorously determined and persistent work to uncover the causes of this emotional plague.

This brings me to the great difficulty

which I felt when I was asked to write this introductory article for the Journal. I did not know how I could possibly define, in a few sentences, the words "orgone research" which the reader finds in the title of the Journal. Our Institute has not published anything about the orgone radiation since its discovery. How should I be able to introduce the reader to a piece of work of which nobody had heard, which sounds highly incredible and which asserts facts of far-reaching importance in the world of physics as true and demonstrable? It is impossible to explain in an introduction what several volumes of this Journal will have to expound.

Briefly: "Orgone" is the term for a form of energy which can be objectively demonstrated in the living organism, the atmosphere, the earth and in the radiation of the sun. It has a specific biological activity. It charges organic substances, living tissues, especially blood corpuscles, and it kills bacilli and protozoa. It acts differently from the known forms of electromagnetic energy. It accounts for a number of astronomical phenomena: the Northern lights, lightning, the atmospheric disturbances of shortwave transmission at times of increased sun spot activity, etc. It accounts for the light phenomena of many flowers and of wood undergoing bionous disintegration, of the sexual organs of many insects, and for the blue coloration of many frogs in a state of sexual excitation. It is the essence of biosexual excitation in general. It is of a bluish color. It is what astronomers, in August 1941, observed in the form of a bluish haze in the sky. It is the same energy which made an English physicist contend that the flickering in the sky was due to terrestrial magnetism. The flickering of the stars reflects the motion of this energy. I discovered it in January 1939 in a culture of certain bions; later I found it to be present everywhere and demonstrated it electrospectroscopically and thermically. By way of cer-

rain apparatus in my laboratory, it is made visible and is concentrated. Systematic therapeutic experiments with this energy in cancer mice, started in the fall of 1939, gave positive results. On March 8, 1941, experiments with orgone therapy were begun in human cancer. To give a picture of the discovery of the orgone energy and its relationship to psychosomatic research and to sex-economy, is one of the main objectives of this Journal.

The relationship between orgone and sex-economy is simple: The sexual orgasm is a basic function of the living animal

organism. The involuntary orgasmic plasma contraction is the yardstick of the integral functioning of the autonomic system, that is, the body plasma system. "Sex-economy" means "biological energy household"; for, the sexual function is the key to the bio-psychic energy economy. The consistent study of its psychological, physiological and bio-electrical aspects led to the discovery of the orgone, the biological energy active in the plasmic contraction.

But now it is time to let others speak on the subject of "sex-economy."

A TALK WITH A SENSIBLE MOTHER*

By ERNST WALTER, M.D.

MOTHER: I read that article on the sexual enlightenment of a little girl of three in the last number of the "Zeitschr. f. Polit. Psychologie und Sexualökonomie." When one reads that, it all looks very simple and matter-of-course. But isn't that dangerous? After all, things aren't as simple as all that!

PHYSICIAN: If I remember correctly, the article didn't say that things were simple. But please tell me about your misgivings. I know that, on the whole, you have a very sensible attitude toward the sexual enlightenment of children.

MOTHER: Well, to be honest, many years ago I felt the same way about it as the author of that article. But bitter experience and disappointment with my own children forced me to give up that point of view.

PHYSICIAN: Please explain that in some detail.

MOTHER: As you know, my girl is now 15, and when she was 3 or 4, I told her everything. But now she has become rather a problem child and I see that the whole enlightenment hasn't done any good.

PHYSICIAN: That means you expected that correct enlightenment would keep her from becoming a problem child? What are the difficulties?

MOTHER: For one thing, she is terribly afraid of masturbation. I don't understand it. We not only told her, at a very early age, about the anatomical differences but we also told her explicitly that she was allowed to masturbate and that the people who say it's bad and shouldn't be done are wrong. I'm afraid we even went too far; my husband and I went bathing together

naked and talked very openly about all these things. And today the child has this terrible genital anxiety; so I've come to the conclusion that all this sexual enlightenment hasn't done any good.

PHYSICIAN: From your description, it really looks as if the consistent sexual enlightenment of children were the wrong thing. After the experiences you have had, how would you handle the problem today?

MOTHER: I really couldn't say. I just wouldn't know what to do. I suppose I would tell the child less than I did then and wouldn't force so much knowledge on her.

PHYSICIAN: You believe, then, that the mistake was that of telling the child too much. But listen. Thus far, we have taken it for granted that she hasn't turned out right. But this is a very relative thing. What, really, seems to be wrong?

MOTHER: The child does not have the equanimity I wish she had. She often bursts out with anger and feels badly about these outbursts; she is often cranky and dissatisfied with school and everything around her; at times she is bored; in brief, something is wrong.

PHYSICIAN: Have you tried psychoanalysis?

MOTHER: Yes. She has been in analysis for almost three years now. She has become somewhat more quiet and even, but I feel that beneath the surface nothing has really changed.

PHYSICIAN: Let's try to analyze the situation a little. Not all the things you describe are of the same nature, origin, or significance. Take school, for example. You say the child is dissatisfied with school. How does she learn?

MOTHER: No trouble there. They all say

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she has superior intelligence and is highly gifted. But she simply gets no satisfaction from school.

PHYSICIAN: Has that always been so?

MOTHER: No, there were times when she liked school very much.

PHYSICIAN: Do you have any idea what might have made the difference?

MOTHER (after some thinking): I don't know whether that's it, but I just remember that she was always dissatisfied when she went to a public school. For some time she went to a private school of the Montessori type, and then she did very well.

PHYSICIAN: Don't you think the dissatisfaction with school could have a basis in reality? That the way school is taught might make an intelligent child feel antagonistic?

MOTHER: Well, that's quite possible. But how will she make a proper adjustment in life?

PHYSICIAN: Look here. Here we come to a contradiction which doesn't seem to be quite clear to you. You seem to think that being quiet and even is being healthy—and being restless and full of protest is being neurotic or a failure. I think we shall soon agree that a neurotically inhibited child will react less strongly to an education which is objectively not in keeping with the child's needs than a lively, intelligent and critical child.

MOTHER: I can see that. But what has that to do with the inhibition of masturbation? Her analyst and I both believe that the child should have a genital structure; that is, she shouldn't have any masturbation anxiety. I know that she shouldn't be urged to do it if she doesn't want it herself; but I don't understand this anxiety, since we have explicitly allowed her to masturbate.

PHYSICIAN: Just a moment. You just said, "allowed." One can "allow" only things that are otherwise prohibited, and we both know that masturbation in children is quite generally prohibited. But let's

consider two specific questions; without them, we cannot understand the whole problem:

1. What is the child's sex life like?
2. How was she brought up previous to full sexual enlightenment? Let's take question one: Does the child have what one calls a sex life?

MOTHER (somewhat taken aback): How do you mean?

PHYSICIAN: Just as I said it. Does the child have any sexual activity? Does she experience sexual gratification?

MOTHER (somewhat excited): I don't get you, doctor. I just explained to you that the child is afraid of masturbation, that she does not permit herself any genital activity, even though we do not object to it.

PHYSICIAN: Please be patient. It is not just a question of whether you object or not. You have to consider the other circumstances under which she lives. How does she live?

MOTHER: For a long time, while I had a job abroad, she lived in a home. Now she lives with me.

PHYSICIAN: What was the situation in the home?

MOTHER: Well, there was a little flirtation with a boy, but nothing serious.

PHYSICIAN (surprised): What makes you think that this love affair was nothing but a little flirtation and not a serious matter?

MOTHER: Since the child had this genital anxiety, it couldn't have been a serious matter.

PHYSICIAN: I think you are making a serious mistake there. From the fact that the child has genital anxiety, that is, that she is afraid of a genital relationship with the boy, you conclude that it was nothing but a harmless flirtation. Don't you think it's possible that this flirtation was a very serious matter, as serious as children's love affairs are to them, and that she later presented it as unimportant because she was unable to go through with it and yet had

to solve the problem somehow? That she tried to solve it by minimizing its importance?

MOTHER: My husband and I have discussed this question a good deal. He thinks I underestimate its importance, because, as he says, the child has talked with him about it in a very serious manner. I don't believe it, because the child senses that her father would like to see her genitally healthy and so she tells him what she thinks he wants to hear.

PHYSICIAN: Well, let's assume for the moment that that is true. Does that prove that the love affair was not a serious matter? I can't see it.

MOTHER (somewhat confused): Well, but she has genital anxiety.

PHYSICIAN: Here you are back at the same old spot. You should realize that your daughter finds herself in a conflict. Deep down, her genital desire is genuine; it also makes itself felt as a genuine desire. But when it comes to its realization, it is turned into something "unimportant" or anxious. You cannot consider a love affair as not serious or as unimportant because the child, at the same time, has genital anxiety. On the contrary, it is just when the child comes up against the barrier of her anxiety that she feels all the more confused, being confronted with her own instinctual urge. And don't forget that you are not dealing with a child who is unconscious of her sexuality. She knows everything and talks about everything, doesn't she?

MOTHER: Surely. She thinks and talks about these things a good deal, but I avoid talking with her about them because I do not want to push her into something for which she is not ready.

PHYSICIAN: Now we understand each other better. It is quite clear that when a child knows everything and, as a result of sexual enlightenment, considers genital sexuality as something natural and matter-of-course, genital anxiety presents a much

more difficult problem to her than to other children. In such cases, genital anxiety plays quite a different role than in children with a sex-negative structure. Can you tell me how the analyst handles this problem?

MOTHER: Well, she does the usual thing. She makes the child conscious of the fear of her own genital impulses.

PHYSICIAN: Is that all she does?

MOTHER: Surely. What else could an analyst do?

PHYSICIAN: Another point where the mother lacks knowledge and where the child is made unhappy. Can you imagine that a function which lives and works could be handled satisfactorily by just talking about it? Talking about it is, of course, the first prerequisite for bringing about a change, but it is not enough. We must realize that what the child experiences psychically as anxiety, is represented physiologically in her genital functioning. We know from therapeutic experience that in adults one cannot treat genital disturbances in a vacuum, but that one has to bring about a concrete change. Thus, one does *not* consider their pathological genital activities—and they are always pathological—as an expression of their natural genital drive; consequently, one will not urge them to engage, without anxiety and guilt, in their particular genital activity. The procedure is a quite different one. We find that genital anxiety is expressed in pathological muscular attitudes. Consequently, one has to unmask these actions, movements and bodily attitudes as a defense against genuine biological excitation and activity. We know this from experience in adults as well as in children. I am sure that in your child we are dealing with the same thing.

MOTHER: Yes, I have vaguely heard about all this, but I can't understand how genital masturbation could be a defense against genital masturbation. Does that mean that the child is not really afraid of masturbation, but that the pathological

form of masturbation is itself an expression of anxiety and a means of avoiding the fear of the biological genital rhythm? I don't understand it.

PHYSICIAN: It is not easy to understand and yet, it is quite simple. Most people, after early education has smashed their natural biological rhythm, develop a different, artificial kind of genital activity, unless they renounce it altogether. We know now that most analysts make the serious mistake of taking these activities—which have replaced natural, biological genitality—as genuine genitality, while in reality these activities are a defense against natural genitality. Do you follow me?

MOTHER: Yes, I understand it because I have read a good deal about it. But I have no concrete conception of it.

PHYSICIAN: There are certain clinical phenomena which make it quite clear. If one succeeds in making an inhibited individual relax—if that is possible—there appear spontaneous vegetative impulses and sensations, particularly at the genital. If genital anxiety is present, the individual will immediately show a definite restlessness. This is not the expression of the excitation itself, but the restless activity serves the function of suppressing the excitation. This fact is not recognized by the psychoanalytic school. Consequently, psychoanalysis of genital inhibitions can be continued *ad infinitum*. It cannot be successful because the attack is in the wrong place.

MOTHER: I begin to understand. But, in view of the fact that the child was given sexual enlightenment, how is it possible that she should be so much afraid of the excitation?

PHYSICIAN: Let's take a simple example. Let's imagine a child who has been very lively and active until the age of three or four. It would climb on tables and chairs, slide down bannisters, and generally run around like a wild little animal. You and I don't believe, like so many others, that

such behavior is unnatural or annoying; on the contrary. Let's assume the following situation: The child is told that all the running, jumping and romping is absolutely natural, and good for the child, and that all the others are wrong who say it is bad. The child, of course, would want to do it. But at the same time, it could not do it, it would have to sit still for one reason or another. Let's go further and assume it would have to sit still for years, prevented from letting its body move in a natural manner. At the age of 15, it would be paralyzed. But not only that. If you would try to make the child use its musculature anew, it would develop a severe fear of moving. You make the same mistake as so many progressive educators, including many of the Freudian school. You favor sexual enlightenment, perhaps you do not theoretically deny the possibility of an actual sex life for the child, but you judge the final result not from the *real* life of the child, as it takes place according to external and internal conditions, but merely on the question of whether it has obtained sexual enlightenment and what kind. But you will understand that a child who has not been enlightened and who does not engage in sexual activity has a much easier life than a child who has been sexually enlightened and yet behaves like a child who has not. That's the first point.

MOTHER: I understand. But we have not prevented the child from engaging in sexual activity.

PHYSICIAN: Theoretically, no; practically, yes. Please be very patient now. These things are of decisive importance for your child. Didn't you consider the budding love relationship with the boy an unimportant affair? By doing so, did you not shirk the responsibility of helping the child? You knew that she needed help in this conflict. But you did not even talk with her about it.

MOTHER: Well, do you expect me to

force myself on the child? I give her complete freedom of action; she can do as she pleases. I don't interfere.

PHYSICIAN: This is another important point where you are mistaken. We agree that the child lives in a general environment which makes genital activity impossible for her. Look here: does that environment take a neutral attitude, like you? It does not. It inhibits the child in every conceivable form, by its atmosphere, its direct admonitions and prohibitions, the school, etc., etc. The child, sexually enlightened, and thus having a relatively uninhibited sexual urge, is confronted by a sex-negating world. And in this situation you take the stand that you let the child do as she pleases! You fail to distinguish the situation of urging the child into something that she does not want, from the situation of aiding her in something she wants but of which she is afraid in a specific manner. This is the *social* aspect of the problem.

MOTHER: I'll have to think about that. I still can't see why the child does not herself find her way to a thing in which we have given her all freedom possible.

PHYSICIAN: This leads us to the second question. The child not only has to struggle against a whole sex-negating world; on top of that, she is handicapped in this struggle by her own pleasure anxiety, as we have seen. Let's discuss this question.

MOTHER: I still fail to see why you consider this such a problem. As I see it, the child simply has genital anxiety and thus is afraid of any genital activity.

PHYSICIAN: I see that without an understanding of the second question the whole thing will remain a mystery. We must assume that the anxiety which originally came from the environment, has in some way become anchored in the child, mustn't we?

MOTHER: Yes, that is quite clear.

PHYSICIAN: You say that neither you nor your husband instilled genital anxiety in

the child. Let's grant that for the moment. Let's assume, then, that the child is different from other children in that, though she shows genital anxiety now, she has not acquired it from her childhood environment. This leaves only two possibilities: either her genital anxiety is the result of the general social atmosphere; or, if we leave this out of consideration, the only other possibility is that there is some other reason for the anchoring of genital anxiety. What do you think that could be?

MOTHER: I don't understand.

PHYSICIAN: Well, let's see. It goes without saying that the development of a child during the period of genital excitation is determined not only by the experiences in this period itself, but also—or even more so—by the experiences which preceded this period. Do you remember how you handled the problem of training to excremental cleanliness?

MOTHER (after some thinking): I don't know whether I should have a bad conscience there.

PHYSICIAN: Please, it is not a matter of a good or a bad conscience, but a matter of clarifying a situation which is bad for the child.

MOTHER: Yes, I'll have to confess. During the first two years of her life, neither my husband nor I quite knew what we were doing. Until the age of two, perhaps even later, the child suffered from soiling her bed.

PHYSICIAN: You say "suffered from"? Why? Isn't it quite natural for a child of that age, or perhaps even somewhat beyond that age, to soil her bed occasionally? Did it happen frequently?

MOTHER: Well, not very often; only during a certain period, which lasted a few weeks, when she wet the bed every night and occasionally also soiled it.

PHYSICIAN: And what did you do about it?

MOTHER: We scolded her and pointed out to her how wrong it was. I remember

our doing that even before she talked, that is, before she was one year old.

PHYSICIAN: Do you remember any particular changes in the child?

MOTHER: I remember that between the age of two and three, she went through a period of crying and tantrums; sometimes she would scream like mad and could hardly be quieted down.

PHYSICIAN: Well, the mystery seems to clear up. You know, don't you, that a child reacts by crying and temper tantrums when the adults prohibit something, particularly if they do it at a time when the child understands neither what is being prohibited nor why. This is one of the most tragic experiences of childhood. The children do something which is entirely harmless, having not the faintest idea that it is "bad." The parents, who have no more of an idea what they are doing, and being afraid for the "cultural" future of the child, interfere in some clumsy way.

MOTHER: Yes, I know, now. But what has that to do with genital anxiety? That's what we are dealing with.

PHYSICIAN: It has a lot to do with it. As you probably know, psychoanalytic theory contends that the infant holds the feces back because it derives anal pleasure from doing so. More recent investigations have shown this to be incorrect. What happens is this: At first the child is quite innocent in its anal function and simply derives the corresponding pleasure from it. Then, usually very early, at the age of six months, certainly not later than the end of the first year, it is prohibited from soiling its bed. This prohibition is enforced more or less severely. What the child develops now is, to begin with, not a pleasure in retaining the feces, but a fear of letting the feces out. Objectively, of course, this expresses itself as a holding back; this may easily be misinterpreted as a holding back in order to obtain pleasurable anal sensations, as if the child were perpetuating the earlier anal pleasure in a different form. That is

not so. The child is afraid of what will happen if it lets go. When does it begin to hold back, anyhow? When the familiar rectal sensation appears which indicates the downward movement of the feces. If you imagine this sensation clearly, you will find that it is very similar to the sensations of beginning genital excitation. So we see: as soon as the child feels the excitation in the rectum, it begins anxiously to clamp down and to hold back. That's the way in which the diverse kinds of infantile constipation come about.

MOTHER: Yes, but I still don't get it.

PHYSICIAN: You will, very soon. The child has a conflict between an internal tension and a fear which prevents the release of this tension. If, now, the anus lets go during sleep and the punitive measures are repeated, this conflict becomes intensified. Analyses show clearly that spite reactions at such an early age make their appearance always as a result of such training to excremental cleanliness as you described. One can distinguish two phases. In the first phase of the spite reaction, the child still fights, in an entirely healthy manner, against the violence done to it by the educational measures. In the second phase, the child, under the pressure of guilt feelings or the fear of losing its mother's love, represses its spite and becomes compulsive and self-tormenting. This is what your child went through.

MOTHER: Yes, but I still don't see what that has to do with genital anxiety.

PHYSICIAN: We are coming to that. When a child with such sphincter training enters the genital phase, it will inevitably develop the condition your child finds herself in. Genital activity as such is not inhibited; the child affirms it intellectually as well as emotionally. But, of course, this activity is accompanied by certain sensations of current in the genital. If, now, there has been the wrong kind of training to cleanliness, the child associates the genital sensations with the anal sensa-

tions, which it has come to consider as dangerous. This happens all the more easily in that the sensations are of the same quality. Thus the child develops a kind of genital anxiety which expresses itself at the genital but which in reality is not genital anxiety but a fear of soiling herself.

MOTHER: At last I begin to understand.

PHYSICIAN: That is lucky for both your daughter and you.

MOTHER: There is one thing I don't understand. The child is being analyzed. Doesn't the analysis dissolve the anal inhibitions?

PHYSICIAN: This is another misconception prevalent in psychoanalytic therapy. It is not a matter of recognizing a certain anxiety and of "interpreting" it. It is a matter of a technique which makes it possible to reverse this process which has taken place in the child: the displacement of the anxiety from anus to genital, or, in other words, the displacement of the fear of anal excitation to a fear of genital excitation. This cannot be done by interpre-

tation, not even, as experience has shown, by character-analysis along purely psychological lines. This requires a technique which dissolves the various forms of anxiety and defense which the child has developed in a definite sequence which corresponds to the development of the neurosis. But I can't go into that here because it is too technical.

MOTHER: But what should I do now?

PHYSICIAN: First of all, let the things we have discussed sink in; check them with the actual life of your child; and, most important, try to find out whether deep down in your own attitude toward these things, you are ready to put into practice what you intellectually know to be true. Very often, the mothers' own earlier experiences prevent them from drawing the practical conclusions from their knowledge and convictions. We'll discuss it again, and then, I hope, we'll understand each other even better. These things are very difficult and in part still unrecognized and misunderstood. Everything takes time to mature.

SEX-ECONOMIC "UPBRINGING"†

By PAUL MARTIN,* M.D.

What is a sex-economic upbringing? The answer to this question will not be found in sex-economic literature. There are a few minor articles which give an idea of the sex-economic concepts according to which children should be brought up but hardly more than that.

However, a sex-economic pedagogy does exist; or, rather, there is the beginning of a sex-economic pedagogy in practice as well as in theory. Parents, kindergarten teachers, child psychologists and other educators have extended their interest in sex-economy to the practical application of sex-economic teaching. And we have, in addition, study groups in which the manifold problems of sex-economic upbringing are constantly being discussed.

In this article, I shall not enter into the details of our procedure, but shall limit myself to the attempt to sketch briefly those aspects of our work which have yielded the most significant results to date. Many problems have had, of necessity, to be omitted; they will be discussed in later articles.

At the outset, I should like to say a few words about the theoretical background of sex-economic upbringing. The word "upbringing" is misleading. Our basic principle is not to "bring up" but, to the extent to which circumstances permit, to replace education by the principle of *self-regulation*.

In biology, it is a well-known fact that all living organisms have a tendency to self-regulation. Our experience shows that children, too, have this tendency to self-

regulation, with regard to their immediate needs as well as to those pertaining to their general development. They show it in all essential matters, such as eating, sleeping, and cleanliness *if, but only if, the children themselves are given the opportunity* to regulate the gratification of their needs. The most important task of the "educator," therefore, is that of co-operating with the child in the satisfaction of its needs. For example, the mother must sense when the infant is hungry, give it the breast and let the infant have it until it lets go of the nipple by itself. The child must have adequate facilities for the satisfaction of its developmental needs: sufficient space to move around in, toys which absorb its interest, other children among whom it can choose its playmates. But one should not be afraid to make reasonable demands on the child. It is part of the needs of a child to solve tasks which, however, must be in accord with its development, capacities and inclinations. That is, the child must have every opportunity for *free development*.

Among the conditions which have to be fulfilled to make possible such a development, I have mentioned several external circumstances, space to play in, etc. But the people around the child must, also, further this development. They must act and react in an alive manner; they must be able to tolerate the child's emotional outbursts. They must be able to feel when the child needs help and when it simply tries to boss. Infants as young as 6 to 8 weeks try to force the mother, by crying, to be around all the time. Nevertheless, most mothers soon learn to distinguish whether the child cries because there is something wrong or just in order to get attention.

The most essential need of children is, without doubt, their *need for love*, physical as well as psychic. How important this factor is can be seen from the following situation: Poor children from large cities who are taken to the country on vacation, placed in beautiful surroundings, and given the best of care will, frequently, out of boredom and home-sickness, make plans for a flight back to the backyard playground and father and mother. They may even make actual attempts in this direction, while the whole personnel of the camp believes that they are as happy as fish in water. This illustration provides, in part, the explanation for what one hears all the time about the importance of the family. The decisive factor, however, is not the family as such; it is the amount of love which the environment offers and whether it provides enough love to satisfy the growing child's intense need. If we consider conditions in kindergartens and similar places where children are brought up, with little or no opportunity for personal development, it is easy to see why the family is regarded as the best place for the child. But in reality, the family, in its *present form*, is most often a breeding place for quarrels, suppressions, and inhibitions; a place where the children—in spite of the best of intentions—cannot be brought up lovingly enough; but where, on the contrary, they are exposed to ignorance and hatreds; where the parents, unsatisfied in their own emotional needs and incapable of real contact, gush out a substitute affection over the children. And I repeat: in spite of the best of intentions.

A good upbringing is a loving upbringing. The child's need for affection is immense, and it is not only psychic. In this as well as in other respects, the child's needs are tied up with *bodily pleasure and the urge for sexual gratification*.

Children of all ages like to pet and to be petted, and they will in every way possible combine their affection with their urge for

sexual pleasure. The infant will satisfy its desire at its mother's breast. The older child will masturbate and will try in other ways to obtain as much pleasure as possible from those it loves, parents as well as playmates.

As is well known, Freud believed that between these two phases, the oral and the genital phase, there is a third, the anal phase, which he considered to have a biological basis like the others. We doubt this very much. We believe this anal phase to be an artifact, strongly developed as it often is. The customary upbringing requires of the child a very strict control of the sphincter functions at a time when the child can meet this requirement only by holding back the excrement because of fear. The children accept this holding back because they discover that the retained excreta, particularly the feces, stimulate the respective zones strongly and thus produce a new kind of pleasurable excitation to make up for the one lost in the natural function.

What is to us of utmost importance is that *the child's pleasure in its own body and its capacity for sexual gratification be not destroyed*. The experiencing of pleasure plays a central and decisive role in the whole structural development of the individual. This means that physical pleasure is the basis for all bodily functions. It is pleasure which makes the wheels go round. If, then, the experiencing of pleasure is interfered with, the bodily functions become disturbed. This disturbance of function, localized at first at the place where the original interference with pleasure occurred, later involves all other functions which hang together with the first one.

In a healthy individual, it is appetite and not hunger which makes him take food, genital pleasure and not the wish for offspring which makes him engage in the sexual act. If the way to sexual gratification is open, the individual will stay vege-

† Translated by the Editor.

* Editor's note: This is a pseudonym. Present conditions force us, unfortunately, to withhold the names of our European co-workers.

tatively mobile and he will retain his capacity for work and his orgasmic potency. If the way to sexual gratification is blocked, the basis is laid for a pathological character structure with corresponding disturbances of work and potency. Life energy and sexual energy are identical.

A further, and important, inhibition occurs when anxiety and aggression are suppressed. Yet these emotions are being suppressed, consciously and unconsciously, to a far-reaching extent, by all the existing modes of upbringing. Education in its present form is not only ruinous for the individual but it also develops the passivity of character which strengthens the suppressions of family and society so much that it has assumed the *social function* of being an essential prop in the maintenance of the patriarchal, sex-suppressing family as well as the present life-negating form of society.

The individual's ability to defend himself against this kind of upbringing is reduced—to a varying degree—by the fact that he has practically all the authorities arrayed against him. Not only are school and church essentially authoritarian, but this upbringing also has the support of all medical and practically all educational authorities. As far as the latter are concerned, this is true to varying degrees, and with the adherents of modern educational concepts, very much against their own intentions. One may mention, as an example, the larger part of the Montessori school. The reason for this lies in their neglect or avoidance of the sexual problem. Another example of misdirection in education is psychoanalytic pedagogy (Anna Freud, Aichhorn, Bernfeld) which utilizes its knowledge of sexuality in order to repress it *all the more*. In fact, up to now a pedagogy with both the intention of and ability for a real affirmation of life has not been in existence.

Given the fulfillment of all needs, there is one thing which more than any other

characterizes the healthy child and the healthy human being in general. This one thing is the *ability to give oneself*.¹ If a child has this ability, it *gives itself over* completely to whatever it is doing. This is true of its play as well as of its sexuality, of the infant's suckling at the breast or the older child's masturbation. Whatever the child does, it does fully. The psychologist's observation of a decreasing intensity of feeling with advancing age is but the reflection of the gradual emotional stagnation under the powerful life-negating pressure to which everyone is subjected: first by their early upbringing and later by their life experiences. We try, therefore, not to disturb the child in whatever it is engaged; partly, in order that it can live fully in its own rhythm, partly out of *respect for the individuality of the child*. We force the child only when it is absolutely necessary: when, for example, the child exposes itself or others to danger.

And just as we fully respect the child's play and other activities, so, too, do we fully respect its feelings. Nothing could be more mistaken than to regard them as merely "childish." Most adults have good reason to envy children their intensity and spontaneity of feeling. Without compelling reasons, we never hinder the fullest expression of the child's emotions. This applies primarily to what we call the basic emotions: the child should be allowed to experience freely pleasure, anxiety, anger and sorrow (except that too vehement anger should not be directed against smaller children). In other words, the child should be allowed to like what it likes and to be angry at and to hate that which it cannot stand. It is of particular importance not to force the child to love anybody against its

¹Translator's note: In German: *Hingabe*. In view of the decisive importance of this characteristic, the lack of a corresponding word in the English language is highly regrettable. The term "surrender" which I have used elsewhere, specifically in the sense of orgasmic *Hingabe*, unfortunately carries the implication of "capitulating," "relinquishing."

wishes—not even parents. Love cannot be compelled! And the right to weep, too, belongs to the basic rights everyone should have.²

We may epitomize these observations in one statement: we treat the child, right from birth, as an individual personality. It is an independent personality, budding, it is true, but forthwith a complete entity with a way of being all its own. In the expressions and movements of the newborn child, we see developing interests. Even small motions are not meaningless to us; we see them as inadequate and unsuccessful attempts in one or another direction. I trust that in the discussion of our practice I shall succeed in showing that in every respect in which we deal with children, we treat them as individual personalities with rights equal to our own. It follows from this that we never consider any response of the child, including pathological manifestations, merely as an isolated phenomenon, but we always view it in the light of its significance for the personality of the child as a whole, for the whole vegetative organism.

Well—the reader will say—is this anything new? No, definitely not—all of these things have been said many times before. What, then, is new in sex-economic pedagogy? In part, it lies in the particular emphasis on and the elucidation of the principles of self-regulation and pleasure gratification and in the integration of these points of view. And partly, it lies in the

²Translator's note: This statement may sound platitudinous, but its importance can hardly be overestimated. During vegetotherapeutic treatment (of adults) one experiences again and again the central significance of a suppressed impulse to cry. It often takes considerable work on character attitudes and muscular attitudes—particularly spasms of the throat, the jaws and the mouth—to liberate such a chronically suppressed impulse. It is often found to be linked up with a central infantile trauma to which the patient, as a child, was not able—or not allowed—to react with crying. In such a case, only the release of this impulse to cry will really dissolve the repression of the corresponding trauma.

consistency with which these principles are put into practice. But primarily, the contribution of sex-economic pedagogy lies in the fact that it has but *one goal*: the development of individuals who are healthy, vital, and as capable of love as possible.

We do not look askance at other goals of education, such as orderliness, morality, cleanliness, good behavior, etc. But we know from our experience (from the treatment of adults and from the study of certain primitive societies) that an upbringing according to the principles of sex-economy leads to a deeper and more genuine morality, to a more honest approach to the problems of life, and to a deeper love for and understanding of people than is possible under any other kind of upbringing. At the same time, the sex-economic study of the human structure shows us the forces which negate life and those which promote it; and by showing us the pathogenic factors, it enables us to eliminate the basis for pathological developments, to eliminate the inhibitions without creating new suppressions.

Of fundamental importance here is Reich's differentiation of primary and secondary drives: Reich showed that where a primary (natural) drive is suppressed, there develops a secondary, pathological, often antisocial drive. To give a few simple examples: An individual with a natural sex life will never be able to commit rape. Such a crime presupposes that the sex drive is inhibited and thus has become both intensified and qualitatively altered (i.e., has become a secondary drive). Conversely, a particularly cunning and deceitful child will never be able to get angry in the same way that a healthy child does. These considerations apply also to that often misunderstood concept of freedom. Whatever its limitations, there can be no limit upon the freedom of the individual to express his primary drives and tendencies, such as the craving for love and bodily pleasure, and the tendency

to get angry at (unjustified) restrictions of motility. Sex-economic knowledge, therefore, does not lead to a lukewarm tolerance, but to freedom for everything that is healthy, and to the elimination and prevention of those things which cause illness.

We can summarize our conclusions as follows: The upbringing should not really be a bringing up, but a matter of safeguarding, to the highest possible degree, the child's natural ability to give itself fully in all its functions, particularly to pleasure and activity, and to protect the natural self-regulation of all vital actions. In addition, it is a matter of providing all possible opportunities for the child's independent development in every respect. This must be done without fear of and, indeed, through the gratification of the child's enormous craving for love. The prerequisite is that one should be able to identify oneself fully with the child's personality. The result will be a child with lively demands but one who will be harmonious and content if the demands which correspond to his own rhythm are fulfilled.

OPPOSITION AND TASKS

If one can really give to children what they need and ask for, there is hardly a more pleasing task than taking care of them. In many cases, one meets with a deep and genuine gratitude from the parents. Often, however, one meets with all possible resistances on the part of the environment: the parents lack time, means, space, and—to a varying degree—the ability to understand the child's demands sufficiently not to inhibit them. And, too, one meets with envy and jealousy, lack of understanding, and conscious or unconscious obstruction from parents and authorities. Very often, the work with parents and the removal of their resistances is the biggest and most difficult task, because the structure of the parents and their personal and social

difficulties are reflected to an amazing degree in the behavior of their children.³ On the other hand, if the parents realize that it is possible to save the children from those difficulties against which they themselves have had to struggle all their lives, their thankfulness may know no bounds.

This socially and structurally conditioned influence of the immediate environment, with its continually inhibiting pressures, is supported in all possible ways by educational ideals such as politeness, cleanliness, "good behavior," and by all kinds of authorities, medical and pedagogical among them.

Our task, then, is to fight the inhibiting ideals, to show the way to a better understanding of the demands of life and health, and to point out the inhibiting and ruinous effect of other demands. With the latter demands, it is necessary to show that they are propounded without any justification in fact and that they destroy happiness in childhood and later life for all, to the advantage of a few or none. We seek an understanding of the child's needs, but not merely a passive sympathetic understanding, rather one that leads us to make

³ I hope to be able to demonstrate this in detail in later articles. Whatever the parents' and educators' intentions may be, the structural inhibitions and the social limitations under which they are forced to live, must of necessity be reflected in the children's structure. From direct observation and from clinical experience, both psychoanalytic and characteranalytic-vegetotherapeutic, we know two ways in which the children come to reflect their environment: In part as a result of direct inhibitions, due to the fact that the child was unable to uphold his original demands in the face of the environment's disinclination to fulfill them. In part it is on the basis of their conflicts, particularly those of ambivalence, by the identification with the adults and their demands. The children have to adjust themselves to them and finally make them their own.

The understanding of these reactions in the children is also of decisive importance for an evaluation of all the theories of constitution, and of the way in which ideologies are transplanted from generation to generation. One also has to remember that these factors are at work from the very first day of the upbringing, i.e., from the first day of life.

an active fight for the happiness of children—and through them for all human beings. This active understanding makes great demands upon the personality of the educator, but it offers a much richer relationship with the children; and, in fact, only such an understanding can provide the foundation for a relationship with children which is based on mutual respect. The result: happy children with good friends and joyful helpers in their immediate environment.

I can proceed, now, to set forth some aspects of our practice. We are confronted with two tasks. The first is that of helping more or less inhibited children to become fully alive again. This is the job of the educational counselor and often that of the active teacher. In difficult cases, the problem can be solved only by actual treatment. The second task, which I shall take up specifically here, is that of developing the healthy child and of helping him to remain healthy. We begin with the infant.

The most gratifying field for sex-economic pedagogy is undoubtedly the one which deals with infants. Here, our task is relatively simple. It is exclusively a matter of letting self-regulation and self-development take their own course to the highest possible degree. Since the first days are of great importance, it is a matter of preventing any disturbing intervention from the very moment of birth. As things now are, there is no doubt that a great many suppressions and disturbances begin in the lying-in hospitals, for there, children are usually treated in a very impersonal and schematic manner. (I hope soon to publish a paper on this subject.)

It is just with the infants that what we mean by self-regulation becomes readily apparent. First, with regard to feeding, we succeed in letting children determine for themselves when, how often, and how long they will lie at the breast. Perhaps even more than the pediatricians, we emphasize the importance of breast-feeding.

We ask the mother to watch for the time when the child is hungry and to nurse it then. We ask her to leave the child at the breast until it lets go of the nipple by itself; if, afterwards, it starts to lick, we believe it is best to let it do so until it becomes tired. Therefore, we do not decide when the child is to have the next feeding, but ask the mother to let the child decide. If one continues this procedure, the child, as a rule, establishes what we call its own regularity or rhythm. This will mean, generally, four or five feedings a day; only once have I seen it to be six. An example of the importance of allowing the infant to lie at the breast until satisfied was given to me by a woman colleague. She found, by weighing, that her child obtained the greatest amount of milk *after* having been nursed for twenty minutes.

Also, for the sake of the child's sex-economy in the first few years, we would like to have the nursing period last as long as possible (see below, the "almost healthy child"). Of course, this does not mean that the child should not, at the proper age, receive other food than breast milk. Prof. Malinowski informed me that with all primitive peoples, the nursing period lasts at least several years. We recognize that it is impossible to introduce anything like that under present social conditions. The child's pleasure is further reduced by the modern requirement that the feedings should be given "on the dot" at a certain hour and should not last longer than ten to twenty minutes. And the mother usually does not have enough milk. All of this is why we consider it of extreme importance to increase the pleasure possibilities of nursing and other forms of feeding as much as possible and to promote in the small child all pleasure possibilities derived from the mouth.⁴ For

⁴ To consider only the child's pleasure is really an inadmissible oversimplification of the nursing problem. It involves, inherently, two individuals, mother and child, and—quite particularly from the standpoint of pleasure—we are dealing with

this reason, too, we do not interfere with the use of the pacifier or with the sucking of the fingers by children. Nor do we take their bottle away as long as they hold on to it. On the other hand, there are special reasons for allowing children to go around with their mouths open; it has to do with the fact—which is confirmed in every therapeutic case—that a spasm of the muscles which close the mouth severely inhibits the ability to give oneself. (Details of this are as yet unpublished.)

I think that nursing provides the best illustration of the difference between the regularity we strive for and that which is generally indorsed by pediatric authorities. *Our* regularity is derived from the child itself; it is alive and unschematic and in constant harmony with the child; and as a result, it changes as the child changes and develops. The *other* regularity proceeds according to a schema which is imposed upon the child from without and stifles the child's own rhythm, forcing something alien upon it which can only have the effect of a strait-jacket. *We* adjust ourselves to the child who is completely dependent on our help; and we do this without limiting our own existence more than is necessary, fully aware that there are always conflicts between our own interests and those of the children. These conflicts one must solve in everyday life as best one can, and we will try to show that it can be done to a far-reaching degree

a mutual interaction between the two individuals. Above, I have used the expression, "It is pleasure that makes the wheels go round." So it is here—for the mother also. My experience tends to show that the more the nursing mother feels pleasure in the breasts, and the more she takes her time and can enjoy it quietly, the better do her breasts function, i.e., the more milk do they produce and the longer do they continue to produce it. If this assumption is correct, it explains the fact that in our women, milk secretion stops within half a year or less, while almost all primitive women can nurse for several years without difficulty; these women, as a rule, undoubtedly have breasts much more sensitive to pleasure and they give themselves over to the pleasure with much less inhibition than do most women in our culture.

without making either of the two parties suffer. A satisfactory solution on a social scale, however, presupposes a society which aims to make people happy. The others force the child to adjust to *their* lives, *their* demands, *their* rules. If, under such a regime, no more conflicts are apparent, it merely means that the child has succumbed to his environment, or that the struggle has become an internal one. In either case, the adult has merely shifted the burden on to the child.

In other respects, too, we let the child regulate its life. We let it sleep when it is sleepy, we do not disturb its sleep, and we do not try to force it to sleep before it lies down itself. It is our experience that the children's sleeping habits are no less regular under our management than under that of others. In fact, the majority of our children soon established the habit of sleeping through the night.

Disturbances of sleep may be due to direct causes, to direct encroachment from the outside upon the self-regulatory sleep mechanism, usually in the form of a demand that the child *shall* sleep ("Now, go to sleep!"). Another factor is the child's fear of giving itself over to sleep. Patients who, as children—due to the generally prevalent and regrettable custom—slept in their parents' bedroom, often relate in the course of the treatment how they lay awake, all tense, in order to listen to what their parents were doing. But apart from this, insomnia in children as well as in adults seems chiefly to be caused by sexual frustration. This is also true in the many cases where children sleep well when some stranger takes care of them but are disturbed in their sleep when their mother is present. In these cases, the disturbance is due to the much greater craving for love which the mother has aroused but which for one reason or another she fails to satisfy. Children's nurses do not hesitate to use the means of sexual gratification as the surest way to get a child to sleep.

We know that children are naturally sociable. What is not so well known is that this sociability manifests itself very early in life. At the age of a few weeks, children will cry, for example, when one suddenly looks away from them. They take cognizance of what goes on around them and are often very dissatisfied if left alone. They want attention and noticeably enjoy it until they become tired. This urge to be with others and to feel contact with them persists all through childhood and life. It is this need which is basic to all social living. Very early in life, it expresses itself towards children of the same age and development. Children should from earliest childhood have the opportunity to be together, to be comrades, and to be everything else they can be to each other. This lays the foundation for the natural contact with their fellow humans which they ought to have all their lives. It is here that social life begins.

I should like, however, to point out a complication in this early social life. There is suppression by other children and by their environment. There is, first of all, the suppression of smaller children by the larger. What they receive by way of admonitions, advice or hints they usually pass on as quickly as possible. Like the adults in their environment, they are often very strict with smaller children, imitating the educational manners of their parents but applying them, in their child's way, without any restraint. This is particularly evident in children who have just entered school, but it is also true of children in the same age group: the weaker children or those with weaker traits succumb to the harder ones. This means that it is the healthy child or the still sensitive and relatively healthy child who succumbs to children who are more robust and unfeeling just because they are more effectively armored. Something like this undoubtedly happens in many kindergartens and most schools. It is inevitable whenever children

with markedly different individualities come in contact with each other and where the adults in charge fail to recognize the problem or have nothing in mind but the necessary adjustment to the community without realizing that this takes place at the expense of the child's vitality. The real task is to make it possible for the individual child to grow together with the community in such a way that it can achieve in the community the maximum development of its personality and capacities. Only thus will the community be of most benefit both to the individual and to itself, and only thus will it avoid an authoritarian or more or less religious relationship which stifles the development of the individual. It will instead become the place where one enriches and unfolds one's own personality on an equal footing with others.⁶ As an example of suppressive measures, unobserved but highly significant, we may mention the almost general custom of sending the mother away immediately after she brings the child to the kindergarten on the very first day. In that way the child is *forced* into the new environment; this is the aim of this procedure, but, to say the least, it makes it very difficult for the child to *grow into* the new environment. Certainly, then, one of the

8 This problem of a fellowship into which one fits naturally without the suppression of one's own personality, but, on the contrary, as a place where the richest personal development is possible, seems to me more than anything else to be the problem of education. It is the problem of genuinely social individuals, of society as a natural organization in general, not as an idea, but as a reality. If and when this problem can be solved, all discussions as to whether society exists for the individual or the individual for society, will become pointless, because then they form a real unity; in classical dialectic terminology one would say that they have become fused in a higher unity. But what transformations of education and of society will not be necessary before we ever attain such a goal! We know what forces will bring us nearer to the goal. It can only be the forces which are mobilized by all the pleasure possibilities here: the pleasure of being not only in harmony with one's environment, but in constant contactful interchange with it.

main tasks of a healthy upbringing is to pave the way for rich relationships between children without mutual suppressions.

But to go back to the infant: We give the child as much opportunity for motor activity as we can. Its clothes, though sufficiently warm, should not hinder its activity; and at night, we do not tuck it in or cover it with anything heavy. This has led to the necessity of keeping the bedroom at a rather high temperature, and we have gotten away from the rule, of necessity, that children should always sleep with the window open. As early as possible we also give the children some toys; at first, for example, some colored silk ribbons are hung in front of it. We feel that the child should lie comfortably and—unless there is danger of rickets—we do not feel that the customary hard mattress is necessary. We see to it from the beginning that the child has an unobstructed view not only above but also to the sides. The child is put on a bed with open sides or upon a couch when awake.

It is necessary, from the outset, to satisfy the child's desire to be caressed. This does not mean to use it as a doll or a toy which one handles according to one's own whim; but one should be without fear of being really affectionate with the child when it asks for it and needs it.

The question of cleanliness is of utmost importance, but it, too, is treated in the same way as far as possible. We do nothing to get the child clean at an early date. As long as it is small, we try to change it as soon as it wets or soils, because the child finds it unpleasant to lie in soiled diapers. Later on we just keep it dry, but we do not force it to become clean before it will do so by itself. And we let it sit on the chamber when and as long as it wants to. It goes without saying that if one proceeds in this way, one should not have expensive carpets on the floor, and there will be a lot of laundry. As a compensation, it

is our belief that only in this way can one avoid the real difficulties and especially the spasms in the pelvic floor. The time at which children become clean varies a great deal. The reason for this seems to be that, in spite of everything, some compulsion in the direction of cleanliness is exercised after all. The structure of the parents and the opinion of others, especially that of visiting grandparents, is bound to have some effect.

Children usually enjoy their bath unless they have been frightened by rough handling or by the feeling of losing their balance in the bathtub. As little force as possible should be used upon children to be clean.

It is inherent in our way of looking at things that our concept of "hygiene" differs from the one commonly held. For us, this concept includes much more than the demands of asepsis and of other "organic" preventive measures. For us, it is not just a matter of preventing infections, rickets and similar ailments, but a matter of preventing anything which may interfere with the whole vegetative development. For this reason, we look with a good deal of distrust on all demands which have the effect of limiting the child's independence, motility, pleasure and general development.

In this connection, I may mention that we try to prevent anxiety, particularly in the small child. It is a common belief that small infants lack the ability to hear. This belief is supported by many well-known medical guide books for parents. It is amply contradicted in the literature and is essentially incorrect. On the contrary, noise is a common source of anxiety in infants; it often disturbs or prevents their sleep.

Crying, we consider, is a sign of unpleasant sensations in the infant. As a rule, one can find and eliminate the cause. Only if we find that the child begins to misuse crying in order to get attention or

to obtain other advantages, do we let it go on crying.

On the whole, our experience has been that children almost always become so lively that it is difficult for adults—particularly if they have them singly—to keep up with their activity.

And finally, one example to show how strong a source of pleasure the pacifier can be and how early a strong personality can be developed (and under corresponding circumstances this development will always take place): A boy of 10 months, who had been brought up entirely according to our concepts, had to be hospitalized. The nurses told the parents immediately that it was out of the question to let him keep his pacifier. At the same time, they "promised" to get him clean. But he got the upperhand. He howled so mightily and persistently that they had to give in, and he became the first child in the history of the ward who was allowed to have his pacifier. Both parties were relieved when, after 36 hours, he was discharged.

This example also shows how great the difference is between our concepts and the commonly accepted and official ones: from the point of view of the hospital he was only an extraordinarily restive, stubborn, and ill-behaved boy. In contrast, I may mention the case of another boy who, at 8 months of age, still lay in his carriage apathetically and without any initiative most of the day. He never cried, but he was stiff with fear when strangers only looked at him. At the age of 12 to 14 months, this child, otherwise healthy, still showed not the slightest interest in other children. His somewhat elderly mother had, in a kind but determined way, "accustomed" him to lie quietly at regular intervals, i.e., most of the day, packed down in the bottom of a closed carriage, all wrapped up and fastened with straps so that he was absolutely unable to stir.

Now, a few words about the *later up-*

bringing. The principles remain the same: besides being always kind and affectionate with the child and giving it all the physical and psychic love it needs, the most important thing is to treat it with real respect for its individual personality. Often the child is, as the afore-mentioned example shows, more of an independent personality at the age of 1 or 2 than a great many adults.

The main problem of this later upbringing is, perhaps, the children's play and other activity. Here also, we let the children regulate their own affairs as much as possible; we do not impose our motives or concepts upon them nor our ideas of the way their playthings are to be used. We help them only when they ask for it. When there are several children, we permit them to regulate their mutual relationships, and we take a hand only if it is necessary to protect one or more of them. That does not mean that we do not play with them, quite the contrary; but our participation in their games is on an equal footing with theirs. All play possibilities are welcome, inside and outside. Constructive toys are always good. The best toys are those the child is most interested in and can do the most with. I may mention that my own boy for more than a year played intensively with bottlecaps. He collected them by the hundreds, arranged them according to colors, laid them out in figures, used them as goods in his wagon, etc. etc. This example shows that children need a lot of toys but that they need not be costly. It seems to me that one of the sorriest sights is a small child without any opportunities for play and activity. Such a thing should not exist. It is not surprising that children who are limited to a few playthings and play possibilities, because of their upbringing or economic need, develop a much more intense feeling of possession for the few things which to them represent all that is desirable in this world. The social and sexual consequences of

this exaggerated sense of possession are not difficult to see. I want to stress especially that we let the children draw and paint, play with mud, sand, earth, etc., and—under the proper supervision—with fire.

In this article, I cannot, unfortunately, discuss the difficult problem of how it is possible, socially and in the individual case, to arrange the children's environment so as to make all this possible.

Part of children's play is to tell stories and to play jokes on adults. Towards their questions we have the same attitude as towards their play: we take them seriously, answer them as best we can, and, for the rest, talk with them about things, including themselves, as we would with anyone else.

We are not afraid of showing children our own feelings, provided that we ourselves have somewhat natural feelings, and that includes justified anger. On the contrary; if the children are to grow up to be alive, they must grow up among individuals who are themselves alive. We shudder at the thought of people who are always "pedagogical" and "correct" or forever mild and understanding. Such behavior has a stifling effect on children. Therefore, we quietly let them know when they really bother us. It is part of a natural association with children to talk about them in their presence, just as one talks about adults who are present. One talks about their good points as well as their bad ones, but with full respect for them and in such a way as not to offend them. Similarly, we talk about their environment, their behavior towards other children, etc. We do not want any artificial respect or authority. We do not share the common, almost panicky fear of talking about the children within their hearing; nor do we countenance the irresponsible chatter about anything and everything as if the children were not present or as if they did not understand what it is all about. Anxiety

and fright should be kept away from them, including all moralizing, both in the undiluted and story form.

But this does not preclude the necessary admonitions and teaching. They are taught to watch traffic and not to fall out of windows. However, if possible, it is preferable to permit them to make their own experiences; e.g., by letting them get slightly burned at the radiator, or by letting them fall down from harmless heights.

We try to be as natural as possible with regard to our own bodies as well as theirs. We never prevent the children from playing with their own or each other's bodies. And we rejoice to see them in love. Incidentally, the earliest real being in love, in the fullest meaning of the word, which I have ever seen was between a boy of 15 months and a girl of 10 months. They beamed in each other's presence, embraced each other, and cried when they had to separate.

As far as eating is concerned, we are also for complete freedom, and we think it natural that children should have a "sweet tooth." As early as possible, often around the age of 1, we let the child begin to feed itself: to choose what to eat, to serve itself, and to determine how much to eat. (There is no vitamin problem; we have yet to see a child who did not gladly take its cod liver oil.) Nothing need be added with regard to cleanliness and dressing. Children soon develop tendencies in these directions, and we let them determine for themselves what to put on—and, as soon as they are able, wash and dress themselves.

In conclusion may I mention a few things which really go without saying. We strictly avoid the use of such opposites as boy—girl, large—small, and other suggestive expressions. We never say, for example, "You are too old for that," or "Only little girls cry about a thing like that," or "What a stubborn child you are!"

etc. On the other hand, we do not hesitate to give little boys so-called girls' toys, like dolls, household things, etc., or to give the girls boys' toys of any kind. Neither would it occur to us to demand—in Montessori fashion—that toys be used in the special manner for which they were designed.

We do not force the children to be polite, modest, well-behaved, or grateful. It is perhaps just for this reason that they are, as a rule, both trusting and appreciative. They are also very affectionate and sensible, and have a remarkable ability to size up a situation and act accordingly.

We have succeeded to a far-reaching extent in putting all this into practice, and to that extent the result has been a free development in activity and imagination, and a *joie de vivre*. The children are in contact with their surroundings, happy and full of initiative; they show little aggression and apprehensiveness; they give and demand much love, so much that most of the adults find it difficult to keep the pace. There are extremely few adults who can freely caress and kiss their children or give themselves over to play and the constant repetition the way children can. The latter keep going until they are "all tired out."

But, living as we do, the children's independence will necessarily make the inevitable conflicts more acute. In my case, there is a daily struggle to be allowed to listen to the radio news, because to the children it is nothing but an annoying noise; and so I become a source of annoyance, too. Others have trouble having their books or other possessions left in peace.

Why is that so? The difficulty will usually be found to be due to one or more of the following three causes: Frequently, it is because one has not made the child understand sufficiently what one wants to have respected. This is undoubtedly true in my case. Often, it is nothing but the children's urge to widen the field of their

activities, to acquire things, to conquer everything. Finally, it may be due to our inability to practise what we have intellectually recognized to be true; all such reservations which we may have—in spite of our better knowledge—will of necessity have an influence on the children. It is easy to see where self-regulation, harmony and pleasure have had a chance for free development and, also, where it has not been possible to avoid suppression.

I should like, at this point, to say a word about *two main objections* to our concepts. The first is, "Why, shouldn't there be any discipline and authority at all?" and the other, "Don't the children get spoiled that way?"

There is a general belief—on the part of physicians and pediatricians as well as others—that the child must learn to obey and to subordinate himself, because otherwise he will become spoiled and "will never amount to anything." This concept pervades all our dealings with children right down to the sorry instance where the mother is forbidden to give the child any affection at all. From a certain point of view this concept is quite logical: If one wants well-behaved, neat and completely dependent children, the thing to do is, indeed, to hold them down from the very beginning. But, if one wants children who are independent, alive personalities who insist on their own rights, one has to help and respect them, to treat them with love.

Needless to say, in our way of upbringing there also develops a relationship of authority; but it is certainly of an entirely different kind than the customary one. Our children will never obey because they *shall* obey, but only out of a feeling that it is to their advantage to obey. If they do not have this feeling, they simply will not obey. It may be necessary to force them to obey, but this is done only when it is absolutely inevitable. And that is not very often. In fact, it is found that when children are brought up as freely as we at-

tempt to do, they are much more open to reason than other children; thus it is always possible to show them what is really to their advantage.

To the other objection, we can answer: the gratification of natural needs and the satisfaction of the natural urge for love will never make spoiled children; it will only make independent, contented personalities.

Does this mean that there is not any risk of spoiling them? Oh, yes! There is something which we, too, call spoiling. There are parents who simply do not let the children voice their desires, who never allow them to be confronted by any task, who—psychically and physically—spoon-feed them and smother them in soft cushions and featherbeds to such an extent that the children never have a chance to develop their own skills and abilities. This is really going to the other extreme. These children are not given a chance to fight for what they want. They have no opportunity to develop themselves, their skills, needs and wishes because these are, as it were, divined and fulfilled before the child is really conscious of them. Such children first become dependent, often to an extent that they are literally unable to do anything by themselves. After that—partly because of their lack of independence—they begin to make impossible demands upon their environment and, when these demands are not satisfied, they lose their temper and complain. This may go so far as to inhibit completely the child's development so that the child gives the impression of being retarded, dull, and lacking in initiative.

But there may be a third and perhaps weightier objection to the concepts here described: their practicability now or in the future. Upon this, I cannot enter here. Our whole educational work will have to show the ways in which it will gradually become possible to put these concepts into practice on a wide social scale.

With this, we come to the problem, *Healthy or sick children*. Here things are completely turned upside down: a child without conflicts is generally considered healthy, but in the majority of cases—except with infants—it will be found to be sick according to our concepts. As a rule, it is the child who has established a superficial but quite stable equilibrium which covers up the fact that it has had to renounce an essential part of its vital demands; in other words, it is a sick child. In particular, this is true of the nice, well-behaved child who, usually, has had to give up all real independence. On the contrary, it is the child with conflicts who is usually relatively or entirely healthy: he *still suffers* under the frustration of his vital demands. One sees, quite often, children of 2 or 3 years of age who suffer and are alive, while those of 4, 5 and 6 are without conflicts, superficially happy, but emotionally dull, "healthy" children. The fact that a child cries or gets angry when it is crossed is a sign of *health*; it is a poor sign if it is quietly resigned. That does not mean that healthy children do not accept events or conditions; but with them, as mentioned before, it is a question of understanding and insight, not simply of submission. Healthy children—like healthy adults under certain circumstances—will be called "nervous" on account of the intensity with which they react emotionally to their experiences. This is particularly true of the category of children whom we have come to call "the almost healthy."

The *almost healthy children* will feel and react very intensely. Often, they are somewhat too aggressive and wild in their motility and general behavior, or they react exaggeratedly to frustrations, or they are somehow restless. Often, they are "cry-babies" or "mother-babies." They may show other symptoms. What they all have in common is that they were brought up with very much regard for their in-

dividuality, the parents' being "on the child's side" in the sense of Neill; but that in one respect or another, they were exposed to something they were not quite able to master. Most often it is a deficiency in the ability of the parents to gratify the child's craving for love. I have already mentioned the great importance we have come to attribute to nursing. I personally believe—and I hope to substantiate this belief on a later occasion—that as long as it remains the custom to stop nursing at the age of 6 months or earlier, we have to expect a period during which the child's needs are particularly intense and difficult to gratify. The normal and best time to conclude the nursing period would be at the age of 3 or 4 years, i.e., when the child reaches the stage of satisfying masturbation. For it appears that in the period between weaning and masturbation, the child has no adequate means of pleasure satisfaction. In addition, there is the circumstance that when the child is beyond the nursing period, the mother is likely to be so busy that she does not have the time and energy left over which the child requires. And on top of that, there are all kinds of personal difficulties: conflicts between the parents, the lack of help and the lack of means for toys. A most important factor is, I believe, the fact that the child's personality develops so strongly during the first few years that it becomes stronger than its parents, with the result that the parents are inclined to give in to everything simply in order to have their peace. When parents of such "almost healthy" children acquire a more positive attitude toward them, become more affectionate, and more sure of themselves, the children become almost completely harmonious. My experience, small as it is in this particular respect, indicates also that if the little boy and the little girl "find each other" or simply become good friends, this may make an enormous difference.

We can accomplish much, therefore,

with these "almost healthy" children, but we must recognize that they have a difficult time; and for this reason, they are usually considered "nervous," "neurotic," "ill-behaved" children, or "failures." If they become apprehensive of other people, especially of aggressive adults or somewhat tough children, and try to avoid them, they are regarded as scared children; although they are, as a rule, very trusting if one knows how to approach them gently without obtruding oneself.

CONCLUSION

The sex-economic upbringing, it goes without saying, is exceedingly arduous. It requires both love and respect for the child, and it requires that one never make a demand on the child which the child cannot fulfill without doing violence to itself. The care of a child in the first few years is extremely exacting because the adults have to take the full consequences of their adjustment to the child who, on the other hand, can realize himself only through the adult's help and understanding. Nor should one make decisions for the child; it must be allowed to make its own decisions. In that way, one reaches an equal footing with the child, and the child will recognize one's superior knowledge and insight, such as it is. The tendency of the very small child to consider the adult an omniscient and omnipotent figure is replaced by a more natural attitude which permits the child to develop its natural independence.

The other kind of upbringing is no less arduous. Often, one cannot but marvel at all the energy that is invested in commands and prohibitions. The child is forever supposed to say this or do that, to stop this or stop that, etc. etc. The energy is used for the suppression of the child; or to train it to be "the way a child, after all, has to be in order to become a decent human being and amount to something in this world"—whatever that is.

How much, then, can the child be helped? Very much, indeed. But we must admit that even though our experiences are highly promising, they are still based on rather small material. The essential points they show are: the possibilities for development and activity, the amount of love one can and should give the child, and the extent to which it is possible to eliminate specific harmful factors.

Sex-economic pedagogy is only in the beginning of its development, but it reveals a wealth of problems and can already point to a great many definitely positive results. Its present position can be defined as follows: To the extent to which it has been employed (and this has been with

infants and children in the first few years of life) we have been able to demonstrate that the principles of sex-economy fit children; and we have learned the ways in which these principles can best be put into practice. Thus, sex-economic pedagogy now stands ready to tackle, with the pleasure principle as its point of departure, the many tasks which confront it on all sides. We feel justified, therefore, in the hope that it will go on making headway toward its goal which is to help children develop the maximum of independence, harmony and love from birth through life. We believe this will lead to the happiness of the child and to the welfare of society.

THE SEX-ECONOMIC CONCEPT OF PSYCHOSOMATIC IDENTITY AND ANTITHESIS

By THEODORE P. WOLFE, M.D.

1. INTRODUCTION.

There are four basic concepts of the interrelation of psyche and soma:

(1) *Mechanistic materialism*: Every psychic disturbance has a physical cause. This concept dominated the early phases of psychiatry ("brain mythology"). It still essentially dominates neurology ("neuropsychiatry"). In recent years it has come into new prominence in the form of "frontal lobotomy." This is a surgical technique which consists in destroying or cutting out parts of the brain for the treatment of psychoses and neuroses ("psychosurgery"). It is being seriously reported and discussed in various scientific periodicals.

(2) *Metaphysical idealism*: Every psychic manifestation or disturbance has an exclusively psychic cause. It is identical with the concept that "spirit creates matter" and not the reverse. For many people, this concept extends also to physical disease ("Christian Science").

(3) *Psychophysical parallelism*: Psychic and somatic are two parallel processes in mutual interaction. This concept dominates most of modern psychiatry and medicine, and the attempts to bring the two together, psychosomatic medicine.

(4) *The functional energy concept* of Wilhelm Reich.

In this article, I shall attempt to give an idea of this concept. In doing so, I claim no originality. This article is essentially nothing but a compilation of relevant data from various chapters of Dr. Reich's new book, "The Function of the Orgasm."¹ The concept described here is

¹ Wilhelm Reich, *The Discovery of the Orgone. Vol. 1: THE FUNCTION OF THE ORGASM. Sex-economic Problems of Biological Energy. Translated from the German Manuscript by Theodore P. Wolfe. See announcement, p. 96.*

based on twenty years' study of the living organism. It took its origin from Reich's first modification of the usual psychoanalytic technique: the modification of symptom-analysis to character-analysis; from the clinically correct investigation of the central problem of the neuroses and of psychosomatic research, anxiety; and from the investigation of the function of the orgasm. These investigations led far beyond a purely psychological comprehension of human functioning, into physiology, biology, and finally into physics, through the discovery of the specific biological energy, the orgone radiation. The concept is revolutionary. In spite of its clinical and experimental substantiation, it cannot count on ready acceptance in scientific circles, for two reasons: *First*, it is a functional concept; the average scientist is bound by mechanistic thinking and is curiously afraid of functional thinking. *Second*: it is based on the investigation of *sexuality*, a subject which, all the talk about it notwithstanding, is still taboo in science. As it is impossible to present this concept adequately in an article, without the background out of which it grew and which cannot be gone into here, the reader with more than a superficial interest in the subject must be referred to Dr. Reich's book.

The sex-economic concept of psychosomatic relationships is based on the *energy function* of the organism. This biological energy in itself is neither "psychic" nor "somatic." Psychic as well as somatic phenomena are expressions of this same biological energy. Psychic as well as somatic disturbances are due to the *stasis* (damming-up) of energy in the organism. This stasis is due to *orgastic impotence*; only *orgastic potency*, i.e., biologically cor-

rect discharge of sexual energy, guarantees a normal energy household (sex-economy). The stasis of energy is maintained by the physiological mechanisms of repression, which in their totality form the muscular armor. This is functionally identical with the character armor. There is a basic *antithesis between sexuality and anxiety*, demonstrable psychically (pleasure—*anxiety*), physiologically (parasympathetic—*sympathetic*), biochemically (potassium, cholin, lecithin—calcium, adrenalin, cholesterolin), biologically (pulsation, i.e., expansion—*contraction*) and bio-electrically (increased—*decreased surface potential*). The therapeutic dissolution of the character armor and the muscular armor results in the establishment of the *orgasm reflex* and with it, of unitary psychosomatic functioning in the sense of the basic biological functions of expansion and contraction.

2. ENERGY STASIS.

Freud, in his early work, distinguished "actual neuroses" from "psychoneuroses." The former, anxiety neurosis and neurasthenia, were due to a present-day disturbance of sexual life, such as sexual abstinence, coitus interruptus (withdrawal) and excessive masturbation. Their symptoms, like palpitation, tachycardia, sweating, trembling, irritability and anxiety, had no psychic origin, but were the direct expression of the dammed-up libido. As Freud put it, libido, if undischarged, underwent a "conversion" into anxiety.

The symptoms of the psychoneuroses (like hysteria and compulsion neurosis), on the other hand, had a psychic origin and meaning and a root in infantile experiences. The question as to where the psychoneuroses derived their energy from, Freud never tried to answer. He thought it likely that the psychoneuroses had an "actual-neurotic core," but he never followed up the question, and later even repudiated his original—and clinically correct—theory of anxiety. He stated that

"the question as to the stuff of which anxiety is made has lost its interest" and in his revised theory, anxiety became a metapsychological concept, a "signal of the ego." Most psychoanalysts denied the very existence of what Freud called "actual neuroses"; they still do.

Reich's clinical investigations, on the other hand, showed that, beyond any doubt, the psychoneuroses also derive their energy from dammed-up sexual energy. An early case of Reich's demonstrates this mechanism particularly clearly:

"In December 1920, Freud referred a young student to me who was suffering from compulsive rumination, compulsive counting, compulsive anal phantasies, excessive masturbation and severe neurasthenic symptoms, such as headaches and pains in the back, lack of concentration, and nausea. The compulsive rumination immediately turned into compulsive associating. It looked pretty hopeless. After some time, an incest phantasy broke through, and for the first time the patient masturbated *with satisfaction*. With that, all the symptoms disappeared suddenly. In the course of a week they gradually returned. When he masturbated a second time, the symptoms disappeared again, only to return again after a short time. This was repeated for several weeks. Finally it was possible to analyze his guilt feelings about masturbation and to correct some practices and attitudes which interfered with complete gratification. After that, his condition improved visibly. After nine months of treatment, he was discharged, considerably improved, and able to work. He kept in touch with me for over six years; he married and remained well."

In the early years of the Vienna Psychoanalytic Clinic, Reich treated mainly patients of a type commonly termed "psychopaths," who were considered inaccessible to psychoanalytic therapy.³ In these patients, the stasis of sexual energy was much more pronounced and its effects much more evident than in the neuroses with inhibited drives. The difficulties they

³ W. Reich, *Der triebhafte Charakter*, 1925.

presented, the intensity of their perverse and antisocial impulses, *fluctuated exactly with the degree of sexual tension and gratification*. Every release of sexual tensions through genital satisfaction immediately reduced the breaking through of pathological drives.

The "oscillation of energy" between genital and non-genital attitudes, between genital and pregenital loci of excitation, a phenomenon which can be observed in all patients, is particularly well illustrated in the following case. I quote:

"About 1925 I treated a young American woman who had suffered from severe bronchial asthma since early childhood. Every situation involving sexual excitation would produce an attack. Thus, she would have an attack when she was about to have sexual intercourse with her husband, or when she flirted and started to become aroused. She would become severely dyspneic and could get relief only from special anti-spasmodic drugs. She suffered from vaginal hypesthesia; her throat, however, was highly irritable. There were strong unconscious impulses—directed against her mother—to suck and bite. She suffered from choking sensations. The phantasy of having a penis sticking in her throat was clearly manifested in dreams and actions. When these phantasies became conscious, the asthma disappeared for the first time. However, it was replaced by severe attacks of vagotonic diarrhea, alternating with sympatheticotonic constipation. The phantasy of having a penis in her throat was superseded by that of "having a baby in her stomach and having to expel it." With the appearance of diarrhea, the genital disturbance became more severe; she lost vaginal sensations completely and refused to have sexual intercourse. She was afraid of an attack of diarrhea during sexual intercourse. When the intestinal symptoms subsided, she experienced for the first time pre-orgastic vaginal excitation. However, it did not exceed a certain limit. Any increase in excitation produced either anxiety or an attack of asthma. For some time, asthma, and with it the oral excitations and phantasies, were

present again as if they had never been treated. With each relapse they reappeared, and again and again the excitation progressed to the genital system. Every time, there was an increased capacity for tolerating vaginal excitation. The intervals between relapses became longer. This continued for some months. *The asthma disappeared with each progress in vaginal excitation and returned with each shift of excitation from the genital to the respiratory organs*. This oscillation of sexual excitation between respiratory organs on the one hand and pelvis on the other, was accompanied by the corresponding oral and genital infantile phantasies: when the excitation was above, the patient became demanding in the infantile way, and depressive; when the excitation became genital again, the patient was feminine and desirous of the man. The genital anxiety which made her retreat again and again appeared at first as the fear of being injured in the sexual act. When this was resolved, there appeared a *fear of bursting or dissolution with excitation*. Gradually, the patient became accustomed to vaginal excitation and finally experienced orgasm. This time, the spasm in the throat failed to recur, and with it the asthma. When last heard from seven years later, the patient was still well."

"This case," comments Reich, "again confirmed my concept of the therapeutic function of the orgasm; but in addition it revealed some important mechanisms. I understood now that *non-genital excitations and modes of gratification are retained for fear of the intense orgasmic sensations in the genital*; they are retained because they cause the occurrence of much milder sensations. Here was an important part of the enigma of instinctual anxiety. If sexual excitation is checked, there arises a vicious circle; the checking increases the stasis of excitation, and the increased stasis diminishes the ability of the organism to decrease it. *Thus, the organism acquires a fear of excitation, in other words, sexual anxiety*. This sexual anxiety, therefore, is caused by an external frustration of instinctual gratification, and is anchored in-

ternally by the fear of the dammed-up sexual excitation. This is the mechanism of *orgasm anxiety*. It is the fear of the organism—which has become unwilling to experience pleasure—of the *overpowering* excitation of the genital system. Orgasm anxiety forms the basis of the general *pleasure anxiety*, which is an integral part of the prevailing human structure. It usually shows itself as a generalized fear of any kind of vegetative sensation or excitation or the perception of these."

The investigation of sexual stasis led to a finding which is characteristic of all neurotic individuals and the majority of so-called "normal" individuals in our society: *orgastic impotence*. This means the inability to discharge, in the orgasm, an amount of sexual energy equal to that accumulated in the organism. In other words, the energy source of the neurosis lies in the differential between accumulation and discharge of sexual energy. This finding necessitated the detailed clinical investigation of the mechanisms which prevent the normal orgastic discharge of energy.

3. THE SOMATIC MECHANISMS OF REPRESSION.

If we think of "repression" as the relegation of conscious ideas to the unconscious only, we cannot arrive at any clear idea as to what the process of repression consists of. Nor is such a purely psychological concept of any help in understanding psychosomatic interrelations or in handling psychosomatic disturbances.

Reich's character-analytic technique disclosed the real nature of the process of repression.

THE CHARACTER ARMOR

After the fact had been established that the neurosis is the expression of a disturbance in genitality, that the dammed-up sexual energy provides the source of energy for the neurotic illness, the therapeutic

task became that of liberating this energy and making possible its normal discharge by establishing orgastic potency in the patient.

Sexual energy is bound up in symptoms. Consequently, each dissolution of a symptom liberates a certain amount of energy. This amount of energy transferred itself spontaneously to the genital system: potency improved. However, although the patients discarded symptoms, became capable of doing work of a sort, relinquished abstinence or experienced more sexual satisfaction, the expectation that the liberation of energy from the symptoms would also lead to the establishment of the orgastic function was fulfilled in only a few cases. Apparently, an insufficient amount of energy was liberated from neurotic fixation points.

Thus, the question arose: *Where else, besides the neurotic symptoms, is sexual energy bound up?* First, it seemed plausible to look for the energy in the *non-genital*, i.e., infantile pregenital activities and phantasies. If sexual interest is directed to a high degree toward sucking, biting, being petted, anal habits, etc., then the capacity for genital experience suffers. This confirms the view that the sexual partial impulses do not function independently of each other, but form a unity—like a liquid in communicating pipes. There can be *only one uniform sexual energy, seeking satisfaction at various erogenous zones, and attached to different ideas*. Any admixture of non-genital excitation in the sexual act *reduces* orgastic potency. Only the genital apparatus can provide orgasm and can discharge sexual energy completely. Pregenitality, on the other hand, can only increase vegetative tensions.

When energy which is bound in the organism is liberated, it manifests itself first as anxiety. Reich found that whenever he succeeded in bringing about the conversion of stasis anxiety into genital exci-

tation, there were good and lasting therapeutic results. However, it was not possible in all cases to liberate cardiac anxiety and to produce its alternation with genital excitation. This raised the question: What is it that keeps the biological excitation, once genital excitation is inhibited, from manifesting itself as cardiac anxiety? *Why does stasis anxiety not make its appearance in all cases of psychoneurosis?*

Freud has shown that in the neurosis, anxiety becomes *bound* in a certain way. The patient escapes anxiety, e.g., by producing a compulsive symptom. If one disturbs this functioning of the compulsion, anxiety immediately appears. Not always, however. A great many cases of compulsion neurosis of long standing, or cases of chronic depression could not be disturbed in this way. Somehow, they were inaccessible. Especially difficult were the emotionally blocked ("*affektgesperri*") compulsive characters. They gave associations in great numbers freely, but there never was any trace of affect. All therapeutic efforts bounced back, as it were, from a "thick, hard wall." The patients were "*armored*" against attack. There was no technique known in the literature that would shake this hardened surface. It was the *whole character* that resisted. Apparently, *the character armor was the mechanism which was binding all energy*. It was also the mechanism that made so many psychoanalysts contend that there was no such thing as stasis anxiety.

These facts are well illustrated in the following case whom Reich treated at about the same time as the student described above (p. 34). The first case illustrates the actual mechanism of cure, while the following case shows the energy-binding function of the character armor and the impossibility of mobilizing the vegetative energies without a proper technique for handling the character armor:

"This young waiter suffered from complete lack of erection. The treatment ran smoothly.

In the third year, the unequivocal reconstruction of the 'primal scene' was possible. When he was about two years old, his mother had another child, and he was able to watch the delivery from the next room. He received the vivid impression of a big bloody hole between his mother's legs. All that remained in his consciousness of this impression was a feeling of 'emptiness' in his own genitals. According to psychoanalytic knowledge of that time, I connected the lack of erection merely with the traumatic impression of the 'castrated' female genital. That was doubtless correct. But not until a few years ago did I begin to give closer attention to and to understand the genital 'feeling of emptiness' in my patients. It corresponds to the withdrawal of biological energy from the genital. At that time, I misjudged the general attitude of this patient. He was quiet, placid, 'good,' doing everything that was asked of him. He never got upset. In the course of three years' treatment, he *never* got angry or critical. That is, according to the concepts of that time, he was a 'well integrated,' thoroughly 'adjusted' character, with only one serious symptom ('monosymptomatic neurosis'). I reported the case in the technical seminar, and earned praise for the correct elucidation of the traumatic primal scene. His symptom, lack of erection, was fully explained—theoretically. As the patient was industrious and 'adjusted to reality,' none of us was struck by the fact that just his lack of emotionality, his complete imperturbability, was the pathological characterological soil on which his erective impotence could persist. My older colleagues considered my analytic work complete and correct. But on leaving the meeting I felt dissatisfied. If everything was as it should be, why did the impotence fail to budge? Obviously, here was a gap that none of us understood. A few months later I discharged the patient, uncured. He took it as stoically as he had taken everything else all this time. The consideration of this patient impressed on me the important character-analytic concept of '*emotional block*' ('*Affektsperr*'). I had thus hit upon the highly important connection between the prevalent rigid character structure of today and genital 'deadness'."

In the treatment, the character armor makes itself felt as "character resistance." It was found that the whole experiential world of the past was present in the form of character attitudes. Each layer in the character structure is a piece of life history which is preserved in another form and is still alive. It was shown that by loosening up these layers, the old conflicts could—more or less easily—be revived.

The function of the armor was to protect against unpleasure. However, the organism paid for this protection by losing a great deal of its capacity for pleasure. The energy that held the armor together consisted mostly in *destructiveness* which had become bound. This was shown by the fact that destructiveness would be set free as soon as the armor began to crack. It finally became clear that the destructiveness which is bound up in the character is nothing but anger about frustration in general and denial of sexual gratification in particular. If the analysis penetrated to a sufficient depth, every destructive tendency gave way to a sexual one. Destructive tendencies were shown to be nothing but *reactions*; reactions to disappointment in love or to loss of love. If the desire for love or for satisfaction of the sex urge meets insuperable obstacles, one begins to hate. However, the hatred cannot be expressed, it must be bound in order to avoid the anxiety it causes. That is, frustrated love causes anxiety. So does inhibited aggression; and anxiety inhibits the expression of both hatred and love.

These and other observations led to the important conclusion: *The orgasmically unsatisfied individual develops an insincere character and a fear of any behavior which he has not thought out beforehand—in other words, behavior which is spontaneous and truly alive—as well as a fear of becoming aware of sensations of a vegetative origin.*

THE MUSCULAR ARMOR AND THE BREAK-THROUGH INTO THE VEGETATIVE REALM

The further investigation of the character armor led to findings which are of extreme importance from the point of view of the psychosomatic problem. The following is quoted from Dr. Reich's book:

"In Copenhagen, 1933, I treated a man who put up especially strong resistances against the uncovering of his passive-homosexual phantasies. This resistance was manifested in an extreme attitude of stiffness of the neck ('stiff-necked'). After an energetic attack upon his resistance he suddenly gave in, but in a rather alarming manner. For three days, he presented severe manifestations of vegetative shock. The color of his face kept changing rapidly from white to yellow or blue; the skin was mottled and of various tints; he had severe pains in the neck and the occiput; the heartbeat was rapid; he had diarrhea, felt worn out, and seemed to have lost hold. I was disturbed. True, I had often seen similar symptoms, but never that violent. Something had happened here that was somehow inherent in the therapeutic process but was at first unintelligible. *Affects had broken through somatically after the patient had yielded in a psychic defense attitude.* The stiff neck, expressing an attitude of tense masculinity, apparently had bound vegetative energies which now broke loose in an uncontrolled and disorderly fashion. A person with a balanced sex-economy would be incapable of producing such a reaction. Such a reaction presupposes a continuous inhibition and damming-up of biological energy. It was the musculature that served this inhibitory function. When the muscles of the neck relaxed, powerful impulses broke through, as if propelled by a spring. The alternating pallor and redness of the face could be nothing but a movement to and fro of the body fluids, an alternating contraction and relaxation of the blood vessels. That fitted

in very well with my concept of the functioning of the biological energy. The direction of 'out of the self—toward the world' kept alternating rapidly with the opposite direction of 'away from the world—back into the self.' The musculature can, by contracting, inhibit the blood flow; it can, in other words, reduce the movement of the body fluids to a minimum."

"This finding checked with earlier observations and those in recent cases. Soon, I had a multitude of facts which could be summed up in the formulation: *Sexual energy can be bound by chronic muscular tensions. The same is true of anger and anxiety.* I found that, whenever I dissolved a muscular inhibition or tension, one of the three basic biological excitations made its appearance: *anxiety, anger or sexual excitation.* True, I had been able to bring this about before, by way of dissolving purely characterological inhibitions and attitudes. The difference lay in the fact that now, the break-through of biological energy was more complete, more forceful, more thoroughly experienced, and it occurred more rapidly. Also, it was accompanied in many patients by a spontaneous dissolution of the characterological inhibitions. . . . Soon, some decisive questions of the mind-body problem clarified themselves:

"The character armor now showed itself *functionally identical* with muscular hypertension, *the muscular armor.* The concept of functional identity which I had to introduce, means nothing but the fact that muscular and character attitudes serve the same function in the psychic apparatus; they can influence and replace each other. Basically, they cannot be separated; in their function they are identical."

"If the character armor expressed itself through the muscular armor and vice versa, then the *unity of psychic and somatic functions* was comprehended and became capable of being *influenced* in a practical way. Now, I was able to make practi-

cal use of this unity. When a character inhibition would fail to respond to psychic influencing, I would work at the corresponding somatic attitude. Conversely, when a disturbing muscular attitude proved difficult of access, I would work on its characterological expression and thus loosen it up."

"The loosening of the rigid muscular attitudes resulted in peculiar somatic sensations: involuntary trembling, jerking of muscles, sensations of hot and cold, itching, crawling, prickling sensations, goose flesh, and the somatic perception of anxiety, anger and pleasure. To comprehend these manifestations, I had to break with all the old concepts of psychosomatic interrelationship. These manifestations were not the 'result,' the 'causes,' or the 'accompaniment' of 'psychic' processes; they were simply *these processes themselves in the somatic sphere.*"

The muscular armor assumes a particular significance in connection with the peculiar idea of bursting and the desire to be made to burst. This idea Reich first found in masochism, and later in all patients at the time when their orgasm anxiety became most acute. He asked himself: what is the origin of this idea of bursting, which, in all patients, makes its appearance shortly before the establishment of orgasmic potency? He soon found that in most cases this idea appears in the form of a kinesthetic perception of the state of the body. In outspoken cases there is regularly the idea of the body as a *taut bladder*. The patients complain about being taut, filled up, as if they were going to burst, to explode. They feel "blown up," "like a balloon." They dread any loosening of their armor because it makes them feel as if they were being "pricked open." Some patients express a fear of "melting away," of "dissolving," of losing their "hold on themselves," their "contour." They cling to the rigid armoring of their movements and attitudes as a drowning

person clings to a board. Others have the strongest desire to "burst." Many a case of suicide occurs on this basis. The more acute the sexual tension becomes, the more distinct become these sensations. They promptly disappear when the orgasm anxiety is overcome and sexual relaxation can take place. Then the hard features of the character disappear, the person becomes "soft" and yielding and at the same time develops an elastic sort of strength.

The investigation of the muscular armor thus showed that *the neurosis is but one thing: the sum total of all the inhibitions of the natural sexual pleasure which in the course of time have become mechanical.* All other manifestations of the neurosis are the result of this original disturbance. It became clear that the original pathogenic conflict of the neurosis (the conflict between striving for pleasure and moral frustration) is structurally anchored in a physiological way in the muscular disturbance. *The psychic conflict between sexuality and morality works in the biological depths of the organism as a conflict between pleasurable excitation and muscular spasm.*

REPRESSION

Findings like these led to an entirely different concept of repression than that held by psychoanalysis.

While the loosening up of chronic character attitudes brings about reactions in the vegetative system, the break-through into the vegetative is all the more complete and powerful the more thoroughly we treat not only the character attitudes, but—simultaneously—the *muscular attitudes* that correspond to them. It became clear that the muscular rigidity is by no means a "result," an "expression" or an "accompaniment" of the mechanism of repression; it is, actually, *the most essential part of the process of repression.*

Without exception, patients relate that they went through periods in their child-

hood when they learned to suppress their hatred, anxiety or love by way of certain practises which influenced their vegetative functions (such as holding their breath, tensing their abdominal muscles, etc.). Many patients, when in the course of the treatment their abdominal sensations become too strong, begin to stare vacantly into a corner or out of the window. If one inquires about such behavior, the patients will remember that, as children, they practised this consciously every time they had to control their anger towards parents, siblings or teachers. To be able to hold one's breath for a long time meant a heroic feat of self-control. Language here clearly portrays the somatic process of self-control; certain phrases commonly heard in everyday education represent exactly what is here described as muscular armoring. "A man has to show self-control"; "a big boy doesn't cry"; "pull yourself together"; "don't let yourself go"; "you shouldn't show that you're afraid"; "it's very bad to lose your temper"; "you must grit your teeth"; "grin and bear it"; "keep your chin up"; "keep a stiff upper lip"; etc., etc.

Analytic psychology paid attention only to *what* the children suppressed and to the reasons for the suppression. However, no attention was paid to the *manner* in which they fight against their emotions. It is, nevertheless, just this physiological side of the process of repression which merits our closest attention. Again and again it is striking to find how the dissolution of a muscular rigidity not only liberates vegetative energy, but, in addition, also brings back into memory the very infantile situation in which the repression had taken effect. We can say: *Every muscular rigidity contains the history and the meaning of its origin.* It is thus not necessary to deduce from dreams or associations the way in which the muscular armor developed; rather, the armor itself is the form in which the infantile experience continues to exist as a harmful agent. The neurosis is

by no means only the expression of a disturbed psychic equilibrium; much more correctly and significantly, it is the *expression of a chronic disturbance of the vegetative equilibrium and of natural motility.*

The term "psychic structure" assumed a special connotation. It means the character of an individual's *spontaneous reactions*, the condition that is typical of him as the result of all the synergistic and antagonistic forces within him. That is, *a certain psychic structure is at the same time a certain biophysiological structure;* it is a representation of the interplay of the vegetative forces within a person. The change in structure which we bring about by our therapy is nothing but a change in the interplay of vegetative forces in the organism.

The muscular attitudes have a particular significance for character-analytic technique. Namely, they make it possible, if necessary, to avoid the devious approach via the psychic manifestations, and to break through to the affects directly, from the bodily attitude. If this is done, the repressed affect appears *before* the corresponding memory. In this way, the discharge of affect is guaranteed, provided the chronic muscular attitude was well understood and properly dissolved. If one attempts to produce the affects by a purely psychological approach, the discharge of affects is left to chance. The character-analytic work on the layers of the character incrustations is the more effective, the more completely it brings about a dissolution of the corresponding muscular attitudes. In a great many cases, psychic inhibitions give way only to a direct loosening of the muscular tensions.

The rigidity of the musculature is the somatic side of the process of repression, and the basis for its continued existence. It is never a matter of individual muscles that become spastic, but of muscle groups forming a functional unit from a vegetative point of view. If, e.g., an impulse to

cry is to be suppressed, not only the lower lip becomes tense, but also the whole musculature of the mouth, the jaw and the throat; that is, all the muscles which, as a functional unit, become active in the process of crying.

ABDOMINAL TENSION AND RESPIRATORY INHIBITION

Space does not permit describing or even enumerating the various muscular attitudes one encounters in vegetotherapeutic work. I can refer only to the fundamental mechanisms of repression: abdominal tension and inhibition of respiration. These mechanisms involve particularly three functional muscle groups: diaphragm, abdominal wall, and pelvic floor.

There is no neurotic individual who does not show a tension in the abdomen. So important has the treatment of this abdominal tension become in our work, writes Reich, that today it seems incomprehensible how it was possible to bring about even partial cures in neuroses without knowing the symptomatology of the solar plexus. If one has a patient exhale deeply and then exerts a slight pressure on the abdominal wall about one inch below the sternum, one notices a reflex-like tension or a constant resistance; very often, the patient experiences a pain similar to that when the testicle is squeezed. Patients whose complaint is that of a chronic feeling of pressure or of a girdle show a board-like rigidity in the upper abdominal musculature. This abdominal tension has the function of exerting a pressure on the solar plexus.

The same function is fulfilled by the tense diaphragm in its position of downward pressure. There is no neurotic individual who is capable of exhaling in one breath, deeply and evenly; in all neurotic individuals, without exception, one finds a *tonic contracture of the diaphragm.* This contracture shows itself in the fact that the patients can exhale only in a shallow

and jerky manner. Let one imagine that one is frightened, or in anticipation of a great danger. Instinctively, one will draw in one's breath and remain in this attitude. As one cannot continue to do so, one will breathe out again. However, expiration will be incomplete and shallow; one does not breathe out completely in one breath, but in fractions, in steps, as it were. In fright, one involuntarily breathes in; the diaphragm contracts and compresses the solar plexus from above.

The patients have developed all conceivable practices which prevent deep expiration. They exhale "jerkily," or, as soon as the air is let out, they quickly bring their chest back into the inspiratory position. In expiration, the diaphragm is raised, and the amount of pressure on the organs below it—including the solar plexus—diminishes. When, in the course of treatment, we bring about a decrease in the tension of the diaphragm and of the abdominal muscles, the solar plexus is freed of the abnormal pressure to which it was subjected. This is shown by the appearance of a sensation which is like that which one experiences on a roller coaster, in an elevator which suddenly starts going down, or in falling. With deep expiration, there appear in the abdomen vivid sensations of pleasure or anxiety. The function of the respiratory inhibition (inhibition of expiration) is exactly that of avoiding the occurrence of these sensations.

Clinical experience shows this to be an extremely important phenomenon. A full understanding of this muscular action is provided by the results of the character-analytic investigation of early infantile mechanisms. Children fight lasting and painful anxiety states, which are accompanied by typical sensations in the "stomach," by holding their breath and pulling in their abdomen. They do the same thing when they have pleasurable sensations in the abdomen or in the genitals and are afraid of them. Holding the breath and

keeping the diaphragm contracted is one of the earliest and most important mechanisms for suppressing sensations of pleasure in the abdomen as well as for nipping in the bud "belly anxiety." This mechanism of holding the breath is aided by abdominal pressure which has a similar effect. Everyone knows these vegetative sensations in the abdomen, though they are described in diverse ways. Patients complain of an intolerable "pressure" in the stomach, or of a girdle which "restricts." Others have a certain spot in the abdomen which is very sensitive. Everybody is afraid of getting punched in the abdomen. This fear becomes the center of very rich phantasies. Others have the feeling that "there is something in the belly that can't get out"; "it feels like a dinnerplate in my belly"; "my belly is dead"; "I have to hold on to my belly"; etc., etc. Most of the phantasies of small children about pregnancy and childbirth center around the vegetative sensations in their abdomen.

Reich describes a patient who was on the verge of a severe melancholia. Her musculature was highly hypertonic, and during a whole year she could not be brought to the point of showing any affective reaction. Finally the situation became clear. At the merest sign of an affect, she would "adjust something in her belly," hold her breath and stare out of the window as if looking into the distance. Her eyes assumed an empty expression, as if turned inward. The abdominal wall became tense and the buttocks were drawn in. As she said later: "I make my belly dead, then I don't feel anything any more; otherwise, my belly has a bad conscience." What she meant was, "Otherwise, it has sexual sensations and therefore a bad conscience."

The way in which our children accomplish this "blocking off of sensations in the belly" by way of respiration and abdominal pressure is typical and universal. This technique of emotional control, a kind of universal Yoga method, is

something which vegetotherapy has difficulty in combatting.

Particularly in the last phases of the treatment, when preorgastic sensations become increasingly strong, one finds that the patients keep the muscles of the *pelvic floor* pulled up and tense. While the diaphragm compresses the solar plexus from above and the abdominal wall compresses it from in front, the contraction of the pelvic floor serves the function of decreasing the abdominal space by pressing from below. The dissolution of these tensions reveals the most varied infantile mechanisms of vegetative control and brings out all kinds of pregenital phantasies. It shows how the mechanisms of genital inhibition are acquired in the course of a premature and brutal training to excremental cleanliness, followed by the prohibition of infantile masturbation. The fear of genital excitation often appears in the form of the fear of involuntary loss of urine or feces during the sexual act.

How can the mechanism of holding the breath suppress or eliminate affects? That was a question of decisive importance. For it had become clear that the inhibition of respiration was the physiological mechanism of the suppression and repression of emotion, and consequently, *the basic mechanism of the neurosis in general*. Simple consideration said: the biological function of respiration is that of introducing oxygen and eliminating carbon dioxide from the organism. The oxygen of the introduced air accomplishes the combustion of the digested food in the organism. Chemically speaking, combustion is everything that consists in the formation of compounds of body substance with oxygen. In combustion, energy is (created). Without oxygen, there is no combustion and consequently no production of energy. In the organism, energy is created through the combustion of food stuffs. In this process, heat and kinetic energy are created. Bioelectricity, also, is created in the process of

combustion. If respiration is reduced, less oxygen is introduced; only as much as is needed for the maintenance of life. If a smaller amount of energy is created in the organism, the vegetative impulses are less intense and consequently easier to master. The inhibition of respiration, as it is found regularly in neurotics, has, biologically speaking, the function of reducing the production of energy in the organism, and thus, of reducing the production of anxiety.

An example will illustrate the significance of respiration for the activity of the abdominal vegetative ganglia. In one patient there occurred, in the course of repeated deep expirations, a marked sensitivity of the pelvic region. To this he would react with holding his breath. If one touched his thigh or lower abdomen, ever so gently, he would pull himself together with a start. However, if one had him exhale deeply several times, he did not react to being touched at all. When he held his breath again, the irritability of the pelvic region promptly reappeared. This could be repeated *ad libitum*.

This clinical detail, Reich comments, is very revealing. Deep inspiration (holding the breath) dams up the biological energy of the vegetative centers and thus increases the reflex irritability. Repeated deep expiration reduces the stasis and with it the anxious irritability. The inhibition of respiration—specifically, of deep expiration—thus creates a conflict: the inhibition serves the purpose of damping the pleasurable excitations of the central vegetative apparatus; but just in doing so, it creates an increased susceptibility to anxiety and increased reflex irritability. Another bit of the problem of the conversion of sexual excitation into anxiety thus became understandable.

The neurotic inhibition of respiration, then, is a central part of the neurotic mechanism in general, in two ways: It blocks the normal vegetative activity of the organism; and thus it creates the

source of energy for all kinds of neurotic symptoms and phantasies.

4. THE BASIC ANTITHESIS BETWEEN SEXUALITY AND ANXIETY.

Freud's original concept of the relationship between sexuality and anxiety was this: if somatic sexual excitation is barred from perception and discharge, it is converted into anxiety. But how this conversion took place, nobody knew. However, Reich found the therapeutic problem to be that of reverting this process, i.e., of liberating sexual energy, of turning stasis anxiety^a back into sexual excitation. The question was, therefore, how does this original conversion of sexual excitation into anxiety take place? Reich's observations led to an important revision of Freud's original formulation. I quote:

"In 1924, I treated two women with cardiac neurosis in the psychoanalytic clinic. With them, whenever genital excitation appeared, cardiac anxiety subsided. In one case the alternation of cardiac anxiety and genital excitation could be observed for weeks. Every inhibition of vaginal excitation would immediately result in oppression and anxiety in the region of the heart. This observation beautifully confirmed Freud's original concept of the relationship between libido and anxiety. But it showed more than that: it was now possible to localize the seat of the sensation of anxiety: it was the cardiac and diaphragmatic region. The other patient showed a similar interrelationship, but, in addition, she showed an urticaria. When the patient did not dare to permit her vaginal excitation to make itself felt, there occurred *either* cardiac anxiety or large itching wheals in various places. Obviously, sexual excitation and anxiety

^a What Freud called "actual neuroses" and "actual anxiety," Reich termed "stasis neuroses" and "stasis anxiety," thus indicating the mechanism involved.

had something to do with the functions of the vegetative nervous system."

"Freud's original formulation thus underwent the following correction. *There is no conversion of sexual excitation into anxiety. The same excitation which appears in the genital as pleasure, manifests itself as anxiety when it stimulates the cardiovascular system.* That is, in the latter case it appears as *the exact opposite of pleasure.* The vasovegetative system will function at one time in the direction of sexual excitation, and again, when the latter is inhibited, in the direction of anxiety. . . . *Sexuality and anxiety represent two opposite directions of vegetative excitation.*"

This antithesis, it was subsequently shown, was only one in a series of antithetical phenomena which form the basic antithesis of vegetative life in general: the fundamental functions of *expansion* and *contraction*. They can be demonstrated in the psychic as well as the somatic sphere. All biological impulses and sensations can be reduced to these fundamental functions.

There is a functional antithesis between *center* and *periphery* of the organism. *Sexuality* is the biological function of expansion ("out of the self") from center to periphery. Conversely, *anxiety* is but the reverse direction from periphery to center ("back into the self"). Sexuality and anxiety are one and the same process of excitation, only in opposite directions. In sexual excitation, the peripheral vessels are dilated; in anxiety, one feels a tension within one—in the center—as if one were going to burst; the peripheral vessels are contracted. In sexual excitation, the penis expands, in anxiety it shrinks. The "biological energy center" is the source of the functioning energy; at the periphery is the functioning itself, in the contact with the world, in the sexual act, in the orgasmic discharge, in work, etc.

What is, Reich asked himself, the relationship between these two fundamental functions of expansion and contraction,

and the autonomic nervous system? Upon detailed examination of the highly complicated vegetative innervation of the organs, one finds the *parasympathetic* operative wherever there is expansion, hyperemia, turgor and pleasure. Conversely, the sympathetic is found functioning wherever the organism *contracts*, withdraws blood from the periphery, where it shows pallor,

(parasympathetic dilation), the pulse is full and quiet. In anxiety, the heart contracts and beats rapidly and forcibly. In the first case, it drives the blood through wide blood vessels, its work is easy; in the second case, it has to drive the blood through constricted blood vessels, and its work is hard. In the first case, the blood is predominantly distributed in the periph-

	ANXIETY SYNDROME	PLEASURE SYNDROME
Peripheral vessels	constricted	dilated
Heart action	accelerated	retarded
Blood pressure	increased	decreased
Pupil	dilated	constricted
Secretion of saliva	decreased	increased
Musculature	paralyzed or spastic	in a state of tonus, relaxed

anxiety or pain. If we go one step further, we see that the parasympathetic represents the direction of expansion, "out of the self—toward the world," pleasure and joy; the sympathetic, on the other hand, represents the direction of contraction, "away from the world—back into the self," sorrow and pain. The life process takes place in the form of a pulsation, a constant alternation of expansion and contraction.

Further consideration shows the identity on the one hand of parasympathetic function and *sexual* function; on the other hand of sympathetic function and the function of *unpleasure* or *anxiety*. We may see that the blood vessels during pleasure dilate at the periphery, the skin reddens, pleasure is felt from mild pleasurable sensations to sexual ecstasy; while in a state of anxiety, pallor, contraction of the blood vessels and unpleasure go hand in hand. In pleasure, "the heart expands"

eral vessels; in the second case, the constricted blood vessels dam it up in the direction of the heart. This makes it immediately evident why anxiety is accompanied by the sensation of oppression, and why cardiac oppression leads to anxiety. It is the picture of cardiovascular hypertension, which plays such an important role in organic medicine. This hypertension corresponds to a general condition of sympathicotonic contraction in the organism.

On the highest, i.e., psychic level, biological expansion is experienced as pleasure, contraction as unpleasure. On the instinctual level, expansion and contraction function as sexual excitation and anxiety, respectively. On a deeper physiological level, expansion and contraction correspond to the function of the parasympathetic and sympathetic, respectively. According to the discoveries of Kraus and

The following table presents the two series of functions according to their depth:

PLEASURE	UNPLEASURE AND ANXIETY
Sexuality	Anxiety
Parasympathetic	Sympathetic
Potassium	Calcium
Lecithin	Cholesterin
OH-ions, cholin	H-ions, adrenalin
(hydrating bases)	(dehydrating acids)
FUNCTION OF EXPANSION	FUNCTION OF CONTRACTION

Zondek, the parasympathetic function can be replaced by the potassium ion group, the sympathetic function by the calcium ion group. We thus get a convincing picture of a *unitary functioning in the organism, from the highest psychic sensations down to the deepest biological reactions.*

On the basis of this formula of unitary-antithetical psychosomatic functioning, some seeming contradictions of autonomic innervation became clear. Previously, the autonomic innervation of the organism had seemed to lack order. Muscles are made to contract one time by the parasympathetic, the other time by the sym-

the "center," the heart, and the "periphery," the blood vessels and muscles. The parasympathetic stimulates the blood flow in the periphery by dilating the blood vessels, but inhibits the heart action; conversely, the sympathetic inhibits the blood flow in the periphery by contracting the vessels, but stimulates the heart action. In terms of the total organism, this antagonistic innervation is understandable, for in anxiety the heart has to overcome the peripheral constriction, whereas in pleasure it can work peacefully and slowly. There is a functional antithesis between center and periphery.

The reduction of autonomic innervation

Parasympathetic	Sympathetic
Swelling, expansion	Shrinking
Increased turgor (surface tension)	Decreased turgor (surface tension)
Central tension low	Central tension high
Opening up	Closing up
"Toward the world, out of the self"	"Away from the world, back into the self"
Sexual excitation; skin warm, red	Anxiety; pallor, cold sweat
"Streaming" from center to periphery	"Streaming" from periphery to center
Vagotonia, relaxation	Sympatheticotonia, hypertension

thetic. Glandular function is one time stimulated by the parasympathetic (genital glands), another time by the sympathetic (sweat glands). The attempt to bring order into what seemed a chaos was successful when Reich began to examine the vegetative innervation of each organ in terms of the biological functions of expansion and contraction of the *total organism*. In other words, he asked himself how this or that organ would normally function in pleasure and anxiety, respectively; and what kind of autonomic innervation would be found in each case. Thus, the seemingly contradictory innervation, when examined in terms of the *function of the total organism*, revealed itself as entirely orderly and understandable.

This can be most convincingly demonstrated by the antagonistic innervation of

to the basic biological functions of expansion and contraction was, of course, an important step forward. The parasympathetic, then, always stimulates the organs—regardless of whether it is in the sense of tension or relaxation—when the *total organism* is in a state of pleasurable expansion. Conversely, the sympathetic stimulates the organs in a biologically meaningful way when the total organism is in a state of anxious contraction. The life process, in especial respiration, can thus be understood as a constant state of oscillation in which the organism continues to alternate, pendulum-like, between parasympathetic expansion (expiration) and sympathetic contraction (inspiration).

If this biological state of oscillation is disturbed, if either the function of expansion or that of contraction predominates, then

a disturbance of the biological equilibrium in general is inevitable. Long continuation in a state of expansion is synonymous with general *vagotonia* (parasympatheticotonia); conversely, long continuation in a state of anxious contraction is synonymous with *sympatheticotonia*. Thus, all somatic conditions which are clinically known as cardiovascular hypertension, become understandable as conditions of a chronically fixed sympatheticotonic attitude of anxiety. In the center of this general sympatheticotonia is orgasm anxiety, that is, the fear of expansion and involuntary contraction.

Reich points out that the physiological literature contained a wealth of data regarding the complicated mechanisms of autonomic innervation, and that the achievement of his sex-economic theory was not that of having discovered new facts in this field. The achievement was, rather, that of having reduced generally known innervations to a generally valid basic biological formula. Thus, the orgasm theory could claim to have made an essential contribution to an understanding of the physiology of the organism.

Finally, these clinical findings, corroborated by a multitude of previously unrelated physiological and biological facts, were *experimentally* confirmed. Reich measured the electric potentials on the surface of the organism and found: An increase in bio-electric charge occurs only with biological pleasure accompanied by the feeling of vegetative current. All other excitations—pain, fright, anxiety, pressure, annoyance, depression—are accompanied by a decrease in surface charge of the organism. Sexual excitation was thus found to be identical with bio-electrical charge of the periphery of the organism. Freud's concept of the libido as a measure of psychic energy is no longer a mere simile; it covers actual bio-electrical processes. Sexual excitation alone represents bio-electrical functioning in the direction of the periphery ("toward the world—out of

the self"). In other words, the basic antithesis between sexuality and anxiety was experimentally confirmed by the finding of the same antithesis in the bio-electrical reactions of the organism.

In these experiments, individuals who are not psychically disturbed and who are capable of orgasmic sensations, individuals, in other words, who are not vegetatively rigid, are able to state what is taking place at the apparatus in the adjoining room. The intensity of the pleasure sensation corresponds exactly to the quantity of the bio-electric charge of the surface, and vice versa. The sensations of "being cold," "being dead," "having no contact" which are experienced by neurotic individuals, are the expression of a deficiency in bio-electric charge in the body periphery. Correspondingly, it was found that in individuals who were strongly blocked emotionally, who were vegetatively rigid and incapable of orgasmic sensations, the bio-electrical charge in the body periphery was low and showed no, or only minimal, fluctuations.

The formula of *tension and charge*, a clinical finding, thus found its experimental confirmation. Biological excitation is a process which, in addition to mechanical tumescence, requires bio-electrical charge. Orgasmic gratification is a bio-electrical discharge, followed by a mechanical relaxation (detumescence).

The biological process of expansion, as exemplified in the erection of an organ or the putting out of pseudopodia in the amoeba, is the outward manifestation of the movement of bio-electrical energy from the center to the periphery of the organism. What is moving here is—in the psychic as well as the somatic sense—the bio-electrical charge itself.

Since only vegetative pleasure sensations are accompanied by an increased charge of the body surface, *pleasurable excitation must be considered the specifically productive process in the biological system.* Thus,

the process of sexual pleasure is the life process per se. This is not just a manner of speaking, but an experimentally proved fact.

Anxiety, as the fundamental functional antithesis of sexuality, is concurrent with death. It is, however, not identical with death. For, in death, the central source of energy becomes extinguished; in anxiety, however, the energy is withdrawn from the periphery and dammed up in the center, creating the subjective sensation of oppression.

These facts give the concept of *sex-economy* a concrete meaning in terms of natural science. It means the manner of regulation of bio-electric energy, or what is the same thing, of the economy of the sexual energies of the individual. "Sex-economy" means the manner in which an individual handles his bio-electric energy; how much of it he dams up and how much of it he discharges orgasmically. As we have to take the bio-electric energy of the organism as our basic point of departure, a new avenue of approach to the understanding of organic disease is opened.

The neuroses now appear to us in a fundamentally different light than to the psychoanalysts. They are by no means just the result of unresolved psychic conflicts and infantile fixations. Rather, *these fixations and conflicts cause fundamental disturbances of the economy of the bio-electric energy and thus become anchored somatically.* For this reason, a separation of psychic from somatic processes is not possible or tenable. Psychic illnesses are biological disturbances, manifesting themselves in the somatic as well as in the psychic sphere. The basis of the disturbances is a deviation from the natural modes of discharge of biological energy.

Psyche and soma form a functional unity, having at the same time an antithetical relationship. Both function on the basis of biological laws. Deviation from these biological laws is a result of social

factors in the environment. *The psychosomatic structure is the result of a clash between social and biological functions.*

The function of the orgasm becomes the measuring rod of psychophysical functioning because in it the function of biological energy is expressed.

5. THE ORGASM REFLEX AND UNITARY PSYCHOSOMATIC FUNCTIONING.

The orgasm formula. Even early clinical investigation of the orgasm had made clear the fact that the mechanical functions of tumescence and detumescence cannot account for the orgasmic phenomena. For example, the genital may be filled with blood, there may be erection, ejaculation and detumescence, yet, *any trace of pleasurable excitation may be absent,* and the sexual act may not only fail to give satisfaction, but may be followed by unpleasurable sensations and disgust. That is, erective and ejaculative potency are nothing but prerequisites for orgasmic potency. In the course of the years, clinical observation as well as bio-electrical experiment showed the orgasm to be a phenomenon of electrical discharge. In other words, what has to be added to the mechanical functions of tumescence and detumescence, in order to produce orgasmic sensations and the orgasmic reaction, is the electrical function of charge and discharge. On closer investigation of the process, one discovers a peculiar four-beat: 1) The organs fill with fluid: erection with mechanical tension. 2) This leads to an intense excitation, which is of an electrical nature: electrical charge. 3) In the orgasm, the electrical charge or sexual excitation is discharged in muscular contractions: electrical discharge. 4) This is followed by a relaxation of the genitals through a flowing back of the body fluids: mechanical relaxation. This four-beat: MECHANICAL TENSION → ELECTRICAL CHARGE → ELECTRICAL DISCHARGE → MECHANICAL RELAXATION Reich termed the *orgasm formula*. (The

fact that this is the formula of living functioning in general can only be mentioned here.)

The orgasm reflex. In the vegetotherapeutic process of dissolving the muscular rigidities, one regularly observes a most impressive phenomenon. When a chronic muscular spasm is dissolved, there appear clonic contractions of the musculature, accompanied by various vegetative sensations (often described by patients as "flowing sensations" or "currents"). As time goes on, these contractions lose more and more their chaotic, disjointed character and take on the form of a unitary reflex which takes in the whole body in one co-ordinated movement which corresponds to that of sexual surrender. This is what Reich termed the *orgasm reflex*. The very same motions which, appearing in individual muscle groups, represent pathological reactions of the organism in the service of warding off sexual pleasure, are—in their *totality*, in the form of a wave-like movement of the total body—the basis of spontaneous vegetative capacity for pleasure. The orgasm reflex does not get fully established until *orgasm anxiety* is completely overcome, which presupposes a complete dissolution of the character armor and the muscular armor. At a time when the successive layers of the character armor have been almost completely dissolved and the vegetative energies almost completely liberated, the patient experiences orgasm anxiety in its undisguised form. At this point it becomes clear that all the psychic and somatic defenses with which one had to struggle were only a superstructure and were motivated by this basic orgasm anxiety. To this, the patient reacts with an intensification of his psychic defense mechanisms as well as the muscular ones. The defense against the orgasm reflex causes a series of vegetative disturbances, as, e.g., chronic constipation, muscular rheumatism, sciatica, etc. In many cases, constipation, though it may have

been present for decades, disappears with the development of the orgasm reflex. Its full development is often preceded by nausea and vertigo, spastic conditions of the throat, isolated contractions in the abdominal musculature, the diaphragm, the pelvis, etc. All of these symptoms, however, disappear as soon as the full development of the orgasm reflex succeeds. The "stiff, dead, retracted" pelvis is one of the most common vegetative disturbances in the human. The chronic retraction of the pelvis is so common that the resulting pathological lordosis is generally considered as "normal." The resulting "lower back pains," an everyday complaint particularly of women, are a therapeutic problem which surgeons often try to solve through immobilizing the pelvis by "sacroiliac fusion"; it can be really solved only by the opposite measure, that of mobilizing the pelvis.

The investigation of the orgasmic function raised many questions involving the psychosomatic problem. The study of the relationship between stasis neurosis and psychoneurosis, e.g., raised the question as to the relationship between idea and somatic excitation. Gradually it became clear that *the intensity of an idea depends upon the intensity of the somatic excitation with which it is connected.* Emotions originate from the instincts, consequently from the somatic sphere. Ideas, on the other hand, certainly are a definitely "psychic," "non-somatic" thing. *What, then, Reich asked, is the connection between the "non-somatic" idea and the "somatic" excitation?* For example, the idea of sexual intercourse is vivid and forceful if one is in a state of full sexual excitation. For some time after sexual gratification, however, it cannot be vividly reproduced; it is dim, colorless and vague. Just here must the secret of the interrelation between the "physiogenic" anxiety neurosis and the "psychogenic" psychoneurosis be hidden. The compulsive stu-

dent (above, p. 34) temporarily lost all his psychic compulsion symptoms after he had experienced sexual gratification; with the return of sexual excitation, they recurred and lasted until the next occasion of gratification. The waiter with erectile impotence (above, p. 37), on the other hand, had meticulously worked through everything in the psychic realm, but in him, sexual excitation remained absent; the unconscious ideas at the root of his erectile impotence had not been touched by the treatment.

Thus, Reich found that an idea, endowed with a very small amount of energy, is capable of provoking an increase of excitation. The excitation thus provoked, in turn makes the idea vivid and forceful. If the excitation subsides, the idea collapses also. If, as in the case of the stasis neurosis, the idea of sexual intercourse does not arise in consciousness, due to moral inhibition, the excitation attaches itself to other ideas which are less subject to censorship. From this, Reich concluded: the stasis neurosis is a somatic disturbance, caused by sexual excitation which is misdirected because it is frustrated. However, without a psychic inhibition, sexual energy can never become misdirected. Once an inhibition has created the sexual stasis, this in turn may easily increase the inhibition and reactivate infantile ideas which then take the place of normal ones. That is, infantile experiences which in themselves are in no way pathological, may, due to a present-day inhibition, become endowed with an excess of sexual energy. Once that has happened, they become urgent; being in conflict with adult psychic organization, they have to be kept down by repression. Thus, the chronic psychoneurosis with its infantile sexual content develops on the basis of a sexual inhibition which is conditioned by present-day circumstances and is apparently "harmless" at the outset. This is the nature of Freud's "regression to infantile mechanisms." This

mechanism Reich found in all patients. If the neurosis had developed not in childhood, but at a later age, it was shown regularly that some "normal" inhibition or difficulty of the sexual life had created a stasis, and this in turn had reactivated infantile incestuous desires and sexual anxieties.

Freud had postulated a physiological foundation for psychoanalysis. His "unconscious" was deeply rooted in the biophysiological realm. But in studying the function of the orgasm, Reich learned that, in the somatic realm, it is not admissible to think in terms derived from the psychic realm. Every psychic occurrence has, in addition to its causal determination, a *meaning* in terms of a relation to the environment. To this corresponded the psychoanalytic interpretation.

However, in the physiological realm, there is no such "meaning," and its existence cannot be assumed without re-introducing a supernatural power. The living simply functions, it has no "meaning." The study of the physiological foundation of psychic life raised the new question as to the correct method of investigation. To say that the soma influences the psyche, was correct, but one-sided. That, conversely, the psyche influences the soma, was an everyday observation. But it is inadmissible to enlarge the concept of the psyche to the extent of applying its laws to the soma. The concept that psychic and somatic processes are mutually independent, and only in "interaction," is contradicted by daily experience.

Reich reasoned: The psyche is determined by *quality*, the soma by *quantity*. In the psyche, the determining factor is the *kind* of an idea or wish; in the soma, however, it is the *amount* of energy at work. But the study of the orgasm showed that *the quality of the psychic attitude depended on the amount of the underlying somatic excitation*. What was clear was only that the biological energy dominates

the psychic as well as the somatic. Insofar, there is functional unity. True, biological laws can apply in the psychic realm, but the converse is not true. This necessitated a critical evaluation of Freud's concept of the instincts.

The unconscious itself, according to Freud, cannot be grasped. But if it "dips into" the biophysiological realm, it must be possible to grasp the *common factor* which dominates the *whole* biopsychic apparatus. This common factor cannot be the "meaning," nor can it be the "purpose"; these are secondary functions. From a consistent functional point of view, there is, in the biological realm, no purpose, no aim; only function and development, following certain laws. There remained the dynamic structure, *the balance of forces*. This is valid in all realms. What psychology calls "tension" and "relaxation" is an antithesis of forces. This antithesis of forces is at work in the whole biopsychic apparatus. There is unity of the psychic and the somatic, and along with unity, there is, at the same time, antithesis.

Every psychic impulse is functionally identical with a definite somatic excitation. The concept that the psychic apparatus functions by itself and influences the somatic apparatus—which also functions by itself—is not in keeping with the facts. A jump from the psychic into the somatic is inconceivable, for the assumption of two separate fields is erroneous. Nor can an idea, such as that of going to sleep, exert a somatic influence unless it is itself already the expression of a vegetative impulse. The development of an idea from a vegetative impulse is one of the most difficult problems confronting psychology. Clinical experience leaves no doubt that the somatic symptom as well as the unconscious idea are *results* of a conflicting vegetative innervation. This finding does not contradict the fact that one may be able to eliminate a somatic symptom by way of making its psychic meaning con-

scious; for, any alteration brought about in the realm of psychic ideas is of necessity identical with alterations of vegetative excitation. That is, not the becoming conscious of an idea in itself is what cures, but the alteration that is brought about in the vegetative excitation.

Thus, we find the following succession of functions in the course of the influence of an idea upon the somatic sphere:

a) The psychic excitation is identical with the somatic excitation;

b) The fixation of a psychic excitation occurs as a result of the establishment of a definitive vegetative state of innervation;

c) The alteration of the vegetative state alters the functioning of the organ;

d) The "psychic meaning of the organic symptom" is nothing but the somatic attitude in which the "psychic meaning" expresses itself. (Psychic reserve expresses itself in a vegetative holding back; psychic hatred expresses itself in a definite vegetative attitude of hatred; the two are identical and cannot be separated);

e) The established vegetative state in turn acts on the psychic state.

The perception of an actual danger functions identically with a sympatheticotonic innervation; this in turn increases the anxiety; the increased anxiety calls for an armoring process which is synonymous with binding of vegetative energy in the muscular armor; this armor, in turn, reduces the possibility of discharging energy and thus increases the tension, etc.

The psychic and the somatic operate, from the point of view of biopsychic energy, as two systems which are *unitary* as well as *conditioning each other*.

As an illustration, Reich gives the following, unusually interesting case:

"An extremely pretty and sexually attractive young woman complained about the feeling that she was ugly, as she did not have a unitary feeling of her body. She described her condition as follows: 'Every part of my body acts on its own. My legs are here and

my head is there, and I never really know where my hands are. I don't have my body together.' That is, she suffered from the well-known disturbance of self-perception, the extreme form of which is schizoid depersonalization. During the vegetotherapeutic work, she showed a very peculiar connection between the various functions of the muscular attitudes in her face. From the very start of the treatment, the 'indifferent' expression in her face was striking. This expression of 'indifference' gradually became so intense that the patient began to suffer keenly from it. When one would talk to her, even about serious subjects, she would always stare into a corner of the room or out of the window. With this, her face would wear an indifferent expression and her eyes would have an empty, 'lost' look. As this indifferent expression was thoroughly analyzed and dissolved, a different facial expression appeared clearly of which one had seen only a trace before. The region of mouth and chin had a different expression from eyes and forehead. As this new expression became more distinct, it became clear that mouth and chin were 'angry,' while eyes and forehead were 'dead.' These were the words that expressed the inner perception that the patient had of these attitudes.

I proceeded first to work out separately the expression in mouth and chin. In the course of this work there developed incredibly violent reactions of inhibited impulses to bite; they had been developed toward her father and her husband, without, however, being lived out. The impulses of violent anger which were thus expressed in the attitude of her mouth and chin had been covered up by an attitude of indifference in the whole face; it was only after the elimination of the indifference that the angry expression at the mouth came to light. The function of the indifference was that of keeping the patient from constantly being exposed to the painful perception of the hatred that would have been expressed by her mouth. After about two weeks' work at the mouth region, the angry expression disappeared completely in connection with the analysis of a very intense reaction of disappointment. One of her outstanding character traits was the compulsion

to demand love constantly and to become angry when her impossible demands were not satisfied. After the attitude of mouth and chin was dissolved, there appeared pre-orgastic contractions in the whole body, at first in the form of a wavelike serpentine movement which also took in the pelvis. However, genital excitation was inhibited at a definite place. During the search for the inhibitory mechanism the expression of eyes and forehead gradually became more pronounced. The expression became one of an angry, observing, critical and attentive gaze. Only now did the patient become aware of her attitude 'never to lose her head'; she always had to be 'on guard.'

The way in which vegetative impulses come to light and become more distinct is one of the most peculiar phenomena which we see in vegetotherapy. It cannot really be described; it has to be experienced clinically.

In this patient, the 'dead' forehead had covered up the 'critical' one. The next question was that as to the function of the 'critical, angry' forehead. An analysis of the details of her mechanism of genital excitation revealed the fact that her forehead 'watched closely what the genital was doing.' Historically the severe expression of eyes and forehead derived from an identification with her father who was a very moral person with a strict ascetic attitude. At a very early age, her father had again and again impressed on her the danger of giving in to sexual desires; in particular, he had pictured the ravages of the body by syphilis. Thus, the forehead had taken the place of the father in guarding against the temptation of giving in to a sexual desire.

The interpretation that she had identified herself with her father is in no way sufficient. The question is, first, why did this identification take place just where it did, namely at the forehead; and, second, *what maintained this function in the immediate present?* We have to make a strict distinction between the historical explanation of a function and the dynamic explanation in terms of the immediate present. These are two entirely different things. We do not eliminate a somatic symptom by making it historically understandable. We cannot do without the knowl-

edge of the function which an attitude serves in the immediate present. (This is not to be confused with the present-day conflict.) The derivation of the watchful forehead from the identification with the severe father would not budge the orgastic disturbance in the least.

The further course of the treatment proved the correctness of this view. For, to the same extent to which the 'dead' expression was replaced by the 'critical' expression, the defense against genitality became accentuated. Following this, the critical, severe expression began to alternate with a cheerful, somewhat child-like expression in forehead and eyes. That is, at one time the patient felt in harmony with her genital desire, the other time she had a critical defensive attitude toward it. With the final disappearance of the critical attitude of the forehead and its replacement by the cheerful attitude, the inhibition of genital excitation disappeared also."

This patient, comments Reich, had the sensation of a body that was divided, not integrated, not united. This is why she lacked the consciousness and the feeling of her sexual and vegetative gracefulness. How is it possible that an organism which, after all, forms a unitary whole, can "fall apart" as far as its perception is concerned? The term "depersonalization" means nothing, for it needs itself to be explained. How is it possible, Reich asked himself, that parts of the organism, as if separated from it, can function on their own? Psychological explanations will not get us anywhere here, for, the psychic depends, in its emotional function, completely on the functions of expansion and contraction in the vegetative apparatus. This apparatus is a non-homogeneous system. Clinical and experimental evidence show that the process of tension and charge may take place in the body as a whole as well as in individual groups of organs alone. The vegetative apparatus is capable of showing parasympathetic excitation in the upper abdomen and at the same time sympathetic excitation in the lower

abdomen. Similarly, it may produce tension in the muscles of the shoulders, and at the same time relaxation or even flaccidity in the legs. This is possible only because, as stated before, the vegetative apparatus is not a homogeneous structure. In an individual engaged in sexual activity, the region of the mouth may be excited, while at the same time the genital may be completely unexcited or even in a negative state, or vice versa.

These facts provide a sound basis for an evaluation of *what is "healthy" and what is "sick" from a sex-economic point of view. The basic criterion of psychic and vegetative health is the ability of the organism to act and react, as a unit and as a totality, in terms of the biological functions of tension and charge. Conversely, we have to consider as pathological any non-participation of single organs or organ groups in the unity and totality of the vegetative function of tension and charge, if it is chronic and represents a lasting disturbance of the total functioning of the organism.*

Clinical experience shows, furthermore, that disturbances of self-perception really disappear only after the orgasm reflex is fully developed. Then, it is as if all organs and organ systems of the body were gathered into one single experiential unit, with regard to contraction as well as to expansion.

From this point of view, depersonalization becomes understandable as a *lack of charge*, i.e., as a disturbance of the vegetative innervation of individual organs or organ systems, of the fingertips, the arms, the head, the legs, the genital, etc. Disunity of the perception of one's own body also is caused by the interruption, in this or that part of the body, of the current of excitation. This is particularly true of two regions: one is the neck, where a spasm blocks the progression of the wave of excitation from chest to head; the other is

the musculature of the pelvis, which, when spastic, interrupts the course of the excitation from abdomen to genitals and legs.

Every disturbance of the ability to experience fully one's own body, damages self-confidence as well as the unity of the bodily feeling. At the same time, it creates the need for compensation. The perception of one's vegetative wholeness, which is the natural and the only safe basis for a strong self-confidence, is disturbed in all neurotic individuals. This disturbance manifests itself in the most diverse ways; its extreme degree is the complete splitting of the personality. There is no fundamental difference between the simple sensation of being emotionally cold and stiff on the one hand, and schizophrenic dissociation, lack

of contact and depersonalization on the other hand; there is only a quantitative difference, though it shows itself also qualitatively. The feeling of wholeness is connected with the feeling of an immediate contact with the world. When, in the course of therapy, the unity of the orgasm reflex is established, the feeling of *depth* and *earnestness*, which was lost long ago, comes back. In this connection, patients recall that period in their early childhood in which the unity of their bodily sensations was as yet undisturbed. Deeply moved, they relate how, as small children, they felt one with nature, with everything around them, how they felt "alive"; and how all this was subsequently broken to pieces and destroyed by their training.

THE ORGASM REFLEX. A CASE HISTORY*

By WILHELM REICH, M.D.

For a presentation of the direct liberation of the sexual (vegetative) energies from the pathological muscular attitudes I am choosing a case in which the establishment of orgasmic potency succeeded particularly quickly and easily. I should like to stress the fact that—for this reason—this case does not illustrate the considerable difficulties which are commonly encountered in the attempt to overcome disturbances of the orgasm.

The case is that of a technician, 27 years of age, who consulted me because of excessive drinking. He could hardly resist getting severely intoxicated every day; he was afraid he would soon completely ruin his health and his ability to work. His marriage was exceedingly unhappy. His wife was a rather difficult hysteric who made life quite a problem for him; it was easy to see that the misery of his marriage was an important factor in his escape into alcoholism. In addition, his complaint was that he "did not feel alive." Though his marriage was very unhappy, he was not able to establish a relationship with another woman. His work gave him no pleasure, he did it mechanically, without any interest. If this went on, he said, he would soon collapse completely. This condition had already lasted for many years and had become considerably worse during the past few months.

One of his most obvious pathological traits was his complete inability to show any aggression. He felt in himself the compulsion always to be "nice and polite," to agree with everything people said, even if his own opinion was diametrically opposite. His superficiality made him suffer.

* From Chapter VIII, "The Orgasm Reflex and the Technique of Character-analytic Vegetotherapy," of *THE FUNCTION OF THE ORGASM*. See announcement, p. 26.

He was unable to give himself over fully to any cause, any idea or work. His spare time he spent in restaurants and pool rooms, with empty talk and silly jokes. He felt somehow that this was a pathological attitude, but as yet he was unaware of the full pathological significance of these traits. He suffered from compulsive contactless sociability, a disturbance of widespread occurrence.

The general impression the patient made was characterized by his uncertain movements; he walked with a forced stride, so that his gait was somehow clumsy. His posture was not erect, but expressed submissiveness; as if he were being constantly on guard. His facial expression was empty and meant nothing in particular. The skin of his face was somewhat shiny, drawn taut and looked like a mask. His forehead looked "flat." His mouth was small, tight and hardly moved when he spoke; his lips were small, as if pressed together. The eyes were expressionless.

In spite of this obviously severe impairment of his vegetative motility one felt, behind all this, a very lively intelligent being. It is probably to this fact that we can attribute the great energy with which he attempted to eliminate his difficulties.

The ensuing treatment lasted six and a half months of daily sessions. I shall try to present the most important steps of its course:

As early as the first session I was confronted by the question as to whether I should start with his psychic reserve or his very striking facial expression. I decided to do the latter and to leave to the further development the decision as to when and how I would tackle the problem of his psychic reserve. As a result of a repeated description on my part of the rigid atti-

tude of his mouth, there appeared a slight and then steadily increasing clonic tremor in his lips. He was surprised by the involuntary character of this tremor and tried to fight it. I urged him to give in to any impulse he might feel. Whereupon his lips began to be protruded and retracted in a rhythmic fashion and to remain for a few seconds in the protruded state as if in a tonic spasm. While this was going on, the patient's face took on the unmistakable expression of an infant at the breast. He was surprised and asked anxiously what this was going to lead to. I reassured him and urged him to keep on giving in consistently to any impulse and to tell me about any inhibition of an impulse he would become aware of.

In the following sessions the various manifestations in his face became more and more distinct and gradually aroused the patient's interest. This, he thought, must indicate something of great importance. Yet, peculiarly enough, it all did not seem to touch him; rather, after such clonic or tonic spasms in his face, he continued to talk with me calmly as if nothing had happened. In one of the following sessions, the twitching of the mouth increased to a suppressed weeping. He emitted sounds which resembled the breaking out of a long-suppressed, painful sobbing. My continued request to give in to every muscular impulse was successful. The activity in his face became more manifold. True, his mouth became distorted into a spasm of weeping. However, this expression did not result in weeping, but, to our surprise, passed over into a distorted expression of anger. Peculiarly enough, the patient did not feel the least bit angry, although he knew immediately that what he was expressing was anger.

At the times when these muscular phenomena became particularly intense, so that his face would become blue, the patient would get restless and anxious. He continued to ask what this was going to

lead to and what was going to happen to him. Now, I began to point out to him that his fear of some unforeseen happening fully corresponded to his general character attitude; that he was dominated by a vague fear of something unexpected, something that suddenly might befall him.

Since I did not want to relinquish the consistent investigation of a somatic attitude once it was tackled, I had first to become clear in my own mind as to what was the connection between the muscular actions in his face and his general character defense. Had the muscular rigidity been less outspoken, I would have started by working on the character defense which presented itself in the form of his reserve. I was forced to the conclusion that his dominating psychic conflict was split up in the following manner. The defensive function at this time was contained in his psychic reserve, whereas that against which he defended himself, that is, the vegetative impulse, revealed itself in the muscular actions of his face. Just in time I remembered that the muscular attitude itself contained not only the warded-off affect, but also the defense. The smallness and tightness of his mouth could, indeed, be nothing else but the expression of the *opposite*, of the mouth that was protruded, twitching, weeping. I made it a point now to carry to a conclusion the experiment of destroying the defensive forces consistently from the muscular, and not from the psychic side.

Thus, I proceeded to work on all those muscular attitudes in the face which I assumed to be spasmodic contractions, that is, hypertonic defenses against the corresponding muscular actions. In the course of a few weeks, the actions of the musculature of face and neck developed into the following picture: The tightness of the mouth first gave way to a clonic twitching and then to a protrusion of the lips. This protrusion changed into weeping, which, however, did not break out fully. The

weeping, in turn, gave way to the facial expression of an extremely intense anger. With this, the mouth became distorted, the musculature of the jaws became hard as a board, there was grinding of the teeth. There were further expressive movements. The patient half sat up, shook with anger, and raised his fist, as if for a blow, *without, however, really striking*. Then he fell back on the couch, exhausted; the whole thing dissolved itself into a sort of whimpering. These actions expressed "*impotent rage*," as it is so often experienced by children toward adults.

After this seizure had subsided, he talked about it calmly, as if nothing had happened. There was no doubt: there was an interruption, some place, between his vegetative muscular impulses and his psychic awareness of these impulses. Of course, I kept discussing with him not only the sequence and the content of his muscular actions, but also this peculiar phenomenon of his psychic detachment with regard to these. What struck him as well as me was the fact that—in spite of this psychic detachment—he had an immediate grasp of the function and the meaning of these seizures. There was no need for me to interpret them to him. On the contrary, he kept surprising me by the explanations which were *immediately evident* to him. This was a highly gratifying state of affairs. I was reminded of the many years of painstaking work of interpreting symptoms, in the course of which one would deduce anger or anxiety from symptoms or associations, and then would try, for months and years, to get the patient into some contact with it. How rarely and to what small degree had it been possible in those years to get further than a purely intellectual understanding! Thus, I had good reason to be pleased with my patient who, without any explanation on my part, had an immediate feeling for the meaning of his actions. He knew that he was expressing an immense anger

which he had kept back for decades. The psychic detachment disappeared when one of the seizures reproduced the memory of his older brother who used to bully and maltreat him badly when he was a child.

Spontaneously, he now understood that at that time he had repressed his hatred of his brother who was his mother's favorite. As an overcompensation of his hatred he developed a particularly nice and loving attitude toward his brother, an attitude which was in violent contradiction to his true feelings. He had done this in order to keep on good terms with his mother. This hatred, which at that time had not been expressed, came out now in his muscular actions, just as if decades had not altered it in the least.

At this point in the story, it may be well to stop for a moment to consider the psychic situation with which we are dealing. With the old technique of free association and symptom-interpretation, it is a matter of chance whether first, the decisive memories of earlier experiences appear; and second, whether the memories which do appear are really those to which were attached the most intense emotions, and those emotions which had an essential effect on the future life of the patient. In vegetotherapy, on the other hand, the vegetative behavior brings up of necessity that memory which was decisive for the development of the neurotic character trait. As we know, the approach from the psychic memories alone, accomplishes this task in a highly incomplete measure; when one appraises the changes brought about in a patient after years of this treatment, one has to admit that they are not worth the expenditure of time and effort. On the other hand, those patients in whom one succeeds in getting directly at the muscular fixation of the affect, produce the affect *before* they know which affect it is that is repressed. In addition, the memory of the experience which had originally produced the affect, appears afterwards without any effort; as, e.g., in our case the memory of the situation with the older brother whom his mother preferred to him. This fact—which is as important as it

is typical—cannot be stressed too much: in this case it is not a matter of a memory which—under favorable circumstances—produces an affect, but the reverse: *the concentration of a vegetative excitation and its breaking through reproduces the memory.*

Freud again and again stressed the fact that in analysis one was dealing only with "derivatives of the unconscious," that the unconscious itself was not really tangible. This statement was correct, but only conditionally, that is, as far as the *method practised at that time* is concerned. Today, by way of a direct approach to the immobilizing of the vegetative energy, we are able to grasp the unconscious not in its derivatives, but in its reality. Our patient, e.g., did not deduce his hatred towards his brother from vague associations charged with little affect; rather, he behaved exactly as he would have behaved in the childhood situation, had not his hatred been curbed by the fear of losing his mother's love. More than that: we know that there are infantile experiences which have never become conscious. The ensuing analysis of our patient showed that, though he had an intellectual knowledge of his envy of his brother, he had never been conscious of the extent and the intensity of his fury. Now, as we know, the effects of a psychic experience are not determined by its content, but by the amount of vegetative energy which was mobilized by the experience and then immobilized by repression. In a compulsion neurosis, for example, even incestuous desires may be conscious; and yet, we are justified in calling them "unconscious" because they have lost their emotional charge; we all have had the experience that by the usual method it is not possible to make the incestuous desire conscious except in an intellectual form. Which means, really, that the lifting of the repression has *not* succeeded. For an illustration, let us return to the further course of this treatment.

The more intense the muscular actions in the face became, the more did the somatic excitation spread toward chest and abdomen; at the same time, the complete psychic detachment persisted. A few weeks later the patient reported new sensa-

tions: in the course of the twitchings in the chest, but particularly when they subsided, there were "currents" toward the lower abdomen. At this time, he moved away from his wife, with the intention of entering a relationship with another woman. However, during the ensuing weeks, it turned out that he had not realized this intention. The patient did not even seem to be aware of this inconsistency. Only when I called his attention to it, did he begin—after giving a number of rationalisations—to show some interest in the problem; however, it was obvious that some inner inhibition kept him from approaching the question in a really affective manner. As it is a rule in character-analytic work not to enter upon any subject unless the patient has become capable of dealing with it with full emotional participation, even if it seems immediately important, I postponed a discussion of the matter and continued to follow the course which was indicated by the spreading of his muscular actions.

The tonic spasm began to spread to the chest and the upper abdomen; the musculature would become boardlike. In these seizures, it looked as if some inner force were lifting the upper part of his body, against his own will, off the couch and were keeping it in that position. There was an immense tension in the musculature of the chest and abdomen. It took considerable time until I understood why a further spreading downward of the excitation failed to occur. I had expected that now the vegetative excitation would spread from the abdomen to the pelvis; but this did not happen. Instead, there occurred violent clonic twitchings of the musculature of the legs, with an extreme increase of the patellar reflex. To my great surprise, the patient told me that he experienced the twitchings in his legs as extremely pleasurable. This reminded me of the clonic manifestations in epilepsy, and seemed to confirm my previous as-

sumption that the epileptic and epileptiform seizures represent the release of anxiety; as such, they cannot be experienced but as pleasurable. There were periods during the treatment of this patient when I was not quite sure that I was not dealing with a case of genuine epilepsy. At least in outward appearance, his seizures, which began in the form of tonus and often resolved themselves in clonic form, were hardly distinguishable from epileptic seizures.

At this point of the treatment, after about three months, the musculature of the head, the chest and the upper abdomen had become mobile, as well as that of the legs, particularly of the knees and thighs. At the same time, the lower abdomen and the pelvis were and remained immobile. Also, the psychic detachment from the muscular actions remained constant. The patient knew of the seizures. He understood their significance. He felt the affect contained in the seizure. But he still appeared not to be really touched by it. The main question continued to be: what was the obstacle causing this dissociation? It became increasingly clear that the patient was defending himself against comprehending the whole in all its parts. We both knew: *he was very cautious.* This caution expressed itself not only in his psychic attitude. Not only in the fact that his amiability and co-operation in the therapeutic work never went beyond a certain point and that he always became somehow cold or aloof when the work went beyond certain limits. This "caution" was also contained in his muscular behavior; it was, so to speak, maintained in twofold fashion. He himself grasped and described the situation in terms of a boy whom a man was pursuing and trying to beat. In so doing, he took a few steps to one side, as if dodging something, looked anxiously behind him and pulled his buttocks forward, as if to get this region of his body out of the reach of the pursuer. In the

usual psychoanalytic language one would have said: behind this fear of being beaten is the fear of a homosexual attack. As a matter of fact, the patient had been in an analysis for about one year, and there his passive homosexuality had constantly been interpreted. "In itself," that had been correct; but from the standpoint of our present knowledge we must say that this interpreting was useless. For, we see what kept the patient from really affectively grasping his homosexual attitude: his characterological caution as well as the muscular fixation of his energy; neither of which were anywhere near dissolved.

I proceeded to tackle his caution, not from the psychic side, as is customary in character-analysis, but from the somatic side. For example, I kept showing him that, although he expressed his anger in his muscular actions, he never continued the action; that, although he raised his fist, he never really let the blow fall. Several times it was shown that at the very moment when the fist wanted to strike the couch, the anger had disappeared. Now, I concentrated the work on the inhibition of completing the muscular action, always guided by the assumption that it was his very caution that was expressed in this inhibition. After some hours' consistent work on the defense against the muscular action, he suddenly remembered the following episode from his fifth year: When he was a little boy, his family lived on top of a cliff which fell precipitously to the sea. He was engaged in making a fire right at the edge of the cliff, and was so much absorbed in his play that he was in danger of falling over the cliff into the sea. His mother appeared at the door of the house which was a few yards away, became frightened and tried to get him away from the cliff. She knew him to be a child with a very lively motility and was all the more afraid. She lured him to her with the kindest words, promising to give him candy. Then

as he went to her, she gave him a terrible beating. This experience had made a deep impression on him; but now he understood it in connection with his defensive attitude towards women and the caution which he exhibited in the treatment.

However, this did not settle the matter. The caution remained, as before. One day, in between seizures, he humorously related the following. He was an enthusiastic trout fisherman. In a very impressive manner, he described the pleasure of catching trout; he executed the corresponding motions, described how one catches sight of the trout, how one casts the line; in giving this description, his face had an enormously avid, almost sadistic expression. What struck me was that, although he described the whole procedure in great detail, he omitted one detail, namely the moment at which the trout bites at the line. I understood the connection, but saw also that he was not aware of omitting this detail. With the customary analytic technique, one would have told him the connection or encouraged him to find it himself. But to me it was more important first to have the patient become aware of his omission of the trout getting caught, and the motives for this omission. It took about four weeks until the following took place: the twitchings in the body lost more and more their spastic tonic character; the clonus also decreased, and peculiar *twitchings appeared in the abdomen*. These in themselves were not new to me; I had seen them in other patients. But I had not seen them in the connection in which this patient now presented them. *The upper part of the body (shoulders and chest) jerked forward, the middle of the abdomen remained quiet, and the lower part of the body (pelvis and thighs) jerked towards the upper part*. In these seizures the patient would suddenly half raise himself, while the lower part of the body came upward. The whole thing was an *organic, unitary* movement. There were

hours when these movements occurred continually. Alternating with these jerks of the body as a whole there were sensations of currents, particularly in legs and abdomen, which sensations the patient experienced as pleasurable. The attitude of face and mouth changed somewhat; in one of these seizures the face had unmistakably the expression of a fish. Even before I had called this to his attention, the patient stated spontaneously: "I feel like a primitive animal," and then: "I feel like a fish." What were we dealing with here? Quite unknowingly, without having worked out any connection by way of associations, the patient, in his bodily movements, was representing a fish, apparently a fish that was caught and flapping on the line. In the language of analytic interpretation one would say: he "acted out" the trout on the line. This was expressed in various ways: the mouth was protruded, stiff and distorted. The body jerked from head to foot. The back was stiff as a board. What was not quite understandable at this stage was the fact that for some time he would, in the seizure, stretch out his arms as if embracing somebody. I do not remember whether I called the patient's attention to the connection with the story of the trout, or whether he grasped it spontaneously (nor is this particularly important in this connection); at any rate, he had an *immediate* feeling of the connection and did not doubt in the least that he represented the trout as well as the trout fisherman.

Of course, the whole episode had an immediate connection with the disappointments with respect to his mother. From a certain point in his childhood she had neglected him, had treated him badly and often beaten him. Often he would expect something beautiful and good from her and the exact opposite would happen. His caution now became understandable. He trusted nobody, he did not want to be caught. This was the ultimate basis of his

superficiality, of his fear of surrender, his fear of responsibility, etc. When this connection was worked out, he underwent a striking change. His superficiality disappeared, he became serious. The seriousness made its appearance quite suddenly during a session. The patient said, verbatim: "I don't understand. Suddenly everything has become so very serious." That is, he had not just remembered the earnest emotional attitude that he had had at a certain period of his early life; rather, he actually changed from the superficial to the earnest. It became clear that his pathological attitude toward women, i.e., his fear of entering a relationship with a woman, to give himself to a woman, was a result of *this fear which had become structuralized*. He was very attractive to women, and yet made peculiarly little use of this attractiveness.

From then on there was a marked and rapid increase in the sensations of currents, at first in the abdomen, then in the legs and the upper part of the body. He described these sensations not only as currents, but as voluptuous, as "melting," particularly after the abdominal jerks had been strong and lively and had occurred in quick succession.

At this point it may be well to stop for a moment in order to take stock of the situation in which the patient found himself.

The abdominal jerks were nothing but the expression of the fact that the tonic tension of the abdominal wall was relaxing. The whole thing operated like a reflex. A slight tap on the abdominal wall would immediately result in a jerk. After several jerks had taken place, the abdominal wall became soft and could easily be pressed in with the fingers; before, it had been tight and had shown a condition which I would like for the present to refer to as *abdominal defense*. This phenomenon can be found, without exception, in all neurotic individuals. If one has a patient exhale deeply and then exerts a light pressure on the abdominal wall about one inch below the sternum, one either feels a

violent resistance inside the abdomen, or the patient experiences a pain similar to that when the testicle is squeezed. A glance at the position of the abdominal organs and the solar plexus of the vegetative nervous system—taken together with other phenomena discussed later—shows us that the *abdominal tension has the function of exerting a pressure on the solar plexus*. The same function is fulfilled by the tense diaphragm in its position of downward pressure. This symptom, too, is typical. *In all neurotic individuals, without exception, one can find a tonic contracture of the diaphragm*; this contracture shows itself in the fact that the patients *can exhale only in a shallow and jerky manner*. In expiration, the diaphragm is raised, and the amount of pressure on the organs below it—including the solar plexus—diminishes. When, in the course of treatment, we bring about a decrease in the tension of the diaphragm and the abdominal muscles, the solar plexus is freed of the abnormal pressure to which it was subjected. This is shown by the appearance of a sensation which is like that which one experiences on a roller coaster, in an elevator which suddenly starts going down, or in falling. Clinical experience shows this to be an extremely important phenomenon. Almost all patients come to remember that as children they practised suppressing these abdominal sensations, which were particularly intense when they felt anger or anxiety; *they learned spontaneously to achieve this suppression by way of holding their breath and pulling in their abdomen*.

An understanding of this mechanism of pressure on the solar plexus is indispensable for an understanding of the further course of the treatment in our patient. The ensuing events were in accord with this assumption and confirmed it. The more intensively I had the patient observe and describe the behavior of the musculature in the upper abdomen, the more intensive became the jerks, and the sensation of currents after the jerks, and the more did the wavelike, serpentine movements of the body spread. However, the pelvis remained stiff, until I proceeded to make the

patient conscious of the rigidity of his pelvic musculature. During the jerks, the whole lower part of the body moved forward; the pelvis, however, did not move by itself; that is to say, the pelvis partook of the movement of the hips and thighs, but did not move at all as a bodily unit separate from hips and thighs. I asked the patient to pay attention to whatever it was that inhibited the movement of the pelvis. It took him about two weeks to grasp completely the muscular inhibition in the pelvis and to overcome it. Gradually, he learned to include the pelvis in the contraction. *Now there appeared in the genital a sensation of currents which he had never known before.* He had erections during the session and a powerful impulse to have an ejaculation. *Now, the contractions of the pelvis, the upper part of the body and of the abdomen were the same as they are experienced in the orgasmic clonus.* From then on, the work was concentrated upon having the patient give a most detailed description of his behavior in the sexual act.

This revealed a fact which one finds not only in all neurotics, but in the vast majority of all people of both sexes: *the movements in the sexual act are artificially forced, without the individual's being aware of it.* What moves is, as a rule, not the pelvis by itself, but abdomen, pelvis and thighs as one unit. This does not correspond to the natural vegetative movement of the pelvis in the sexual act; on the contrary, it is an inhibition of the orgasm reflex. It is a voluntary movement, as contrasted with the involuntary movement that takes place when the orgasm reflex is not disturbed. This voluntary movement has the function of diminishing or completely obliterating the orgasmic sensation of current in the genital.

Furthermore it was found that the patient always kept the muscles of his pelvic floor pulled up and tense. Not until this case did I realize precisely the nature of the gap in my technique, of which I had

been until then only vaguely aware. True, in trying to eliminate the inhibitions of orgasm, I had always paid attention to the contraction of the pelvic floor; but again and again I had felt that the result was somehow incomplete. What I had overlooked was the role played by the tension in the pelvic floor. Now I realized that, while the *diaphragm* compressed the solar plexus from above and the *abdominal wall* compressed it from in front, *the contraction of the pelvic floor served the function of decreasing the abdominal space by pressing from below.* The significance of these findings for the development and maintenance of neurotic conditions is discussed elsewhere.

After a few more weeks, the complete dissolution of the muscular armor was successful. The isolated abdominal contractions decreased in proportion to the increase in the sensation of current in the genital. With that, the earnest character of his emotional life also increased. In this connection, he remembered an experience from his second year:

He is alone with his mother at a summer resort. It is a bright, starlit night. His mother is asleep and breathing deeply; from the outside he hears the rhythmic sounds of the surf. He feels the same deeply earnest, somewhat sad mood that he felt now. We may say that now he remembered one of the situations in his very early childhood in which he had still permitted his vegetative (orgasmic) longing to make itself felt. After the disappointment in his mother, which happened when he was about five years old, he fought against the full experience of his vegetative energies and became cold and superficial; in brief, he developed that character which he presented at the start of the treatment.

From this point in the treatment, he had to an increasing degree the feeling of a "peculiar contact with the world." He assured me of the complete identity of

this present earnestness of feeling with the feeling which he used to have as a very small child with his mother, particularly during the night. He described this feeling as follows: "It is as though I had complete contact with the world. It is as if all impressions were registering themselves upon me more slowly, as if in waves. It is like a protective covering around a child. It is unbelievable how I feel the depth of the world now." I did not have to tell him, he comprehended *spontaneously: the closeness to the mother is the same thing as the closeness to nature.* The identification of mother and earth, or universe, has a deeper meaning when it is understood from the point of view of the vegetative harmony between the individual and the world.

During one of the following sessions, the patient had a severe anxiety attack. He suddenly sat up with a painfully distorted mouth; his forehead was covered with perspiration; his whole musculature was tense. He hallucinated an animal, an ape; with this, his hand showed exactly the attitude of a tightly clenched ape's paw, and he emitted sounds which seemed to come out of the depth of his chest, "as if without vocal chords," he said later. He had the feeling that somebody was coming dangerously close to him and was threatening him. Then, as if in a trance, he cried out; "Don't be angry, I only want to suck." After this, he calmed down, and in the following hours we worked it through. He remembered among other things that at the age of about two—which age could be determined by a certain apartment situation—he had seen Brehm's "*Tierleben*"¹ for the first time. He did not remember having experienced the same anxiety at that time. Nevertheless, there was no doubt that this present anxiety corresponded to that experience; he looked at a *gorilla* with great astonishment and admiration.

¹Translator's note: A classic book on animal life.

Although this anxiety had not become manifest at that time, it had, nevertheless, dominated his whole life. Only now had it broken through. The gorilla represented the father, the threatening figure that tried to keep him from sucking. The relationship to his mother had been fixated on this level. It had broken through at the very beginning of the treatment in the form of the sucking movements with his lips; but it did not become spontaneously evident to him until after the complete dissolution of his muscular armor. It was not necessary to search for years for his sucking experience as an infant; he actually became a suckling infant during the therapeutic session, having the facial expression of the infant and actually experiencing the original anxieties.

The remainder of the story can be told briefly. After the dissolution of the disappointment in his mother and his consequent fear of giving himself, the genital excitability increased rapidly. After only a few days, he made the acquaintance of a young, pretty woman and made friends with her easily and without conflicts. After the second or third sexual act with her he came in beaming, reporting with great surprise that his pelvis had moved "so peculiarly by itself." On closer investigation, it was shown that he still had a slight inhibition at the moment of ejaculation. But, since the pelvis had become mobile, it was not difficult to eliminate this last remainder. What he still had to overcome was his tendency to hold back at the moment of ejaculation, instead of completely surrendering himself to the vegetative movements. He did not doubt for a moment that the contractions which he had produced during the treatment had been nothing but the *curbed vegetative movements of coitus*. However, as it turned out, the orgasm reflex had not fully developed without any disturbance. The muscular contractions in the orgasm were still jerky; he strongly shied away

from letting his neck relax, i.e., assuring the attitude of surrender. Before long, the patient relinquished his resistance against a gentle, harmonic course of the movements. Now, the remainder of his disturbance—which previously had more or less escaped attention—gave way. The hard, jerky form of the muscular contractions corresponded to a psychic attitude which said: "A man is hard and unyielding; any kind of surrender is feminine."

Following this realization, an old infantile conflict with his father was solved. On the one hand, he felt sheltered and protected by his father. He could always be sure that, if things became too difficult, he could "retreat" to the paternal home. But, at the same time, he wanted to stand on his own feet and to be independent of his father; he felt that his need for protection was feminine, and wanted to free himself of it. There was, thus, a conflict between his desire for independence and his passive-feminine need for protection. Both of these tendencies were represented in the form of his orgasm reflex. The solution of the psychic conflict occurred hand in hand with the elimination of the hard, jerky form of his orgasm reflex and its being unmasked as a defense against the gentle, surrendering movement. When he experienced the surrender in the reflex itself for the first time, he was gripped by deep amazement: "I never would have thought," he said, "that a man could surrender too. I always thought it was a female sex characteristic." In this way, his own warded-off femininity was linked up with the natural form of orgasmic surrender and therefore disturbed the latter.

It is interesting to see how the social double standard of morality was mirrored and anchored in this patient's structure. It is part and parcel of official social ideology to equate surrender with being feminine, and unyielding hardness with being masculine.

According to this ideology it is inconceivable that an independent person should be able to give himself, or that a person who gives himself should be able to be independent. Just as women — due to this equation — protest against their femininity and try to be masculine, so men fight against their natural sexual rhythm, for fear of appearing feminine. From this, the different concept of sexuality in man and in woman derives its seeming justification.

In the course of the next few months, every change in the patient consolidated itself. He no longer drank excessively, but neither did he deny himself an occasional drink on social occasions. He was able to put the relationship with his wife on a rational basis, and developed a happy relationship with another woman. Above all, he started a new kind of work and engaged in it with great interest and enthusiasm.

His superficiality had disappeared completely. He was no longer able to engage in empty talk in restaurants or to undertake anything that was not somehow of objective importance. I should like to emphasize the fact that I would not have dreamed of influencing or guiding him in any way morally. I was myself surprised by the spontaneous change in the direction of objectivity and earnestness. He grasped the basic principles of sex-economy not so much on the basis of his treatment—which had been of rather short duration anyhow—but, doubtless, on the basis of his *altered structure, his feeling of his own body, his re-acquired vegetative motility*. In such difficult cases, one is not used to success in such short periods of time. During the ensuing four years—which is as long as I heard from him—the patient continued to consolidate his gains in the form of greater equanimity, capacity for happiness and rational managing of difficult situations.

VEGETOTHERAPY†

By WALTER FRANK,* M.D.

I. HISTORICAL SURVEY.

Vegetotherapy was founded by Dr. Wilhelm Reich. It constitutes at one and the same time a continuation of Freud's psychoanalysis and a break with it, both with regard to theoretical orientation and technical development of psychotherapy. This statement calls for substantiation by way of a review of the development of what is called "psychoanalytic psychology." Somewhat schematically speaking, the development of psychology is characterized by three epochs:

1. *Psychology before Freud*. This phase is properly called the "phenomenological" period. Its field of investigation was the external psychic phenomena as they are recognizable to anyone. It registered the phenomena of the psychic surface and collected a wealth of data. Present-day psychiatry is in this period of observing and registering psychic phenomena. During the past decades, its development has been in the direction of tying together observations from the physical and the psychic realms into a "psychosomatic" concept of the organism as a whole.

The phenomenological period of psychology has provided us with a wealth of material, and probably will always continue to exist as a definite branch of investigation. But, apart from the valuable empirical material it provides, it is purely descriptive, dry, and "mechanistic."

2. *Freud*, at the close of the past century, started an entirely new epoch in psychology which represents a tremendous step forward. The most important fruits of his work are (1) the demonstration of in-

fantile sexuality; (2) the systematic investigation of the *unconscious*, a field upon which previous scientists had touched, without however, recognizing and exploring it as did Freud; (3) the introduction of a *depth psychology*, based on the discovery and application of (4) the *psychoanalytic technique* of investigation and therapy.

What interests us most here is Freud's theory of sex. With most people, including many who rate as experts, the concept of "sexuality" is limited to such sensations, reactions and actions as are connected with the genital organs. In psychoanalysis, and even more so in sex-economy, "sexuality" has a different and far broader meaning.

The sex-economic concept of sexuality is identical with that of energy, of "life energy." Our own perception of "life" is, directly or indirectly, bound up with our instinctual energy, our sexuality.

Psychoanalytic investigation, as initiated by Freud, together with modern child psychology, has opened our eyes to the fact that what in the adult manifests itself as genital sexuality has its beginnings in the infant in quite different forms.

The sexual energy, or vital energy, seeks pleasure, and it seeks it wherever it can be found. In the infant, it is attached to the functions of sucking and feeding, and to the skin, particularly certain parts of it. Later, it is extended also to the processes of defecation and urination. It is attached to the organs which participate in all of the foregoing processes: lips, tongue, throat; rectum, urethra; and various skin regions such as the palms, the face, the nipples, etc. In the adult, we find these places of early sexual gratification in the form of "erogenous zones," i.e., regions on the body surface the stimulation of which leads to genital excitation. More than that, we find adults in whom the development toward genital sexuality has been inhibited and in whom sexual gratification re-

† Translated by the Editor.

* Editor's note: This is a pseudonym. Present conditions unfortunately force us to withhold the names of our European co-workers.

mains limited to these infantile localizations.

At an early age, the infant begins to play with these erogenous zones and to stimulate them. At first, this takes place at the mouth (smacking the lips, thumb-sucking), throat and voice (babbling, shrieking with joy). Later on, the genitals are included in this stimulation, which then is called *masturbation*. The careful observer can readily notice the fact that the infant is fully aware of the increase in pleasure sensations when it shifts from non-genital to genital stimulation. The forms of self-stimulation which take place before the child begins to masturbate are called *pregenital*. They are connected mostly with the mouth, the anus and the urethra, and particularly with the functions of defecation and urination. The products of these processes, feces and urine, also arouse the child's lively interest. In adults, pregenital forms of stimulation are apt to be found as "masturbation equivalents." The pleasure sensations connected with motion can readily be seen in the infant's spontaneous and seemingly unmotivated muscular activities.

In our society, all these spontaneous expressions of infantile sexuality are more or less inhibited, because our society has a negative attitude toward sexuality. The innocent play of the child is considered "not nice," "bad" or even "dangerous"; the environment reacts to it with exclamations like "Shame on you!" or even with more or less drastic punishment. The child is brought up not according to his own drives and needs, but according to the adults' conceptions and intolerance, or according to the size of the parents' apartment. Biologically speaking, the child is born into the "wrong world," that is to say, the world of adults and not that of the child. There are in existence only a few primitive societies, matriarchates with a positive attitude toward sexuality, which can convey to us something like a biologically correct picture of how children really behave when they are allowed to develop according to their own nature, instead of on the basis of the instinctual repression imposed on them by the "adults."

Freud's most important discovery is undoubtedly that of infantile sexuality. This discovery made him study individual de-

velopment from infancy to adulthood in an entirely new light. He saw and demonstrated the individual's inner development, its mute history, that life which goes on behind the mask of external manifestations. Freud's psychology, thus, can be called a *historical, genetic* psychology. It discloses the individual's inner history in terms of the fate of its sexuality.

Freud's work ushered in an epoch which represents a revolutionary change in psychology. His observations led to an entirely new concept of human functioning. They provided the indispensable basis for a new field of investigation based on the question: What is the *source of energy* of all these phenomena? With this question, we arrive at the third epoch, the functional-economic,¹ as initiated and worked out by Wilhelm Reich in his sex-economy.

3. *Functional-economic* psychology goes an essential step farther. Just as Freud's historical, genetic psychology was a break with the previous phenomenological psychology, so does Reich's psychology constitute a break with psychoanalysis. Sex-economy has a good deal of common ground with psychoanalysis, but in its basic concept it is something new. It does not look upon "libido" as a psychic phenomenon, but as vegetative energy, identical with "life energy." In Reich's psychology, the problem is shifted to the investigation of that energy which is the motor of all the "phenomena" and "histories" disclosed by psychoanalysis.

Thus, the *problem of the neuroses* necessarily enlarges itself to include the somatic phenomena. But not in the mechanistic sense that psychic conditions affect somatic conditions and vice versa.

¹Translator's note: In the original: "*energetisch-funktionell*." Unfortunately, the German "*energetisch*," meaning "relating to energy," "from an energy point of view," cannot be rendered with "energetic" because the English word has the meaning of "vigorous," corresponding to the German "*energisch*." The word used in translating this term, namely "economic," means "relating to the energy economy."

The energy concept of sex-economy shows the neurotic symptoms, both somatic and psychic, to be specific results of an inhibition of the functioning of sexual energy; this inhibition manifests itself through whatever mechanism the soma or the psyche may make use of.

Reich arrived at his conclusions through an integration of psychological, sexological and biological investigation. In his sexological studies, the central problem was the orgasm and its energy function. Clinical investigation and experience showed him again and again that *only the normal genital orgasm can provide an adequate discharge of the vegetative sexual energy dammed up in the organism*.

In the neurotic individual, normal orgasm is never found. That means that the sex life of the neurotic is characterized by an incomplete pleasure mechanism and incomplete energy discharge. What energy is not discharged is "dammed up" in the organism; it is bound up in all sorts of somatic and psychic mechanisms, and produces disturbances in functioning, or, in everyday language, nervous symptoms.

Thus, from a sex-economic point of view, the very term "neurosis" assumes a different significance. In everyday usage, "neurosis" really means nothing but that collection of symptoms that makes the patient seek the help of the physician. The essence of the neurosis, however, lies not in these nervous manifestations, but in the disturbance of the metabolism of sexual energy. The various "functional physical disturbances" should not be merely described according to their localization and "phenomenology," but should be comprehended as somatic expressions of the damming-up of vegetative, sexual energy.

If one were to be wholly consistent, psychotherapy in the sex-economic sense should not be called vegetotherapy, but orgasmotherapy. This would express the actual goal of sex-economic therapy, which is to establish full orgasmic potency by

means of dissolving the psychic and somatic mechanisms in which the sexual energy is bound up. Full orgasmic potency is the only criterion of healthy functioning.

II. THE VEGETATIVE NERVOUS SYSTEM.

Sexual energy and sexual function are "vegetative" phenomena. The vegetative nervous system is the tangible, concrete machinery through which this energy works. A recapitulation of our knowledge, anatomical and functional, of this vegetative nervous system seems in order. I also wish to point out that the sex-economic concept of this nervous system is a functional one, in contradistinction to the concept which is still current in medicine and which is "phenomenological."

A) ANATOMY

The vegetative nervous system is represented in the central nervous system as well as in the periphery. In the central nervous system, we find vegetative ganglia in the gray matter around the central canal, from the third ventricle to the conus terminalis (the lower end of the spinal cord). The cranial part is well known anatomically. It is represented in three of the cranial nerves: oculomotor, supplying the vegetative innervation of the eye; the facial nerve, via the corda tympani for the salivary and tear glands, and the vasodilators of the face. Third, and most important, we find the nerve centers for the 10th cranial nerve, the vagus, the cranial autonomic nerve. The branches of this nerve are found in the whole body; the intestines, the glands, the blood-producing organs, the blood vessels and the heart, the skin, etc. In addition, we find various vegetative centers in the cranial part, particularly around the bottom of the third ventricle. Fibres from these centers blend with the other vegetative nerve fibres going to the various parts of the body. In the spinal cord, the vegetative cells are found in the gray matter, par-

ticularly in the lateral parts of the thoracic spinal cord, but also over its whole length.

In the cerebrospinal nervous system we find a sharp distinction between central nervous system (brain and spinal cord) and the peripheral nervous system (sensory and motor nerves). In the vegetative nervous system, there is no such distinction. Here, we find the fibres running from brain and spinal cord to one or more sets of large nerve centers. The first set of these is called the vertebral ganglia and consists of nodes arranged in pairs on the front side of the spinal column. These vertebral ganglia are connected with each other so as to form two long nerve tracts. This is the sympathetic trunk. From this, nerve fibres go off, in far larger numbers than those coming from the spinal cord. These go for the most part to another set of vegetative nerve centers, the prevertebral ganglia. Some of these are considerably larger than the other vegetative centers. The most important of these are the solar plexus, the hypogastric plexus, and, down in the pelvis, the pudendal plexus with its pelvic nerves which represent the sacral-autonomic part of the vegetative nervous system. All these vegetative centers send out fibres to all parts of the organism.

However, in addition to this continuous system of vegetative nerve centers and fibres we find another set of cells and fibres. These are the so-called juxta- or intramural ganglia, which are found in particularly large numbers in the large hollow organs such as the intestines, the kidneys, sexual organs, and the heart. These ganglia are connected with the rest of the vegetative system. But even if, experimentally or as the result of disease, they are cut off from impulses from the rest of the vegetative system, they continue to function independently, only with another rhythm. These juxta- and intramural ganglia represent the most primi-

tive autonomic function, that of the organs.

a) PHYSIOLOGY

The most important physiological characteristics of the vegetative system can be summarized in three points:

1. Functional identity of the highest and the lowest part of the vegetative system (the cranial and the sacral part). These parts together are called the "parasympathetic." Similarly, we find functional identity of those parts that originate from the thoracic and the lumbar segments of the spinal cord. These together are called the "sympathetic."
2. The antagonistic function of sympathetic and parasympathetic (cf. table, p. 70).
3. Practically all organs have a double innervation, that is, they receive impulses from both the sympathetic and the parasympathetic.

c) PHARMACOLOGY

A great number of chemical substances stimulate the vegetative system in one way or another. The most interesting and therapeutically most important are hormones and alkaloids (atropine, pilocarpine, cocaine, alkaloids of opium, etc.). Such substances have diverse effects. Some affect both parts of the vegetative system, others almost exclusively one or the other, either in the sense of stimulation or of inhibition.

In various illnesses the normal balance between sympathetic and parasympathetic is disturbed. For example, in hyperthyroidism we find a general predominance of sympathetic innervation, a "sympatheticonia"; in bronchial asthma, on the other hand, we find a "parasympatheticonia," particularly of the small bronchi. In many forms of nervousness we find that both sympathetic and parasympathetic show an abnormal sensitivity to stimuli, be they psychic or chemical.

One may attempt to re-establish the vegetative equilibrium by the administration of drugs. However, most drugs are unsatisfactory for this purpose in that their effect is not sufficiently specific with regard to the function of individual organs; furthermore, in somewhat higher doses they affect one as well as the other of the two antagonistic systems. The best results are perhaps achieved with substitution therapy in cases of hormone deficiency (such as myxedema, menopause, or diabetes).

d) FUNCTION TESTS

Such tests have the purpose of detecting changes in the excitability of the two parts of the vegetative system, or of finding out whether the "vegetative tonus" of individual organs lies within, above or below normal limits. The function tests are mechanical, pharmacological, or a combination of both.

Mechanical tests: skin tests, in which the skin is stroked in order to provoke various forms of dermatographism; pilomotor reflexes; mechanical heart reactions (Aschner's oculocardiac reflex); Shermak's reflex (pressure on the parasympathetic at the neck); pulmonary reflex ("juvenile" bradycardia, i.e., slowing of the pulse, with deep inspiration); solar plexus reflex (bradycardia with pressure on the epigastrium); Ebner's test: in the presence of parasympatheticonia, exercise results in bradycardia instead of tachycardia; etc. The *pharmacological tests* fall into four main groups: inhibition of the sympathetic (cocaine, gynergen); stimulation of the sympathetic (adrenalin); inhibition of the parasympathetic (atropine); stimulation of the parasympathetic (pilocarpine).

Unfortunately, these function tests are of relatively little value. Except for the fact that they demonstrate a greater or lesser shift in vegetotonus, they are rarely helpful either from an etiological, diag-

nostic or therapeutic point of view. Patients with an outspoken vegetative symptomatology show as a rule a generally increased vegetotonus and an increased irritability of both parts of the vegetative system (that is, both a sympatheticonia and a parasympatheticonia). Occasionally, one finds such changes limited to individual organs, so that one may be tempted to speak of *vegetative organ neuroses* in cases where the disturbance is not caused by some physical disease. The therapeutic results range from the mostly useless attempts to influence the reactions of the whole organism, to the more frequently successful surgical or medical treatment of more localized disturbances.

But in the majority of cases, such as dyspepsia, spastic constipation, cardiac neurosis, all kinds of "rheumatic" disturbances, and anxiety states with their innumerable subjective complaints and objective symptoms, the usual medical therapy is a hopeless proposition. One gets lost in a kaleidoscopic confusion of complaints and symptoms. A therapeutic measure which improves one symptom may aggravate another. One loses sight of the total picture and often gets lost in the jungle of psychic and somatic phenomena. And last but not least: the more the symptoms increase in variety and intensity, the more is the individual, the patient himself, lost sight of.

The official medical literature gives only meager hints toward a theoretical and practical understanding of the real function of this vegetative nervous system in the living organism.

III. THE SEX-ECONOMIC CONCEPT OF THE VEGETATIVE NERVOUS SYSTEM.

On the following page is a schematic summary of the effects of the two vegetative antagonists upon the various organs:

Functioning of the Autonomic Nervous System

<i>Sympathetic Action</i>	<i>Organ</i>	<i>Parasympathetic Action</i>
Inhibition of m. sphincter pupillae: <i>Dilatation of pupils.</i>	Musculature of iris	Stimulation of m. sphincter pupillae: <i>Narrowing of pupils.</i>
Inhibition of lachrymal glands: <i>"Dry Eyes."</i>	Lachrymal glands	Stimulation of lachrymal glands: <i>"Bright eyes."</i>
Inhibition of salivary glands: <i>"Dry mouth."</i>	Salivary glands	Stimulation of salivary glands: <i>"Mouth waters."</i>
Stimulation of sweat glands: <i>"Cold sweat."</i>	Sweat glands	Inhibition of sweat glands: <i>Dry skin.</i>
Contraction of arteries: <i>"Cold sweat"; pallor.</i>	Arteries	Dilatation of arteries: <i>Redness of skin, increased turgor, without sweating.</i>
Stimulation of arrectores pilorum: <i>Hair is "raised." "Gooseflesh."</i>	Arrectores pilorum	Inhibition of arrectores pilorum: <i>Skin smooth.</i>
Inhibition of contracting musculature: <i>Relaxation of bronchi.</i>	Bronchial musculature	Stimulation of contracting musculature: <i>Bronchial spasm.</i>
Stimulates heart action: <i>Palpitation, tachycardia.</i>	Heart	Depresses heart action: <i>Heart quiet, pulse slow.</i>
Inhibits peristalsis. <i>Reduces secretion of digestive glands.</i>	Gastrointestinal tract; liver, pancreas, kidneys; all digestive glands.	Stimulates peristalsis and secretion of digestive glands.
Stimulates secretion of adrenalin.	Adrenals	Inhibits secretion of adrenalin.
Inhibits musculature which opens bladder, stimulates sphincter: <i>Inhibits micturition.</i>	Urinary bladder	Stimulates musculature which opens bladder, inhibits sphincter: <i>Stimulates micturition.</i>
Stimulates smooth musculature, reduces secretion of all glands, decreases blood supply: <i>Decreased sexual sensation.</i>	Female sex organs	Relaxes smooth musculature, stimulates secretion of all glands, increases blood supply: <i>Increased sexual sensation.</i>
Stimulates smooth musculature of the scrotum, reduces glandular secretion, decreases blood supply: <i>Flaccid penis. Decreased sexual sensation.</i>	Male sex organs	Relaxes smooth musculature of the scrotum, stimulates glandular secretion, increases blood supply: <i>Erection. Increased sexual sensation.</i>

This table shows the effects of the sympathetic and the parasympathetic on some of the organs. At first glance, it seems confusing that there should exist such an element of chance in the effect of the two vegetative antagonists upon the various organs. It seems peculiar that the sympathetic, e.g., should have an inhibiting effect upon the salivary and tear glands but a stimulating effect upon the sweat glands; that it should have a stimulating effect upon the muscles that "raise the hair" and upon the heart, but an inhibiting effect on stomach and intestines; that it should stimulate the function of the adrenals but inhibit that of the kidneys; dilate the bronchi but inhibit the evacuation of the urinary bladder and the rectum, and inhibit the sexual function. The parasympathetic shows the same stimulating and inhibiting effects, but in exactly the opposite direction from the sympathetic.

In spite of a wealth of detailed investigation and description of all these phenomena, there was no plausible theoretical or practical explanation of the actual function of the vegetative mechanism until Wilhelm Reich, in 1934, published his little monograph "*Der Urgegensatz des vegetativen Lebens*." I shall give here a résumé, referring the reader to the original and the literature it is based upon.

In order to understand Reich's concept of vegetative life, one has to learn to see all manifestations of life, all the individual phenomena of psychic and somatic reactions, in the light of the basic reactions of the organism as a whole. It would seem to be superfluous to point out something so self-evident and generally known. If it is, nevertheless, pointed out intentionally, it is because there is hardly any "truth" in the world that is more thoroughly and consistently overlooked. This is so for several reasons. First of all, it is because the whole framework of our life, family, social, political and working conditions, have such a strong influence upon our

ability to recognize facts. Most people are apt to find out at one time or another that society puts blinkers on us in order that we may see only that which society wants us to see; and that it gives us blind spots in order that we may not see what it does not want us to see. Secondly, modern science, with its steadily improving technical skills, tends to become preoccupied with individual phenomena and to overemphasize them. Thus, it is not surprising that so many cannot see the woods for the trees.

Reich's postulate, as substantiated in "*Der Urgegensatz*," is simply that the only goal of the elementary vegetative life energy is that of seeking pleasure. The drive toward this goal is synonymous with "sexuality." Thus, vegetative energy is synonymous with "sexual energy."

Inhibition of the sexual function results in a damming-up of sexual energy. The energy then becomes bound up in the organism in various ways. The organism turns from something mobile, functional and dynamic into something stagnant, non-functioning and static. This locked-up, static condition of the energy is called "anxiety."

The basic antithesis of vegetative life, therefore, is to be understood as a dialectic dissociation of the elementary sexual energy into its two diametrical opposites: sexuality and anxiety.

In the two antagonists within the vegetative nervous system Reich sees the conveyors of the sexual energy in its two dialectically opposite forms: the parasympathetic is the conveyor of sexuality, the sympathetic of anxiety.

Before going further into Reich's substantiation of this postulate which at first sight may seem astounding and provocative, let us again review the two aspects of the vegetomechanism and their effects within the organism. Let us compare two otherwise identical individuals, one in an outspoken state of sympatheticotonia, the other in a corresponding state of para-

sympatheticotonia. We then get the following picture of the two individuals:

Sympatheticotonia

Pale face, staring eyes, widened pupils. Dry mouth. Cold, clammy, sweaty skin. Pallor of the body, gooseflesh. "Cold, sweat." Rapid heart, palpitation. Sexual organs, shrunk, flaccid, dry, empty of blood. Tight rectal and urinary sphincters. No sexual urge.

Parasympatheticotonia

Fresh "healthy" color of the skin in face and over body. Increased turgor in the skin, but no sweating. Eyes bright, moist; ample secretion of saliva, "mouth waters." Skin pink, warm and supple; heart and pulse quiet. Rectal and urinary sphincters relaxed. The sexual organs are filled with blood; ample secretion from the sexual glands; erection of clitoris and penis. Increased sexual urge.

Even a superficial observation of these two individuals leaves no doubt that one presents the picture of *anxiety* (unpleasure, discomfort, tension, "not being alive"), the other the picture of *sexuality* (pleasure sensations, pleasurable relaxation, "being alive"). Biologically speaking, we find that with parasympatheticotonia (sexuality) the prevailing direction of the body fluids is centrifugal, i.e., toward the surface of the organism. Psychically speaking, we find that the emotions are directed toward the outer world, toward another object. With sympatheticotonia (anxiety), we find exactly the opposite: the direction of the body fluids is centripetal, i.e., toward the center of the organism. Psychically, also, the individual retreats into himself, away from the outer world.

It may be necessary to point out that these conditions in vegetotonus represent theoretical extremes. The normal condition is based on the double innervation by the two systems, in the individual organ as well as the total organism. When a functional impulse sets in, the vegetative equilibrium shifts to one or the other side, depending on whether the impulse is inhibited in its course or not.

Take, for example, a state of sexual excitation in an individual free of any considerable inhibition, either neurotic or externally conditioned. The following vegetative phenomenon is obvious: the direction of the sexual function is toward the periphery, toward an object outside of the individual, toward the outer world. Consequently, we find a parasympatheticotonia of the surface (sex organs, skin, superficial organs in general), while the central parts of the organism, such as the intestines, bronchi and in part the heart, lack this parasympathetic preponderance and show a sympatheticotonic innervation.

The vegetomechanism is the conveyor of our primitive instinctual impulses. It is the relay between soma and psyche. Its free, untrammelled functioning is the prerequisite for the natural feeling for life, and of the immediate experiencing of psychophysical identity.

Reich termed the antagonism in the vegetative system "the basic antithesis in vegetative life." To maintain this postulate, he had to demonstrate the existence of this basic antithesis in primitive organisms which possess as yet no vegetative nervous system and in which the vegetative impulses and their inhibition are steered by mechanisms other than the human vegetative apparatus. Reich leans primarily on three investigators, whose findings meet in a natural fashion in his own concept of vegetative life. They are:

1. *Freud*, whose early works demonstrated the fact that neurotic anxiety is always due to the repression of the sexual urge (libido);

2. *Max Hartmann (and Rhumbler)* who, in their studies of the amoeba, showed that the movements of the amoeba are based on primitive plasma currents; and

3. *Fr. Kraus*, an internist, who, in his "*Nüsstheorie des Lebens*," demonstrated the effects of certain chemical substances

(electrolytes) on the whole biological system; these effects are entirely analogous to the functions of the vegetomechanism.

These three investigators, entirely independently of each other and in three different fields (psychology, biology and chemistry) arrived at results which find their theoretical foundation in Reich's "*Urgegensatz*." A single concept may easily sound plausible without necessarily being correct. If, however, the results of three different fields of investigation converge into one common theory, it becomes so strongly determined that its plausibility approaches certainty.

The following brief summary of the results of these three investigators is, of course, far from exhaustive; the reader must be referred to Reich's monograph and the literature it is based upon.

1. *Freud*: In his psychoanalytic work with nervous people, Freud was constantly confronted with the problem of anxiety. In his works dealing with anxiety, he makes the following schematic divisions: a) *Real anxiety*, caused by an actual, external, danger situation. b) *Neurotic anxiety*, which, though perceived by the individual as intensely and painfully as real anxiety, has no rational basis. Psychoanalytic investigation of anxiety showed *unconscious, forbidden instinctual impulses always to be the source of danger*. This instinctual anxiety is as real to the individual as "real anxiety" in the face of an actual danger situation. The somatic and psychic effects and manifestations are the same in either case. The only difference lies in the source of the anxiety, i.e., outside of the individual in the case of "real anxiety," within the individual in the case of "neurotic anxiety." c) *Actual anxiety ("Aktualangst")* represents the third type of anxiety. Here we are dealing with "free-floating" anxiety, the individual being unable to give any reason whatsoever for it. Freud never gave a satisfactory explanation for this form of anxiety. Reich

termed it "*stasis anxiety*"² i.e., anxiety resulting from dammed-up energy. According to Reich, it signifies undischarged instinctual tension; sexual discharge results in its disappearance, that is to say, when the capacity for full sexual discharge (in other words, orgasmic potency) is really present or established as the result of therapy. This stasis anxiety, which seems to be lacking both a motivation and a content, is of considerable interest. It is very similar to the anxiety caused by toxins, as, e.g., in the case of hormonal auto-intoxication (hyperthyroidism) or after the injection of large doses of adrenalin, etc. Like neurotic anxiety, it can be temporarily influenced by drugs. Acetylcholine (a parasympatheticotonic hormone), e.g., can reduce anxiety. That alcohol, in a similar manner, reduces anxiety and thus gives temporary relief, is a well-known fact. That its harmful effects constitute one of the most serious social problems of our times, is also well known. What is largely overlooked, however, is the motivation of alcoholism, which lies in the relationship between alcohol and sexual anxiety. From the sex-economic point of view, the problem of alcoholism is not one of a congenital "psychopathic" constitution; neither is it a purely socio-economic problem. Nor does sex-economy see the solution in the prohibition of alcohol, but, rather, in the elimination of the instinctual repression which typifies a sex-negative society.

From this brief summary of the phenomena of anxiety we can draw the following conclusions. First: anxiety may be

²Translator's note: The term "*actual anxiety*" as a translation of "*Aktualangst*" (Freud) has always been extremely unfortunate, because "actual" has the connotation of "real" and not that of the German "*aktuell*." (The same applies, of course, to "actual neuroses.") But, in addition, the original German term itself was rather unfortunate and has undoubtedly helped to maintain the eternal confusion in the problem of anxiety. Reich's term "*Stauungsangst*" ("*stasis anxiety*"), on the other hand, indicates the very mechanism of this anxiety, the damming-up, the stasis, of sexual energy.

caused by internal as well as external danger situations. *The internal danger situations always contain a sexual element.* The basis of neurotic anxiety is sexual frustration. The basis of stasis anxiety is dammed-up sexual energy. Second: As different as the causes of anxiety may be, its manifestations in the organism are always the same. Third: The common criterion of all kinds of anxiety is what has been described as sympathicotonia.

2. *Hartmann's (and Rhumbler's) studies of the ameba:* What interests us here primarily are the movements of the ameba. Hartmann distinguishes several different forms of movement. First, *external movements*, from place to place (locomotion, going after food, taking flight, etc.). These movements take place by way of putting out pseudopodia ("false legs") which the ameba uses to paddle through the fluid medium or to move along on a solid surface. If the ameba has put out several pseudopodia, and one of them touches a solid object, the ameba immediately is pulled toward that one pseudopodium which is in contact with the solid object. That is, it orients itself in that direction, while the other pseudopodia are pulled in. The ameba reacts to the various parts of the environment which it encounters. It either comes to rest in a certain place or it takes flight. As experiments show, it also reacts to many other stimuli, such as chemical, mechanical, thermal, electrical and optical stimuli. Depending upon the quality and quantity of these stimuli, the ameba reacts in one of two ways: either it seeks these stimuli (stretches toward them, orients itself toward the environment, "seeks pleasure"), or it avoids them, flees from danger, draws back into itself, "plays dead" (reaction of unpleasure, anxiety).

Second, and parallel with these external movements, one finds in the ameba *internal movements* in the form of fluid currents. As one would expect, one finds the active movements ("toward the world")

accompanied by plasma currents toward the surface of the ameba (corresponding to what in the human we call a parasympatheticotonic reaction). Conversely, the movements "away from the world," the "drawing back into the self," the assuming of a spherical shape, are accompanied by plasma currents from the surface toward the center (corresponding to the sympathicotonic reaction in man). The reader is referred to Hartmann's works for a description of the changes in plasma consistency which accompany these plasma currents.

Third, when the ameba is at rest, one finds *pulsating movements* in the form of a rhythmic alternation of expansion and contraction. These movements take place so slowly that one can observe the simultaneous fluid movements in the protoplasm. It was found that the movements of expansion and contraction are also based on these plasma currents. One finds also that when the fluid is moving from center to periphery, the thin plasma in the center (endoplasm) changes into the viscous plasma (ectoplasm) of the pseudopodia.

The movements of the ameba are accompanied by electrical phenomena which have not as yet been sufficiently studied. In all probability, the movement of expansion is accompanied by an increased surface tension and an increased electrical surface potential, while, conversely, contraction is accompanied by decreased surface tension and surface potential.

3. *Kraus' "Nüsetheorie des Lebens."* In his remarkable work *"Allgemeine und spezielle Pathologie der Person"* (1926), the internist Kraus gave an entirely new concept of the functional mechanisms of certain chemical substances on which the living organism (the "biosystem") is based. As it is impossible to give an extensive résumé of this work in a limited space, only a few of Kraus' conclusions will be mentioned here, while the reader is referred to the original.

His starting point is the fact that living substance consists essentially of colloids and mineral salts, both of which, when in solution, are electrolytes. The colloids are essentially stationary while the ionized salts circulate from place to place. The colloid solutions as well as the ionized salts consist of very small particles (the colloid particles being many times as large as the salt particles). The border surfaces ("Grenzflächen") of these particles carry electrical charges which are in constant interaction with the charge of other particles they come in contact with. He calls these surfaces "energy border surfaces." The most important ones are the border surfaces between colloid and salt electrolytes. Kraus considers the biosystem to be "a relay-like switch mechanism of electrical charge (storing of energy) and discharge (performance of work). These processes are entirely based on the phenomena of the energy border surfaces."

The life process is characterized, among other things, by combustion (taking up of oxygen and giving off of carbon dioxide), and the production of electrical energy on the border surfaces. One of Kraus' remarkable findings is the fact that the transport and distribution of substances is far more important for the maintenance of the life process than metabolism (combustion). He also showed that salt solutions are indispensable for the life process long before it has come to the development of blood. The life process itself he defines as an autonomic vegetative current, essentially a convection of fluids. He considers the organism composed of innumerable electrically charged border surfaces, and the blood system driven by the unceasing equalization of these differences in potential. The conductor between the various potentials he considers to be the body fluids, especially the ionized salts in them. He also thinks that free electrical charges move through the capillaries. The potential differences which are

equalized with these currents are located on the energy border surfaces.

With the discharge, the electrical energy is converted into mechanical energy and work. This very point, the reversibility of mechanical and electrical energy,³ is the central point in Reich's *orgasm formula*, which he considers identical with the life formula *per se*. This formula characterizes the living function as two concurrent energy processes, one of a mechanical, the other of an electrical nature. The orgasm formula is as follows: *Mechanical tension → electrical charge → electrical discharge → mechanical relaxation.*

This combination of mechanical and electrical processes is found only and alone in living substance. Reich arrived at this formula on the basis of clinical and physiological investigations of the orgasm; hence the name. It makes no difference whether one calls the orgasm an especially highly differentiated phenomenon of vegetative life, or whether one calls life an elementary orgasmic process. What matters is that either phenomenon is based on one and the same simple energy formula.

Kraus emphasizes the basic indispensability of electrolytes for all life as follows: "There is not a single manifestation of life which cannot be reduced in one way or another, directly or indirectly, in whole or in part, to the action of the ions." The following statement, coming, as it does, from a Professor of Medicine, is also of particular interest: "Most illnesses also, be they organic or functional, are based, in the final analysis, on vegetative currents."

Kraus showed that the vegetative currents are conveyed by the ionized salts (kations and anions) in the organism, and that the energy metabolism takes place essentially at the energy border surfaces. The next step in his investigations was a study of the specific effect of the individual

³Translator's note: Since this was written, several years ago, what is here referred to as bio-electrical energy has been shown to be orgone energy.

ions upon the typical vegetative functions and organs, such as smooth musculature, glands, and movements of body fluids. He succeeded in distinguishing groups of substances with a specific vegetative effect, metal salts as well as more complicated organic substances. It was further shown that most of these substances fall into two groups with an antagonistic vegetative effect: one, the potassium group, corresponds to the effect of the parasympathetic, while the other, the calcium group, corresponds to the sympathetic function. As

VEGETATIVE GROUP	GENERAL EFFECT ON TISSUES	CENTRAL EFFECT	PERIPHERAL EFFECT
<i>Sympathetic</i>	Decreased surface tension	Systolic	Vasoconstriction
Calcium (group)	Dehydration	Heart muscle	
Adrenalin	<i>Striated muscle: paralyzed or spastic</i>	stimulated	
Cholesterine			
H-ions	Decreased electrical irritability		
	Increased O ₂ -consumption		
	Increased blood pressure		
<i>Parasympathetic</i>	Increased surface tension	Diastolic	Vasodilatation
Potassium (group)	Hydration (tumescence of tissues)	Heart muscle	
Choline	<i>Muscle: increased tonus</i>	inhibited	
Lecithin	Increased electrical irritability		
OH-ions	Decreased O ₂ -consumption		
	Decreased blood pressure		

From these findings, Kraus drew the following conclusion: The effects of the two groups of substances are completely analogous to the effects of parasympathetic and sympathetic, respectively. Reich drew the further conclusion: If one does not onesidedly consider the function of the individual organs alone, one sees that the basic functions of the vegetomechanism are primitive total reactions of the organism as a whole: the parasympathetic activates the surface of the organism in the sense of an orientation toward the outer world, the sympathetic activates the center of the organism in the sense of a withdrawal from the environment.

If we now summarize the findings of these three investigators, Freud, Hartmann and Kraus, and place them within the framework of Reich's theory of the basic

far as the movements of body fluids are concerned, he found the kations and anions to have a marked effect on the processes of hydration and dehydration in cells and tissues, in the sense that the potassium group has a hydrating effect (leading to the taking up of water, to swelling), while the calcium group has a dehydrating effect (leading to the withdrawal of water, to shrinking).

Based on these investigations he shows the different effects of the two groups and their functional identity with parasympathetic and sympathetic, respectively:

antithesis of vegetative life, we arrive at the following points:

1. In the living organism, from the unicellular ameba to man, we find the basic vegetative functions to consist of two opposite movements. One is centrifugal, toward the periphery and the environment (*expansion*), the other is centripetal, away from the world, back into the self (*contraction*).

2. These movements are accompanied by corresponding centrifugal and centripetal vegetative movements of the body fluids.

3. The movements are accompanied by changes in the electric surface potential of the organism: with expansion the surface potential increases, with contraction it decreases. Similarly, there is a corresponding change in the mechanical surface tension: with expansion the surface tension increases, with contraction it decreases.

4. In primitive organisms, the vegetative fluid movements are conveyed by chemical substances with opposite vegetative effect: potassium (centrifugal) and calcium (centripetal). In organisms with a developed vegetative nervous system the impulses are conveyed by the parasympathetic (centrifugal, potassium) and sympathetic (centripetal, calcium). In the higher organisms, more complicated, chemical substances, such as the hormones, also come into play.

5. In man, the centrifugal vegetative movement is represented by a parasympathetic innervation; it is perceived as pleasure, as *sexuality*. Conversely, the centripetal movement corresponds to a preponderance of sympathetic innervation; it is perceived as "unpleasure," as *anxiety*.

If we tabulate these findings, we have the following:

Expansion

"Toward the world"

Vegetative current in the direction of periphery

Increased mechanical surface tension

Increased electrical surface potential

Functional preponderance of potassium group

Parasympatheticotonia

Sensations of pleasure

Sexuality

Contraction

"Back into the self"

Vegetative current in the direction of center

Decreased mechanical surface tension

Decreased electrical surface potential

Functional preponderance of calcium group

Sympatheticotonia

Sensations of "unpleasure"

Anxiety

It goes without saying that this table represents theoretical extremes. Normally, vegetative life consists in an oscillation, within moderate limits, between parasympatheticotonia and sympatheticotonia (i.e., rhythmical expansion and contraction).

Depending on their quantity and quality, environmental stimuli will result in a preponderance of one or the other vegetative component in the organism.

In man, this means that a pleasurable stimulus from another individual will result in a relative parasympatheticotonia with pleasure sensations and sexual urge. With this goes an increased surface tension and electrical surface potential. At a certain point, there will be an electrical discharge with a simultaneous drop in potential, and mechanical relaxation. This discharge of the increased peripheral charge manifests itself genitally as orgasm. Qualitatively speaking, the physical and chemical dynamics of the orgasm are in no way different from the elementary dynamic process which is the criterion of the living function. Quantitatively speaking, however, the orgasm, in a vegetatively healthy individual, mobilizes the maximum of vital energy; it thus becomes of necessity the exponent of the perception of life. From this point of view the fact also becomes understandable that full orgasm is experienced "functionally"; i.e., in such a way that somatic and psychic sensations of pleasure fuse into a psychosomatic identity.

The sex-economic concept of the life process provides the basis for the functional energy concept of the neuroses. This concept may briefly be summarized as follows: When the elementary vegetative function of "striving for pleasure" is inhibited, the vegetative energy takes the opposite course and manifests itself as anxiety. The energy metabolism becomes disturbed. A greater or lesser amount of sexual energy—which normally would be discharged through the orgasmic contractions of the involuntary musculature of the genital apparatus—now remains in the organism in the form of a definite excess of energy. This excess becomes bound up in the smooth as well as the striped musculature. Psychically, the energy is bound

up by the inhibition of the free and natural expression of the emotions. The connection between the psychic and the somatic immobilization of the energy is clear if one remembers that they have the same cause, i.e., one and the same inhibition.

The instinctual energy of the inhibited and prohibited wish for pleasure becomes attached to the affects which accompany the wish. The inhibited energy, instead of being dynamic, becomes static and is perceived as anxiety. If the affect is mobilized, this anxiety will accompany it. The muscle groups which should have taken part in the somatic discharge of the affect will be shown to be immobilized ("tied in knots"). They show tonic contractions, a hypertonus, which form part of the individual's characteristic attitudes, in the whole body, the face, the limbs, in motion as well as at rest.

The task of vegetotherapy is that of liberating the vegetative energy which is bound up in the muscles; this is done by eliminating the muscle tensions. It means releasing the instinctual energy of the corresponding affects. If we succeed in this, the combined dammed-up psychosomatic energy is liberated, and the block in the muscle-affect-mechanism is eliminated.

IV. THE TECHNIQUE OF VEGETOTHERAPY.

A description of the vegetotherapeutic technique presents two essential difficulties: 1. An indispensable prerequisite for an understanding as well as for the practice of this therapy is that the reader himself has undergone vegetotherapy. 2. Actual observation of the vegetotherapeutic process is equally indispensable for a real understanding of the various phenomena. If, nevertheless, I shall attempt to give a description to readers, most of whom know the theory and the technique only from hearsay, it is because I want to try to give an impression of *what* is being done and of *how* the various phenomena present themselves.

A. The first step in vegetotherapy is that of bringing into focus the characteristic muscular attitudes. These manifest themselves as static muscle tensions which give the individual his specific stamp. These muscular attitudes occur in "normals" as well as neurotics and are an expression of the individual's character. Many of the typical muscular attitudes are, with some practice, easy to discover. Others are less obvious and may escape our attention for a long time, as they are often unbelievably well camouflaged. An important approach to the discovery of these muscular tensions is the observation of the various movements. An inhibition in movements always points to the presence of static tensions. The most easily observable tensions are found in the face, the neck and the shoulders, and in the muscles involved in respiration.

B. The next step is the most difficult one: to make the patient *feel* these tensions. Some patients become aware of them immediately, others only after a long time of practice. This part of the therapy is absolutely essential, and often determines the indication and the prognosis of vegetotherapy. This process of making the patient experience his muscular tensions is really a process of developing his feeling of his own body. It is a central aspect of the treatment, inasmuch as it gets the patient into touch with his vegetomechanism, to the extent to which this can be perceived. That the patients' "perceptions" can give rise to errors and misinterpretations is understandable enough. The possibilities for a hypochondriac to misinterpret his perceptions are almost limitless. It is the task of the therapist to distinguish the essential from the nonessential; to be able to do this, he must be able to identify himself with the patient, to feel what is going on in the patient. It may sound strange that it should be necessary to have the patient "experience his own body." Yet, if we remember the system of con-

ventional forms, attitudes and automatisms into which the modern individual is pressed from infancy on, we can understand that this work of making the patient feel himself is by no means a simple task. In certain types of neurotics, with a particularly rigid muscular armor, it is extremely difficult.

C. When the patient has been brought to the point of feeling and recognizing his tensions, we begin to loosen them up. This may succeed rather easily, but it also may require infinite patience. We ask the patient to watch any impulse to motion which may accompany the tensions, and to try to "give in" to any such impulse.

Here we meet serious resistance on the part of the patient, a resistance which, so far, is analogous to the resistance so well known in psychoanalysis. The reason for this resistance is clear. When the patient lets go of a neurotic muscle tension, he gives in to a motor impulse of an affect which is systematically being kept in repression. Every mobilization of a repression is accompanied by anxiety and discomfort.

The reason for the inevitable appearance of this anxiety at a time when one tries to dissolve the repression is simple enough. The repressions have come about in the following manner. Most of the child's affective and pleasure-seeking actions meet with systematic prohibition, be this prohibition justified by "morals," "good tone," "good behavior," or simply the adults' irritation by the child's pestering. The child's first reaction to this frustration is angry aggression. Since, however, the prohibition is systematically repeated, and finally enforced with brute force or punishment, the child *must* needs give in. If the child repeats the action, it does so with a simultaneous fear of the adults' displeasure or repeated punishment. Thus, the child represses the very impulse which urges toward the action. Later on, the mere wish to repeat the action will in itself, in the manner of a conditioned reflex, produce anxiety. It is these repressions which we find

somatically anchored in the muscular tensions. If we dissolve them, or if some special circumstances in everyday life lead to a breaking through of the repressed affect, anxiety is bound to appear.

It is in this way that neurotic anxiety is provoked by our technique. Very rarely does the patient readily admit this anxiety, and quite often he denies it. "That's not anxiety, I'm just feeling sick, I'm just stiff, it's just a pain," one hears frequently from patients. We have to remember that many patients consistently repress their anxiety, just as they repress any other unpleasant psychic perception. We must, therefore, think of anxiety in terms of physiology, that is to say, a state of sympathicotonia.

If the picture of sympathicotonia is kept in mind, it is readily observed in the patient, and we are not led astray by the fact that the patient does not consciously perceive his sympathicotonia as anxiety in the psychic sense. Some patients, out of fear of the anxiety which is about to be released, hold on strongly to these somatic tensions. However, as a rule, they can be readily dissolved and rarely lead to symptoms of any considerable duration. Other patients let the affective impulse break through much more quickly, often instantaneously. Then we have a real vegetative release of the muscular tension. The immediate effect of this release varies greatly. Purely physically, it is always experienced as pleasurable, "relaxing," "warming," "stimulating." If the psychosomatic correlation is relatively well established, as in hysteriform cases, the breaking through of the affect is accompanied by very definite psychic reactions. These appear with the sudden perception of pleasurable sensations and are often accompanied by the appearance of early memories. These memories often go very far back into childhood and are often described in a peculiar way, i.e., not as "adult," conscious memories with their almost photographic reproduction. Much

more frequently, they are described in connection with the part or parts of the body in which the tension is being released. Thus, this process of recollection might be correctly called "*organ memory*" in many cases. The memories of later childhood, however, may be more distinct, more of the type of our general memories.

This point, the reproduction of memories, brings up an important problem. The original psychoanalytic formulation of the mechanism of therapy was this: Unconscious infantile experiences are made conscious through the treatment. As they become conscious, the anxiety and discomfort connected with them are abreacted and the complex thus loses its pathogenic power. But when subsequent experience showed that in many cases no amount of reproduced memories had the hoped-for therapeutic effect, the theory was modified to the effect that, in order to bring about the psychoanalytic dissolution of the complex, the affects attached to the memory also had to be reproduced.

Vegetotherapy shows clearly why a dissolution, even though it *seems* to produce both memory and affect, nevertheless may not bring the expected result. It enables us to distinguish what are only seeming dissolutions from the genuine phenomena. This distinction one is unable to make unless one has become acquainted, through personal experience, with one's own mechanisms of escaping the very real anxiety brought about by the dissolution of the tensions. Such mechanisms as tensing one part of the body which had previously been relatively relaxed, at a time when a tension in another part of the body is being released, is just one of these escape mechanisms. While, with the relaxation of one part of the body, genuine, verifiable memories are produced, and while a great amount of affect seems to be released, *the real vegetative energy is being bound up in another part of the body*. That is to say, the energy is not

being released. What happens is simply that the tension temporarily shifts from one place to another. With that, there may be a symptomatic improvement of a certain "complex," of some specific fear, but the feeling of liberation that goes with a genuine release is absent.

The explanation is simple. Unless the vegetative energy which is bound up in the tension is liberated by way of a genuine release of anxiety, we do not achieve subjective or objective dissolution of the tension. *It is the liberation of the energy—no matter whether one calls it vegetative, sexual, or life energy—which causes the lasting relaxation, the real cure of the symptom.* The criterion of genuine relaxation is easy to recognize, both objectively and subjectively: the respective part of the body becomes more "alive," both in its appearance and in its functioning; the patient perceives it as "really belonging to his body." Generally speaking, the patient has a feeling of definite relief, of stimulation, of mobilization of energy. This corresponds to the fact that he does have more free vegetative energy at his disposal in the organism.

These releases take quite different forms in the various character types. In emotionally labile, hysteriform types, we find rapid and often violent reactions. The experiencing of the anxiety takes a dramatic course, infantile memories and situations are released in great numbers. In other patients, with predominating compulsive character traits, the release takes place more slowly and gradually. It is as if the patient himself were parceling out the anxiety and its release in small portions. Incidentally, in the course of this treatment one finds that the usual differentiation of character types according to their outward appearances in hysterical, compulsive and neurasthenic types, etc., essentially loses its value as a "classification" of character types. *An energy concept of the neuroses makes the neuroses appear as*

the result of a damming-up of vegetative energy which becomes bound up in this way or that, by this or that mechanism in the organism. From a *character-analytic* and *vegetotherapeutic* point of view, it is a matter of finding out *how* a patient behaves in his reactions, symptoms, complaints, etc., and *where* the somatic manifestations are and can be influenced. During the treatment, that is, with the dissolution of the different mechanisms which bind the energy, we also see frequently how one character type changes into another.

The therapeutic handling of the respiratory function is a chapter in itself. The significance of respiration for health has always been recognized. There are all kinds of "systems" for the influencing of the respiratory function, from occult sciences to our present-day gymnastics and methods of training the singing and speaking voice. What all these systems have in common is that they doubtless convey a certain feeling of the body. What is wrong with them is that they all place a one-sided emphasis on the acquisition of certain isolated skills, be they psychic or somatic. Such systems are of necessity artificial, because by their very nature they take into account only a fraction of the phenomena which one observes in the process of establishing normal respiration, and because they completely ignore the anxiety reactions which are therapeutically so important.

The aim of vegetotherapy, as far as respiration is concerned, is the establishment of natural, free respiration as it is found in vital, vegetatively healthy people. In situations where the affects can be expressed naturally, the respiratory function will participate, qualitatively and quantitatively, according to the nature and the intensity of the affect. In situations where free emotional expression is impossible, the respiratory function can be utilized for the deliberate suppression of the affect.

The most common objection to vegetotherapy is that it intends to turn people into uninhibited beings, driven by their unbridled instincts. The objection is as stupid as it is incorrect. What vegetotherapy really attempts to do is to free people from their de-vitalizing unconscious inhibitions, and to liberate their vegetative, sexual energy so that it is completely at their disposal when the situation asks for it and when the individual wishes it.

It is not the free-flowing affect or energy which turns people into ineffective neurotics and into criminals. The affect which is free seeks its normal gratification in a rational manner. No objection can be raised to this. On the other hand, the repressed affect, the inhibited energy, seeks its gratification in irrational ways; instead of flowing freely, it squirts out through cracks in the armor. It never results in real satisfaction of the natural needs. All the talk about "lust," "unbridled instincts," "man is better than the animal," "sex is not everything," etc., etc., is based on a peculiar but extremely deep-seated belief that free instinctual energy of necessity must lead to ethical, moral or social disturbances.

This concept, as widely accepted as it may be, is completely erroneous. Free, healthy instinctual activity is right, pleasurable and stimulating. It is the inhibited drives and the distorted affects characteristic of our sex-negative society which are the "immoral" and "dangerous" forces that make people into neurotics and into reactionary mummies. They are the reverse, the anxiety side of the inhibited instinctual energy; they represent, in their manifestations as well as in their effects, the diametrical opposite of natural, biological energy.

Often enough, the patients themselves, particularly hysteriform patients and patients with outspoken anxiety, point out difficulties in breathing: "I don't get the air in properly," "I'm going to choke," "I can't let the air all out," etc. It is easy to see that they breathe stiffly, not freely, that they breathe out, not in "one even breath," but in steps, as it were; or they breathe with a mechanical uniformity, the varying

psychic states not having any influence whatsoever on the respiratory function.

A great many patients, however, are completely unaware of the inhibition of their respiration; it seems to them that their breath comes evenly and naturally. They are asked to breathe naturally and at the same time to look for any inhibitions of the respiratory function they may become aware of. The subjective experience of the patient together with the objective observations of the therapist guide the procedure. There are three main mechanisms of respiratory inhibition: 1) chronic hypertension of the abdominal musculature; 2) the diaphragm is tense and sluggish in its movements; 3) the upper part of the thorax is tense, expanded and takes part insufficiently in the respiratory movements. At the same time, the muscles in the shoulders, jaws, neck, tongue and throat are almost always hypertonic. It goes without saying that in the search for these tensions one also discovers other tensions which are connected with these mechanisms.

In order not to lose myself in details, I shall only point out that the work on these respiratory inhibitions is one of the most important aspects of the whole therapeutic procedure. It is absolutely necessary to restore the normal respiratory function at least to such an extent that the patient acquires the ability to let it take part freely in his emotional reactions. The free respiratory movements lead, in an amazing manner, to the establishment of psychosomatic contact; the patient now distinctly feels the somatic component of his emotions. The affects also begin to have more and more of a "reality" character. That is, the affect is no longer something vague, distant and pale, that one talks about. The patient recognizes it as what it really is: an energy which presses for discharge in action.

Observation of children and adolescents shows that the inhibition of respiration is

one of the very first muscular mechanisms employed in the inhibition of affective impulses. It is for this reason that just this inhibition very often proves to be the one that has become most automatic, and is the most easily overlooked and the most difficult to eliminate. At the same time, as I shall point out later, it is the most important one to overcome.

While trying to dissolve the tensions in various parts of the body, one always works simultaneously on the respiratory function because the inhibition of the respiratory function helps to maintain other tensions, and, conversely, the freeing of the respiratory function helps in the work of dissolving them. When anxiety, through inhibition of respiration, threatens to hinder the further dissolution of a muscle tension and with that the liberation of the bound-up vegetative energy, continued respiration will bring about the dissolution. It is in this way, by forcing himself to breathe through in spite of the resistances, that the patient can help the therapeutic process along. This may sound strange. Yet, if we remember that the patient's anxiety works steadily against the dissolution of the tensions, we understand that the work represents a long drawn-out job which requires a great deal of patience on the part of both patient and therapist.

D. Up to now I have discussed some of the elementary aspects of the technique which were mostly diagnostic and to some extent "analytic" in character. The patient as well as the reader will raise the question: Suppose we recognize these vegetative phenomena, we recognize them as genuine affective phenomena, and we can more or less verify the memories that come up. Suppose, furthermore, that an increase in energy is both subjectively felt and objectively substantiated. Thus far, all that has been discussed is muscle tensions and their dissolution. But the goal of therapy is supposed to be the establishment of orgasmic potency. How does that

come about? Does it come about by itself, incidentally, as it were, or does it require a special treatment of the sexual problem?

I shall attempt to summarize the observations with which vegetotherapy has provided us, and shall show why the therapeutic goal is that of establishing orgasmic potency.

In the course of the treatment, a certain orientation gradually takes place in the patient's sex life. Generally speaking, neither direct sexual therapy (such as "masturbation therapy") nor counsel in sexual hygiene can straighten out serious neurotic disturbances, even though sometimes considerable symptomatic improvement may be achieved. But the improvement, if any, is of a superficial nature, and it is only in light cases, especially in very young people, that real improvement can be achieved.

Vegetotherapeutic experience presents a very different picture. In the process of relaxing the respiratory muscles and the abdominal wall, patients often relate that the relaxation stops at the pelvis. For the time being, we can assume that the somatic basis of genital malfunctioning is the tension in the pelvic musculature. These tensions reduce or make impossible the perception of the vegetative sensations in the pelvic organs, and disturb the orgasmic function.

At a certain stage of the process of loosening up the respiratory function and the abdominal wall, a peculiar phenomenon occurs. The patient notices an impulse to motion in the diaphragm, which results in contractions of the whole abdominal musculature as well as the large lumbar muscles. While these movements are taking place, the abdominal wall is extremely hypersensitive, so that the movements can be induced by touching the abdomen ever so lightly. These jerk-like movements in the abdomen often continue for a considerable period during the same session; they occur in a typical manner at a cer-

tain point in the expiratory phase once this has been "loosened up." Either immediately or only after some time, these contractions are accompanied by peculiar feelings of current, of warmth, of tickling. They are also described as shuddering sensations in abdomen, body and limbs. These currents, which are nothing but the pleasurable perceptions of primitive vegetative currents, may occasionally run from the diaphragm over the whole body, limbs and head. In the places where they occur, the patient has an increased awareness of his body and an increase in impulses. There is a feeling of warmth, slight trembling and a feeling of "coming alive" in the respective parts of the body. Neurologically, there is a marked hyperactivity of the skin-, periost- and tendon reflexes.

As this abdominal reflex and the accompanying vegetative currents develop further, new sensations make their appearance in the pelvis and the sexual organs. With that, the patient becomes aware of the tensions in the pelvic musculature, particularly in the sphincters of bladder and rectum. As these are dissolved and free respiration and the perception of currents develop further, a sexualization of the genitals takes place. It is astounding to see how this sexualization is experienced as a "coming alive" of the whole sexual mechanism. The sensations of pleasure become both different and more intense. The musculature in body and limbs becomes more relaxed and the movements in general become softer.

Finally, the whole organism begins to participate in the impulse which originates from the epigastrium. With the dissolution of the various muscle tensions and the corresponding anxiety manifestations, the body movements finally take the form of natural coitus movements, the patient giving himself over completely to the situation. Patients relate that the impulse to the movements originates from the depth of the epigastrium, from the solar

plexus, although there is as yet no physiological proof of this.

Thus we see that the releasing of the vegetomechanism leads to the re-establishment of a biological reflex which most modern individuals have "forgotten": the orgasm reflex. That is to say, simply, that the movements of the sexual act have an autonomic vegetative basis. It means that any voluntary coitus movements inhibit and weaken the vegetative autonomic impulses and the intensity of the vegetative currents. It means that conscious activity in the sexual act constitutes an inhibition of the biological act. We thus understand that the "normal orgasm," as an expression of the maximal discharge of vegetative energy, requires a maximal reduction of "normal consciousness."

I am fully aware of the fact that such a frank discussion of sexuality, which to the individual represents the most secret and intimate part of his personality, must arouse resistance, in many quarters abhorrence. It is impossible to anticipate all the objections, representing as they do, a multitude of points of view: the moralistic, ethical, esthetic; that of parents, physicians, patients, "educated people," of "the average normal individual," and other "know-it-alls."

The purpose of sex-economy is the scientific investigation of the problems of sexuality. It cannot give in to the objections that this or that person or group may have to the form or the content of its findings. The main thing is to present the facts as they can be observed. A sober and objective evaluation of the facts, based on the concept of sexual energy, must be the point of departure for a discussion of the subject. I shall only make a few general remarks with regard to some of the most commonly raised objections:

1. *Orgastic potency as the therapeutic goal.* To postulate orgastic potency as the goal of therapy, undoubtedly sounds one-sided, "sexually monomaniac," even though

every human being who feels in himself the lack of this quality, longs for it and seeks it more or less openly.

It is all not as simple as it sounds. As was said before, direct "sexual" therapy hardly ever leads to any satisfactory results. The goal of vegetotherapy is the liberation of the vegetative energy which is bound up in the neurosis. If correctly carried out, this leads to the elimination of the neurotic symptoms and to the establishment of orgastic potency. Thus, the latter is a result; but the therapeutic significance of this result is so decisive that it can be called the goal of therapy. Biologically speaking, orgastic potency is the criterion of vegetative health; therefore, from this standpoint also, its establishment can be considered a goal.

2. The "moral" objections, either on religious grounds or couched in professional, ethical, esthetic or other terms, are all based on the conventional sex-negative attitude of our society. In one way or another, practically everyone raises such objections, because practically everybody has gone through a sex-negative upbringing. These objections derive much support from religion and the passive reactionary attitude. The sex-negative attitude permeates all of society, no matter whether it manifests itself in the absolute "Thou-shalt-not" morality of the church, or in the liberal formulation of "sexuality is not everything in this world."

Sex-economy states that a healthy sexuality is a function which is indispensable to a full realization of an individual. It provides happiness and capacity for achievement, to individual and society. On the other hand, inhibited and unbalanced sexuality distorts the character and gives the individual's thinking and actions the stamp of compensation and substitute.

3. "Sublimation" of instinctual energy, many will object, is one of the most important cultural factors; our very culture is partly based on sexual repression. How-

ever true this argument may sound at first, it is erroneous, because it is based on false premises. Sublimation is supposed to consist in a utilization of the repressed sexual energy for higher, cultural aims. Examples are pointed out of artists, scientists and poets, with the easy explanation that the economizing of their sexual energy by abstinence made possible their extraordinary achievements.

If we consider the subject from the energy point of view, the absurdity of such reasoning becomes readily apparent. Most people, when they speak of "sexuality," mean genital sensations and activity. It is assumed, then, that the husbanding of sexual energy will result in a plus in life energy which becomes available for achievement in work.

In contrast with this, sex-economy, and particularly vegetotherapy, demonstrates the fact that sexual repression binds energy, immobilizes it in various parts of the organism, and thus makes the individual neurotic. This applies to every single individual with sexual repression. Under these circumstances, most people, endowed with an average amount of vital energy, will present the picture of an average, "normal" or more or less neurotic individual. Those relatively rare individuals who are constitutionally equipped with a vital energy above average, will occasionally manage to express their energy in creative production *in spite of* their sexual inhibitions. That is to say, sexual repression immobilizes energy, and through the resulting neurotic mechanisms, makes unhampered achievement impossible. Sublimation only demonstrates the fact that rare individuals who are equipped with an extraordinary amount of vital energy may be extraordinarily productive in spite of possible sexual inhibitions.

4. One of the main objections, raised readily and frequently, is this: "Suppose we let our instincts go—what a chaos of ever-changing love affairs, what an inferno

of lasciviousness and debauchery would break loose!"

This objection has several causes. For one thing, we read every day about sex crimes, committed by sexually abnormal individuals. The usual explanation by reference to a congenital, constitutional defect does not hold water. Psychoanalysis, and even more so vegetotherapy, of perverse individuals shows that most of such perverse tendencies are the result of a sex-suppressing upbringing. The perverse sexual acts are the expression of an amount of sexual energy which could not be repressed and which now, in a distorted form, breaks through the armor of prohibition. Therapeutic experience always demonstrates also the specific environmental factors which produce this or that form of sexual abnormality.

Secondly, the sexually inhibited individual has erroneous concepts with regard to all the horrors which would break loose, such as promiscuity, a life of hedonism and debauchery, etc. The reason for these concepts is clear. The sexually inhibited individual suffers from dammed-up sexual energy which does not find discharge. This dammed-up sexual energy leads inevitably to an increased sexual phantasy-life which creates and maintains in the individual the feeling—more or less conscious—that a "free sexuality" would result in boundless, chaotic sexual expression.

In reality, things are quite different. The sexually healthy individual will give himself to a congenial partner and establish a satisfactory relationship. In a healthy sexual relationship, the sexual demands are determined by the individual's natural erotic demands.

In a normal relationship, one gives to sexuality what is due to it, and one gives to work and other vital activity the rest, and that means not the smallest part of the vital energies. Free sexuality means nothing but the individual's capacity to satisfy his natural sexual needs. This is

everybody's natural right. It should be the duty of society to enforce this right.

The establishing of the orgasm reflex gives the patient a steadily increasing feeling of vitality and energy. The freer, i.e., the less laden with anxiety it is, the more does the patient feel himself capable of functioning sexually. The urge for sexual release will lead to a possibly lasting relationship or will pave the way for one. The improved sexual functioning gives a steadily increasing feeling of normality, and the need for treatment diminishes. The relationships with the environment enter a new phase. The patient becomes more secure, begins to depend more on himself. To what extent this new, independent attitude will lead to a change in the patient's circumstances depends entirely on what these circumstances are. The problem as to whether an existing marriage should be maintained enters a new phase. It goes without saying that in the new situation a continuation of the marriage may be impossible. On the other hand, a more frequent outcome is that a problem marriage can be pulled out of its conflicts which were largely due to the patient's neurosis.

The treatment approaches its natural conclusion. The conclusion of the treatment is determined by the simple fact that the patient no longer needs it. He feels alive, sexually normal, capable of independent action and of working. The actual difficulties and conflicts of life now present themselves as what they are, not neurotically exaggerated as they used to be. The patient leaves the treatment as a natural, healthy being. The neurotic character has been altered, the energy is withdrawn from neurotic self-occupation and is directed toward the outer world, its tasks and work.

E. Comments: This summary of vegetotherapy may appear alluringly simple. It should be remembered that this article presents no more than a schematic bird's-eye view. All the various phenomena do

not appear neatly one after the other like pearls on a necklace. Every single dissolution of a tension may take a long time. Every energy-binding muscle tension has its psychic equivalent in the corresponding character resistance. Often, one has to postpone the dissolution of a tension for a long time, until the parallel character-analytic work on the resistance opens the possibilities for further dissolution of muscle tensions. Generally speaking, vegetotherapy and character-analysis go hand in hand. One-sided somatic dissolution of tensions without corresponding psychic reactions is a half-measure at best, even though it may lead to the improvement of many symptoms (such as insomnia, constipation, various manifestations of anxiety). A deficient psychosomatic contact must be regarded as a neurotic symptom, a "split," the chief function of which is that of avoiding the latent anxiety. Without a genuine break-through of anxiety, one achieves no real release of the affects, no real liberation of energy.

Also, the vegetotherapeutic treatment has to be seen as stretched out over a considerable time, often several hundred hours. Furthermore, the present article gives a picture of the course of the treatment in favorable cases; the difficulties one encounters, particularly in some almost hopelessly rigid cases, belong in another article. The method is new, even though its theoretical basis is firm enough. The therapist's individual ability to find his way through the difficulties depends on his capability for empathy.⁴ Every new case brings new experiences. Every hour the therapist is confronted with the problem of whether he is dealing with genuine liberation of energy and affect, or with pseudo-affects without release of anxiety.

⁴Translator's note. This high-sounding Greek word seems to be the only one that renders the original: "Einfühlungsvermögen," meaning, literally, the ability to "feel oneself into another person."

This is the crucial problem, and the decisive point in the process of changing the neurotic character into the genital character.

Another problem is that of the risk involved in vegetotherapy. It has often been pointed out that the dangers of releasing the affects and instinctual impulses are a weighty argument against vegetotherapy. I should like to emphasize this risk very strongly. By far the most important prerequisite for the practice of vegetotherapy is that one has oneself undergone the treatment. The therapist must know the various reactions from his own experience, he must know exactly how the genuine release of energy takes place, he must have rid himself completely of any escape mechanisms and any swindling with pseudo-affects. Only this self-experience will give him the ability to evaluate the patient's reactions, will give him an ability to identify himself with the patient which can be relied upon. Only these qualities will enable him to evaluate his observations correctly, will sensitize him

to any alarm signals which may indicate dangerous situations.

A third problem is that of the durability of the results. In view of the fact that vegetotherapy as a self-existent therapy is no older than three to four years (this was written in 1939—Translator), it is, of course, impossible to present any sizable statistics. However, in the relatively small number of patients whose treatment has been concluded, the therapeutic results seem to be well consolidated.

Prognostically, a lasting result is assured, inasmuch as the establishment of orgasmic potency, if successful, gives the individual an increased self-confidence, energy to stand on his own feet, increased activity and enjoyment in work. On the other hand, his liberated sexuality makes higher demands on the patient, both with regard to himself and his environment. What results we have, however, seem to fulfill the goal toward which all psychotherapy strives: to give full capacity for love and for complete absorption and enjoyment in work.

REVIEWS

THE CARDIOVASCULAR SYSTEM IN PUBERTY

OSSINOWSKY, N. I.: Herz-Gefäßsystem in der Pubertätsperiode. Acta paediat. 28, 1940, 56-58.

The following complaints are very common in puberty: palpitation, oppression and pain around the heart, breathing difficulties, fatigue, irritability, headache, and tendency to sweating. These complaints may be of short or long duration.

The outstanding objective symptom among these patients, whom the author consistently calls "children" although he explicitly considers them as going through puberty (10 to 17 years old?), is acrocyanosis. The extremities feel cold; they seem pre-edematous, and often there is a slight edema over the shins. Often there is a rigidity of the radial and temporal arteries which may lead to the misdiagnosis of arteriosclerosis. In most cases there is marked red dermographism. The heart is often slightly enlarged, especially to the left; there are accidental heart murmurs, respiratory arrhythmia and split heart sounds. Most frequently, the blood pressure is abnormally low (90-105 mm) and the X ray picture suggests a mitral heart. The electrocardiogram shows most often a shift to the left, sometimes to the right, and a high T wave. Less often the blood pressure is increased (121-135 mm). The Ekg. "had very much the character of the infantile Ekg." (Reviewer: Is the Ekg. also characterized, through life, by vegetative suppression?).

These patients are often hospitalized with the diagnosis of valvular disease or some other organic heart disease. Functional tests show changes in the peripheral vessels. These explain the arterial rigidity and the pre-edema. The enlargement of the heart can be explained by a high fixation of the diaphragm; orthodiagraphic examination showed no cardiac enlargement. The high T wave is also found in sympathicotonia. Functional heart tests revealed no abnormality.

After a study of the literature, the author reaches the conclusion that the syndrome is

due to neuro-endocrine factors, although "anatomical and constitutional as well as environmental factors must also be taken into consideration." The neuro-endocrine changes he ascribes to sexual hormones. It is noteworthy that organic heart disease—congenital as well as acquired—shows a critical aggravation during puberty. *The syndrome is found in about 50% of all the "children,"* in girls somewhat more often and more marked than in boys. As a rule, all the symptoms disappear after puberty.

Reviewer's comment: What strikes me as almost fantastic is the fact that one can find all these symptoms and not only find a connection with the functions of the sexual glands but even state that it is a matter of a tendency to "switch from a sympathicotropism to a vagotropism condition"—and still not take into consideration the individual's life and sex life. The author realizes, though, that it is not just a matter of the "intensity of puberty," but that other factors play a role. There is no doubt that all the phenomena he describes are readily explained by a strong vegetative breakthrough which is—more or less strongly—inhibited. The vegetative breakthrough as well as its inhibition are typical phenomena of puberty. Of particular interest is the finding that the Ekg. is very similar to that of the infant. The explanation for the author's unrealistic way of looking at things lies perhaps in his considering these individuals as children. In only one place in the bibliography is a distinction made between children and "adolescents." The author does not state definitely what age group is meant; but from his discussion of an investigation of vascular rigidity in the age groups of 7 to 10 and 10 to 17 one gains the impression that he is dealing with the latter group.

PAUL MARTIN

ANXIETY AND SEXUAL ORGANS

STIEVE, H.: Nervös bedingte Veränderungen an den Geschlechtsorganen. Deutsche med. Wochenschr. 66, 1940, 925-928.

REVIEWS

Stieve reports on anatomical studies of the gonads in criminals of whom he knew that they had spent the last period of their lives in a state of intense anxiety, often in constant flight from the authorities. They all stated to have had a "normal" sex life previously.

Autopsy revealed the following: Small testicles with narrow tubules. The epithelium of the tubules was often found reduced to one single layer. Correspondingly, marked reduction of spermiogenesis. Sertoli's cells normal, strongly secreting. In women: menostasis, absence of corpora lutea. Disappearance of follicles and particularly of egg cells.

Stieve concludes: "These findings show that in the male as well as the female gonads, *severe anatomical alterations* can be brought about by *anxiety and excitement*, i.e., in the last analysis, through the influence of the nervous system. These alterations are found primarily in the *gonadal cells* and result, in man and woman, in a *sterility* of shorter or longer duration. We are thus justified in speaking of a *psychically conditioned, anatomically demonstrable sterility*." (Italics are the reviewer's).

These findings would seem to illustrate, in an unusually clear manner, Reich's thesis of the basic antithesis of sexuality and anxiety (W. Reich, "Der Urgegensatz des vegetativen Lebens," 1934).

PAUL MARTIN

EXPERIMENTAL CONFIRMATION OF RESPIRATORY INHIBITION

A. J. ANTHONY UND M. BROGLIE: Grundriss über die Begrenzung der Zwerchfellbewegungen. Klin. Wochenschr. 18, 1939, 1126-1127.

"... Systematic examinations of patients with pneumothorax revealed the factors which regulate the expiratory and inspiratory positions of the diaphragm (Anthony). It was shown that in patients with double pneumothorax there is no marked reduction of the residual air, although in these patients the mechanical conditions are given for an expiration which goes as far as the complete

collapse of both lungs (Anthony and Mumme). Furthermore, the fact was demonstrated that after the induction of a pneumothorax, the thorax volume may increase as much as 2 to 3 liters. These studies show that the position of the lungs influences the thorax volume by way of the nervous system; it results in an inhibition of the respiratory movements.

Summary: The X ray kymogram shows that, after maximal inspiration, definite diaphragmatic movements take place, without a change in the lung volume. These movements of the diaphragm are accompanied by antagonistic movements in the thorax wall. The corresponding conditions are observed with maximal expiration. In these diaphragmatic movements, we are dealing not with so-called pseudoparadoxical, but with genuine paradoxical or antagonistic movements.

These observations show again that in maximal inspiration and expiration the thorax wall and the diaphragm have a relatively wide range of excursion. They confirm the view that the voluntary respiratory movements are not limited by mechanical factors. In this connection, reference is made to recent studies which show that the voluntary respiratory movements can be inhibited by the lung through nervous influences."

Reviewer's comment: After full inspiration or expiration, there is still a free motility of all the respiratory muscles: thorax, diaphragm and abdominal musculature. (Although the authors, in their summary, do not mention the fact that this applies also to the abdominal respiratory muscles, it is plainly evident from the body of the article.) The only limitation in the motility of the muscles lies in the fact that now (after full inspiration or expiration) they can only be moved in a manner which does not involve further inspiration or expiration. In vegetotherapy, we have to deal with these mechanisms of respiratory inhibition all the time. We know that the inhibition of expiration is due to the fear of giving oneself, while the inhibition of inspiration serves the purpose of preventing an intensification of the vegetative functions.

PAUL MARTIN

SEXOLOGY

TAUBER, EDWARD S.: Effects of castration upon the sexuality of the adult male. *Psychosom. Med.*, January 1940.

On the basis of a rather extensive review of the literature, Tauber finds that "a wide variety of sexual responses, including apparently normal ones, was observed following castration." This would seem to confirm the view which sex-economy has held for a long time, namely, that the sexual function is a basic biological function and, therefore, relatively independent of individual mechanisms such as the gonadal function.

It is of interest to note that 5 out of the 30 bibliographical references are to works of Wilhelm Reich. Unfortunately, they do not seem to have conveyed any grasp of sex-economy. The author makes specific reference to "Experimentelle Ergebnisse über die elektrische Funktion von Sexualität und Angst" and the finding of a "close relationship between sexual gratification and electrical potential. If the sexual performance is gratifying there is a rise in potential. In the absence of gratification or in the presence of anxiety, there is a diminution of electrical potential."

This is—with the exception of the reference to anxiety—a complete misunderstanding. These experiments of Reich have nothing to do with "sexual performance." What Reich did show was that the sensation of pleasure, specifically, the pleasurable excitation of erogenous zones, is accompanied by an increase in surface potential, while all other excitations, such as anxiety, pain, fright, annoyance or depression, are accompanied by a decrease in the surface potential of the organism.

T. P. WOLFE.

"CHARACTER-ANALYSIS"

ALEXANDER, FRANZ: "The Voice of the Intellect is soft . . ." *Psychoan. Rev.* 28, 1941, 12-29.

Quoting Freud's statement that "the voice of the intellect is a soft one but it does not rest until it has gained hearing," Alexander comments (p. 12): "There are few state-

ments which pertain more closely to the central problem of analytic therapy—indeed to the essential problem of man—the guiding influence of the intellect over the impulses, the struggle between Dionysus and Apollo . . . Once a clear insight is reached, it is impossible to get rid of it completely. The study of painful dreams has shown us that even in our dreams, where wish-fulfilment rules, we cannot get rid of the voice of our conscience." (Note the identity of "insight" and "conscience.") "One can well describe the analytic therapy as a continuous struggle of a patient against insight which the analytic work is constantly bringing about (p. 13)." This is illustrated by fragments from the history of a patient who is introduced as follows:

"The patient was a forty-year-old man, happily married, the father of two children, who came to the analysis with a complaint, somewhat unusual for a man of his age. He came to my office with tears in his eyes, complaining that *nobody loved him and he felt isolated in life*. From time to time this feeling took the form of real depressions . . . His life was more or less uneventful and smooth and yet he stated he had *never been happy for one moment in his whole life* from early childhood . . . Characteristic of this patient was that his suffering, although intensive and permanent, was not known to his environment. He had a "poker face" and kept his suffering to himself. On some occasions, however, tears would roll down his cheeks *but even then his face did not contort but remained calm and expressionless*." (P. 14. Italics, throughout, are the reviewer's.)

Alexander then discusses the "process by which, slowly, but progressively, intellectual insight gains more and more foothold." "The whole end-phase of the analysis can be described as that under the pressure of insight the neurotic conflict situation becomes more and more circumscribed and isolated from the rest of the personality. I like to refer to this phenomenon as a process of *sequestration* (p. 20)." After a discussion of this process of sequestration, of the therapeutic significance of "sequestration dreams" and "pseudo-sequestration dreams," Alexander states: "Viewing the analytic procedure as such a struggle between deeply penetrating

intellectual insight and ingrained emotional patterns, the technical questions of termination of treatment appears from a new angle (p. 26)." He points out that psychoanalytic therapy originated from cathartic hypnosis, and that the analyst has not entirely rid himself of the concepts of the cathartic period (i.e., rapid improvement or cure through the abreacting of pent-up emotions). "In a character analysis as it is practiced at present," he continues, "we visualize the therapeutic process quite differently. Insight becomes deeper, more and more comprehensive, slowly enforcing its verdict, until the emotional patterns yield and its components are gradually forced into new more satisfactory combinations. This process has no sharply limited termination. The patient does not get up one day from the couch cured. *Therefore it is difficult to form an opinion as to when this process should be terminated* . . . Such methods as the microscopic study of dreams and the careful evaluation of the patient's feeling tone, offer valuable leads to decide when a long character analysis should be terminated." (P. 27. Italics are the reviewer's.)

We do not take issue with Alexander's concepts of psychoanalytic theory and practice. The sole purpose of this review is to make clear one thing: that what Alexander describes here as character analysis is *not* character-analysis. To make this distinction clear is all the more indicated inasmuch as Alexander's is not just a private opinion, but the opinion of a teacher of psychoanalysis and director of a Psychoanalytic Institute.

Character-analysis is a technique developed by Wilhelm Reich and taught by him for the past fifteen years. Alexander knows that, because he is familiar with the psychoanalytic literature and with the history of psychoanalysis, including that of the Vienna Technical Seminar where Reich began to develop the concepts and technique of character-analysis; he is also familiar with Reich's refutation of the theory of the death instinct and the fact that the clinically correct comprehension of many pathological manifestations which were erroneously explained by the death instinct played an important role in the early development of character-analysis.

Character-analysis is not, as many still be-

lieve, a mere technical modification of the customary symptom-analysis and interpretation analysis. Its development has led to basically different concepts and a basically different technique. In particular, in the course of the past seven years, the finding of the functional identity of character armor and muscular armor has resulted in the development of character-analytic vegetotherapy, i.e., a technique of liberating the vegetative energies from the character armor and muscular armor. The character-analytic concept of character, thus, is not psychological, but biological.

I shall try to point out some of the basic differences between what Alexander calls "character analysis" and what *is* character-analysis. To begin with, to us, it means what it says: analysis of the character. Thus, to take Alexander's case, the most striking aspect to the character-analyst would be what Alexander himself describes as "characteristic" of this patient: he had a "poker face" and kept his suffering to himself. Sometimes, tears would roll down his cheeks but even then his face did not contort but remained calm and expressionless. To Alexander, this finding seems to have no practical significance. The character-analyst would recognize this lack of expression as one of the patient's outstanding characterological and physiological mechanisms of repression, and, by dissolving it, would liberate repressed affects. Incidentally, the character-analyst would not consider anybody "happily married" who feels that nobody loves him and that he is isolated in life.

The strength of psychoanalysis is that the voice of the intellect is permanent (p. 12). The strength of character-analysis, however, lies in the fact that it has found the character armor to be the essential means of keeping affects in repression, and that it has developed a technique for dissolving this armor and thus liberating the biological energies which are bound up in it.

To Alexander, the therapeutic process consists in a process of gaining intellectual insight. The character-analyst knows that intellectual insight has hardly any therapeutic significance; more than that, he knows that intellectual insight is a powerful mechanism of defense on the part of the patient against

any emotional contact with his own conflicts and with the therapist. Unless this insight is unmasked as a defense and eliminated, the patient, after years of treatment, may be completely unchanged except for having added to his neurosis a fluent psychological vocabulary which, it is true, may make it possible for him to talk about his neurosis now instead of feeling it.

To Alexander, the central problem of analytic therapy is "the guiding influence of the intellect over the impulses (p. 12)." In character-analysis, the central problem is, on the contrary, that of liberating biological energy from repression and to restore to the patient his vegetative—and with that his intellectual—motility.

To Alexander, "the violence of the resistance is the sign of the intensity of the pressure exerted by insight (p. 14)." To the character-analyst, the violence of the resistance is a sign of the pressure of repressed vegetative sensations and instinctual drives. To the character-analyst, repression and resistance are biological, not psychological processes.

To Alexander, "the only encouragement the therapist has lies in the fact that no matter how soft the voice of intellectual insight is, it is indelible (p. 14)." To the character-analyst, the only encouragement lies in the fact that behind all the characterological rigidity and falsity, behind all the defensive conventional veneer, behind all the antisocial impulses, lies hidden a simple, genuine, human decency, a natural sociality and natural capacity for love; and that his technique enables him to liberate this bit of nature of which the patient has become afraid.

To Alexander, a humorous attitude seems to be an understanding attitude and a sign of progress in the course of therapy:

"The hour was filled with an oscillation between tearful longing for love and a humorous and understanding attitude toward his own childishness. His tears were a mixture of those of a longing child and of an adult who looks with some humorous resignation upon the past golden days of childhood. Humor requires the capacity of looking at something which deeply concerns us from a certain distance. This emotional attitude can be observed in children, when they desperately weep over the loss of a toy or being reprimanded

or some other little tragedy of their life and are consoled by an understanding adult, who tries to point out to them that they are taking the adversity too seriously, that such a 'big boy' or 'big girl' should not be so childish. The smile between tears which appears on their faces, like a sun breaking through dark clouds, is the first indication that they begin to accept a more mature conciliatory, in fact humorous attitude and are ready to laugh about their own childishness (p. 20)."

To the character-analyst, "looking at something which deeply concerns us from a certain distance" is a defense. He is constantly confronted with the patient's attempts to "view things from a distance" (e.g., intellectually, frivolously or humorously) and with the task of breaking down these defense mechanisms in order to make the patient establish contact with himself. An "understanding adult," to the character-analyst, is not one who points out to a distressed child that it is "taking the adversity too seriously." An adult, e.g., who has undergone a character-analysis, is *incapable* of telling a child that "such a 'big boy' or 'big girl' should not be so childish." He takes the child's distress seriously, because he has emotional contact with the child. He knows that children never are "ready to laugh about their own childishness"; that, if they seem to, they have taken over an unnatural attitude imposed on them by the "adults" who cannot stand or understand the intensity and spontaneity of the child's feelings—because they have lost it themselves—and thus call it "childish." The character-analyst knows from therapeutic experience that when children begin "to accept a more mature conciliatory, in fact humorous attitude and are ready to laugh about their own childishness," they have relinquished their natural, spontaneous reaction and vegetative motility and have begun to acquire those false character traits which we later, in the therapy, meet in the form of such defensive character attitudes as "taking nothing seriously," "laughing everything off," or "minimizing any feeling by calling it 'childish.'" He knows that when a patient looks "with some humorous resignation upon the past golden days of childhood," he is repressing something which is far from humorous. The patient is trying to avoid the painful realization of how enormous was the loss he

suffered as a child: the loss of natural responsiveness and a natural feeling of himself and nature around him. But only if and when the patient fully experiences this loss, in the course of the treatment, does he become aware of his emotional emptiness and vegetative deadness, his lack of real contact. As long as he avoids this awareness, by a humorous, intellectual, superior or some other defensive attitude, he is also unable to overcome his emptiness.

To Alexander, the most critical phase of an analysis is that in which the patient's "struggle between resistance and insight reaches its height (p. 14)." The crisis in a character-analysis occurs when the patient's orgasm anxiety reaches its height, when spasms of the musculature prevent intense pre-organic excitations from taking their normal course. It is the point where the patient either has to let go entirely of his bodily inhibitory mechanisms and to allow the involuntary contractions of the total body at the acme of the sexual act to occur, or to fall back into his neurosis.

Speaking about the terminal phase of the analysis and the device of correctly timed interruptions, Alexander says: "The patient and unfortunately sometimes even his analyst are still waiting for some more or less dramatic ending—the turning up of an old missing memory or the violent expression of hostile impulses or something the like (p. 28)." Exactly this "waiting technique" was shown, in the early days of the Vienna Technical Seminar, to be one of the most prevalent expressions of technical helplessness, and thus became one of the starting points of Reich's character-analysis. In character-analytic vegetotherapy, the appearance of memories is not left to chance or verbal associations; because the affect appears *before* the memory and contains it, one is never in doubt as to whether the memory really belongs to a certain affect; thus, there can be no "old missing memory," but only unresolved resistances the dissolution of which will bring forth the memories; further, because of the systematic treatment of the negative transference—also one of the first technical principles evolved in the Vienna Seminar—one gets the violent expressions of hostile

impulses in their logical place and sequence, and does not have to "wait" for their coming about by chance.

Finally, and understandably enough, Alexander "finds it difficult to form an opinion as to when this process [of 'character analysis'] should be terminated." He must look for "leads" to decide when "a long character analysis should be terminated." "The appearance of the above described type of frank and simple sequestration dreams with their latent content in sharp contrast to the improved objective behavior, is a helpful sign that the analysis has entered its final phase, particularly if such dreams occur together sometimes with a feeling of strangeness at other times with a humorous mood (p. 27)."

The character-analyst, in compensation for a much harder job during the whole course of the treatment, does not have these terminal difficulties. His therapy has a well-defined goal and equally well-defined criteria of cure. The goal is that of establishing orgasmic potency; to attain this goal, all the defensive mechanisms of the character armor and the muscular armor have to be dissolved. With that, as the patient overcomes his orgasm anxiety, the neurotic character changes into the genital character. The changes in the patient's actions and reactions, his way of experiencing his body and his whole environment; the occurrence of genuine pre-organic and orgasmic sensations, his ability to surrender to the involuntary vegetative sensations and bodily contractions in the sexual act; the disappearance of neurotic character traits such as evasiveness, cowardice, emptiness, wordiness, spitefulness, etc., and of the corresponding muscular attitudes and the vegetative deadness; the establishment of rational relationships and rational work and the ability of the individual to give himself fully, in love as well as in work; all these things are so obvious to patient and therapist alike that any artificial criteria of cure are entirely unnecessary. The character-analyst simply terminates the treatment when the patient is well; he considers the patient well—as the patient feels himself well—when he has lost the neurotic character and has established orgasmic potency.

I wish to repeat that I have not the slightest

intention of criticizing Alexander's concepts. Only because he calls his procedure "character analysis" have I tried to show that his concepts and practice *have nothing whatsoever to do with character-analysis*. Everybody is entitled to make his own bed of concepts; *he* has to lie in it; *he* must bear the responsibility for the therapeutic consequences of his concepts. But he is not entitled to give his bed

our name. We sex-economists and character-analytic vegetotherapists take the full responsibility for our concepts and our therapeutic technique. It is part of this responsibility not to allow anybody to apply the name of "character analysis" to any procedure which is not character-analysis as we understand and practise it.

T. P. WOLFE

SEX-ECONOMY AND MEDICINE

ILL-ADVISED SURGICAL PROCEDURE

A young man of 28 came to this country as a refugee. He had been separated from his wife for several years, not knowing where she was. His depressed mood and financial insecurity kept him from establishing new contacts. In the course of a few months, he developed an inflammatory enlargement of the epididymis¹ which finally grew to the size of a plum and became increasingly painful. He consulted a physician who made the diagnosis of tuberculosis of the epididymis and sent him to a surgeon. The surgeon recommended operation. The patient was unable to raise the money for it. In his desperation, he confided in a friend who happened to know a sex-economically trained physician.

The sex-economist found that the patient,

¹ Roughly speaking, a part of the testicle.

unable to find a sexual partner, had been living in sexual abstinence for more than a year, while previously he had had sexual intercourse regularly. It turned out that the enlargement of the epididymis was nothing but a result of *seminal stasis*. After the fact was established that the patient had no neurotic inhibitions with regard to masturbation, he was advised, first, to achieve relaxation of his genital apparatus by this means. In the course of two weeks, the enlargement of the epididymis disappeared almost completely and the patient became free of pain. Shortly afterwards, he found a suitable sexual partner.

The idea of an operation was given up. It would have been a serious medical blunder, caused by the ignorance of a simple physiological fact on the part of the patient as well as that of the surgeon.

THE "DANGERS" OF SEXUAL INTERCOURSE

A man of 35, married three years, was suffering from high blood pressure. His wife was "nervous." When they went to see a physician, they were advised not to have any sexual intercourse, because, as the physician said, "intercourse increases the blood pressure, which may have all kinds of dangerous consequences." In other words, the physician confirmed in this stasis-neurotic patient his fear of the orgasmic sensations.

Exercising all their will power, the two people abstained from all sexual activity. In the man, the blood pressure increased further, and the woman developed a severe obsession.

The physician made a serious mistake. He should have found out, first of all, whether the sexual disturbance was due to a superficial ignorance of sexual functioning, or due to a deep-seated neurotic fear. In the first case, appropriate advice might have been

sufficient to eliminate the sexual inhibition, to make adequate genital functioning possible for the couple and thus to save the man from his hypertension and the woman from her neurosis. In the second case, deep-reaching psychotherapeutic measures would have been indicated.

However, this physician was as ignorant of the connection between high blood pressure, nervousness and sexual stasis as were the patients themselves. In medical school he

had learned nothing about it, nor had he read anything about it in medical journals. If he attended psychoanalytic lectures, he did not hear anything about stasis symptoms either. Perhaps he believes in the treatment of hypertension by surgery or drugs. The ignorance of a simple medical fact kept him from functioning correctly as a physician. Instead of eliminating the patients' fear of "the dangerous consequences of sexual intercourse," he corroborated it.

CORRESPONDENCE — NOTES

This Journal presents a subject which—its long history in Europe notwithstanding—is essentially new to the American reader. It will undoubtedly raise numerous questions. We greatly welcome questions, comments and criticisms from our readers, and will do our best to answer them. They will be answered individually and—if they are of general interest—in this column. Please write to the Editor.

For information concerning training at the Institute for Sex-economy and Orgone Research, apply to the secretary, Dr. Theodore P. Wolfe, 401 East 56th Street, New York City.

WILHELM REICH: The Function of the Orgasm

Sex-economic problems of biological energy

(THE DISCOVERY OF THE ORGONE, VOLUME I)

Translated by Theodore P. Wolfe

TRANSLATOR'S PREFACE

INTRODUCTORY SURVEY

I. BIOLOGY AND SEXOLOGY BEFORE FREUD

II. PEER GYNT

III. GAPS IN THE THEORY OF SEX AND IN PSYCHOLOGY

1. "Pleasure" and "Instinct"
2. Genital sexuality and non-genital sexuality
3. Psychiatric and psychoanalytic difficulties in the understanding of mental disease

IV. THE DEVELOPMENT OF THE ORGASM THEORY

1. First experiences
2. Supplementation of Freud's theory of the anxiety neurosis
3. Orgastic potency
4. Sexual atasis: the source of energy of the neurosis

V. THE DEVELOPMENT OF THE CHARACTER-ANALYTIC TECHNIQUE

1. Difficulties and contradictions
2. Sex-economy of anxiety
3. Character armor and dynamic layers of the defense mechanisms
4. Destruction, aggression and sadism
5. The genital character and the non-genital character. The principle of self-regulation

VI. A BIOLOGICAL REVOLUTION THAT MISCARRIED

1. The prevention of the neuroses and the problem of culture
2. The social origin of sexual repression
3. Fascist irrationalism

VII. THE BREAK-THROUGH INTO THE VEGETATIVE REALM

1. The solution of the problem of masochism
2. The functioning of a living bladder
3. The functional antithesis of sexuality and anxiety
4. "What is 'biopsychic energy'?"
5. The orgasm formula: Tension → charge → discharge → relaxation
6. Pleasure (expansion) and anxiety (contraction): basic antithesis of vegetative life

VIII. THE ORGASM REFLEX AND THE TECHNIQUE OF CHARACTER-ANALYTIC VEGETOTHERAPY

1. Muscular attitude and bodily expression
2. The abdominal tension
3. The orgasm reflex: a case history
4. The establishment of natural respiration
5. The mobilization of the "dead pelvis"
6. Typical psychosomatic diseases: results of chronic sympatheticotonia

IX. FROM PSYCHOANALYSIS TO BIOGENESIS

1. The bio-electric function of pleasure and anxiety
2. The theoretical solution of the conflict between mechanism and vitalism
3. "Biological energy" is atmospheric (cosmic) orgone energy

GLOSSARY TABLE OF EVENTS INDEX

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IRRATIONALISM IN THE FIGHT AGAINST SEX-ECONOMY

I. BIOPHYSICAL FUNCTIONALISM AND MECHANISTIC NATURAL SCIENCE*

By WILHELM REICH, M.D.

Editor's note: The following article was written in November 1941, as if with a presentiment of what was going to happen shortly afterwards. Dr. Reich had not intended it for publication at this time. Now, however, after the incredible incident of Dr. Reich's arrest, this article may well serve as an introduction to a series of articles about similar irrational incidents which happened in Europe and about which nothing has as yet been published.

On December 12, 1941, at two o'clock in the morning, Dr. Reich was routed from bed by three agents of the FBI (Federal Bureau of Investigation), arrested, and taken to Ellis Island. He was given no reason for his arrest. He thought he was merely going to be questioned and would be released within a few hours. However, he was held at Ellis Island for over three weeks, not being released until January 5, 1942.

In reality, Dr. Reich's arrest had nothing to do with the simultaneous arrest of some 600 "enemy aliens." The FBI had investigated Dr. Reich's "case" for a considerable period of time prior to his arrest. We knew that. These investigations made it clear that there was not the slightest reason for suspicion against Dr. Reich as an "enemy alien," "subversive element" or whatnot. Neither Dr. Reich nor any of his co-workers or acquaintances would have dreamed of the possibility of his being arrested as an "enemy alien"; his pro-American feelings and his previous activities as a democratic anti-Fascist and anti-Stalinist were a matter of record and widely known. Evidently, his arrest was the result of a denunciation on the part of some overzealous opponents of Dr. Reich's scientific work who were too cowardly to come out against him in the open field of scientific discussion. This is nothing new. It had happened more than once in Europe that such individuals had run to the police, though an arrest had never occurred. It seems that the secret police, in understandable ignorance of Dr. Reich's work (although the writer had spent the better part of two hours in an attempt to explain its principles to the responsible FBI agent) were at a loss as to which of the groups, if any, that were considered inimical to the state they should put Dr. Reich in; yet, in spite of a complete lack of any evidence against him, they were unable to take the responsibility of leaving him at liberty.¹

* Translated from the manuscript by the Editor.

¹ The public seems to have been aware of the real state of affairs, to judge from the following story which circulated in New York: "They didn't know what to make of it, so they arrested Reich together with his laboratory mice."

Of course, Dr. Reich would have been only too glad to answer any questions that any agent of the secret police might have asked him: on the subject of the "structural anchoring of a mechanistic civilization," on the "relationship of the discovery of the orgone energy to mysticism," on "the irrational content of the Fascist theory of race" or about "work democracy." However, he himself was never questioned previous to his arrest. At the hearing before a board, at which Dr. Reich was questioned by the District Attorney, it was perfectly clear that there was nothing to incriminate him; it was equally clear that nobody took seriously the question as to whether Dr. Reich was "a paid agent of Moscow." In other words, his arrest was clearly a matter of a mistake, of an irrational whispering campaign. It was impossible to find out who the informers were, since there is no legal way of getting at such people.

On October 20, 1941, when an FBI agent came to question me about Dr. Reich, he asked me not to tell Dr. Reich about this investigation. I told him that we had nothing to hide, so why should they? I told him, further, that it was to be expected that certain people would spread rumors about Dr. Reich, as had happened in Europe, and that—for this reason—we were only too glad to give the FBI *the facts*. Unfortunately, I was right in these expectations, but—even more unfortunately—I was wrong in believing that to give the FBI the facts would mean anything from a rational point of view. Thus it becomes necessary to dispel the veil of the "dangerous" and the "mystical" which from many sides has been spread around Dr. Reich and his work—if for no other reason than to reduce, if possible, the danger of having incidents of this kind recur. It is mainly for this reason that Dr. Reich has agreed to let me publish the following article at this time.—T. P. W.

The following presentation of the mechanistic concept of life is based on the author's experiences in Europe, a Europe which was to undergo Fascistic degeneration. Mechanistic concepts in biology usually go hand in hand with biological mysticism. Mysticism will fill in the gaps which a mechanistic concept of life of necessity leaves open. Biological mysticism is celebrating bloody triumphs in the Fascist theory of race. Every single threat to sex-economic biology has stemmed from the Fascist camp and from the Fascist ideologies of various circles. The comprehension of life on the basis of a functional natural science would be the most dangerous enemy of the Fascist emotional plague; for it sees the function of life as the *safeguarding* of living functioning instead of as pathological sadistic warfare. The battle between brutal biological mysticism and biological functionalism was raging in Europe long before the Hitlerian era. Most likely, this battle will also be

decided in Europe. America—except for the prevailing race prejudices—seems as yet hardly touched by this subterranean conflict concerning the comprehension and guidance of living functioning.

The investigation of biological energy encountered not only the obscurities of the life problem itself, it also ran, again and again, into the most peculiar reactions on the part of physicians, psychoanalysts, biologists, physicists and others, reactions which at first glance seemed to be nothing but an expression of the general negative attitude of the world toward new discoveries.

The archives of the Orgone Research Institute contain numerous documents concerning such reactions, the significance of which cannot be discussed in this context; they are open to examination by anyone who is interested. It will remain for future historians of science to shed light on the dangerous indecencies which I experienced. They range all the way

from breach of faith, defamation, and deprivation of financial support to political denunciation and attempts to have me deported on the part of so-called "authorities" and "guardians of the law." In spite of all this, two decades of hard work resulted in the discovery of the biological energy and in the confirmation of my findings.

It would be so much simpler to explain away the hostility toward our work by pointing out that "it has always been that way." Was not every important discovery disavowed, disregarded or fought by its contemporaries? Was not suffering always the lot of scientific pioneers? Were they not always decried as charlatans, frauds or psychopaths? To bow to what seems an inevitable fate would seem understandable indeed.

However, such reasoning is more than dubious. Why is it, one must ask, that the sciences, instead of participating in new discoveries and instead of *learning something new*, continue to endanger research work in new fields and often succeed in destroying it? Up to now, it has always been left to later generations to blame "narrow-mindedness," "jealousy" or "profit interests" for such occurrences. One might think that it would be possible to gain such insights *in time* instead of afterward; that it would be possible to take a *decent* attitude toward contemporary discoveries.

There is an element of derision in the fame which is heaped on courageous pioneers at a time when their exhausting struggle is long past, when they have ceased to suffer and the fruits of their struggles have become the easily acquired property of all. This recognition, late as it always is, is motivated much more by profit interests than by the desire to do better in the next case of pioneer work, that is, to help it along in its difficult stages rather than to endanger it. There is no consolation in the sadistic commiseration

which later generations bestow upon the broken pioneer. The very same characters who as contemporaries interfere with pioneer work are the ones who later—after others have won the fight—pick the easy fruits.

The malicious attitude of so-called "authorities" and "critics" during these years of hard struggle has revealed a similarity and a significance which are too important to go unmentioned.

Let us imagine that a stone, lying there on the ground, would suddenly begin to move, to expand and contract. The involuntary reaction to such a phenomenon would be horror and fright, similar to that at the unexpected sight of a poisonous snake. True, the object of any new discovery is in itself "alive," i.e., it functions; but to the eye of the average observer it is invisible, rigid, unalive. The discovery consists in the fact that one makes the invisible visible, the seemingly immobile mobile, the rigid functioning, the non-living living. Understandably enough, bion research had to experience this reaction of horror on the part of an unsuspecting world with particular force. For what it demonstrated was exactly the fact that high temperatures change inorganic material into "energy vesicles" or "bions" with a life-like motion; that, in other words, life can owe its existence to fire. That is, the actual facts are not at variance with the picture of the stone that begins to stir.

To the physician or teacher practising vegetotherapy it is a banal everyday fact that the human is the only living species who has smothered autonomic life in himself with cultural illusions and a mechanistic civilization and thus has removed it from consciousness and cut it off from natural activity. This is why the human of today, in spite of his innate longing for a knowledge of the living function, is characterized by a tremendous fear of the pulsations of life within himself. Clinical

observation shows us again and again the fear of the vegetative plasma current, in other words, the *fear of the involuntary* which dominates the human of today. The elimination of this fear is one of the main tasks of our medical and pedagogical work. The knowledge of this fear puts the motives which are commonly adduced for the malicious and indecent behavior toward new discoveries in a new light: they become immaterial and secondary. In reality, *the irrational reactions toward a new discovery are nothing but a manifestation of the enormous fear of the motility of that which is not perceptible to the senses or which seems immobile.*

The basic contradiction in the biologically rigid human—his longing for knowledge of living functioning and his simultaneous fear of it—explains the contradiction in his attitude. Humans expect the paradise for which they long to be brought about immediately and without effort. As nobody, of course, can do this for them, they react with disappointment or bitter hatred. We, the workers in sex-economy and orgone research, are met with deep anxiety and with a degree of defensiveness which gives food for thought to the psychiatrist. Our interest in the continuation and consolidation of our work demands that we try to understand these human reactions and try to find means of dealing with them. Of course, we cannot find consolation in the expectation that our work will "somehow and some day" find general recognition. Our work is neither of the other world, like that of the church, nor of some distant future, as people would like to see it; no, it has its roots in contemporary life, here, today, and in a practical way. We do not intend to wait until, fifty or a hundred years from now, the existence of the orgone may finally be conceded. It is up to us, and not to any so-called "authority," to see that the existence of the biological energy is recognized.

Our work suffers, further, from the fact that the humans who are alienated from natural sexuality believe they see in us an affirmation of their own lasciviousness and perversity. Thus, they meet us with a peculiar mixture of curiosity, bad conscience and a fear of being put beyond the pale of "good society" by contact with us. We did not, indeed, create the sexual chaos, the sexual smut and pornography; actually, we fight it vigorously; but we have to bear the consequences of the fact that the human being of today, sexually enslaved as he is, cannot distinguish genuine, natural love from secondary, perverse instinctual activity.

The fact that our biophysical research derives from the elucidation of the function of the orgasm constitutes a major difficulty. True, every single individual knows or has at least an inkling of the fact that "love" is a fundamental natural phenomenon in the realm of living functioning. But can we imagine that a member of the French Academy of Science would take an address on the disturbances of potency in man and woman as seriously as an address on electrons and protons? It is very unlikely that he who would succeed in mastering the sexual and psychic misery of the human beings of today could ever become a member of any of the existing Academies. No doubt, the electrons and protons are extremely important, but my contention is that what people expect of responsible scientific bodies is the solution of the problems of their disturbances of potency, of their marital and family difficulties, the problems of how to bring up their children, how to experience nature, etc. There is no doubt: the fear of living functioning also distorts thinking in the realm of scientific investigation. It is relevant to point out here that Freud, the founder of scientific psychology, did not receive the Nobel Prize, a distinction which is unhesitatingly bestowed upon every average discoverer in the fields of

physics or chemistry. Yet nobody will doubt for a moment that Freud's contribution to humanity is infinitely more important and deep-reaching than the electronic theory. The conclusion is inevitable that these highly esteemed electronic theories, in addition to their rational function, have another function: to divert people from those things which are closest to their hearts and—truly—to their genitals. Physics and chemistry regard themselves as "pure" sciences, having nothing to do with such "filthy" things as sexual emotions. As a result, we see metaphysics and pornography flourish side by side.

Imagine an animal breeder who, instead of cleaning his stables every day, would busy himself with spraying perfume toward the sun. He would rightly be called crazy. But that is exactly how our society behaves. During the Rococo period, people were not in the habit of bathing. The resulting body odor was covered up with perfume which at that time was a bit of inviolable custom. Nevertheless, there were then as yet no wars on the later mass scale. The custom of the compulsive participation of whole populations in the war disputes of sovereigns is a "product of civilization" which we owe to a—quite unjustifiably—glorified corporal named Napoleon. Since then, the cultivation of human brutality has—in spite of all the cultural talk—not decreased, but considerably increased. This brutality, together with the neuroses, psychotic tendencies, cancerous putrefaction of the tissues, constipation, perversions, murderous impulses, etc., is covered up by a ritualistic make-up in dress, cosmetics and behavior. This highly cultivated make-up however, cannot cover up the stench of the psychic pestilence. It reeks through the make-up and shows in spite of it.

The behavior of our society toward its body odor is no different from that of the people of the Rococo period. It glorifies flights into the stratosphere but does not

allow the Augean stable to be cleaned which poisons everyday human life. He who, instead of meditating about space and time, undertakes to clean this stable or even suggests ways of doing it, is called crazy.

It is an old story. It is older than the ancient Greeks whom we consider the bearers of a flourishing culture: Anaxagoras was accused of heresy and imprisoned, because he dared to deny that the earth enjoyed a privileged position among the planets. Socrates was condemned to death. Plato, in order to escape the same fate, spent many years in exile. Aristotle, his pupil, who was to determine thinking for two thousand years, was accused of heresy and condemned to death; he died in exile. Diagoras was condemned to death for denying the existence of the Gods. Protagoras was exiled from his country and his writings were publicly burned. Prodikos was executed for his contention that the Gods were the personification of natural forces.

It was no different two thousand years later. Giordano Bruno, who fought for scientific knowledge and against astrological superstition, was condemned to death by the Inquisition. It is the same psychic pestilence which delivered Galileo to the Inquisition, let Copernicus die in misery, made Leeuwenhoek a recluse, drove Nietzsche into insanity, Pasteur and Freud into exile. It is the indecent, vile attitude of contemporaries of all times. This has to be said clearly once and for all. One cannot give in to such manifestations of the pestilence.

But these "academic" attitudes—it would be more correct to call them panic reactions—have bitter consequences for their bearers. Since natural love and the autonomic life process are fundamentally identical, the exclusion of sexual problems from the scientific academies has completely blocked the approach to the central problems of natural science. Pathology

and medicine suffocate in mechanistic detail work on the *dead* organ and do not get at the living functioning of the organism—for this functioning smacks of sexuality. True, physics and mathematics have devised cosmic systems; but the orgone energy which we breathe, which flickers in the sky, which is at the basis of the sexual act, which explains the phenomena of biogenesis and which in all likelihood will dissolve many of the physicists' cosmic phantasies into nothing, this energy has been overlooked so completely that one must ask oneself how it was at all possible. Our academicians feel so loftily removed from the living function, their language has become so complicated, so much out of the world, so unrealistic, vain and basically untrue that they have completely lost all contact with the real life process. More than that, they function like a machine which has been designed for the special purpose of *preventing*, by all means, the investigation of the life process.

For this reason, scientific youth feels dissatisfied and insecure. Every simple, unsophisticated and decent mortal, as can easily be demonstrated, is quite well acquainted with the fact that cancer is the result of the ruinous effect of civilization on the autonomic life function. But to thousands of cancer researchers, the fact that cancer is a process of putrefaction in the blood and the tissues seems too banal, too simple to be recognized. Year in and year out, millions of dollars are spent on highly complicated experiments and theories which have no other purpose than that of keeping hidden the simple fact that the cancer cell is a protozoon which develops from biologically spastic and suffocated tissues. Today, almost at the middle of the 20th century, decades after Freud discovered unconscious psychic mechanisms, surgeons attack the brain with the knife in order to "influence psychic functions." More than forty years

ago, cardiac neuroses were clearly recognized to be the result of dammed-up sexual excitation in the organism. Yet, even today, reputable physicians prohibit sexual intercourse to patients with cardiac neuroses, on the erroneous assumption—which only confirms to the patient his neurotic phobia—that sexual intercourse in the presence of hypertension is "dangerous." In brief, medicine and natural science pass by the living, the human included, and are bogged down—all high-sounding talk and all boasting notwithstanding—in the morass of mechanistic thinking of the pigeon-hole variety.

Considering the magnificent technical means at the disposal of natural science, the living functions would have been discovered long ago were it not for the embarrassing fact that they are identical with the natural sexual function, were it not for the fact that the idea of God is identical with the orgasmic excitation in the autonomic life system, and the fact that the neuroses are a universal pandemic in the form of pathological character formations. Even in the latest edition of the *Encyclopædia Britannica* the word "orgasm"¹ is still conspicuous by its absence.

¹ *Translator's note:* If one looks up the word in standard dictionaries, one finds, for example, the following (italics are mine): "Immoderate or extreme excitement or behavior" (Funk & Wagnall's Desk Standard Dictionary); "Eager or immoderate excitement or action; esp., the culmination of coition" (Webster's Collegiate Dictionary); "Eager or immoderate excitement or action; the state of surgescence of any organ; erotism (excessive irritability); esp., the height of venereal excitement" (Webster's New International Dictionary).

In other words, orgasm is defined as an abnormal phenomenon. This is entirely logical because the average individual in our society is orgasmically impotent, and what is "average" is commonly considered "normal." The definition shows clearly that what is considered an orgasm is sexual excitation and not its release. This again is quite logical because the orgasmically impotent individual knows only sexual excitation (which, in him, as a result of sexual stasis, is always "immoderate") while the orgasmic release of tension is unknown to him.

though, undoubtedly, it gives rise to dirty jokes at cocktail parties or in after-dinner talk. Vacuous merchants of science and politics still dare to poke fun at Freud. Biology of the 20th century has devised highly complicated formulae which are incomprehensible to any mortal; but in no textbook on protozoa can there be found as much as a mention of vegetative movement and contraction, for they are suggestive of the orgasm reflex. The reason why so many physicists and biologists are religious in the bad sense of the word is that—in spite of all their academism—they are, deep down, not satisfied by their work. The Indians who thrust their sick people into the ground to get the effect of the life energy contained in the soil have more contact with life and its dependence on natural processes than does our whole pharmaceutical industry.

Such facts could be enumerated indefinitely. I do not mention them because I believe that I can change them in any way. I mention them for the sole reason that it is exactly these ossified, mechanistic, unalive, life-alienated academicians who assume the role of "authority," who behave as if they were qualified to judge the validity of bion research and the sex-economic theory of autonomic functioning. After the first encounters with this science paralyzed by panic, I had to explain to my co-workers that there are no authorities in our field, that nobody can presume the right to criticize us without having first studied the material. All these things would hardly be worth mentioning were it not for the fact that neurotic representatives of this kind of science have tried to endanger and destroy our laborious work. Where objective argument fails, they resort to rumor. They are curious, but they take pains to avoid straightforward and simple contact with my laboratory and go asking questions of others instead. It is a fact that Norwegian "authorities" sent emissaries to Malinowski

in London, to Bonnet in Paris and to Du Teil in Nice, in order to find out what on earth I was doing. They could have reached my laboratory in Oslo by a fifteen minutes' journey on the streetcar. Nevertheless, there is ample interest, and it shall not be disappointed. The only way in which I can counter indecent behavior is by setting the facts into focus.

The attitude of the various organizations of scientific specialists toward our work is extremely confused. The psychiatrists seem unable to establish contact with the biological foundation of their own field of work. It seems as if psychiatry were unwilling to take the responsibility either for a comprehension of the mind-body problem or for the correction of the biological malfunctioning in the human. The psychoanalysts, on their part, praise me as a "former" good analyst. They even admit having learned a good deal from me; but they deplore my having "gone off on a tangent." They say that they have accepted my character-analysis, with the "necessary corrections," i.e., scrapping the orgasm theory; but, they say, what I have been doing in recent years is downright crazy, or incomprehensible at best. They did not see that what had happened was that Freud's psychology had been put on a solid biological foundation and was no longer a mere superstructure without a basis in natural science. This achievement took place precisely in that decade during which psychoanalysis, for the very lack of such a foundation, split up into all kinds of factions.

In another group there are the biologists, physiologists, and internists. They do not know at all what to do with the psychology of the instincts; they are completely untrained in sexology and in questions of the dynamics of the instinct; thus, their reactions to bion research are in no way influenced by any insight into the problems at hand. Nevertheless, the connection is very simple. *The orgasm is a central*

problem of living functioning in general and orgasm research had of necessity to strike roots in biophysics.

In still another group, there are the economists and sociologists. Sex-economy has made recognized and essential contributions to the understanding of irrationalism in politics and in society. But the economists and sociologists are bogged down in the mechanics of figures and in a rationalistic kind of thinking which belongs to the 19th century to such an extent that they are completely helpless in the face not only of any kind of psychology based on natural science, but, quite particularly, in the face of the irrational happenings of our times. All they do is to put down that what happened *did* happen; this, though, they do with a great show of dignity. I shall not even mention the politicians who play the role of saviors of humanity. Their knowledge is in inverse proportion to the vehemence of their savior's gestures.

Thus we find ourselves in an embarrassing, even dangerous situation. We went—at first gropingly and later systematically—to the roots of living functioning; we do not ourselves know as yet what will be the consequences of a comprehension of the dynamics of the instincts; and we find ourselves more and more isolated from the customary and recognized forms of thinking, the forms of thinking which have driven human society to the verge of ruin. We have become alien to them and they to us. In fact, it often seems to us that we can understand, here and there, a bit of their thinking and reacting out of their ignorance of the dynamics of living functioning. We are often disinclined to recognize the irrational in serious scientists; yet, in order to do our work and our research, we are forced to look for the irrational in ourselves every hour of the day. Thus, there seems no reason why other branches of science like physics, chemistry or sociology

and their representatives should be exempt from a scrutiny of the irrational contents of their statements and their research methods. After all, the physicists, the chemists and the sociologists are no more, but also no less, affected by the neurotic pestilence than other mortals.

We, with our background of depth psychology, are always looked upon with some contempt because psychology is not considered an "exact" science by the "pure" natural sciences. However, my contention is not only that psychology has now been put on an exact, experimental foundation, but also that those are correct who again and again point out that that branch of research which will really comprehend the emotional plague at the biological core of the human organism and which will show ways and means of mastering it biologically as well as socially, will finally decide the fate of the world. Whatever the progress of the mechanistic natural sciences and of civilized technic may be, they have not brought us an iota closer to an understanding of the psychic pestilence in the human. They have demonstrated their complete incapacity to solve human, that is, social problems. All the electron research, all the atom-smashing, all the expanding of the universe notwithstanding, human misery continues unabated: every day and every hour our children are being tortured and are having their psychic backbones broken, there is cancerous putrefaction of living tissue, there is nonsensical and aimless slaughter of millions of humans, and there are pederasts and impotent neurotics who can determine whether and when millions of people will lose their homes.

It is my conviction that the discovery of the biological energy, that energy which is at the basis of our feeling for life, our vegetative sensations, actions, religious feelings and cosmic phantasies, will provide a solid scientific foundation for the cultural process. Many pillars of the mech-

anistic conception of the universe will tumble. There will be new concepts in natural philosophy, concepts which will lead to the full recognition and social effectiveness of the dynamic, *living* process of nature.

If we are to do our work and are not to fail, we finally have to become clear in our own minds as to our position in the world of science:

1. There is, in the fields of sex-economy and orgone biophysics, no authority save that acquired by work and achievement in these fields.

2. Sex-economy and orgone biophysics are not a branch of medicine or even psychiatry. They are a special branch of natural science which reveals new facts not only to medicine and psychiatry, but to education, physics and biology as well. Sex-economy, as a new branch of natural science, takes its own place among the natural sciences on an equal footing with the others. It is autonomous, no matter whether some physicist, biologist, psychologist or medical man concedes this autonomy or not. In order to be really autonomous, it must first realize this autonomy itself.

But to achieve this realization of our own autonomy is impossible without a clear and radical understanding of the motives which have thus far prevented the human from comprehending the living function. The orgone energy is what conveys those feelings of life (demonstrable at the oscillograph) which humanity, for millennia, has been calling "God." It is present "everywhere"; it is responsible for the existence of living matter; it is a cosmic energy and it creates many of the typical attitudes which are held in high esteem by genuine religion.

I recently had to revise some of my earlier evaluations of religion. There was a time when I believed, with the rationalist Marxists, that religion was a conscious invention of the ruling class for the pur-

pose of dominating the ruled classes. There was a time when I believed, with the psychoanalysts, that religion was a compulsion neurosis, that there was nothing genuine in religious feelings, that, in other words, there were no "oceanic feelings," no "cosmic sensations," that, in short, religion, with everything that belongs to it, was an "illusion."

Now, it is true, without doubt, that brutal ruling forces utilize the existing religiosity of the masses the better to suppress them. But that does not mean that the ruling interests of money or political power created these religious feelings in the masses. Also, there is no doubt that most religious ideas are of an illusionary character in the sense that we recognize as unrealistic the ideas of "God," of sin, of salvation and of a return of the dead. However, all this does not alter the existence and the reality of religious and cosmic feelings and sensations, whatever their ideational expression may be. Though there is no personal God, yet there is doubtless an extremely powerful feeling which brings humans to the point of believing in the existence of a personal God. We have to make a sharp distinction between the *ideational content* of religion on the one hand and the *religious feeling* on the other hand; the former is clearly unreal, while the latter is a *decisively important reality*.

No doubt, humanity has always known of the existence of the biological orgone energy; only, this knowledge took the form of the religious and ecstatic experiencing of their bodies and sensations. All genuine legends of creation give us the picture of a cosmic (supernatural) power which created the world and man and governs them. Man—incapable of comprehending and mastering this power—could only feel himself as its object, its toy and its product; he could experience this power only as something to which he surrenders and which not only governs him

but by which he *likes* to be governed; for orgone energy functions, biologically, as *pleasure energy*, as *biological pulsation*. This explains man's enormous readiness to give himself over to religious feelings and to be governed by them. Up to the discovery of the orgone and the vegetative currents, the world of vegetative sensations was not only being denied, but excluded from any scientific discussion. The functioning of the life energy finds its direct subjective expression in these vegetative sensations; it is at the basis of all mystical practices, such as Yoga and the fakirs' methods of voluntarily influencing the involuntary life functions, the irrational contentions of astrology and Fascist irrationalism; but it is also at the basis of the folk dance and the folk song, of music in general, of the scientific phantasies of the great discoverers and the philosophy of great poets and sages. One may say that the discovery of the cosmic life energy which, indeed, functions before the eyes, noses and ears of the scientists, functions in their very senses and nerves, was prevented by the passive submissive attitude of the human. More than that: that which governs the world today and has power, is not only alien to the feeling of living beings, it is hostile to it; as if it were especially designed to smother it. Let us be aware of this human attitude!

As long as people believed that diseases were caused by evil spirits they were not able to assume an active attitude toward disease. In order to discover the orgone energy, the fear of that which moves spontaneously, of that to which we owe our existence, had to be overcome. To master it, it was necessary first of all to achieve a scientific comprehension of the autonomic vegetative sensations, of that which Bergson so splendidly described as the sensation of time duration in the ego. We understand now the religious prohibition of "Knowing God," the belief that He can only be experienced and felt. *It is a prohi-*

bition which the human, motivated by fear, imposes on himself, a taboo against lifting the veil of secrecy from the origin of life. To this taboo, we owe the devastating psychic pestilence. Due to this taboo, any serious attempt at such discoveries seems a sacrilege. It is as if there were some temple to see the inner sanctum of which is the deepest longing of every human being; great people have sacrificed their lives in the attempt. At the same time, anyone who does dare to penetrate into the inner sanctum and tries to lift the veil, is stoned by these same human beings—because he dared to touch on that which is most sacred to them. It is the same with orgasmic excitation; one wants to experience it but one does not want to hear it mentioned.

This seems to be the reason, too, why the atmospheric, cosmic orgone energy was not discovered long ago, and why mechanistic science behaves irrationally, even runs amok, as soon as it comes in contact, in whatever form, with the problems of the autonomic movement of the living, the problems of vegetative sensations and that of the autonomic, orgasmic plasma contraction.

My attitude, as expressed here, will be called aggressive. What is aggressive and destructive in reality, however, are the reactions of this psychically sick world and not we, who only advocate simple and clear facts. These facts ask to be seen. They ask to be mastered. They ask not to be covered up by academism and clericalism; they ask to be uncovered. Humanity, living as it does in material, intellectual and sexual misery, dreams forever of work, freedom and happiness in life. Natural science has the task of turning this dream into reality. Everything else is nothing but idle talk! A drowning man, fighting for his naked life, will not ask for learned discussions of the chemical composition of water. He has to learn to swim, if he is not to drown. Human society is drowning,

and the vegetative sensations are the water. Instead of drowning in their mystification, society must learn to understand and govern them. This fact is not going to be altered by any new campaign on the part of self-styled "authorities," or of party politicians, or of neurotic moralists, or of

out-of-the-world specialists (or by senseless arrests and detentions—Ed.). The attempts at a rational mastery of human mysticism may again and again be nullified, but there will be ever new attempts—and finally the natural facts of living functioning will win out.

THE DISCOVERY OF THE ORGONE*

Experimental investigations of biological energy

By WILHELM REICH, M.D.

CONTENTS

Introduction

- I. The Function of Tension and Charge
 1. The function of the orgasm
 2. The postulate of a specific biological energy
- II. Summary of the Results of the Bion Experiments
- III. The Cultures of Radiating Sand Bions
The visualization of the atmospheric orgone
- IV. The Objective Demonstration of the Orgone Radiation
 1. "Subjective impressions of light"?
 2. The flickering in the sky made objective
The orgonoscope
 3. The construction of a radiating enclosure
Objective visibility

INTRODUCTION

In the following series of articles on the discovery of the orgone an attempt will be made to present the results of the bion research carried on between 1936 and 1942. A part of these findings was published in my book, *Die Bione* (1938), and in "Bion Experiments on the Cancer Problem" and "Drei Versuche am Statischen Elektroskop" (1939). Since then, nothing has been published on the subject; partly because of the transfer of the laboratory from Oslo to New York, partly because it was necessary first to coordinate the numerous findings. From October 1939 until the summer of 1941, orgone radiation experiments were carried out in cancer mice. In March 1941, orgone therapy experiments were begun in otherwise hopeless cases of

human cancer.¹ Sex-economic cancer research had started long before that, namely in 1933 when the attempt was made to correlate the most important findings of cancer pathology with the sex-economic findings concerning the functions of the vegetative system.

Thus, this series of articles deals with the clinical and experimental findings of almost 10 years. This makes the task an extremely difficult one. On the reader, it makes the demand of his having to become acquainted with the medical concepts of sex-economy; of the author it demands a frank presentation of all uncertainties and shortcomings of this research.

Some readers may ask why this or that experiment was not also carried out, why

¹ Cf. "The carcinomatous shrinking biopathy." *This issue*, p. 131.

* Translated from the manuscript by the Editor.

this or that substance was not also investigated. I am painfully aware of many such gaps. They are, however, not my fault, but largely that of the circumstances under which the work had to be carried on. Several academic organizations which could have lent their financial support considered the whole thing, on the basis of individual, unrelated findings, so fantastic that I had to decide to maintain my independence and to get along without outside help. This is necessary in order to protect the work against misinterpretations before the publication of the total findings. The experimental work consumed practically my whole income; during the years of 1940 and 1941 alone it cost more than \$10,000. Adequate research facilities would have required hundreds of thousands of dollars. The limitation in the use of materials, apparatus and experimental set-up simply reflects the limits of my economic capacity. I know that any average physical laboratory aided by government or foundation funds could have applied the findings to an infinite number of materials and set-ups. As well-equipped as my laboratory is in itself, the problems that presented themselves went far beyond its capacities. Nevertheless, the fundamental groundwork has been done which can form the basis for more extensive investigations.

Many of the facts which in orgone biophysics converge into a comprehensible unit can be found in the literature of physics, unrelated and more or less arbitrarily interpreted. The fact of the atmospheric orgone energy, however, is nowhere mentioned. In succeeding articles ample reference will be made to the literature, at a time when we shall discuss the experimental investigation of the connecting links between orgone and electricity. In the course of time, the reader will convince himself that what often appears to be naïveté is actually deliberate exclusion of prejudice and that it leads to decisive new conclusions in the theory of electricity.

I. THE FUNCTION OF TENSION AND CHARGE.

1. THE FUNCTION OF THE ORGASM

Those who are familiar with sex-economy know of the important event which, in 1933, represented the turning point in our research: *the discovery of the biological function of tension and charge*. I should like to give here a brief résumé of these developments.

Clinical investigation had shown us that the function of the orgasm is the key to the problem of the energy in the neuroses. Neuroses are the result of a stasis (damming-up) of sexual energy. This stasis is caused by a disturbance in the *discharge* of sexual energy in the organism. It makes no difference whether this fact is perceived by the ego or not; nor does it matter whether the psychic apparatus misinterprets this process in a neurotic manner, or what kind of ideologies the individual develops around the disharmony in his energy system. Everyday clinical experience leaves no doubt: *The elimination of sexual stasis through orgasmic discharge eliminates every neurotic manifestation*. The difficulties involved in this therapeutic task are chiefly of a social nature. It is necessary to point out these simple basic facts again and again.

Sex-economy had known for a long time that the orgasm is a *fundamental biological phenomenon*; fundamental because the orgasmic energy discharge takes place at the very roots of biological functioning. This discharge takes place in the form of an involuntary contraction and expansion of the total plasma system. Like the respiratory function, it is a basic function of any animal system. Biophysically speaking, it is impossible to distinguish the total contraction of an amoeba from the orgasmic contraction of a multicellular organism. The outstanding phenomena are *intensive biological excitation, repeated expansion*

and contraction, ejaculation of body fluids in the contraction, and rapid reduction of the biological excitation. In order to comprehend these phenomena as biological functions, we had, of course, to rid ourselves of the lascivious reactions which usually accompany any occupation with sexual functions and autonomic life functions in general; these very reactions, in the form of neurotic attitudes and symptoms, form an important object of our psychiatric work.

In its quickly alternating expansions and contractions, the orgasm shows a function which is composed of tension and relaxation, charge and discharge: *biological pulsation*.

Closer investigation reveals the fact that these four functions appear in a definite four-beat: the mechanical tension, which shows itself as sexual excitation, is followed by a bio-electric charge of the periphery of the organism. This fact was unequivocally demonstrated by measuring the bio-electric potentials occurring with pleasurable excitation of the erogenous zones. When tension and charge have reached a certain degree, there occur contractions of the total biological system. The high peripheral charge of the organism is *discharged*. This is seen objectively in the rapid decrease of the bio-electric skin potential; it is felt subjectively as a rapid decrease in excitation. The sudden shift from a state of high charge into that of discharge is called the "acme." The discharge of bio-electrical energy is followed by a mechanical relaxation of the tissues through a flowing back of body fluids. That we are actually dealing with a discharge of energy is shown, among other things, in the fact that for some time after the discharge the organism is incapable of sexual excitation. This is the condition which, psychologically, we call "gratification." The need for gratification, or, in biophysical terms: *for the discharge of the surplus energy in the organism by*

way of fusion with another organism— makes itself felt at more or less regular intervals. These intervals vary from individual to individual as well as from species to species. They usually become shorter in the spring; in animals, one finds the phenomenon of rut or heat, a concentration of this biological need in certain seasons, predominantly the spring. This fact points to a close connection between the function of the orgasm and an energy function of a cosmic nature. The orgasmic function, together with the known effects of the sun on the living organism, is one of the phenomena which shows the living organism to be a part of non-living nature.

Thus, the function of the orgasm is expressed in the four-beat: *mechanical tension → bio-electrical charge → bio-electrical discharge → mechanical relaxation*. We shall call it for brief the *function of tension and charge*.

We know from earlier investigations that the function of tension and charge is characteristic not only of the orgasm. It applies to all functions of the autonomic life system. The heart, the intestines, the urinary bladder, the lungs, all function according to this rhythm. *Cell division*, also, follows this four-beat. So does the motion of protozoa as well as metazoa. Worms and snakes show this movement according to the formula of tension and charge particularly clearly, in the movements of their parts as well as their totality.

Thus it is obvious that there is *one* basic law which governs the organism as a whole as well as its autonomic organs. The total organism contracts in the orgasm just as does the heart with every pulse beat; the medusa as a whole contracts just as does the vacuole it contains. This biological basic formula comprehends the essence of living functioning. *The orgasm formula shows itself to be the life formula as such*. This corresponds exactly to our previous formulation that *the sexual process is the productive biological process*

per se, in procreation, work, *joie de vivre*, intellectual production, etc. To recognize or to refute this formulation is to understand or to reject sex-economic biophysics.

The mechanical tension of organs through tumescence is easy to understand: it consists in taking up fluid and in a separation of the particles in the biological colloid. Conversely, mechanical relaxation consists in giving off fluid and mutual rapprochement of the particles. The question as to the nature of the process of charge and discharge presents a more difficult problem. The possibility of measuring the electrical potentials could easily lead us to discard the whole problem by calling the process one of "electrical charge" and "electrical discharge." After all, electrical energy was measured in the contracting muscle and the "electric eel"; one is even able today to measure the electrical "brain waves." In reporting on my bio-electrical experiments (1934-1936), I gave the changes in potential occurring in pleasure and anxiety in millivolts.

2. THE POSTULATE OF A SPECIFIC BIOLOGICAL ENERGY

Is the specific biological energy identical with electricity? This is not as simple a question as it may appear. Certainly it would be highly satisfying if we could express the function of the orgasm in the familiar terminology of physics. The organism, then, would be nothing but a "particularly complicated electrical machine." It would be very pleasant and convenient to explain the reaction of rheumatic people to weather changes by stating that the "body electricity" was being influenced by the "electric" charges in the air. The attempt has also been made to apply the laws of iron magnetism to the living organism. We say that a beloved person has a "magnetic" attraction, that excitement "electrifies" one. We shall soon see that such analogies are erroneous. In earlier publications, I spoke

of "bio-electricity," following the usual terminology. No doubt, there is electricity in the organism, in the form of electrically charged colloid particles and ions. Colloid chemistry as well as muscle physiology operate with it. Muscles can be made to contract by the application of an electric current. In combing our hair, we get "electric" sparks.

Nevertheless: *There are a number of phenomena which are completely at variance with the theory of electromagnetic energy.*

First of all, the effects of bodily "magnetism." Many physicians and lay therapists use these magnetic forces in a practical way. But to us, it is not conceivable that these forces which emanate from organic, colloidal, non-metallic material should be magnetic forces. We shall provide experimental proof for the fact that the energy we are dealing with in the living organism is not identical with iron magnetism.

If a faradic current is applied to our body, we experience it as alien to the body, as not "organic." Electrical energy, even in the smallest quantities, produces only disturbances of normal functioning if applied to the muscles, i.e., they show unnatural, uncoordinated, "senseless" contractions. It is altogether impossible to produce, by applying an electrical current, an organic movement which would have the slightest resemblance to the everyday living movements of whole muscle systems or functional muscle groups. The electrical current produces a movement in which the essential characteristic of biological energy is lacking: the movement of a group of organs in a *coordinated, functionally meaningful form*. On the other hand, the disturbances of biological functioning by the electrical current shows distinctly the character of electrical energy. The resulting movements are rapid, jerky, and angular, exactly like the oscillographic phenomena which one obtains by rubbing

an electrode on metal (cf. "The Function of the Orgasm," p. 348, fig. 7).

If an electric current is applied to a muscle-nerve preparation, the electric current is not expressed as such in the resulting movement. If it did, the smooth muscle would contract just as quickly as the striated muscle. In reality, the smooth muscle does not contract like the striated one, but in the form of a slow, wave-like movement which is characteristic of the smooth muscle. That is, an unknown "something" is interpolated between the electric stimulus and the muscle action. It is only induced by the electric stimulus and manifests itself as a movement which is accompanied by an action current. But this "something" is not electricity.

Our own sensations tell us distinctly that the emotions (which undoubtedly are manifestations of our biological energy) are something basically different from the sensations caused by an electric shock. Our sense organs fail completely to register the electromagnetic waves though the atmosphere is full of them. We feel nothing in the proximity of a radio-transmitter. We do not react to the proximity of a high-tension wire the way a radio apparatus does. If our life energy were electricity, the fact that we react to the wave-lengths of visible light but not to the other wave-lengths would be incomprehensible—since our perceptions are an expression of this life energy. We are insensitive to the electrons of an X-ray machine as well as to radium rays. Electrical energy does not convey a biological charge. Thus far it has been impossible to express the potency of vitamins in electrical measurements, although there can be no doubt that they contain biological energy. These examples could be multiplied indefinitely. One might also ask how it is possible that our organism does not get destroyed by all the electromagnetic fields which surround it.

True, we can influence sensitive volt-

meters by touching them, but the magnitude of this reaction is so infinitesimal—compared with the energy quantities in the organism—that we cannot see any connection.

We are dealing here with gigantic contradictions, contradictions which are insoluble within the framework of the known forms of energy. They have been occupying the minds of biologists and natural philosophers for a long time. Attempts were made to bridge the gap with concepts which were to make comprehensible the specific *living* functioning. Such attempts were made primarily by the opponents of mechanistic materialism, by the vitalists. Driesch, e.g., tried to solve the problem by introducing the concept of "entelechy," a vital energy pertaining to living matter and governing it. As this energy was not tangible and measurable, his concept was doomed to lead into metaphysics. Bergson's "élan vital" also took into account the incompatibility of the known forms of energy and living functioning. His "force créatrice" represents an explosive function of matter, manifesting itself most clearly in living functioning. Bergson's hypothesis was directed against mechanistic materialism as well as teleological finalism. It comprehended correctly the basically *functional* character of the living but it lacked empirical substantiation. The force in question was neither measurable nor tangible or otherwise capable of being influenced.

The well-known German physiologist Pflüger, on the basis of the function of cyanide, assumed a connection between life energy and fire. His assumption was correct. Prominent biologists, as for example Kammerer, postulated the existence of a *specific biological energy* which would have no immediate connection with electricity, magnetism and other known forces.

If I should . . . give a scientific credo which as yet is impossible of proof, I must

say: the existence of a *specific life force* seems highly probable to me! That is, an energy which is neither heat, electricity, magnetism, kinetic energy (including oscillation and radiation) nor a combination of any or all of them, but an energy which specifically belongs only to those processes that we call "life." That does not mean that this energy is restricted to those natural bodies which we call "living beings"; it is present certainly in the formative process of the crystals. Perhaps, for this reason, it would be better to term it "formative energy" instead of life energy. But this energy is nothing "supra-physical," although it is unlike any of the known physical energies; it is no mysterious "entelechy" (Aristotle, Driesch), but a genuine, natural energy; only, as electrical energy is linked up with electric phenomena, chemical energy with chemical processes, so is this energy linked up with phenomena of life and of the development and change of forms. It certainly follows the law of the conservation of energy; it is convertible into other forms of energy as, for example, heat is converted into kinetic energy and vice versa. (Kammerer, Allgemeine Biologie, p. 8).

Kammerer had been led to the problem of a "formative life energy" by his experiments on the heredity of acquired characteristics. The concepts of "inherited substances" and "genes" held dear by the heredity theoreticians only obscured the problem of living functioning, as if devised for the very purpose of blocking any access to the problem. Like a pyramid put on its tip, their theory consisted of a heap of hypothetical contentions, based on an extremely small basis in fact, and a doubtful basis at that. One only has to remember the unscientific, unwarranted and moralizing consequences drawn from the famous "family Kalikak." In reading hereditary hypotheses one has more the impression of treatises on ethics than of science. The living function gets smothered in a heap of mechanistic hypotheses. These theories finally degenerated into

the disastrous Hitlerian theory of race.

With the vitalists, the living became a mysterious ghost-like thing, with the mechanists a lifeless machine. With the bacteriologists, there is, for each living organism, some special germ "in the air" which as yet nobody has seen. In the second half of the 19th century, Plouchet undertook the laborious task of examining the correctness of this theory. Pasteur showed experimentally that liquids which have been exposed to high temperatures contain no living germs. If he found living organisms, he ascribed their presence to air infection. In his "Geschichte des Materialismus," Lange criticizes Pasteur's interpretation and points to Plouchet's experiments. Plouchet passed great quantities of air through water and then examined it. He invented a special apparatus in which air was blown against glass plates on which the dust particles were deposited. He then examined the deposited dust. He carried out these experiments on glaciers in the Pyrénées, in the catacombs of Thebes, on land and on the sea in Egypt, and on top of the cathedral of Rouen. He found all kinds of things, but only extremely rarely a spore of a fungus or a dead infusorium. Pasteur's refutation of the primitive theories of spontaneous generation has been thoroughly misunderstood. There was a taboo against asking the question as to where the *first* germs of life came from. In order not to come into conflict with the assumption of a "Divine Creation," one took recourse to a plas-matic substance which was supposed to reach our planet from the universe.

None of these schools was ever able to penetrate to the functional problems of the life process or to achieve a connection with experimental physics. The living continued to be an incomprehensible, intangible mysterious something, a special preserve of Divine Providence, like an island in the gigantic field of experimental natural science.

Nevertheless, the sprouting of every plant, the development of every embryo, the spontaneous movement of every muscle and the work done by every biological organism daily demonstrate the existence of gigantic energies governing the working of the living substance. "Energy" is the capacity to do work. There is no known energy that could compete with the work of the total life apparatus of our planet. The energies which achieve this work can derive only from non-living matter itself. They have remained a closed book to science for thousands of years.

What is the block that kept humans from the comprehension of this energy? Freud's discovery of the function of sexual repression was the first breach in the wall which separated us from a comprehension of the living; the understanding of the manifestations of the unconscious and repressed sexual life was the first step. The second step was a correction of Freud's theory of the unconscious: The repression of the instinctual life is not a natural phenomenon; rather, it is a pathological result of the suppression of natural instincts, in particular, of genital sexuality. An organism which uses most of its energy for keeping living nature hidden in itself must of necessity be incapable of comprehending the living outside of itself. The central manifestation of the living is the genital sexual function. This is what life owes its existence and continuation to. A society of humans which has outlawed the most essential manifestation of this function and has made it unconscious is incapable of guiding the vital functions in a rational manner; they can express themselves only in distorted, pornographic forms. It was only the mystics who—far removed from scientific insight—always kept in contact with the function of the living. Since, thus, the living became the domain of mysticism, serious natural science shrank from occupying itself with it. The biological and physiological literature shows no trace

of an attempt to understand the autonomic movement such as it is expressed, e.g., in the movement of a worm. It is too reminiscent of the sexual acts in the animal world. Thus, there is mysticism on the one hand, and mechanistic biology on the other. At the same time, the force of religious feelings in itself points to the existence of a powerful something which the humans, though feeling it, are unable to put into words or to govern. Religion, also, has mystified the living.

The whole problem comes within the realm of natural science only if and when we have an energy function which is measurable and capable of being influenced, which makes the basic functions of the living comprehensible and, at the same time, does not come into conflict with physics.

The functions of the living show that such a specific biological energy would have the following characteristics:

1. It would be basically different from electromagnetic energy and yet have a relation to it.
2. Assuming the origin of the living from the non-living, it would have to exist in non-living nature, independently of the living organism.
3. It would have to explain satisfactorily the relationship between living organisms and non-living nature (respiration, orgasm, nutrition, etc.).
4. Contrary to galvanic electricity—it would function on organic material which is a non-conductor for electricity, and animal tissues.
5. Its function could not be restricted to isolated nerve cells or cell groups, but would permeate and govern the total organism.
6. It would have to explain, in a simple way, the pulsating basic function of the living, contraction and expansion, as it is expressed in respiration and the orgasm.
7. It would express itself in the produc-

tion of heat, a characteristic of most living organisms.

8. It would definitely explain the sexual function, i.e., it would make sexual attraction understandable.

9. It would explain why the living organisms have not developed an organ for electromagnetism.

10. It would help to explain the difference between protein that is dead and protein that is alive; that is, it would explain what has to be added to the chemically complicated protein in order to make it alive. It would have the capacity of charging living matter, i.e., it would act in a life-positive sense.

11. It would, finally, have to show us the mechanism of the symmetry of form development, and what is the function of form development in general.

These questions are nothing but the indispensable framework for any discussion of biogenesis and of biophysical problems.

II. SUMMARY OF THE RESULTS OF THE BION EXPERIMENTS.

The biological energy was discovered in a certain culture of bions. Thus, I will have to explain briefly what bions are.¹

The bions are forms of transition from inorganic to organic matter; they can develop into organized living forms such as protozoa, cancer cells, etc. They are vesicles filled with fluid and charged with energy; they are clearly visible only with a magnification of over 2000x. "Bion" means the same as "energy vesicle." Their biological characteristics and their energy reactions will be extensively dealt with in a subsequent article.

The bions originate in organic and inorganic matter through a process of swell-

¹A detailed presentation of the bion experiments up to 1939 is found in "Die Bione" (1938) and "Bion Experiments on the Cancer Problem" (1939). Since 1939, these experiments have been elaborated considerably; the additional findings will be reported in a special article.

ing. In this process, matter disintegrates into fluid-containing vesicles of about 0.5 to 3 μ . The following substances disintegrate into bions, either by swelling alone or through high temperatures with consecutive swelling: Wood, thus forming humus (wood does not "rot"; if kept in water for weeks on end, it remains sterile, i.e., free of rot bacteria, and the development of protozoa is reduced to a minimum). Further, dried moss and grass; muscle and other animal tissue; wool, coal, soot. Of inorganic substances, according to observations to date, iron and silicates show bionous disintegration. A great many substances consist of bions, i.e., they are made up of energy vesicles: most food stuffs, egg yolk, boiled egg white, milk, cheese, cooked vegetables, meat, vitamins; further, all substances which have been heated to incandescence or owe their existence to such a process: cyanide of potassium, lava, soot, etc. The gonadal cells and the erythrocytes are bions. The chicken embryo develops through organization of the yolk bions, moss from stone bions, protozoa from moss or grass bions. Cancer cells develop from bions which originate from the vesicular disintegration of suffocated or otherwise biologically damaged tissue.

The bions contract and expand, that is, they already show the function of biological pulsation. They move through the microscopic field with slow, jerky or serpentine movements. They react positively to biological stain (Gram, methylene blue, carbol fuchsin, etc.). If viewed with apochromatic lenses at a magnification of at least 2000x, preferably 3-4000x, their content always shows a bluish glimmer, no matter what substance they were derived from. The contents of the vesicles show extremely fine vibrations and refract the light strongly. Under definite strict and difficult conditions, the bions can be cultivated. They show the function of division and fusion.

The motility of bions derived from soot, blood charcoal, blood, muscle tissue, etc., lasts only as long as the fine pulsatory movements, the blue color of the content, and the colloidal suspension lasts. The bions are cataphoretically positive or negative. With the cessation of colloidal suspension and cultivability, the cataphoretic reaction also ceases.

The microphotos (see footnote, p. 115) will convey a better impression of the bions and their organization into protozoa than the written word. However, as everywhere else in natural science, only continued microscopic observation will convey a convincing impression of the nature and the living reactions of the bions.

The biological reactions of the bions became comprehensible only by thinking of the bions in terms of a membranous vesicle containing a certain quantity of energy. Bions of different origin can permeate each other. Larger vesicles or heaps of vesicles incorporate smaller ones. Bions which emanate a strong blue glimmer kill or paralyze bacteria and small protozoa. They destroy cancer tissue by permeating it. Ameboid cancer cells from mice are paralyzed by certain kinds of bions even at a certain distance. In brief, all these—and other—functions point to enormous energies which are contained in the bions and have a powerful biological effect on their surroundings. This concept found an unexpected confirmation in certain bion cultures which I obtained from sand (see below).

For an understanding of the bions, a knowledge of the following facts is indispensable:

1. All matter—if exposed to high temperatures and made to swell—undergoes a process of vesicular disintegration.

2. High temperatures (autoclavation at 120°C, heating to incandescence, about 1500°C) destroy what life there is. But these same high temperatures produce the

energy vesicles which in turn can develop into living bacteria.

3. The energy at work in the bions is not introduced into them artificially from the outside; rather, it originates from the vesicular disintegration of matter itself.

4. An energy vesicle is a minute quantity of matter, containing a quantity of energy derived from this matter.

5. The bions are not complete living beings, but only carriers of biological energy; they are forms of transition from non-living to living.

6. The blue color of the content is the immediate expression of this energy. As the blue disappears, the essential biological characteristics of the bions disappear also.

7. The bion experiments do not newly "create" artificial life; they only demonstrate the natural process by which protozoa and cancer cells develop spontaneously from vesicularly disintegrated matter. They also demonstrate the natural form in which biological energy is contained in humus, in inorganic material, in food-stuffs, blood cells, gonadal cells, etc. The functions of the biological energy in the realm of the living do not become understandable until one first learns to understand them in the realm of the non-living, that is, in the realm of physics.

III. THE CULTURES OF RADIATING SAND BIONS.

In order to completely refute the objection of air infection, I began as early as 1936 to autoclave the bion preparations for ½ hour at 120°C. In doing so, I found that the bionous disintegration was now even more complete than with swelling alone. The blue bions appeared more quickly, the biological stain reaction (Gram, etc.) was more intense. In May 1937, I began to heat coal and earth crystals to incandescence before putting them into the solution which promotes swelling. This procedure accelerated the formation

of bions still further. Now, with complete sterility assured, the bionous disintegration of matter could be achieved within a few minutes. No longer did I have to wait for days or weeks until the process of swelling at room temperature finally resulted in bions. To make the substance swell, I used KOH and potassium chloride. For more than 2 years (1937-1939), experiment after experiment confirmed the bionous disintegration of matter and the organization of bacteria and cells from the bions.

In January 1939, one of my assistants demonstrated the heating experiment to a visitor of the laboratory. She took the wrong container from the sterilizer, and instead of earth she heated ocean sand. After 2 days there was a growth in the bouillon - potassium - chloride solution, which, inoculated on egg medium and agar, resulted in a yellow growth. This new kind of culture consisted microscopically of large, slightly mobile, intensely blue packets of energy vesicles. The culture was "pure," i.e., it consisted of only one kind of forms. At 400x, they looked somewhat like *sarcinae* as they are occasionally found in water. Examination at 2000-4000x showed forms which refracted light strongly, consisted of packets of 6 to 10 vesicles and measured about 10 to 15 μ . In the course of several months, the experiment was repeated 8 times, and 5 times the same forms were obtained. (Cf. figs. 2 and 3, facing page 128).

These bions were termed SAPA (sand, packet). They showed some extremely interesting characteristics.

The effect of the SAPA bions on protozoa, bacilli in general and T-bacilli in particular, was much stronger than that of other bions. Brought together with cancer cells, they killed or paralyzed the cells even at a distance of about 10 μ . When cancer cells came as close as that to the bions, they would remain, as if paralyzed, in one spot; they would turn around and around in the same spot and finally be-

come immobile. These phenomena were recorded by microfilm.

For weeks, I examined these SAPA bions daily for several hours. After some time, my eyes began to hurt when I looked into the microscope for a long time. As a control experiment, I used a monocular tube; regularly, it was only the eye with which I looked at these cultures that began to hurt. Finally, I developed a violent conjunctivitis and had to see the ophthalmologist. He thought the story "fantastic," gave me some treatment, prescribed dark glasses and prohibited microscopic work for a few weeks. The eyes improved, but now I knew that I was dealing with a radiation. Several months before this occurrence, the Dutch physicist Bon had asked me in a letter whether I had ever observed radiation in my bions. I had to answer in the negative. Dr. Bon had been in a feud with his fellow physicists for years because of his contention that life was a phenomenon of radiation.

Now, I was directly confronted with this fact. I did not know how to approach it. Though I had training in the basic theoretical problems of physics, I had never done any practical work with radiation. This created a considerable difficulty but also had its advantages. For this radiation turned out to be something new with characteristics all of its own. The customary methods of radiation research gave no results. The orgone radiation required the elaboration of special, hitherto unknown methods and apparatus which could be achieved only step by step, by long-continued observation. Routine and schematic methods failed.

In a very primitive manner, I tried at first to test the culture for radiation by holding the test tubes containing them against my palm. Every time I felt a fine prickling, but I was not sure of the sensation. After that, I put a quartz slide on the skin, put some SAPA culture on it, and left it for about 10 minutes. On the spot where the

culture had been (separated from the skin by the slide) there developed an anemic spot with hyperemic margin. This experiment I repeated with all my students, whose vegetative reactions I knew well from their training. Those among them who were vegetatively strongly mobile regularly gave a strong positive result; those with less emotional mobility reacted only slightly or not at all. This was a more definite result, but still quite incomprehensible.

So I sought help from the radium physicist of the Cancer Hospital in Oslo, Dr. Moxnes. He tested a culture with the radium electroscope. *There was no reaction.* The physicist declared "there was no radiation." Since his electroscope was designed for radium only, I objected that the negative result meant only that there was no radium activity, but not that there was no radiation at all. Because there was no doubt about the existence of the skin reaction. True, why the electroscope failed to react, I did not understand. The rapidity of the skin reaction indicated enormous energies. While the reddening of the skin in response to X-ray or radium appears only after days, the SAPA reaction appeared within a few minutes. Incidentally, as will be shown later, the negative reaction at the electroscope found its logical explanation.

The following observations clarified the problems bit by bit:

After two weeks, my left palm was strongly inflamed and very painful. The fact that the cultures exerted a biological influence could no longer be doubted.

Gradually, I began to notice that the air in the room where the cultures were kept became extremely "heavy" and that people who stayed in the room developed headaches if the windows were closed for as short a time as one hour.

One day, in the course of some experiment, I noticed that all metal objects, such as scissors, pincers, needles, etc., were

highly magnetic. I could not in the least understand this fact though today it seems a matter of course. I had never observed it before and it was quite unexpected. But after having seen the negative reaction at the physicist's electroscope, I was no longer surprised by unexpected findings.

I tried photographic plates in all kinds of ways: I put culture preparations on top of unwrapped plates in the dark, on plates in plate-holders, on plates partly or completely wrapped in lead, with control plates (without cultures) in the same room. To my great surprise, *all* plates which were in the same room as the cultures were fogged. On some plates there was a darkening corresponding to the joints of the wooden plate-holders, in others at places where the culture had not influenced the plate but where the lead wrapping had not been tight. *But the control plates in the same room were also fogged.* I could not understand it. It was as if the energy were active around the ends of the plate-holder and through the joints. *The radiation seemed to be "present everywhere."* On the other hand, it could have been a matter of an experimental error.

In the course of two decades of clinical and experimental work, I had learned to pay attention to such seemingly incidental ideas as "energy present everywhere." They are inklings of the searching organism, and lead to the goal if combined with rigid objective control. In due time, my inkling was confirmed: *The orgone radiation is, in fact, "present everywhere."* But at that time this had no concrete meaning.

The experiment with the photographic plates seemed to bog down. If the effect of the radiation was everywhere, its manifestations could not be isolated and controlled; there was no comparison possible with an object which was not influenced by it.¹

¹ Much later, in the fall of 1940, the photographic demonstration of the SAPA radiation on Kodachrome film succeeded.

I tried observations in dark basement rooms where I kept the cultures. In order to increase the intensity, I made dozens of cultures. The subsequent observations in the dark were somehow "weird." After the eyes had become adapted to the darkness, the room did not appear black, but *gray-blue*. There were fog-like formations and bluish dots and lines of light. Violet light phenomena seemed to emanate from the walls as well as from various objects in the room. When I held a magnifying glass before my eyes, these light impressions, all of them blue or gray-blue, *became more intense, the individual lines and dots became larger.* Dark glasses reduced the impressions. When I closed my eyes, the blue light impressions continued, nevertheless. This was confusing. I did not know as yet that the orgone radiation irritates the optic nerve in a specific manner and produces after-images.

After one or two hours in the basement my eyes hurt and got red. One evening, I spent five consecutive hours in the basement. After about two hours, I could distinctly see a radiation from my palm, my shirtsleeves and (in the mirror) my hair. The blue glimmer was visible as a slowly moving, gray-blue vapor around my body and around objects in the room. I admit that I felt frightened. I called Dr. Bon by long distance telephone and told him of my experience. He told me to protect myself. However, since the radiation seemed to be "everywhere" and seemed to pervade everything, I did not know how I could protect myself.

I had our friend Dr. F. participate in these observations. Without knowing anything beforehand, he confirmed most of my observations. For several months, I subjected one person after another to the skin test and the observation in the dark basement. The descriptions I obtained from all these subjects were so uniform that the existence of the radiation could not be doubted. The most difficult task

was that of *distinguishing the objective phenomena in the room from the subjective phenomena in the eye.* In the course of the investigations, however, numerous techniques of making this distinction found themselves. Thus, I had people reach for luminous objects in the dark or tell me where an arm was at a given time; I let the subjects turn their eyes away from the light impression until it disappeared, and then to try to find it again. The radiation had a highly irritating effect on the optic nerve. A businessman who had gotten a piece of apparatus for me and once took part in the observations, said: "I feel as if I had been looking into the sun for a long time."

This expression on the part of a layman seemed very significant, especially in connection with the conjunctivitis which many subjects developed. One day I had the sudden idea, *sun energy*, and with that, a simple solution to the problem, though it seemed absurd at first glance: *The SAPA bions had originated from ocean sand. Ocean sand, however, is nothing but solidified sun energy. The process of heating and swelling had liberated this energy from the matter.* I fought down my emotional disinclination to accept such a conclusion. If the radiation in question had an immediate connection with sun energy, many phenomena found a simple explanation; e.g., the irritation of the eyes, the conjunctivitis, the rapid reddening and subsequent tanning of the skin. I had carried on these experiments during the winter and early spring, had not been in the sun, and yet had a strongly tanned body. I felt extremely vigorous and vegetatively alive. Gradually, I lost the fear of the dangerous sequelae of the radiation and worked with it without any attempt at protection.

The existence of an energy with an extraordinarily intense biological activity could no longer be doubted. The question was, what was the nature of this radiation

and what methods of measurement could be employed. One of my co-workers told an assistant of the Bohr Institute in Copenhagen about the SAPA bions. She considered the production of bions from sand so "fantastic" that I preferred not to expose my new discovery to a kind of investigation which was biased by disbelief on principle. In addition, I could offer no other starting points for a qualitative and quantitative determination of the radiation than biological effects and subjective sensations. The negative reaction of the cultures at the Oslo physicist's electroscope also was still unexplained. In addition, this was just after the press campaign of the Oslo pathologists and psychiatrists against the orgasm- and bion research; this campaign had destroyed any possible basis for friendly cooperation. Thus, there seemed to be no avenue of approach to a quantitative determination. There was nothing to do but to leave everything to the spontaneous development of the facts and to chance. This "chance" was not long in coming.

While waiting for it, I spent my time reproducing well-known electroscopic phenomena obtained by rubbing various materials. One day, I was in the process of rigging up a new experimental arrangement which involved high voltage. As an insulation, I put on a pair of rubber gloves which used to be kept in a glass cabinet in my laboratory. When I came near the electroscope with my hands, there was a strong reaction; the electroscope leaf moved up and then *turned to the side, toward the glass wall of the electroscope and adhered to it*. The fact that insulators can be "charged" was known to me. What was amazing was the lateral deflection of the leaf and its tenacious sticking to the glass: non-magnetic aluminum adhered to the glass; glass which is an insulator and which *had not been rubbed*. Whence this effect? It turned out that the gloves had been lying close to a pile of SAPA cul-

tures. As a control I put one glove in the open air in the shade while I experimented with the other, exchanging the two after a while. It was shown that the glove which had been kept in the open air for about 15 minutes did not influence the electroscope; on the other hand, if a previously neutral glove or other rubber object was kept together in a metallic enclosure with the cultures for about $\frac{1}{2}$ hour, it gave a strong electroscopic reaction. The result was the same on a number of consecutive evenings.

Rubber gloves, paper, cotton, cellulose and other organic substances took up an energy from the cultures which gave a reaction at the electroscope. High humidity, ventilation in the shade and touching the substances with the hands for several minutes eliminated the effect.

A first point of departure for the qualitative comprehension of the radiation had been won. The fact that the cultures charged the rubber and other organic substances could not be doubted; I could charge them at any time by bringing them in contact with the cultures and discharge them by ventilating them or putting them in water.

The situation became more complicated when I obtained *new* rubber gloves and found that they, too, gave a reaction at the electroscope, though they had been neither rubbed nor brought into contact with the cultures. That meant that the energy was present not only in the cultures, but "elsewhere" too. This finding disturbed the unequivocal nature of the culture reaction, but seemed important. Again I had the inevitable impression: the radiation is present everywhere.

Here, the statement of one of the experimental subjects, "I feel as if I had been looking into the sun for a long time," came to my aid. *Apparently, the radiation had to do with sun energy. If it was present everywhere, it had to come from the sun.* This suggested the experiment of ex-

posing uncharged rubber gloves to bright sunlight. After 5 to 15 minutes, it *regularly gave a strong reaction at the electroscope*. Now, I had double proof of the solar origin of the energy: first, the consideration that the experiment of heating sand to incandescence had liberated solar energy from the sand; second, the direct charging of insulators by the radiation of the sun. Long-continued irradiation of insulators with ultraviolet light had the same effect.

Further consideration said that if the radiation in question was emitted by bions and by the sun, then it was also present in the living organism. I put uncharged rubber gloves on the abdominal skin of a vegetatively very mobile patient. The result was positive: after 5 to 15 minutes' contact with the abdominal skin, the rubber gave a strong reaction at the electroscope. I repeated the experiment with a number of students and patients. The result was positive every time. In vegetatively sluggish persons and people with poor expiration the reaction was weaker. Increased respiration made it stronger.¹

Now, several previously obscure facts became understandable. Obviously, I was dealing with an unknown energy with a specific biological activity. This energy originated from matter which was heated to incandescence and made to swell; it came about probably through disintegration of matter (as in the case of the radiating bions). It was, furthermore, radiated into the atmosphere by the sun; consequently, it was "present everywhere." This solved the seeming contradiction that the rubber was not only charged by the SAPA bions, but that rubber which had not been exposed to the cultures also gave a reaction at the electroscope.

The newly discovered energy is present also in the living organism. *The living*

organism takes it up from the atmosphere and directly from the sun.

It was the same energy with which my blue bions—no matter what their origin—killed bacteria and cancer cells; only here the energy was contained within the small blue energy vesicles.

The energy was called "orgone." This term indicates the history of its discovery, namely, through the orgasm formula, as well as its biological effect (of charging organic substances).

Now I also understood the blue-gray vapors which I had seen in the dark around my head, hands and shirt sleeves: *organic substances absorb the orgone energy and retain it.*

The electroscope of the Oslo physicist had not reacted to the cultures because the electroscope can be activated *only indirectly, via insulators* which have been charged with orgone energy.

THE VISUALIZATION OF THE ATMOSPHERIC ORGONE

In order to study the radiation of the SAPA bions, a closed space had to be constructed which would close in the radiation and prevent it from rapid diffusion into the surroundings. No organic material could be used for this purpose, since, as we have seen, organic material absorbs the radiation. According to my observations, metal, on the other hand, would reflect the radiation and confine it within the enclosed space. However, the metal would reflect the radiation to the *outside*. In order to avoid this, the apparatus had to have *metal walls on the inside, and walls of organic material on the outside*. With this construction, it was to be expected that the radiation from the cultures would be reflected by the inner metal walls, while the outer layer of organic material (cotton or wood) would prevent or at least reduce the reflection to the outside. The front wall of the appa-

¹ Cf. "Drei Versuche am Statischen Elektroskop." Klin. und experim. Berichte, Nr. 7, 1939.

ratus was to have an opening with a lens through which the radiation could be observed from the outside.

The apparatus was built and about a dozen culture dishes were put into it. As a magnifying glass I used a film viewer with a cellulose disk; I assumed that the rays would hit this disk and become visible on it. The experiment was successful. It was possible to observe distinctly bluish moving vapors and light, yellowish points and lines. Several experimental subjects confirmed the observations. The result seemed to be unequivocal. But then a completely incomprehensible fact turned up. It was to be expected that the boxlike apparatus after being ventilated and not containing any cultures, would not show any light phenomena. If that were not so, I could not contend that the radiation came from the cultures. I did not have the slightest doubt that a control experiment would confirm this expectation.

However, to my greatest surprise, I found exactly the same light phenomena in the empty box, that is, in the absence of cultures. I assumed that the organic part of the enclosure had absorbed radiating energy from the cultures, and that it was this absorbed energy which showed in the control experiment. I took the box apart, dipped the metal plates into water, put in new cotton, ventilated for several days and tried again. My efforts were in vain. *It was impossible to remove the radiation phenomena from the empty box.* Whence came the rays in the box which did not contain any cultures? True, the light phenomena were not as intense as when the box contained cultures, but they were undoubtedly present.

I had another box built, with a glass wall in front, and without organic material. This box I kept carefully away from rooms in which SAPA cultures were kept. Since this box did not have a wall of organic material, the problem of energy absorbed by such material was eliminated.

It did no good. The radiation was still there. After a good deal of understandable puzzlement, I remembered that, after all, something similar had happened with the rubber gloves and the electroscope. Rubber, influenced by the cultures, had deflected the electroscope; water and moving air in the shadow had eliminated the phenomenon; renewed proximity of the rubber with the cultures had always produced it again promptly. But, rubber gloves which had never been near the cultures, and which had not been rubbed, had also produced the phenomenon. From these observations, I had to conclude that the energy which the cultures emitted must be present everywhere. Now, I had to draw the same conclusion from the fact that the box, without containing any cultures, still continued to show the radiation. *Where did it come from?*

Today, at a time when the orgone energy has become measurable and is in practical use with cancer patients, my earlier puzzlement seems unintelligent. After all, I had had the feeling from the beginning that the radiation was present everywhere. Too, the experiment of charging gloves on the human skin should have prepared me for the existence of radiation in the box even in the absence of cultures.

Being clever afterwards is easy. During the first two years, however, I doubted every one of my observations. Such impressions as "the radiation is present everywhere" or such observations as "spontaneously charged gloves" carried little conviction; on the contrary, they were apt to raise serious doubts. In addition, the continuous doubts, objections and negative findings on the part of physicists and bacteriologists tended to make me take my observations less seriously than they deserved to be taken. My self-confidence at that time—it was just at the end of the infamous Norwegian press campaign that I discovered the radiation—was not particularly strong. Not strong enough to

withstand the impact of all the new insights which followed from the discovery of the radiation. So many things began to totter which hitherto had been unshakable biological and bacteriological convictions: the theory of the air germs; the concept of "body-electricity," the concept that protoplasm was nothing but highly complicated protein, the mechanistic as well as the vitalistic concept of life, etc., etc. Nothing but the logical development of my experiments made me stick.

At a time when the most astounding phenomena have become part of everyday work it is interesting and useful to look back on such uncertainties. It gives one the courage which it takes to go on in spite of disturbing control experiments; not to kill new findings with superficial controls; *to check up oneself on negative control findings*; and, finally, not to give in to the temptation of taking it easy and of saying, "Oh well, it was just an illusion." The existence of the radiation was beyond doubt. I could not expect to be able to explain all the diverse phenomena at once. Even less could I allow myself to avoid the doubts and emotional upheavals which result from such confusing findings.

The explanation that the radiation in the absence of cultures corresponded to the reaction at the electroscope of rubber which had never been near the cultures was, of course, unsatisfactory. There was a void which I was as yet unable to fill.

For several weeks, I kept observing the radiation in the empty box. It remained the same as I had seen it from the first, rain or shine, fog or clear weather, with high relative humidity as well as low, at night as well as during the day. That meant that the radiation could not be the immediate result of the radiation of the sun as was the charge of the rubber exposed to the sun. The radiation came "from everywhere"; it was only impossible to say what this "everywhere" was.

In the summer of 1940 I took a vaca-

tion and went to Maine. One night, still under the pressure of this unsolved riddle, I watched the sky above the lake. The moon was low on the Western horizon; on the Eastern sky there were strongly flickering stars. I was struck by the fact that the stars in the West flickered far less than those near the Eastern horizon. If the theory that the flickering of the stars is due to diffused light were correct, then the flickering would have to be the same everywhere or even more intense near the moonlight. But exactly the opposite was the case.

I began to look at individual stars through a wooden tube. Accidentally, I focused the tube on a dark blue spot in the sky between the stars. To my surprise, I saw a vivid flickering and then flashes of fine rays of light. The more I turned the tube in the direction of the moon the less intense were these phenomena. They were most pronounced in the darkest spots of the sky, *between* the stars. It was the same flickering and flashing which I had observed so many times in my box. A magnifying glass used as an eye-piece in the tube magnified the rays. All of a sudden my box lost all its mysteriousness. The phenomenon had found a simple explanation: *The radiation in the box, in the absence of cultures, came from the atmosphere. The atmosphere contains an energy of which I had never heard.* It could not be identical with the "cosmic rays." Nobody had as yet seen the cosmic rays with the naked eye. The physicists contend that the "cosmic rays" reach the earth from far spaces of the universe, that, in other words, they do not originate on our planet itself. True, in recent times, objections to this concept have been voiced. If what the physicists call cosmic rays should prove to be of planetary origin, they would be identical with the orgone radiation. What the physicists call the great power of pene-

tration of the cosmic rays would be simply explained by the fact that the orgone energy is present everywhere.¹

I trained the tube on earth and rock and found the same phenomenon, stronger in one place, less pronounced in another. The clouds showed it also, only more intense. I realized that in the course of my control experiments on the SAPA radiation I had discovered the *atmospheric orgone energy*.

I shall attempt to give a systematic description of the orgone energy in such a manner that everyone can repeat its discovery without having to follow the complicated path over which I was led by my bion experiments. This re-discovery of the orgone will demonstrate many characteristics which are unknown in any other form of energy. Only after a presentation of these findings will we understand the logic which links the "blue bion" and its energy function with the atmospheric energy. Doubtless, the atmospheric orgone could have been discovered without the SAPA bions. But the complicated detour over the bion radiation reveals an insight of far-reaching importance: *The energy*

¹ Rudolf W. Ladenburg, in "The Nature of Cosmic Rays and the Constitution of Matter," Scientific Monthly, May 1942, states: "... The origin of the primaries of the cosmic rays is still a great puzzle. We do not know the processes responsible for the production of such immensely energetic particles. Some of them carry a million times more energy than the most energetic particles we can produce artificially. And as to the question of the constitution of matter our answer is still rather incomplete. We know that all matter consists of atoms, that the atoms consist of tiny nuclei surrounded by electrons and that the nuclei consist of protons and neutrons. There must be strong forces acting between the protons and neutrons holding the nuclei together. But we do not know what they are. They are not of electrical nature as we have seen, and many theories have been tried for understanding these forces. The discovery of the meson in the cosmic rays has raised some hope for reaching the goal, but this fundamental problem is still far from being solved." (Italics are mine, W. R.)

which governs the living is of necessity identical with the atmospheric energy; otherwise, it would not have led to the discovery of the atmospheric orgone.

IV. THE OBJECTIVE DEMONSTRATION OF THE ORGONE RADIATION.

1. "SUBJECTIVE IMPRESSIONS OF LIGHT"?

As children, we used to be fascinated by the light phenomena one can observe with one's eyes closed; small bluish dots would move to and fro in front of our closed eyes. They seemed to come from nowhere and would change their course with every movement of the eyeball; they would move slowly in gentle curves and rhythmically circling movements, somewhat like this:



It would be fun to change the form and course of the dots, e.g., by rubbing the eyes. In this manner, even the color of the dots could be varied: the blue would turn into red, green or yellow. Another part of the game was suddenly to open the eyes, look at a lamp, close the eyes again and watch the after-images. In our imagination, the various forms turned into rainbows, balloons, animal heads or human figures.

As we grew up and studied physics, mathematics and biology, such "games" lost their interest. We had to learn that these subjective visual phenomena were "unreal" and something which had to be distinguished from the objective measurable manifestations of light and its seven colors. These objectively measurable phenomena, in the course of time, drowned out the strong sensations originating in our own organs. These we no longer took seriously. The workaday world required full concentration on concrete tasks; in

this, phantasies could be only disturbing. But the subjective light phenomena remained, and many people will ask themselves whether such definite phenomena as the light impressions one can have with one's eyes closed do not reflect a reality after all. The illusionary character of these visual impressions is not as much a matter of course as it may appear.

We learned that the visual impressions with closed eyes were "only subjective," that is, "not real." Scientific research paid no attention to the problem. The subjective impressions were relegated to the realm of "human phantasy." Human phantasy life is at variance with reality and ever changing according to subjective wishes; thus, scientific research had to be based on the objective, realistic basis of experiment. The ideal experiment makes our judgment independent of our subjective phantasies, illusions and wishes. In short, man has no confidence in his perceptive capabilities. In his investigations he rightly prefers to depend on the photographic plate, the microscope or the electroscope.

But in spite of all the progress brought about by our turning from subjective experience to objective observation, it also made us lose an essential quality of research. True, what we observe objectively is existing—but it is unalive, dead. In the interest of scientific objectivity, we have learned to kill the living even before we proceed to make any statements about it. Thus we build, of necessity, a mechanical machine-like picture of the living, a picture in which is lacking the most essential quality, the specific aliveness. The aliveness reminds us too much of the intense subjective sensations of our childhood. These subjective vegetative sensations are at the basis of every kind of mysticism, be it Yoga, or the Fascist "surging of the blood," or the reaction of a spiritist medium, or the ecstasies of a dervish. Mysticism asserts the existence of certain forces

and processes which natural science denies or looks at with contempt.

Simple consideration says: *Man cannot feel or phantasy anything which does not actually exist in one form or another. For human perceptions are nothing but a function of objective natural processes within the organism.* Could there not be a reality behind our "subjective" visual impressions after all? Could it be possible that in these subjective impressions we perceive the biological energy within our own organism? Let us see whether this idea is as strange as it seems.

To do away with the subjective visual impression by calling it "phantasy" is erroneous. This "phantasy" takes place in an organism which is governed by certain natural laws; therefore, it must be *real*. We are only just emerging from a period in which medicine called all functional and nervous complaints "unreal" or "imaginary," because they were not understood. But a headache is a headache, and a visual impression is a visual impression, whether we understand it or not.

Of course we will reject the mystical assertions which are based on the *misinterpretation* of vegetative sensations. But that does not justify denying the existence of these sensations. We also have to reject a mechanistic natural science because it divorces the vegetative sensations from the natural processes taking place in the organs. *Self-perception is an essential part of the natural life-process.* It is not nerves here, muscles there and vegetative sensations in a third place; rather, the processes taking place in the tissues form an indivisible *functional unity* with their perception. This is, indeed, one of the essential guiding lines in our therapeutic work. Pleasure and anxiety represent a certain state of functioning of the total organism. We have to distinguish clearly between functional thinking and mechanistic thinking which cuts things apart and will never grasp living functioning. Let us put down

four important principles of a *functional* concept of nature:

1. Every living organism is a functional unit; it is not merely a mechanical sum total of organs. The basic biological function governs every individual organ as it governs the total organism.

2. Every living organism is a part of surrounding nature and functionally identical with it.

3. Every perception is based on the consonance of a function within the organism with a function in the outer world; that is, it is based on vegetative harmony.

4. Every form of self-perception is the immediate expression of objective processes in the organism (psychophysical identity).

Nothing is to be expected of the philosophical speculations concerning the reality of our sensations as long as the principle is not recognized that the perceiving *subject* and the observed and perceived *object* form a *functional unity*. Mechanistic science splits up this unity into a *duality*. The mechanistic empiricism of science of today is hopeless, for it excludes sensation completely.

Every important discovery originates from the subjective experiencing of an *objective fact*, that is, from vegetative harmony. It is only a matter of making the subjective sensation objective, of separating it from the stimulus and of comprehending the source of the stimulus. This is something which we, in our vegetotherapeutic work with the patient, do many times every hour in the process of comprehending the bodily expression of the patient. In this process, we identify ourselves with the patient and his functions. After we have comprehended them vegetatively we let our intellect work and thus make the phenomenon an objective one.

After this discourse on vegetative harmony, let us return to our infantile phantasies and visual impressions. How can we decide *objectively* whether or not our

visual impressions with closed eyes correspond to objective processes?

2. THE FLICKERING IN THE SKY MADE OBJECTIVE. THE ORGONOSCOPE

To begin with, let us try to find out whether similar phenomena can be observed with open eyes and in daylight. If we take plenty of time and observe carefully, we find that this is the case. If we look at a wall or a white door we see a *flickering*. It is as if shadows or fogs were moving more or less rapidly and rhythmically. We resist the temptation of doing away with this observation by calling it "merely a subjective impression" and make up our minds not to give up until we have found out *objectively* whether this flickering is taking place in our eyes or outside of our organism.

To begin with, it is not easy to think of a method of differentiating. We close our eyes. The flickering disappears but is replaced by the movements of forms and color. If we repeat the closing and opening of the eyes, we finally realize that the phenomena are *different* when we have our eyes open from when we have them closed.

We look at the blue sky, looking "as if in the far distance." At first, we see nothing. But if we continue to look carefully, we find to our amazement that the sky shows quite clearly a rhythmical, wave-like flickering. *Is this flickering merely in our eyes, or is it in the sky?* If we follow the phenomenon on different days, under varying weather conditions and at different hours of the day, we find that the kind and intensity of the flickering varies a great deal. In order not to be disturbed by the diffuse light which strikes our eyes from all sides, we repeat our observation at night. The flickering is *more distinct*. It is as if waves ran across the sky. Occasionally, we see a lightning-like dot or line. The flickering can also be seen on dark

clouds. If we continue the observation of the sky over a period of weeks, we notice variations in the flickering. On some nights it is only slight, on other nights very intense. The astronomers ascribe the flickering to "diffuse light." We used to accept this explanation as thoughtlessly as many others. But now we must ask ourselves whether the flickering of the stars could not have something to do with the flickering in the sky *between* the stars. Should this be the case, we would have the first indication of the objective existence of a moving unknown something in the atmosphere. Certainly, the flickering of the stars is not a subjective optical phenomenon. The astronomers build their observatories on great heights in order to exclude the flickering of the stars. If it were due to "diffuse light," it would be constant all the time. The variation in intensity cannot be explained on the basis of "diffuse light." The unknown something which makes the stars flicker must be moving close to the surface of the earth. It cannot be diffuse light. Such "explanations" only serve to hide the facts. Let us postpone the answer to the problem.

In these observations of the sky, it becomes necessary to delineate a small field of observation. We look at the sky through a metal tube about 2 to 3 feet long and 1 inch in diameter. Through it, we see a circle which appears *lighter* than the surrounding sky. If we keep *both eyes open* and look through the tube with one eye, we see the dark blue night sky and in it a disk of a lighter blue. *Within the disk, we see a flickering and then rapidly appearing and disappearing dots and lines of light.* Close to the moon, these phenomena are less pronounced; it is all the more distinct the darker the general atmospheric background.

Are we again the victim of an illusion? In order to decide this question, we insert an eye-piece with a magnification of about

5x into the tube. Now, the light disk appears larger, the dots and lines are larger and more distinct. *Since we cannot magnify subjective optical impressions, the phenomenon must be objective.* We have now delineated a field of observation and are able to observe the phenomenon under conditions which exclude the objection that it is a matter of diffuse light. In addition, the light disk appears within a black field formed by the dull inside of the tube. The inside walls of the tube show no flickering; it is strictly limited to the light disk; thus, no "subjective" sensation. Without intending to, we have constructed a primitive "*orgonoscope*." We can improve on it in the following manner:



Diagram: Orgonoscope

C: cellulose disk, outside surface dull

W.m.: wire mesh, on both sides of disk

M: metal cylinder, about 4" long, 2" wide

L: biconvex lens, about 5x, focused on disk

T: telescopic tube, 1 to 2 feet long, about 2" wide

E.p.: eye-piece, 5-10x, for additional magnification

We put our tube in front of the mirror of a good microscope with apochromatic lenses, using a 10x object lens and 5x eye-piece. Our eyes have to be adapted to the dark for about half an hour. The microscope shows the light phenomena in the sky very clearly. Every single lightning-like dot is clearly discernible. If we take

the eye-piece out of the tube, the flickering is seen on a smaller scale, but stronger; we no longer can distinguish individual dots.

Are the phenomena perhaps to be ascribed to the haze in the atmosphere? If we observe during a foggy or hazy night we find that the phenomena are absent or hardly perceptible. In other words, fog or haze does not produce flickering. *The motion of the light in the field of the microscope or the tube has nothing to do with moving fog.*

On detailed observation, we find that the light phenomena are present all over the sky; they only decrease close to stars or the moon because of the stronger light. They are most intense during clear nights and with a low relative humidity. If the humidity of the air exceeds 50%, the phenomena decrease in intensity. That is, *humidity absorbs the radiation in the atmosphere*, just as it absorbs the SAPA radiation.

We train our tube at night on various parts of the ground, the sidewalk, loose soil, the lawn, a wall, etc. We see the same movements of light particles. They are more intense on the soil than on the pavement. We look at shrubs at a distance of about a foot, moving the tube sideways toward the shrub and away from it. There can be no doubt that the phenomena are more intense at the leaves than in the surroundings. They seem to emanate from the leaves themselves. We observe flowers. The radiation is more intense at the blossom than at the stalk.

Soil, walls, shrubs, grass, animals, the atmosphere, etc., show the same phenomena, only in different intensities. The conclusion from these findings is inevitable: *The radiation phenomena are present everywhere. The radiating energy varies in density and intensity.* We may have wished to find it in one place and not in the other. Then the whole thing would have been a minor and harmless

discovery. But we have to follow the facts, no matter how weird they begin to look to us.

3. THE CONSTRUCTION OF A RADIATING ENCLOSURE. OBJECTIVE VISIBILITY

The fact that the orgone radiation is present *everywhere* presents a difficulty in experiment. In order to properly describe a phenomenon, we must isolate it and comprehend it by *comparing* it with something different. We have to construct an enclosed space in which we can separate the energy.

We try to see whether we can find out anything new in a completely darkened room. We adapt our eyes to the darkness for about half an hour. During this time, all subjective light impressions disappear. We see nothing but black, that is, nothing. We look through the tube; we see nothing. In other words, we only confirm the common experience that in an absolute darkroom there is absolute blackness. The radiation disappeared, and we are inclined to give up the "crazy idea." But to follow this inclination would mean not doing research. We cannot simply disregard the fact that on the outside we had established the existence of this peculiar manifestation beyond any doubt. It cannot have simply disappeared. But being convinced of something is one thing; *proving* it is another.

Since we do not know the properties of our atmospheric radiation we have to work with apparatuses such as are used in working with known energies. We might use a "Faraday cage," i.e., a room the walls of which are formed of copper wire mesh. Such a room is free of electromagnetic fields because all electromagnetic waves coming from the outside are caught by the wire net and are grounded. We observe the same principle when we cross a bridge with a metal superstructure in our car: the radio stops work-

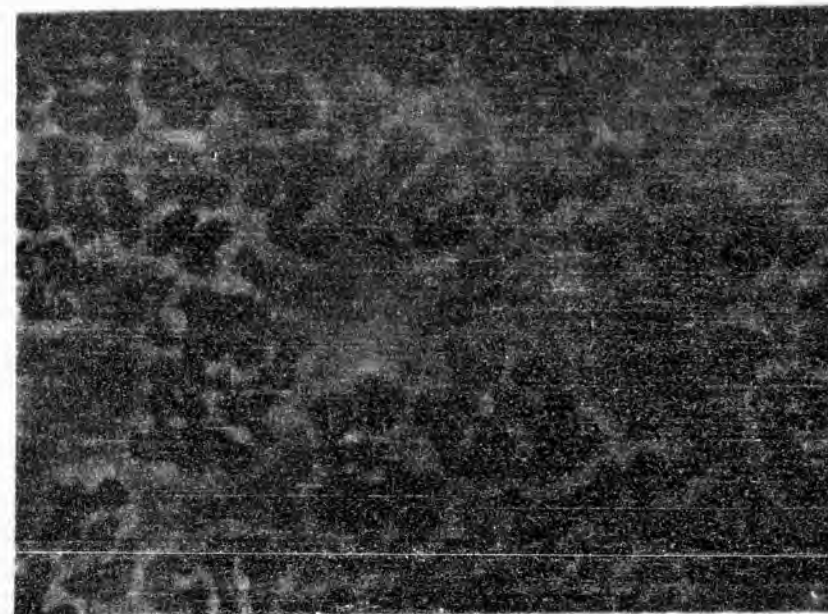


FIG. 1. Culture of PA bions. Approximately 3000x.



FIGS. 2 and 3. Cultures of SAPA bions in which the orgone radiation was discovered.

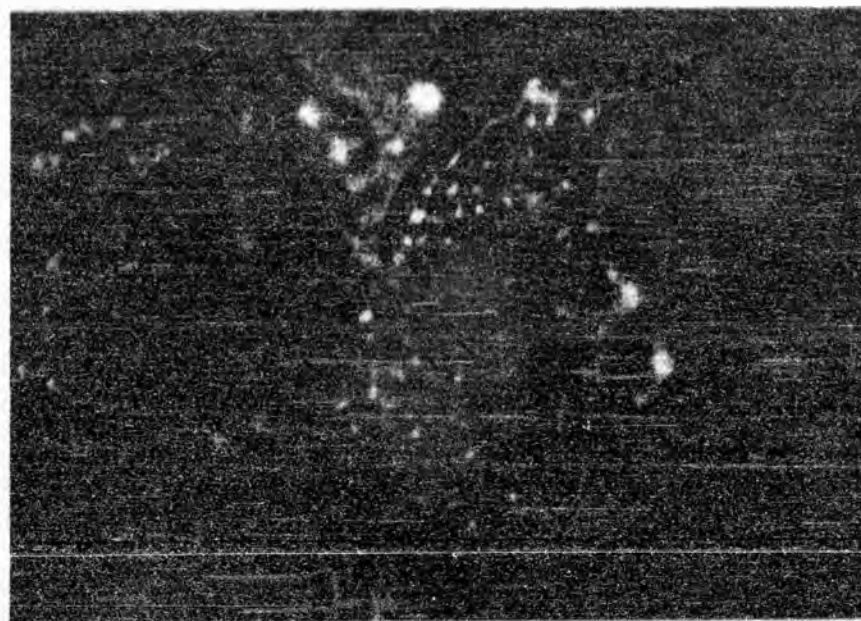


FIG. 4. Heap of bion vesicles in an advanced stage of organization.



FIG. 5. A phase in the development of a protozoon from moss.

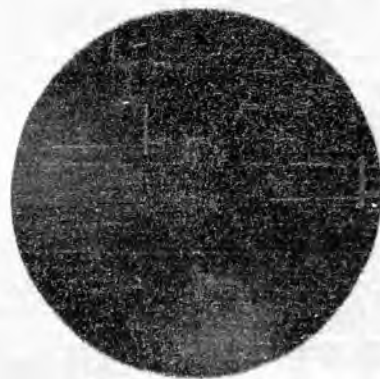


FIG. 6. T-bacilli from sarcoma. Approximately 5000x.

ing. In this cage, delicate oscillographic experiments can be carried out without interference.

We build such a cage, say, in a corner of the basement. In order to reduce the connection between inner and outer air to a minimum, we build an inside wall of sheet iron, leaving only a few cracks to admit sufficient air for breathing. We sit in the completely dark cage and adapt our eyes.

In the course of about half an hour the complete darkness gives way to a vague shimmer. Our eyes are irritated by peculiar light phenomena. It is as if vapors of a gray-blue color were slowly moving through the room. When we fix our eyes on a certain spot on the wall, we see moving light particles. The longer we stay in the room the more distinct the light phenomena. Within the gray-blue vapors we can distinguish light dots of a deep blue-violet color. They are reminiscent of the well-known subjective visual phenomena previous to falling asleep. We begin again to wonder whether the phenomena are inside or outside of our eyes. When we close our eyes, the blue-violet dots do not disappear. Are our optic nerves irritated, or are the light phenomena *not real*? One would expect them to disappear with the closing of the eyes and to reappear with opening them. On the other hand, there are subjective after-images. It is all not so simple. We must ask ourselves: how is it possible for our optic nerves to become irritated in complete darkness, and why can we not get rid of the phenomena in our eyes?

Many experimental subjects develop a conjunctivitis after an hour or more in the Faraday cage. Since, normally, the eyes rest in complete darkness, there must be something in the cage which excites the optic nerve and irritates the conjunctiva.

We repeat our observations in the dark cage, trying to find ways and means of answering some of the questions that arise.

For example: Can the bluish-gray and violet light manifestations be magnified with a magnifying glass? We find this to be the case. As they become more distinct, we observe that the light dots appear in two forms: they either fly in our direction or past us. In the first case, there is a succession of the following impressions:



Every light dot seems to become alternately larger and smaller, as if it were pulsating. If the light dot flies past us, we have a trajectory something like this:



We may call this trajectory, according to its shape, a spinning wave (*Kreiselwelle*). Its significance will have to be discussed later on. The violet light dots seem to come from the metal walls in *rhythmic* sequence.

After a considerable time—2 to 3 hours—in the cage, we find a bluish-gray shimmer around our white coat and are able to see the contours of another person, even though only vaguely. Let us not be led astray by the "mystical" and "spooky" impression of this phenomenon. There is nothing mystical about it. The radiation seems to adhere to substance, such as cloth and hair. We put some good fluorescent material, such as zinc sulfide, on a swab of cotton and fasten this to the wall. Our observation had been correct. The region of the cotton swab appears lighter than its surroundings. The magnifying glass makes the radiation more distinct; we see flickering and fine rays.

Another observation: A paper disk with a layer of zinc sulfide had been lying in the cage for several days. When we bend it, it emits a strong radiation. For a control, we expose another such disk to fresh

air, or we continue the bending for a considerable period of time. In either case, the light phenomena disappear. We leave one of the disks again in the cage for several days. On bending, the light phenomena are again present. That means, that the paper disk has absorbed orgone.

We now try to make the orgone in the cage visible from the outside. For this purpose, we cut a window about 5 inches square in the front wall of the cage. On the metal inside, we put a fluorescing glass plate across the opening, such as is used, e.g., to make Xrays visible.¹

In the opening of the exterior wooden wall we put a tube containing a biconvex lens of a magnification of 5 to 10x. The tube with the lens is removable so that the fluorescing disk can be observed both with and without magnification.

Inside the cage, we mount a green bulb such as is used in developing highly sensitive photographic plates. This bulb gives a steady dim light as a background for the orgone radiation. In this arrangement, we follow a hint given by nature: the orgone radiation is clearly visible against the dimly lighted night sky.

In order to reproduce the flickering of the stars, we drill a few holes of about $\frac{1}{8}$ " in the wall. Now, we observe the cage from the outside in complete darkness.

The light which we perceive through the holes is not steady, but flickers strongly; it is not green, but bluish.

On the fluorescing disk, strong motion can be observed. There is rapid flickering,

¹ Fluorescence, as distinct from luminescence, means light from substances which are influenced by invisible energy particles. In the case of luminescence, the light continues for longer or shorter periods of time even after the substance has been removed from the effective rays. Zinc sulfide is a fluorescent substance, calcium sulfide a luminescent substance.

and individual lightning-like dots and lines. As time goes on, we can distinguish vapors of a deep violet color which seem to emanate from the openings. The square where the radiation is visible is sharply defined against the black surroundings. The flickering is visible only within the square. The magnifying glass makes it possible to distinguish individual rays. On clear, dry days the phenomena are more intense and distinct than on humid or rainy days. The observation of the radiation within the Faraday cage is greatly improved through the use of the orgonoscope.

How does the energy get inside the cage? After all, the wire mesh is supposed to ground all electromagnetic energy. The inside of the cage should be free of any charges; if it were not, one could not carry out delicate electrical experiments in it without interference by electromagnetic forces. We find ourselves confronted by another problem:

Can the energy in the cage possibly be electricity? We have a double task before us:

1. To comprehend the characteristics of the radiating energy "orgone," now made visible.

2. To investigate the connection between orgone and electricity.

The subject of the succeeding article will be the phenomenon of *lumination* (*Erstrahlung*) of fluorescing gas tubes in the orgone box. Anybody who wishes to follow the succeeding presentations, however, should first convince himself of the visibility of the orgone in its *natural* condition, in the sky, the atmosphere, the soil and the living organism.

Concluded August 1941

FROM THE ORGONE AND CANCER RESEARCH LABORATORY

THE CARCINOMATOUS SHRINKING BIOPATHY†

By WILHELM REICH, M.D.

CONTENTS

- I. The biopathies
- II. Vegetotherapeutic considerations
- III. From the case history of a cancer patient
- IV. Conclusion

I. THE BIOPATHIES.

The cancer tumor is no more than a symptom of the cancer disease. Therefore, local treatment of the tumor—be it operation or irradiation with radium or Xray—affects not the cancer disease as such, but only one of its visible symptoms. Similarly, death from cancer is not due to the presence of one or more tumors. Rather, it is the ultimate expression of the systemic biological disease "cancer" which is based on a disintegrative process in the total organism. Medical literature contains no data concerning the nature of this systemic biological disease. "Cancer disposition" means nothing but the fact that back of the cancer tumor there are at work hitherto unknown processes of a fatal nature. Cancer cachexia, the typical final phase of cancer, must be considered nothing but the ultimate visible phase of this general, as yet unknown process called "cancer."

The term "cancer disposition" is misleading and meaningless. The term *cancer biopathy*, on the other hand, has a definite meaning. This series of articles will demonstrate the process which is the basis of cancer biopathy.

Under the term *biopathies* we subsume

† Translated by the Editor.

all those disease processes which take place in the autonomic apparatus. There is a typical basic disturbance of the autonomic apparatus which—once it has started—may express itself in a variety of symptomatic disease pictures. This basic disturbance, the biopathy, may result in a cancer (cancer biopathy) but equally well in an angina pectoris, an asthma, a cardiovascular hypertension, an epilepsy, a catatonic or paranoid schizophrenia, an anxiety neurosis, a multiple sclerosis, a chorea, chronic alcoholism, etc. What determines the development of a biopathy into this or that syndrome, we do not as yet know. What interests us here primarily is that which all of these diseases have in common: a disturbance of the biological function of pulsation in the total organism.

A fracture, an abscess, a pneumonia, yellow fever, rheumatic pericarditis, acute alcohol intoxication, infectious peritonitis, syphilis, etc., are *not* biopathies. They are not due to a disturbance of the autonomic pulsation of the total vital apparatus; they are circumscribed, and, if they result in a disturbance of the biological pulsation, they do so only secondarily. We shall speak of biopathies only where the disease process begins with a disturbance of the biological pulsation, no matter what secondary disease picture it results in. Thus,

we can distinguish a "schizophrenic biopathy" from a "cardiovascular biopathy," an "epileptic biopathy" or a "cancer biopathy," etc.

This addition to medical terminology is justified by the fact that we cannot comprehend any of the diverse diseases of the autonomic apparatus unless,

1) we distinguish them from the typical infectious diseases and traumatic surgical diseases;

2) we look for and find their common mechanism, the disturbance of biological pulsation;

3) learn to understand their differentiation into the various disease pictures.

The cancer disease lends itself particularly well to a study of the basic mechanisms of biopathy. In it, we find a great number of disturbances that everyday medical practice has to deal with. It shows pathological cell growth; one of its essential manifestations is bacterial intoxication and putrefaction; it is based on chemical as well as bio-electric disturbances in the organism; it has to do with emotional and sexual disturbances; it results in a number of secondary processes—such as anemia—which otherwise form disease entities by themselves; it is a disease in which civilized living plays a decisive role; it is of concern to the dietitian as well as to the endocrinologist or virus researcher.

The confusing variety of manifestations presented by the cancer disease only hides a common *basic disturbance*. The same is true, as we know, of the neuroses and functional psychoses which—in all their variety of form—have one common denominator: *sexual stasis*.

Sexual stasis represents a fundamental disturbance of biological pulsation. Sexual excitation, as we know, is a primal function of the living plasma system. The sexual function has been shown to be the productive life function per se. Thus, a chronic disturbance of the sexual function

must of necessity be synonymous with a biopathy.

The stasis of biosexual excitation may manifest itself, basically, in two ways. It may appear as an emotional disturbance of the psychic apparatus, that is, as a neurosis or psychosis. But it also may manifest itself *directly* in a malfunctioning of the organs and express itself as organic disease. As far as we know, it cannot produce actual infectious disease.

The central mechanism of biopathy is a disturbance in the discharge of biosexual excitation. This statement calls for the most detailed substantiation. It is not surprising to find that in the biopathy physical and chemical factors are at work as well as emotional factors. The biosexual emotion demonstrates the psychosomatic unity of the total biological system more forcibly than anything else. Thus it is to be expected that disturbances in the discharge of biosexual energy—no matter what their point of manifestation—will result in disturbances of biological functioning, in other words, in a biopathy.

BIOPATHIC SHRINKING

Living functioning in man is basically no different from that in the amoeba.¹ Its basic criterion is *biological pulsation*, that is, alternating complete *contraction* and *expansion*. In unicellular organisms, it is readily observed in the form of the rhythmical contraction of the vacuoles or the contractions and serpentine movements of the plasma. In the metazoa it is most readily seen in the cardiovascular system; the pulse beat represents the pulsation unequivocally. In the various organs, it takes a different form, according to their structure. In the intestines, it shows itself as a wave of alternating contraction and expansion, as "peristalsis." In the urinary bladder, the biological pulsation functions

¹ Cf. W. Reich, "Der Urgegensatz des vegetativen Lebens," 1934.

in response to the mechanical stimulus exerted by the filling of the bladder with urine. It functions in the striped muscles as contraction, in the smooth muscles as a wave-like peristalsis. In the orgasm, the pulsation takes hold of the total organism in the form of the orgasmic reflex.

Neither the pulsatory movements of the organs nor their disturbances such as shock, blocking, shrinking, etc., are compatible with the generally accepted notion that the nerves only transmit impulses while they themselves are rigid and immobile. *The autonomic movements are comprehensible only under the assumption that the autonomic nervous system itself is mobile*. The decisive question as to whether this is a fact can be answered by direct observation. We put small, sufficiently transparent worms under the microscope in such a manner that not only the ganglion but the ganglia *fibers* are in focus. As the worm is in constant motion, one has to learn to keep an autonomic fiber constantly in focus. Thus one can convince oneself that *the autonomic system does indeed expand and contract* and is not rigid. The movements of the nerves are serpentine, slow, wave-like, sometimes jerky. They always precede the corresponding movements of the total organism by a fraction of a second: first, the nerve, and its ramifications, contracts, and then the contraction of the musculature follows. The same is true of the expansion. As the worm dies, the nervous system gradually shrinks; with that, the organism bends. The process of gradual shrinking is occasionally interrupted by a contraction. After a shorter or longer period of complete immobility, the rigid contraction ("rigor mortis") subsides, the organism relaxes together with the nerves, and motion does not reappear.

Biopathic shrinking begins with a chronic preponderance of contraction and inhibition of expansion in the autonomic system. This is most clearly manifested in

the respiratory disturbance of neurotics and psychotics: the pulsation (alternating expansion and contraction) of lungs and thorax is restricted; the inspiratory attitude predominates. Understandably enough, the general contraction ("sympathicotonia") does not remain restricted to individual organs. It extends to whole organ systems, their tissues, the blood system, the endocrine system as well as the character structure. Depending on the region, it expresses itself in different ways: in the cardiovascular system as high blood pressure and tachycardia, in the blood system as shrinking of the erythrocytes (formation of T-bodies, poikilocytosis, anemia), in the emotional realm as rigidity and character armoring, in the intestines as constipation, in the skin as pallor, in the sexual function as orgasmic impotence, etc.

At this point, the careful reader will raise an objection. He will ask how one can speak of "shrinking" if it is only a matter of a chronic contraction of the autonomic apparatus. Is there not the possibility that the contraction will subside and that the function of complete pulsation will be restored? Should one not make a distinction between "chronic contraction" of the autonomic system, on the one hand, and its "shrinking" on the other? Could not the shrinking be a *result* of the chronic contraction, a gradual and premature dying off of the vital apparatus?

The objection is correct. *The biopathic shrinking in cancer is, in fact, the result of a chronic contraction of the autonomic apparatus*.

II. VEGETOTHERAPEUTIC CONSIDERATIONS.

The connecting link between sexual function and cancer disease is formed by the following facts with which sex-economic clinical experience has made us familiar:

1. Poor external respiration which in

turn leads to a disturbance of the internal respiration in the tissues.

2. The disturbed function of bio-electrical charge and discharge of the autonomic organs, particularly the sexual organs.

3. The chronic spasms of the musculature.

4. Chronic orgasmic impotence.

Up to now, the connection between disturbances in the discharge of sexual energy and cancer has not been investigated. Experienced gynecologists are well aware of the fact that such a connection exists. Respiratory disturbances and muscular spasms are the immediate result of a fear of sexual excitation (orgasmic impotence). Organs with poor respiration, organs which are spastic and insufficiently charged, are biologically weakened; thus, they are highly susceptible to cancer-producing stimuli, whatever they may be. On the other hand, organs which function biologically normally are not affected by these same stimuli. This is a necessary and logical assumption.

These clinically well-established facts—deficient biological charge, muscular spasm and deficient external and internal respiration—give the concept of "cancer disposition" a tangible content. I shall now attempt to show how sex-economic clinical experience led to cancer research.

Sex-economic observation of character neuroses showed again and again the significance of *muscular spasms* and the resulting devitalization in the organism. Muscular spasm and deficiency in bio-electrical charge are subjectively experienced as "being dead." Muscular hypertension due to sexual stasis regularly leads to a diminution of vegetative sensations; the extreme degree of this is the sensation of the organ "being dead." This corresponds to a block of biological activity in the respective organ. For example, the blocking of biosexual excitation in the genital always goes with a spastic tension

of the pelvic musculature, as is regularly seen in the uterine spasms of frigid women. Such spasms often result in menstrual disturbances, menstrual pains, polyps and fibromata. The spasm of the uterus has no other function than that of preventing the biosexual energy from making itself felt as vaginal sensation. Spasms representing inhibitions of vegetative currents are seen particularly frequently wherever we find *annular* musculature, for example, at the throat, at the entrance to and the exit from the stomach, at the anus, etc. These are also places where cancer is found with particular frequency. The disturbance in biological charge of a gland, a region of the skin or a mucous membrane is produced and maintained by a muscular spasm in the neighborhood of the affected site; the spasm prevents biological energy from charging the respective site.

In a woman whom I treated vegetotherapeutically, X-ray showed a beginning cancer of the 4th costal cartilage on the right side. This was due to a chronic spastic contraction of the right pectoralis muscle. This contraction represented a strong holding back in the shoulders because of repressed beating impulses. The woman had never experienced an orgasm and suffered from compulsive flirting.

In vegetotherapy, we see not only character neuroses, but also, of course, schizophrenic, epileptic, Parkinson-like, rheumatic and cancerous disturbances. If an organic disease develops, this may take place during the course of the treatment or afterward; in the latter case, one will remember the signs that foreshadowed the disease. The most frequent finding is *spasms in the pelvic musculature in women*, resulting, in the majority of cases, in benign tumors of the genital organs.

Vegetotherapeutic clinical observations raise the question as to the fate of the somatic sexual excitation when its normal discharge is barred. We know only that the biosexual excitation can be reduced or

inhibited by chronic muscular tensions. In female patients, these tensions often show in the form of hard lumps in the uterus. The spasm of the uterus usually spreads to the anal sphincter and the vagina, and beyond that, to the adductors of the thigh. The pelvis is always retracted, the sacral spine often stiff and ankylotic. Lumbago and pathological lordosis are typical manifestations of this condition. In the pelvis, any vegetative sensation is absent. During expiration, the wave of excitation is inhibited by the pulled-up chest and the tense abdomen. The excitation of the large abdominal ganglia does not progress to the genital organs and thus a disturbance of biological functioning necessarily results. The genitals are no longer capable of biological excitation.

Many women who suffer from genital tension and vaginal anesthesia complain of a feeling that "something is not as it should be down there." They relate that during puberty they experienced the well-known signs of biosexual excitation; and that later they learned to fight these sensations by way of holding their breath. Later, so they relate in a typical manner, they began to experience in the genitals a sensation of "deadness" or "numbness," which, in turn, frightened them. As the vegetative sensations in the organs are an immediate expression of the actual biological state of the organs, such statements are of extreme importance for an evaluation of somatic processes. (The fact has to be kept in mind that patients are rarely able to comprehend or describe their organ sensations spontaneously; it takes character-analytic exploration to make them able to do so).

The generally prevailing sexual inhibition of women explains the prevalence of cancer in the breast and the genital organs. The sexual inhibition may have existed for decades before it manifests itself as cancer.

The following case illustrates in a singularly simple manner the immediate connection between character armoring, muscular spasm and the onset of a cancer tumor.

A man of 45 came to my laboratory because of a complete obstruction of the esophagus by a cancer tumor. He was unable to take solid food at all; liquid food he soon vomited. X-rays showed a shadow the size of a small fist and a complete obstruction in the middle of the esophagus. The patient was rapidly losing weight and strength; there was a severe anemia and T-bacilli intoxication. The anamnesis revealed the following facts: Several months previous to the onset of the complaints, his son had been drafted for the army. This son was the patient's favorite; he became worried and deeply depressed. (He had always had a tendency to depression.) In the course of a few days, he developed a spasm of the esophagus. He had difficulty in swallowing; this disappeared, however, when he took a drink of water. At the same time, he had a sensation of oppression in the chest. These disturbances kept coming and going for some time, until finally they became stationary. The difficulty in swallowing increased rapidly. He went to see a physician who found the constriction and a small tumor. Treatment by X-ray did not help, and in the course of a few months the man got to the point of starving to death. I should like to add that he had suffered since childhood from a severe spasm of his jaw musculature; his face had a hard, rigid expression. Correspondingly, his speech was inhibited; as a result of the tension in his jaw muscles, he talked through his teeth.

The extent of the devastating results of the inhibition of the natural biological rhythm—as it is expressed in respiration and the alternation of sexual tension and gratification—can as yet not even be guessed at. Deficient external respiration must of necessity lead to a deficient internal respiration of the organs, that is, a deficient supply of oxygen and elimination of carbon dioxide.

When, some years back, I began to

comprehend the significance of the respiratory disturbance for emotional disturbances, I remembered the findings of Otto Warburg¹ concerning the metabolism in cancer tissue. Warburg found that all the various cancer-producing stimuli have one thing in common: they produce a local oxygen deficiency as a result of which there is a disturbance of respiration in the respective cells. Thus, the cancer cell is a poorly breathing cell. Warburg considers this oxygen lack in the cells one of the causes of cancer, in the following manner. In certain places, only such cells will develop as are capable of overcoming the respiratory disturbance. The cancer cells originate from such cells. It is a matter of a disturbance in the energy metabolism. The respiratory disturbance is characteristic of all known malignant tumors, including the Rous' sarcoma. *The metabolism of cancer cells, thus, has to be regarded as an anoxic condition of normally growing cells.* From this correct finding of Warburg we cannot, however, draw the conclusion that the cancer cell is nothing but a normal cell taking on a different mode of growth under the influence of oxygen lack. In reality, the cancer cell is—biologically speaking—basically different from the normal cell. It is nothing but a protozoal formation. (This will be shown in detail elsewhere.)

As stated before, these facts form the connecting link between the autonomic functions and the disease of cancer.

III. FROM THE CASE HISTORY OF A CANCER PATIENT. AN ATTEMPT AT VEGETO-THERAPY.

I shall now give the history of a cancer patient which lends itself particularly well to a demonstration of the nature of the shrinking biopathy.

The patient's brother related that her first complaint was a violent pain in the

right hip bone. The pain was constant and "pulling." At this time, her weight was about 125 lbs. Her physician diagnosed a sacro-iliac spasm. She was incapable of rising from the examination table. She was given injections of morphine and atropine, to no avail. The pain continued unabated and the patient was unable to leave her bed, where she lay flat and immobile. Three months after the onset, the patient began to vomit. At about the same time, the pain moved to the region of the fifth cervical vertebra. Xrays showed a collapsed vertebra. An orthopedic surgeon put the patient in a plaster cast. He was the first to find a collapse of the 10th dorsal vertebra, a metastasis from a cancer of the left breast. A biopsy confirmed the diagnosis of cancer. The patient was given Xray treatment of the pelvis and the spine and was sterilized by Xray. She was constantly in bed. When she left the hospital after the Xray treatment, the patient weighed 90 lbs.

The hospital case history showed the following data: Four months before admission, there were pains in the *right hip* which increased with walking and which made it difficult for the patient to sit down. The following is striking: the pains which kept the patient in bed for over two years did *not* set in originally at the place where the tumor was diagnosed. The pains were in the right hip; the primary tumor, however, was in the left breast, and several metastases were in the spine.

The patient also suffered from vomiting. The record states that she would lie flat in bed and was unable to move on account of her pains. She had no enlarged lymph glands. The tumor of the breast measured about 3 x 2 x 6 cm. Her legs showed limited motility, the sacrum was dislocated and stiff. Most of the spine was painful. The hospital diagnosis was: Carcinoma of the left breast with bone metastases. Four months after the onset of the pains, the

hospital physician pronounced the case hopeless.

Twenty-six months after the discovery of the breast tumor, the patient was brought to my laboratory, hardly able to walk, being supported by two relatives. The color of her skin, particularly of the face, was ashen gray. The pain in the back, sharply localized at the 12th dorsal vertebra, was violent. The left breast showed a tumor the size of a small apple, hardly movable. Blood examination: Hemoglobin 35%; T-bacilli culture in bouillon strongly positive after 24 hours. There were no bacteria; the erythrocytes were largely in bionous disintegration and showed T-bodies; there were small nucleated round cells and numerous T-bacilli. The autoclavation test gave predominantly blue bions, but the vesicles were small and showed very little radiation. Inoculation of the bouillon culture on agar resulted in clear-cut T-bacilli growth.¹ These blood findings pointed to an extreme biological debility of the blood system. Xrays showed the following:

The fifth cervical vertebra is collapsed. No significant findings at the other cervical vertebrae.

The dorsal spine shows collapse of the tenth and twelfth vertebra and a narrowing of the joint space between the third and the fourth vertebra. There is also strong suggestion of a metastatic lesion at the medial third of the right ninth rib.

No lesions are present at the lumbar spine, but there are three round areas of lesser density at the right ilium near the sacro-iliac joint which are very suggestive of metastatic lesions, although they might be gas shadows of the cecum.

Conclusions: Multiple metastatic bone lesions.

On the basis of the Xray pictures, the physician to whom I had sent the patient for a general check-up considered the case

¹ Cf. "Bion Experiments on the Cancer Problem," 1939.

hopeless. I was less impressed by the Xray pictures than by the biological debility of the blood. Two physicians, friends of the family, declared that the patient would live hardly more than two weeks, while another physician, on the basis of the information from the hospital, thought it was a matter of at most two months.

THE MUSCULAR ARMOR

The vegetative habitus of the patient, when first seen, was as follows: The chin seemed immobile; the patient talked through her teeth, as if hissing. The jaw muscles were rigid, as was the superficial and deep musculature of the neck. The patient held her head somewhat pulled in and thrust forward, as if she were afraid that something would happen to her neck if she were to move her head. This vegetative attitude of head and neck seemed, at first glance, sufficiently explained by the fact that her fifth cervical vertebra was collapsed. She had been wearing a plaster collar for some time, and there was a good reason for fearing a fracture of the cervical spine with rapid or extreme movements. The patient's neurosis made the best of this situation. As was shown later, the fear of moving the neck had been present long before the collapse of the vertebra. More than that: this attitude of the neck was part and parcel of a *general vegetative attitude which was not a result but the cause of her cancer disease.*

The reflexes were normal. *Respiration* was severely disturbed. The lips were drawn in and the nostrils somewhat distended, as if she had to draw in air through the nose. The thorax was immobile. It did not perceptibly participate in respiration and remained constantly in an inspiratory position. When asked to breathe out deeply, the patient was unable to do so; more than that, she did not seem to understand what she was asked to do. The attempt to get the thorax into the expiratory position, that is, to push it

¹ Cf., e.g., Biochemische Zeitschr., Bd. 317.

down, met with a vivid active muscular resistance. It was found that head, neck and shoulders formed a rigid unit, as if any movement in the respective joints were impossible. The patient was able to move her arms only very slowly and with great effort. The handclasp, both left and right, was very weak. The scapular muscles were extremely tense, standing out like taut cords. The muscles between the shoulder blades were sensitive to touch.

The abdominal wall was also tense and reacted to the slightest pressure with a marked resistance. The musculature of the legs seemed thin, as if atrophic, compared with the rest of the musculature. The pelvis was immobilized in a retracted position.

Superficial psychological exploration revealed the following: The patient had been suffering from insomnia for many years previous to the discovery of the cancer. She had been a widow for 12 years. Her marriage, which had lasted two years, had been unhappy. In contradistinction to the many cases of marital misery where the awareness of the unhappiness is absent, the patient had always been fully aware that her marriage was a failure. During the early months of her marriage, she had been much excited sexually and at the same time unsatisfied. Her husband had shown himself to be impotent. When, finally, the sexual act succeeded, he suffered from premature ejaculation, and the patient continued to be unsatisfied. During the first few months, her lack of sexual gratification made her suffer keenly; later, however, she "got used to it." She had always been fully aware of the necessity of sexual gratification, but had found no way of obtaining it. After the death of her husband, she devoted herself to the education of her child, refused any contact with men and withdrew from social activity. Gradually, her sexual excitation subsided. In its place, she developed anxiety states; these she combated by way of various

phobic mechanisms. At the time when I first saw her, she no longer suffered from anxiety states; she appeared emotionally balanced and somehow reconciled to her sexual abstinence and her personal fate in general. She presented the picture of neurotic resignation with which the character-analyst is so familiar; she no longer had any impulse to change her life situation. I avoided going any deeper into the patient's latent conflict and concentrated my attention on the organic changes which soon took place.

THE RESULTS OF THE ORGONE EXPERIMENT

A detailed presentation of the technique of orgone therapy will be given elsewhere. Here, I shall mention only the essentials.

Our orgone therapy experiments with cancer patients consist in their sitting in an orgone accumulator. The orgone energy which is concentrated in the accumulator penetrates the naked body and is also taken up by way of respiration. The duration of the individual session depends on the atmospheric orgone tension which is measured electroscopically.¹ I began with sessions of 30 minutes.

During the first session the skin between the shoulderblades became red; this was a region which two months later was to play an important role in the patient's functional disease. From the second session on, the reactions in general were more distinct and intense. The pain in the region of the tenth dorsal vertebra regularly decreased during the treatment; this improvement usually lasted until the next session. Humid and rainy weather always intensified the pains. During the second session, the redness of the skin spread to the upper part of the back and the chest. When the patient interrupted the irradiation for a few minutes, the redness disappeared, to return as soon as she

¹ The technical details of electroscopic measurement of the orgone concentration will be dealt with in a special article.

went back into the box. Beginning with the third session, the patient felt that the air in the box was "closer and heavier." She said, "I feel as if I were filling up," "I have a buzzing around the ears from the inside," "Something clears up in my body." During the third session, she began to perspire, particularly under the arms; she related that during the past few years she had never perspired.

All these reactions of the organism to the orgone radiation are typical in all cancer patients. In one patient one reaction will predominate, in another a different one. Such phenomena as redness of the skin, lowering of the pulse rate, warm perspiration and the subjective sensations of "something in the body getting loose, filling up, swelling," etc., admit of only one interpretation: The cancer habitus is determined by a general sympathicotonia, that is, vegetative contraction. For this reason, we find in most cancer patients rapid pulse, pallor, and dryness of the skin, often with a cyanotic or livid coloration, reduced motility of the organs, constipation, and inhibition of the sweat glands. *The orgone radiation has a vagotonic effect*, that is, it counteracts the general sympathicotonic shrinking of the organism. In the accumulator, the pulse will come down from 120 to 90 or from 130 to 110 within twenty minutes; this without any medication. Similarly, there is redness of the skin, and perspiration; the peripheral blood vessels dilate and the blood pressure decreases. Expressed in terms of biological pulsation, this means that *the plasma system relinquishes the chronic attitude of contraction and begins to expand vagotonically*. This expansion is accompanied by a reduction of the typical cancer pain.

The cancer pains are usually ascribed to local mechanical tissue lesions caused by the tumor. Doubtless this explanation is correct in one or the other case when the tumor presses on a nerve or a sensitive

organ. The typical cancer pain, of which I am speaking here, however, has to be strictly distinguished from these local, mechanically caused pains. Let us call it "vegetative shrinking pain." In order to understand its nature, we have to review a few hitherto generally overlooked facts.

Sex-economy had to give up the view generally held by medicine that the autonomic nerves in metazoa only transmit impulses but are themselves rigid. Such phenomena as the "pulling" pains remain unintelligible unless one realizes that the autonomic nervous system expands and contracts, that, in other words, it is mobile. This is confirmed, as stated before, by direct microscopic observation. We can see the fibers of the autonomic ganglia expand and contract; they move independently of the movements of the total organism; their movements precede those of the total body. The impulses appear first in the movements of the autonomic nervous system and are transmitted secondarily to the mechanical locomotor organs of the organism. This fact sounds revolutionary and strange. Yet it is, really, only a simple conclusion which I had to draw from the functions of pulsation in the organism and which afterward I was able to demonstrate by direct observation. *In the metazoon, the contracting and expanding ameba continues to exist in the form of the contracting and expanding autonomic nervous system*. This autonomic system is nothing but organized contractile plasma. Thus, the emotional, vegetative, autonomic movement is the immediate expression of the plasma current. The prevalent concept of the rigidity of the autonomic nerves is incompatible with every single phenomenon of biophysical functioning, such as pleasure, anxiety, tension, relaxation, and the sensations of pressure, pulling, pain, etc. On the other hand, the contractility of the autonomic nervous system, which forms a functional and histological unity ("syncytium"), ex-

plaints in a simple manner our subjective vegetative sensations. What we experience as pleasure is an expansion of our organism. The autonomic nerves, in pleasure, actually stretch out toward the world; the whole organism is in a state of vagotonic expansion. In anxiety, on the other hand, we feel a crawling-back into the self, a shrinking and tightness. What we experience here is the actual process of contraction in the autonomic nervous system.

The orgasm we experience as an involuntary expansion and contraction; this reflects the actual process of expansion and contraction in the total plasma system. The pain in cancer patients reflects the fact that the autonomic nerves retract from the diseased region and "pull" on the tissues. The expression "pulling" pain describes an actual process. It takes a mechanistically rigid, unalive, unbiological and unpsychological attitude to deny the simple and unequivocal fact that our organ sensations are identical with the actual processes in the autonomic system. Such a mechanistic concept relegates our organ sensations to the realm of metaphysics and cannot do justice to a single aspect of the cancer syndrome.

We understand now the seemingly strange phenomenon that in the orgone accumulator cancer pains regularly diminish or disappear. If the pains are not the expression of a local mechanical lesion but of a general contraction of the autonomic nerves, of a "pulling" at the tissues, then we understand that with the vagotonic expansion of the nerves the pulling, and with that the pain, subsides.

This fact reveals an essential effect of the orgone energy: *it charges living tissues and causes an expansion of the autonomic nerves (vagotonia).*

The general vitalization of biological functioning by the orgone radiation is also reflected in the blood picture.

Our patient came with a hemoglobin of 35%. Two days later it was 40%; after

four days, 51%; after a week, 55%; after two weeks, 75%, and after three weeks, 85%, that is, normal. The patient got up, took her child back to live with her and, after years of being bedridden, began to work again. She was inclined to overdo things; she went shopping, spending hours at a stretch in department stores. She was free from pain, slept well and felt entirely well. She did her housework all by herself. I had to remind the patient of the fact that she was getting over a very serious illness and had to warn her to take it easy. My warnings were justified. After about 6 weeks, the patient began to feel tired, and the hemoglobin dropped to 63%. The pains in the back did not return, but she began to complain about difficulties in breathing and about a "wandering" pain in the ribs, in the diaphragmatic region. She was prescribed bedrest, and the hemoglobin content soon improved, returning to 83% after another week. The weight remained constant at about 124 lbs. After another four weeks, the hemoglobin was still 85%.

The patient was no longer brought to me by car; she came every day by subway. Her relatives and physicians were amazed. As to the physicians, I met with a peculiar attitude which is incomprehensible from a rational point of view, an attitude which appears when, for a change, the case of a cancer patient is *not* hopeless. They did not ask how the improvement had been brought about. At the beginning, I had sent the patient to a physician who predicted that she would die within a few days. Now, the same patient was up and around and her X-ray pictures showed complete ossification in a previously cancerous spine; similarly, the shadows in the pelvic bone had disappeared after two weeks' treatment. Yet, none of the physicians showed any interest in what was going on.

These X-ray pictures showed the healing process unequivocally. They confirmed

what I had seen so often in my cancer experiments with mice: the orgone energy arrests the growth of the tumor and replaces it by a hematoma which—under favorable conditions—is eliminated by connective tissue or, if the tumor is in a bone, by calcification.

BIOLOGICAL BLOOD TESTS

I shall give here a brief résumé of what will be presented in detail elsewhere: *the orgone energy charges the red blood corpuscles.*

Every individual erythrocyte is an independent organotic energy vesicle. It follows the same pulsation and function of tension and charge as the total organism and each of its organs. With a magnification of about 3000x, expansion and contraction of the erythrocytes can easily be observed. Under the influence of adrenalin, the erythrocytes shrink, with potassium chloride they expand; that is, they follow the antithesis of pleasure and anxiety.

Our blood tests in cancer patients are done as follows:

1. *Culture test.* A blood sample is tested for bacterial growth in bouillon or in a mixture of 50% bouillon plus 50% KCl (0.1 N). The blood of advanced cancer patients regularly gives a strong growth of T-bacilli (cf. "Bion experiments on the Cancer Problem," 1939).

2. *Biological resistance test.* A few drops of blood in bouillon and KCl are autoclaved for half an hour at a steam pressure of 15 lbs. Healthy blood withstands the autoclavation better than the biologically devitalized blood of cancer patients. Biologically vigorous erythrocytes disintegrate into large blue bion vesicles. Devitalized erythrocytes in cancer blood disintegrate into T-bodies. Depending on the degree of devitalization, the content in T-bodies increases and that of blue bions decreases.

The orgone treatment charges the erythrocytes. This is shown by the fact that the T-reaction changes into a B-reaction; that is,

the blood becomes more resistant to destruction by high temperatures.

3. *Disintegration in physiological salt solution.* A small drop of blood is put on a hanging-drop slide in 0.9% NaCl solution. According to their biological resistance, the erythrocytes disintegrate slowly or rapidly. The more rapidly they disintegrate, and the more rapidly their membrane shrinks and they form bion vesicles on the inside, the lower is their biological resistance. Biologically vigorous erythrocytes can retain their shape for 20 minutes or longer. Disintegration within 1 to 3 minutes indicates extreme biological weakness. In the case of marked anemia, the erythrocytes show the typical T-bodies, i.e., shrinking of the membrane.

4. *Blue orgone margin.* When observed with apochromatic lenses at a magnification of 2-3000x, biologically vigorous erythrocytes show a wide margin of an intense blue color. Devitalized erythrocytes with a tendency to rapid disintegration show a very narrow margin with a weak blue coloration.

In our patient, the blood tests showed a general biological strengthening of the blood. When the patient first came, the blood cultures were strongly positive, that is, they showed intensive growth of T-bacilli. Three weeks later, the cultures were negative and remained so. The erythrocytes no longer showed shrinking and had a wide margin of deep blue. The autoclavation test resulted in 100% bionous disintegration and no longer in a T-reaction. The disintegration in salt solution now took place very slowly and without the formation of T-bodies.

The patient was free from pain and felt generally well, except that she reacted with malaise to rainy weather. She regularly came for her daily orgone treatment. The blood pressure remained constant at about 130/80. The pulse rate was and remained normal. There was only one symptom which not only failed to disappear but became more pronounced. This was a respiratory disturbance which at first was ill-defined.

THE APPEARANCE OF THE CANCER BIOPATHY

I shall proceed now to a description of the cancer biopathy which made its appearance only after the elimination of the tumors and the restoration of the normal blood picture. I did not have the faintest inkling of what I am going to describe here; I experienced it at first with utter amazement and lack of comprehension. It was difficult to understand the connection between the two series of phenomena. What happened was this: After the cure of the local cancer tumors, a general vegetative disease picture appeared which previously had been hidden and which formed the actual background of the cancer disease: the shrinking biopathy.

The patient seemed to have regained her complete physical health. This happy state of affairs lasted about six weeks and was objectively confirmed by the blood tests and the X-ray pictures. The tumors had disappeared. The blood remained healthy, the anemia did not recur. The tumor in the left breast was no longer palpable after the eighth orgone irradiation. With purely mechanistic pathological concepts, one would have proclaimed a "cure" of this cancer case. At the same time, however, certain emotional symptoms became more and more pronounced and kept one from jumping to premature conclusions.

At the time when the patient first came she had not felt any sexual desire for a long time. About four weeks after the beginning of orgone therapy I observed in her signs of sexual stasis. Up to that point, she had been gay and full of hope for the future; now, a depression began to set in and she developed signs of stasis anxiety. She began to withdraw from people again. As I learned from her, her attempts to straighten out her sexual situation had failed. She related that for some time now she had been suffering from intense sexual excitation; these excitations were much more intense than those which

she had experienced 14 years earlier, at the beginning of her marriage, and which she had fought then. To judge from her description, it was a matter of normal vaginal excitations. During the first two weeks of getting well, she had made a few attempts to establish sexual contact; failing in this, she became depressed and felt physically exhausted. These attempts, which were entirely healthy, were continued for several weeks. One day she asked me whether it would be harmful to have sexual intercourse "once a month." The question had an apprehensive ring to it and was at variance with her sexual knowledge. It pointed to an irrational fear: she began to develop *the fear that a dangerous accident would happen to her in sexual intercourse, since, as she said, "her spine was demolished in two places."* She was afraid of what might result from the violent motions connected with sexual excitation. It is to be noted that this idea did not appear until *after the failure* of her attempts to find a sexual partner. She had met a man who proved impotent. She became furious but fought back her hatred and disillusionment. When another attack of anger would come, she would "swallow her anger." Now, the patient presented the complete picture of a stasis neurosis. The depression became more severe and she suffered from uncontrollable crying spells; she felt "a dreadful pressure in her chest—it goes through and through."

One might have been tempted to explain this "pressure in the chest" on the basis of the collapsed 12th dorsal vertebra. But simple consideration contradicted this assumption. For six weeks the patient had had no pain in spite of working hard; it was inconceivable that a *mechanical* pressure of the collapsed vertebra on a nerve should now suddenly become effective after not having made itself felt for weeks. What followed showed that the patient was developing an anxiety hysteria. This neurosis made use of the spine lesion as a

rationalization. It was to be expected that from now on every psychiatrically untrained physician would ascribe all symptoms to the collapsed vertebra, overlooking the fact that this same vertebra had been no less collapsed at the time when the patient was going around without pain for a number of weeks.

After about ten orgone irradiations, the patient had begun to experience sexual excitation. The orgone energy had charged her biosexually, but she was unable to handle the sexual excitation. The anxiety neurosis which she now developed was only a reactivation of old conflicts; in puberty, she had suffered from similar states. The patient now found herself in the tragic situation of waking up to new life, only to be confronted by a nothingness. As long as she was ill, the tumor and the resulting suffering had absorbed all interest. Indeed, her organism had used up great amounts of biological energy in the fight against the cancer. These energies were now free, and in addition were amplified by the orgonotic charge. In a phase of particularly intense depression the patient confessed that she felt herself ruined as a woman, that she felt herself to be ugly and that she did not see how she could suffer this life. She asked me whether the orgone energy could cure her anxiety neurosis also. This, of course, I had to deny, and the patient understood the reason.

Summarizing the sequence of events, we have the following:

1. In the beginning of the marriage, a severe stasis neurosis due to the husband's impotence.
2. Repression of sexual excitation, resignation, depression and a decade of abstinence.
3. The sexual excitations disappear while the cancer disease develops. As we shall see later, the cancer metastases developed exactly in those organs which played a dominant part in the muscular armor

which repressed the sexual excitation.

4. Elimination of the tumors by the orgone energy, physical recovery of the patient and reappearance of sexual excitability.

5. The high-pitched sexual excitation ends in disappointment; the old stasis neurosis reappears.

This constellation then resulted in a general shrinking of the vital apparatus.

One day there occurred a mishap. The patient left the orgone box and began to dress. She bent over to pick up a stocking and suddenly let out a shriek. We found her pale, with a thready pulse, on the point of fainting. We became frightened because we did not know what had happened. We, too, felt the collapsed vertebra to be a Damocles' sword. Nobody knew when the patient might suffer a fracture of the spine. Just because this fear seemed justified, it lent itself so well to a rationalization of the patient's neurosis. When the patient calmed down it was shown that she had only experienced a fright. For a moment she had believed that by her swift movement she had really broken her spine. Actually she had only suffered a slight strain at the shoulderblade; she had made too swift a movement with a hyper-tonic muscle. During the next few days, the patient felt well, but four days later she complained of heavy "pressure in the chest" and "weakness in the legs." During these days, the reflexes were normal. Three days later she again felt more strength in her legs, but the pressure in the chest persisted. On one of the following days, during a conversation in the treatment room, the patient suddenly cried out and doubled up, so that everybody present immediately thought of a fractured vertebra. Yet, all reflexes were absolutely normal. But now there was a new symptom which kept the patient in bed for many months and which deceived a number of physicians.

When the patient doubled up, she

stopped breathing; she no longer could breathe out properly and kept gasping for air. I had the impression of a *spastic contraction of the diaphragm*, a diaphragmatic block.

The pain in the lower ribs about which the patient now complained could be ascribed either to this spasm or to the mechanical pressure of the collapsed vertebra on a sensory nerve. *The collapsed 12th vertebra corresponded to the costal insertion of the diaphragm.* What happened during the ensuing months was essentially a clash of opinions as to which of the two interpretations was correct. I advised the relatives to take the patient to the orthopedic surgeon whom she had consulted previously. The surgeon declared that the spine and the pelvis were free of shadows and metastases and that the patient's condition was due to a mechanical lesion at the 12th dorsal vertebra. What had made the metastases disappear he did not inquire about. He prescribed bedrest in a plaster cast. The patient's brother refused to take this advice because he had followed the course of his sister's disease with great understanding and was convinced of the correctness of my interpretation.

It was during this period that I first began to understand the connection between the lesion of the 12th vertebra and the biopathic contracture of the diaphragm. It could be no accident that the diaphragmatic spasm—a symptom so well known to the vegetotherapist—should appear just at this time. There also seemed to be significance in the fact that one of the main metastases had appeared just at the insertion of the diaphragm. This *concurrency of diaphragmatic spasm and lesion of the vertebra* complicated the clinical diagnosis considerably; on the other hand, it opened an avenue of approach to the understanding of the extremely important *connection between emotional muscle spasm and the localization of metastases.* One of the tasks of this

series of articles will be to demonstrate the fact that *the localization of a cancer tumor is determined by the biological inactivity of the tissues in its immediate neighborhood.*

The orgone treatment had to be interrupted because the patient was again bedridden. Renewed examination at a cancer hospital and by private physicians revealed calcification of the defects in the spinal column and the absence of cancer growths. The original breast tumor did not reappear. But nobody could foresee whether or not new cancer growths might appear. I saw the patient repeatedly at her home. She complained of violent pains in her lowermost ribs. The pain was neither constant nor definitely localized; it appeared at various places along the costal margin and could always be eliminated by correcting the breathing. The whole thing looked like a neuralgia with a marked hysterical component. The patient lay flat in bed and gave the impression of being completely unable to move. If one tried to move her arms or legs, she would cry out, become pale and would break out in a cold sweat. A few times I succeeded in getting her out of bed into an easy chair by making her breathe deeply for about 10 minutes. The relatives were amazed that I should be able to eliminate the pain so easily. They had seen the tumors disappear and had had this confirmed by outside physicians. As I worked without drugs or injections, my orgone therapy seemed mysterious. In order to counteract this impression, I tried to explain to the relatives the mechanism of the disturbance. They realized very soon that the pain could not be due to the lesion of the vertebra, otherwise it would have been sharply localized and it could not have been eliminated by improved respiration. At that time, I had as yet no idea of the fact that in reality the patient did not have any pain but a *panicky fear of the onset of pain.*

An intercostal injection of an anesthetic

was tried at the point where the pains were most violent. The anesthetic had no effect; shortly after the injection the pains appeared at *another* rib. The physicians who had been convinced that the pains were the result of the vertebral lesion finally had to admit that they were essentially "functional." But nobody could tell what was the "meaning" of the "functional" symptom. In addition, to most physicians "functional" means "not organic," that is, "not real but imaginary."

One day I found the patient again in violent "pain." She was gasping for air and produced peculiar groaning sounds. The condition seemed serious, but gave way promptly when the patient succeeded in breathing down and when the spasm of the jaw muscles was released. I turned over the work on the respiration to a colleague because I was going away for two months. He reported later that again and again it had been possible to eliminate the pains by the establishment of full expiration.

The patient was taken to a cancer hospital once more. The hospital physician confirmed again the complete absence of metastases in the bones. He doubted that X-ray therapy would eliminate the pains or that a surgical procedure at the nerve of the 12th segment would help. This was 5 months after the initiation of the orgone therapy, and 3½ months after its interruption. When the patient's brother told the hospital physician about the result of the orgone therapy, he became very reserved. He said he could not go into that until it was "recognized by official medicine." He overlooked the fact that he himself was a representative of "official medicine" to which he shifted the responsibility for the recognition of the results of the orgone therapy in this cancer case.

The patient soon returned home and continued to lie flat in bed. The atrophy (of disuse) of her muscles progressed, and the danger of a recurrence of the tumors

was considerable. A month later, I saw the patient again. I succeeded again in eliminating the pains by improving respiration. The patient was able to get out of bed but felt very weak. One day, during one of these attempts to stay out of bed, I saw the patient develop severe anxiety; she implored me to be allowed to go back to bed. At that moment, *she had no pains.* I insisted on her staying up. All of a sudden, she began to tremble violently, was scared, broke out in a cold sweat and turned pale. In other words, she experienced a violent, shock-like reaction of the autonomic system to the standing up. I did not let the patient go back to bed because I noticed that *some fear made her want to go back to bed.* A few moments later, there were visible convulsions in the upper abdomen, and she gasped for air; the chronic spasm of the diaphragm dissolved itself into clonic convulsions of the abdominal musculature. After this, she felt greatly relieved and was able to move about freely.

Now, I understood a basic feature of biopathy. The biological charging of her organism by the orgone had resulted in sexual excitations; to these, she had reacted with a contracture of the diaphragm. (The repression of sexual excitation by way of a chronic attitude of inspiration is a phenomenon well known to the vegetotherapist.) This contracture of the diaphragm apparently caused the "pressure in the chest" and the pain-like sensations which were ascribed to the collapsed vertebra. The pressure in the chest disappeared every time I succeeded in overcoming the inspiratory spasm and thus in restoring the pulsatory movement of the diaphragm. But it was just these contractions and expansions of the diaphragm which caused violent anxiety which the patient tried to escape by falling back into the inspiratory attitude. As was shown now, the "danger" of a clonic dissolution of the contracture was too great when the patient was stand-

ing up or walking around. *The danger consisted in the violent convulsions which threatened to dissolve the diaphragmatic spasm. She did not dare leave her bed because she was very much afraid of these convulsions.* It was this fear, then, which kept her in bed, although it was not the exclusive motive for staying in bed.

Doubtless, the diaphragmatic spasm created neuralgic pains in the ribs and at the insertion of the diaphragm. But this spasm accounted only in part for her enormous fear of motion; the more important part was her fear that if she moved she would "collapse" or "break her back."

The involuntary convulsions of the diaphragm which threatened to set in when she got up only seemed to justify this fear. Thus, she really did not suffer from acute pains, but from a *tremendous fear of sudden violent pains*. This fear was further increased by the experience of a few months before, when "something seemed to crack when she moved too suddenly." In other words, she suffered from a misinterpretation of normal vegetative sensations such as accompany the movement of the diaphragm. Her staying in bed was a strong defense mechanism against the fear of "breaking apart." This fear would arise as soon as the diaphragmatic spasm was about to dissolve itself into clonic movements. This she would counter with an intensification of the diaphragmatic contraction. Of course, this fear and her reaction to it had far-reaching physical results, for it led to a general muscular tension which was to prevent any motion; the long duration of the consequent immobility led to an atrophy of the musculature. For example, she was hardly able to lift her arms; when she lifted her left arm, she lifted it with the aid of her right. She was unable to lift her legs and hardly able to bend her knees. The head was kept rigid. Passive movement of the head was strongly resisted. The patient was afraid of "breaking her neck." All physicians had

warned her against rapid movements because the fifth cervical vertebra was collapsed.

On one of the following days I found the patient in a very bad condition. In spite of a strong urge to defecate, she had not gone to the bathroom for several days, in order not to have to leave her bed. As on previous occasions, the "pains" disappeared when the patient was made to breathe, and she was able to get up. She had an enormous bowel movement without any difficulty.

I told her brother that I would undertake an attempt at vegetotherapy for two weeks (without remuneration), but that I would have to stop if it showed no results. She moved to my neighborhood and for the next few weeks I worked with her for about 2 hours every day. This work disclosed the phobic background of her biopathic condition.

THE CHARACTEROLOGICAL EXPRESSION OF THE SHRINKING BIOPATHY

Six months after the collapse in my laboratory the patient developed a paralysis of the rectum and the bladder. The question was whether this was due to a local mechanical lesion or, as I suspected, to a functional shrinking of the autonomic system. In the first case, emotional motives would be absent and the symptoms would point to a sharply localized lesion. In the second case, one would expect prominent emotional and character disturbances and an inconstancy of the paralytic symptoms.

When I explained to the patient again and again her fear of the pains, she became capable of moving in her bed without any pain. In order to be able to move, however, she always first had to mobilize her respiration and to loosen up the spasms of her jaw musculature. As she put it, she always had first "to get rid of the fear of moving." In the case of mechanical lesion of the nerve, this would not have been possible.

When she succeeded in turning on her

side or her stomach, she always seemed extremely exhausted. We looked for the reason for this peculiar exhaustion and finally found it in an extreme tension of the musculature of the neck and throat. The patient looked as if her head were being pulled into the thorax. It was the same attitude one involuntarily assumes to protect oneself against a sudden blow on the head. This muscular attitude was completely autonomic; the patient could neither control nor consciously loosen it. When this contraction of the musculature of the neck and throat occurred, respiration ceased and the patient's throat rattled as if she were choking. In order to loosen up the spasm, I had her stick her finger down the throat. To this she promptly reacted with a gag reflex which was so violent that she turned blue in the face. After a while she felt "greatly relieved in the throat."

In connection with these throat reflexes, she began to tell me spontaneously about her anxiety dreams. She dreamed every night, with intense anxiety, that she was falling into an abyss; that she was choking or that something was falling on her and she was being destroyed. With such dreams of falling the vegetotherapist is very familiar. They occur typically toward the conclusion of a character-analysis, at a time when pre-orgastic sensations in the abdomen and the genital begin to appear and are suppressed before becoming conscious. These sensations, if anxiety-laden, are experienced as *falling*. This is based on the following mechanism:

Pre-orgastic excitation is the onset of an involuntary convulsion of the plasma system. If the organism is afraid of this convulsion, it will develop—in the midst of an expansion which should end in a convulsion—a *counteracting contraction*, in other words, an *inhibition of the expansion*. This results in a sensation like that which one experiences when an elevator suddenly starts down or an airplane drops

rapidly. *The sensation of falling is the perception of a contraction of the autonomic system in the process of inhibiting an expansion.* The typical falling dreams are often accompanied by a sudden contraction of the total body.

In the case of our patient this means the following: She reacted to vagic sensations of expansion regularly with spastic contractions; her organism became fixated, as it were, in the muscular spasms in the throat and the diaphragm, as if "not to lose hold." The fear of the convulsions diminished considerably when I succeeded in eliminating the spasms by eliciting the gag reflex. Then the movements which she executed in bed no longer resulted in spasms but in pleasurable sensations.

Every plasma current begins with a central contraction (tension) which dissolves itself into a vagic expansion;¹ the vagic expansion goes with the sensation of pleasure; in the case of orgasm anxiety, it is inhibited and results in muscular spasms. We understand now: *The patient suffered from a spastic reaction to vagic expansion as the result of orgasm anxiety. Biopathic shrinking begins with a spastic restriction of biological pulsation.* It differs from the simple sympatheticotonic stasis neurosis insofar as, here, the impulses to expansion gradually subside, while in the stasis neurosis they maintain their intensity. A sharp distinction, however, cannot be drawn.

This mechanism of spastic reaction to vagotonic impulses of expansion functioned in a different manner in the different muscle systems. For example, when I tried to move the patient's arms passively, she always reacted with a contraction of the shoulder musculature and the flexors of the arms; the reaction was similar to the muscular negativism and rigidity in catatonics. The patient presented the picture of a flaccid paralysis of the arms. When I asked her to hit my arm, she was

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at first unable to do so. But when I made her imagine that she was now letting out her suppressed anger, she was able, within five minutes, to get rid of the paralysis and to hit quite freely. At the end, she experienced pleasure in the motion and the action. The paralysis seemed to have been eliminated to a considerable extent. Thus, the patient was able to overcome her fear of expansion and of the plasmatic pulsation temporarily. This regularly improved her general condition considerably.

The same thing could be observed when I sat her up passively in bed. She always became frightened, began to gasp for breath, turned pale and repeated several times, with an expression of severe anxiety, "You shouldn't have done that." But when I repeated the procedure several times she even became able to sit up by herself. She was absolutely amazed and said, "It's a miracle how this is possible."

From then on, I had the patient continue to elicit the gag reflex, bite the pillow, hit my arm, etc.; all this in order to produce clonic contractions in the musculature of the throat and the shoulders. I knew from vegetotherapeutic experience that biological energy which is bound in spastically contracted musculature can be released only by clonisms. So it was in this patient. After about half an hour of active production of various reflexes, *involuntary clonic spasms began to set in in the musculature of the arms and the shoulders.* The legs also began to tremble. This trembling could always be intensified by gentle flexion and extension.

When these spasms appeared for the first time, the patient became very much frightened. She did not know what was going to happen to her. It was the very same fear of involuntary contractions which she avoided by her spastic contractions. After a few minutes, however, she began to enjoy the spasms. Gradually, the musculature of the throat began to participate in the spasms; the patient was

afraid she was going to vomit. At one point she looked as if she were going to faint. I asked her to give free rein to the spasms. After a while they became less intense: the biological energy had been discharged. She sank back in the bed exhausted; her face was red, her respiration deep and full. The gag reflex could no longer be elicited, and the patient said, "My throat is peculiarly free—as if a pressure had been taken away." Similarly, the pressure on the chest had disappeared.

On the following day, the patient breathed normally, and I proceeded to relieve the paralysis of the legs by producing clonisms of the leg musculature. This was possible to a certain degree by slowly moving the legs, which were bent at the knees, apart and again together. I had not prepared the patient for the pre-organic sensations which are likely to appear with the dissolution of contractures in the leg musculature. All of a sudden, she inhibited her respiration, set her jaw, turned pale and developed a facial expression which I can only describe with the word "dying." The reaction was so violent that I became frightened. There could, however, be no mechanical lesion, for I had moved the legs only very slowly and gently. The patient emitted sounds such as one makes with the most severe pains in the chest. The sounds were a mixture of groaning and rattling. From vegetotherapeutic experience I knew that this was the patient's reaction to vegetative currents in the genital. We know from vegetotherapy that organic sensations, when inhibited by orgasm anxiety, are experienced as a *fear of dying*: "dying" in the sense of falling apart, melting, losing consciousness, dissolving, "nothingness."

The patient groaned heavily, was pale and blue, turned her eyes up and seemed exhausted. Never before had I seen the neurotic reaction of dying so realistically. With all the work on disturbances of the orgasm I had done during twenty years,

I had still underestimated the depth at which the disturbances of the function of biological pulsation are at work. True, my contention had always been that the orgasm is "basic biological functioning *per se*." But never before had I seen an organism "die" so realistically as a result of orgasm anxiety. I told the relatives that quite possibly the patient would not survive more than a few days. It was clear to me that the shrinking of her vital system might well continue into actual death. This being the case, I would have relinquished any further efforts had it not been for the fact that seven months earlier, when the patient first came to me, she had also been on the point of dying. There was nothing to be lost by going on and a great many insights into the nature of the shrinking biopathy to be gained.

The following day I was called on the telephone by the relatives who said the patient was actually dying, that she was hardly breathing at all and was unable to have a bowel movement. When I saw the patient, she really seemed to be dying. Her face was blue and sunken, she emitted rattling sounds and whispered, "This is the beginning of the end." I found her pulse to be rapid but forceful.

In the course of about fifteen minutes, I was able to establish a good rapport with the patient. I asked her whether she had had—at any time previous to her developing tumors—the feeling that she was going to die. Without any resistance, she related that *as a child she had often rolled her eyes up and played at "dying."* The rattling and groaning sounds which she made now were also familiar to her from her childhood. She used to make them when she felt a constriction in her throat; as she put it, "when something pulled together in her throat." Now it became clear that the localization of *one of the cancer metastases at the fifth cervical vertebra was due to a spasm of the musculature of the throat* which had been

present for decades. The sensation of constriction in the throat, the patient continued, went hand in hand with a pulling in of the shoulders and a tension between the shoulderblades, that is, at exactly the region where later the cancer pains developed.

Now that the patient talked with me wide awake and lively, I made her "play at dying." Within a few seconds, she succeeded in producing consciously the same picture by which she previously had been overcome involuntarily. She turned her eyes upward so that the lids were closed except for a narrow slit through which the whites of her eyes were just visible, fixed her chest in the inspiratory position and emitted groaning and rattling sounds. It was not easy to bring her back out of this dying attitude; but the more frequently she assumed this attitude consciously, the easier it became for her to give it up again. This was entirely in accord with vegetotherapeutic experience: *by practice, an autonomic function can be made objective and finally subject to conscious control.*

I asked the patient whether she thought that she was unconsciously committing suicide. She started to cry and said there was no point in going on living. Her illness had ruined her sexual attractiveness; she could never again be happy; and without happiness she did not want to live. I had the patient again elicit the gag reflex. Promptly, the clonic trembling in the arms and the throat reappeared, though not as strongly as the day before. She even succeeded in sitting up by herself, but her legs failed her. I had the impression that the upper part of her body was functioning while the lower part, from the hips down, failed to function.

For several days after this, the patient felt well and gay. One day, however, she suddenly relapsed into the dying attitude. I saw immediately that it was not playing, but that she was overwhelmed by her biopathic reaction. Her respiration was

shallow and labored, her nose pointed, her cheeks were sunken and her throat rattled heavily. I did not understand why this happened just at this point. She complained of violent pains and was completely unable to move. I succeeded again in restoring normal respiration. Again, intense clonic spasms occurred in the throat and the torso, but the lower extremities remained "dead." I had her again elicit the gag reflex. After this, the spasms became more intense.

I noticed that the pelvis tended to participate in the spasms but that she held back. The spasms lasted for about ten minutes and then subsided. While previously one had had the impression of suffocation, now the patient showed definite vagotonic reactions: the face was flushed, the skin over the body was no longer pale. The pains due to the diaphragmatic spasm subsided. After a while, the patient began to talk. She was, as she said, afraid that "something was going to happen down there." She related that up to the time when she came to me for treatment she had occasionally obtained sexual gratification by masturbation. This was a very belated correction of her earlier statement that she had been living in complete abstinence for over 10 years. As early as the first week of the orgone treatment, she had suppressed every impulse to masturbate because of phantasies of sexual intercourse with me. Since then she had not dared to touch her genital. The inhibition of masturbation, together with the phantasy, led to a stasis of sexual excitation, which, furthermore, was intensified by the biological charge by the orgone. The intensification of her sexual needs increased her anxiety. Thus she developed the phantasy that she might break her spine. The straining of the shoulder muscle when she tried to pick up her stocking seemed to confirm this fear, as if she had said to herself, "See, I knew it was going to happen."

The day after she had told me about her

masturbation phantasies, I found her in the best of moods, full of hope and without complaints. The talk of the day before had made it possible for her, for the first time in months, to masturbate again. She had experienced a good deal of satisfaction. She was now able to control her diaphragmatic spasm very well. She was constipated, but felt the urge for defecation; only her fear of motion kept her from going to the bathroom. She moved much more easily in bed. She was even able to sit up all by herself, which amazed and pleased her a good deal. For the first time, she understood the chain of causes and events: fear of spinal fracture → fear of pain → inhibition of respiration by diaphragmatic block → pain in the chest → fear of spinal fracture. Now, however, the inhibition of motion by the fear of pain did not set in so readily. The fear did not appear until the motion required a good deal of effort. We now understood the connection between her fear of spinal fracture and her fear of "motion."

On the next day, I found the patient again with poor respiration, full of complaints, and assuming the dying attitude. She could not say what had brought this about. The relatives told me that the day before she had felt very well until the evening. Then things had taken a turn for the worse after the following episode. Her boy was in the bathroom adjoining her room. She heard a noise and got terribly frightened. All of a sudden she had the idea *that the boy was closed in in a very small space and was going to be smothered*. During the night she slept poorly and had a number of severe anxiety dreams, some of them falling dreams. All I could do on this day was to improve her breathing which reduced her complaints about the "pains."

During the next few days, the patient felt much better, being able to move without pain and to lift her legs. During a treatment hour, she happened to get near

to the edge of the bed, whereupon she became pale, stopped breathing, and cried out. *She was afraid of falling out of bed.* Her reaction was clearly exaggerated and did not correspond to any real danger. She related spontaneously that the summer before, at the hospital, she had asked to have an additional bed put at each side of her bed, because she was afraid of falling out of bed. I lifted her toward the edge of the bed, and although I held her firmly, she yelled with fear. The *fear of falling* which was at the basis of her fear of motion was now quite evident.

On the next day she sat up in bed. She had no pain, but developed violent anxiety, broke out into a sweat and hysterical crying. She said she was going to die; that she had been fighting death for so long, but this was the end. She cried for her boy. She asked me for an injection which would make her die so that she did not have to suffer any longer. "I don't want to get out of bed, I want to stay right here." After a while, she quieted down and found to her great surprise that she was able to sit up without any effort. But gradually she developed violent clonic spasms all over her body, particularly intense at the shoulders. She was extremely afraid of these spasms; that was the reason for her staying in bed. Whenever she was forced to sit up she felt the spasms coming. She no longer had her fear of falling, but the connection was clear: The violent clonic spasms of her musculature formed the physiological basis of her neurotic fear of falling. During the night, she had nightmares of falling into great depths, of heavy things falling on her, of men attacking and threatening to *choke* her. Now she remembered that she had suffered from exactly the same anxiety states for a long time in adolescence. She also remembered a phobia she used to have at that age. When she would walk on the street and hear footsteps behind her, she would begin to run, for fear that

"somebody was after her." This fear usually was so intense that her legs "*failed her*" and she always had the feeling that she was going to fall down. She recognized in this the very same bodily sensation which she experienced when she had to sit up in bed now. Then also, her legs would fail her and she became afraid of falling. With that, she would have the sensation of a spasm of the diaphragm and would be "scared to death."

All this shows unequivocally that the motor paresis of the legs was caused by a phobia, a phobia which had dominated her as far back as puberty, long before she had developed cancer. The paresis which she now had developed was nothing but an intensification of this old motor weakness in the legs. This old fear of falling now became associated with the idea of the spinal fracture and was thus thoroughly rationalized. The old phobia of falling was the real forerunner of her later paresis.

The day before she had had to go to the bathroom all the time. The movements of her intestines and bladder were "extraordinarily lively." The previous night she had been restless. In the late forenoon, she felt unable to urinate. She felt her legs were without sensation. On examination, I found a reduced sensitivity to pin pricks up to the 10th segment. The knee jerk, the Achilles reflex and the abdominal reflexes were normal. I had been told on the telephone that she was unable to move her legs. In reality, the motility of the legs was only reduced, but not absent. The deep sensitivity of the joints of the toes was reduced. It was the picture of a functional paresis. There were no definite symptoms either of a flaccid or of a spastic paralysis. The only point in support of the assumption that the lesion of the 12th vertebra had something to do with it was the fact that the sensory disturbance in the upper abdomen had a fairly sharp upper limit.

The next day, the patient was again able

to urinate, but three days later she became unable to control her anal sphincter. The reflexes were normal, but the patient's fear of sitting up returned.

She was again taken to a hospital for a general check-up. Xrays showed the spine, pelvis and legs free from metastases, but there were new metastases in the cranium and in the humerus. That is, *the new tumors made their appearance far away from those regions which showed the paresis. Functional biopathy and carcinomatous growth had nothing to do with each other.*

The patient remained at the hospital for two weeks. No neurological examination was done. The paresis of the legs was considered a result of the vertebral lesions; none of the physicians discovered its functional nature. They told the relatives that the patient would live for two weeks at best.

As nothing was done for the patient at the hospital except that she was given morphine injections, the relatives took her back home. I saw her on the day of her return. She was very apprehensive about her motions and stressed the fact that the hospital physicians had warned her to be extremely cautious in her motions because "the spinal column was pressing on the nerve and it might break." This admonition on the part of the physicians naturally confirmed and reinforced the patient's phobia. The relatives wished me to undertake another experiment with orgone in order to eliminate the tumors of the cranium. On that day, I was not able to palpate any tumors at the cranium.

I observed the patient for another four weeks at her home. During this time, *all reflexes at the legs were normal, the bowels and the bladder functioned normally again.* However, the atrophy of the musculature and the bones progressed rapidly. She had developed a putrid bed sore at the buttocks. The legs moved in reaction to painful stimuli, but showed

few spontaneous impulses. She continued to have nightmares of men falling into an abyss, of an elephant charging at her and of being "as if paralyzed," unable to move. During the day, also, she felt anxiety in the eyes and in the chest. The pains had completely disappeared, but the fear of motion and of a spinal fracture persisted.

We had a special orgone accumulator built for her bed. The effect of the orgone showed itself in a reduction of the pulse rate from about 130 to between 80 and 90, in a general feeling of well-being and the disappearance of anxiety. The blood picture, which in the past few months had taken a turn for the worse (50% Hb., T-bodies, positive T-cultures, about 50% T on autoclavation) also improved rapidly. The impulses in the legs increased in frequency and intensity.

Then there occurred a sudden and unforeseeable catastrophe which sealed the fate of the patient. One night, as she moved in bed, she fractured her left femur. She had to be taken to a hospital. The physicians were amazed at the thinness of the femur. They could not understand how the breast tumor could have disappeared. The patient was given morphine, declined during the following four weeks and finally died.

The orgone therapy had prolonged her life for about 10 months, had kept her free of cancer tumors and cancer pains for months and had restored the function of her blood system to normal. The interruption of the orgone treatment by the biopathic paralysis interdicts any conjecture as to a possible favorable outcome. What is certain is that in this case the real cause of death was the biopathic shrinking, and not the local tumors.

This case has given us important insights into the emotional and vegetative background of the cancer disease. Now we are confronted by the important question as to *what takes place in the blood and the tissues as a result of the biopathic*

shrinking; in other words, the question as to how the general shrinking of the autonomic system produces local tumors. I may anticipate: The general result of biopathic shrinking is putrefaction in the blood and the tissues. The cancer tumor is only one of the symptoms of this process of putrefaction. This finding requires extensive clinical and experimental substantiation; this will be given elsewhere.

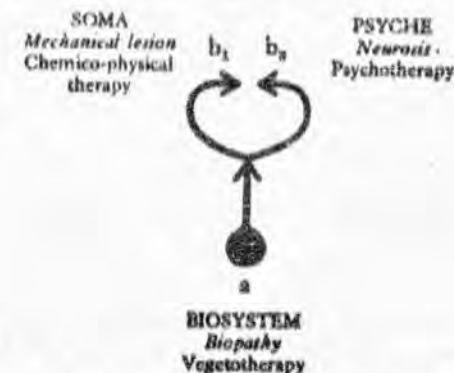
IV. CONCLUSION.

Let us briefly review our observations. The "dying" of the patient in the biopathic attack did not in the least give the impression of hysteria or simulation. The autonomic system reacted in such fashion that actual death was by no means improbable. The sunken cheeks, the cyanotic color, the faint, rapid pulse, the spasm of the throat, the failure of motility and the general physical debility were dangerous realities.

I venture the statement that each of these attacks was the beginning of an actual cessation of the vital functions. It was possible, by dissolving the spasms and by breaking the diaphragmatic block again and again to interrupt the process of dying. Death was again and again counteracted by vagotonic expansion. This cannot be a matter of suggestion. Suggestion in the usual sense could not possibly penetrate into these depths of the biological apparatus. What was possible, however, was to elicit the biological impulses to expansion in various bodily systems and thus, month after month, to arrest the shrinking process again and again. In order to do this, a good rapport with the patient, as a part of the vegetotherapeutic technique, was, of course, indispensable. Only in this aspect of the procedure might one be justified in speaking of suggestion.

Let us go back to our familiar diagram of psychosomatic functioning and try to find out at which place in the vital ap-

paratus the biopathy (in contrast to a mechanical lesion), as well as the vegetotherapeutic experiment, takes effect:



Every lasting energy stasis in the biological system (a) must of necessity manifest itself in somatic as well as psychic symptoms (b_1 and b_2). Psychotherapy attacks the psychic symptoms, chemico-physical therapy the somatic symptoms. Vegetotherapy has as its starting point the fact that psyche as well as soma have, from a point of view of bio-energy, the same root in the pulsating plasma system (blood and autonomic system). Vegetotherapy thus influences not the psychophysical function itself, but the common basis of psychic as well as somatic functions; it does this by eliminating the inhibitions of biological functioning, such as the respiratory block, the inhibition of the orgasm reflex, etc. Thus, vegetotherapy is neither a psychic therapy nor a physiological-chemical one; *it is biological therapy directed at the disturbances of pulsation in the vital apparatus.* Since these disturbances show their effects in all the more superficial layers of the psychosomatic apparatus—for example, as hypertension and cardiac neurosis in the somatic, as phobia in the psychic realm—vegetotherapy, of necessity, reaches these symptoms in the superficial layers also. Vegetotherapy, thus, is the most advanced existing method for the influencing of biopathic disturbances. For the time being, its field is limited to the biopathies.

In the cancer biopathy, the vegetotherapeutic treatment of the disturbances of respiration and of the orgasm is supplemented by the *orgone therapy* which is directed at the anemia, the T-bacilli in the blood and the local tumors. As succeeding articles will show, we are fully aware of the enormous complexity of the problem as well as of the largely experimental character of this cancer therapy.

According to the prevalent concepts there are only mechanical or chemical lesions of the somatic apparatus on the one hand and functional disturbances of the psychic apparatus on the other. Sex-economic investigation of the cancer shrinking biopathy reveals a third, more deep-reaching disturbance: *The disturbance of the plasma pulsation as the common biological basis of soma and psyche.* What is fundamentally new here is the finding that *the inhibition of the autonomic sexual function can produce a biopathic shrinking of the autonomic nervous system.* The question remains whether this etiology can be found in all forms of cancer.

There is a general misconception that the organism is divided into two independent parts: one is the physico-chemical system, "soma," which is destroyed by such agents as a cancer; the other is the "psyche" which produces hysterical phenomena, so-called conversion symptoms, in the body, and which "wants" or "fears" this or that and has nothing to do with the cancer. This artificial splitting up of the organism is misleading. It is not true that a psychic apparatus "makes use of somatic phenomena"; nor is it true that the somatic apparatus obeys only chemical and physical laws, but does neither "wish" nor "fear." In reality, *the functions of expansion and contraction in the autonomic plasma system represent the unitary apparatus which makes the "soma" live or die.* Our patient demonstrated the functional unity of psychic resignation and biopathic shrinking exceedingly well. In

her, life began to function poorly; the function of expansion began to fail. To express it psychologically: there was no impulse behind motion, action, decision and struggle. The vital apparatus was, as it were, fixed in the reaction of anxiety; psychologically, this was represented in her fear that motion might result in a fracture somewhere in the body. Now, motion, action, pleasure and expansion appeared to be "a danger to life." The characterological resignation preceded the shrinking of the vital apparatus.

The motility of the biological plasma system itself is damaged by the biopathic shrinking. The fear of motion has its basis exactly in this vegetative shrinking. The plasma system shrinks, the organism loses its autonomic balance and the self-regulation of locomotion. Finally, a shrinking of the body substance sets in.

The inhibition of plasmic motility by the shrinking fully explains all aspects of the disease picture; it explains neurotic anxiety as well as functional paresis, the fear of falling as well as the muscular atrophy, the spasms as well as the biological disturbance which breaks through as "cancer" and finally ends in general cachexia. For it was possible again and again to make the patient develop new living impulses by vegetotherapeutically correcting her breathing. The diaphragmatic spasm is the central defense mechanism in the biopathic disturbance of the organism: The patient really breathes poorly; she really ventilates her tissues insufficiently; the plasmatic locomotor impulses are actually insufficient for the maintenance of co-ordinated movements; the fear of falling and of suffering damage has a real basis and is not "imaginary"; more than that, *the imagined catastrophe of falling has itself a real basis in the restriction of biological motility.* The hysterical, functional character of the paresis thus gains a factual biopathological basis. There is a difference only in degree be-

tween hysterical paralysis and paralysis as a result of biopathic shrinking.

In medicine, functional paralyses are usually looked at with some irony; the concept is still prevalent that a functional paralysis is more or less "simulated." I would like to state that functional disturbances of motility are *much more serious and far-reaching* than are paralyses which result from a mechanical lesion. In the case of the mechanical lesion, the biological functioning of the total organism is not affected. *A functional paralysis, on the other hand, is the expression of a total biological disturbance.* In this case, the function of plasmatic impulse formation in the biological core of the organism is itself disturbed and may result in a more or less extensive loss of tissue (muscular atrophy, anemia, cachexia, etc.). To say that the mechanical lesion cannot be influenced by suggestion, while the functional disturbance is amenable to suggestion, means nothing. For the "suggestion" which may bring about an improvement

in the functional paralysis is in reality nothing but a pleasurable stimulus for the biological system and thus causes it to reach out for new life possibilities and to function again.

The basic disturbance in the functioning of the body plasm, represented by chronic sexual stasis, character rigidity and resignation, and by chronic sympatheticotonia, is to be taken much more seriously than the mechanical lesions. The mechanistic and purely materialistic concepts of medicine of today have to be partly replaced and partly overcome by a functional concept. This functional concept made it possible to make a breach in the wall which hitherto has made the cancer problem inaccessible. Succeeding articles will show to what extent this functional concept is generally applicable. We shall next turn our attention to the local changes in blood and tissues which are caused by the biopathic shrinking.

Concluded February 10, 1942

SHOCK THERAPY AS A SUBJECTIVE EXPERIENCE†

By MARY ROBERT,* M.D.

Editor's note: The literature on shock therapy is so voluminous that it would be useless to add still another article unless it had something special to contribute to the problem. This is what the following article does. Most articles on the subject are concerned only with the statistical results of the treatment and with the nature and incidence of complications such as bone fractures during the shock. Only very rarely is the question discussed, "What is the curative factor, in other words, the rationale of the treatment?" As it stands, shock therapy is a purely empirical procedure and there is no knowledge of the curative mechanism. The theories that have been advanced are unconvincing or patently erroneous.

The present article is remarkable for two reasons. First, it shows the rationale of shock therapy and, with that, its inevitable limitations. Second, the author, in order to obtain first-hand knowledge, underwent a shock herself and thus became able to describe the subjective experiences of the shock. Thus, although this article was written some two years ago, it is still far ahead of the present-day literature on the subject.

The problem of shock therapy, its results, indications and dangers, is the subject of lively discussions in medical periodicals. There are two opposing viewpoints in the question. One group of observers maintains that shock therapy, in particular the cardiazol shock, cures certain types of schizophrenia, if they have not lasted too long, in 30-40% of the cases, while depressive states are cured in 60-70%. The other group maintains that cure takes place only in patients who would have had a spontaneous remission, i.e., who would have gotten well anyhow, without treatment. They concede that the treatment may bring about a rapid improvement, but point out that such an artificial improvement means little. To judge from the literature, this objection is contradicted by the fact that "cures"

take place in many patients who, up to the time of the shock treatment, showed no tendencies whatsoever for spontaneous remission. According to my own observations, this is particularly true in depressive states. However, the period of observation is so short and the statistical material so little evaluated, that we have as yet no sufficient material to compare treated and untreated cases. For this reason, I shall not try any such differentiation.

The most astonishing aspect of the whole discussion is the fact that very seldom is the question raised as to *what it is* that brings about the cure or improvement.

Some observers ascribe the effect to an action upon the midbrain, the thalamus or other subcortical centers. Others, in a more popular vein, speak of the psychic experience of the shock as the therapeutic agent, and think one might just as well use any other shock experience, such as treatment with sulfosine or carbon dioxide. What they have in mind is the "therapeutic"

violenta." Remarkably enough, any basic concept as to what really takes place is rarely found.

Meduna as well as many others have given detailed descriptions of the seizure. In spite of certain differences, there are many similarities between the cardiazol shock and the less well-known benzidine treatment. To mention only a few of the main points: A few minutes after the injection of cardiazol the patient gets red in the face, begins to clear his throat and to cough, that is, he gets a dry throat; looks confused and usually lets out more or less frightened shrieks; then there are clonic spasms with loss of consciousness, and marked cyanosis; after this, the spasms become tonic, pulse and respiration seem to stop; often there is incontinence of urine and flatus; after about half a minute to a minute, the spasms become again clonic and respiration returns. There is, typically, deep, snoring, complete expiration, often followed by sleep. The color becomes again natural. The pulse, which right after the seizure was rapid, gradually returns to normal, and the whole musculature—except perhaps localized parts—become atonic (relaxed). Immediately after the seizure, the patient has no recollection of it and appears cheerful, like slightly intoxicated. Sexual activities, masturbation and amorous behavior are common. To mention only a few of the statements made by patients: Every time before the shock occurs, Mrs. N. calls to the physician, "Come to your girl, if you want to have me. You can have me, but I don't want to die for it." And before she loses consciousness, "Say, it itches so down there." Miss K. tries every time to bare her genitals and talks in a confused way about Bill who will come and take her. Miss R. says, "Put out all these girls. You may stay here and take me, but we must be by ourselves." Many interpret the injection as sexual penetration. Miss S. wrote a long letter about the "smut psychiatry" we did with her in

order to arouse her sensual desires. Mrs. P. wrote her husband, imploring him to take her home, saying we were accusing her of adultery; this letter was also full of folksy expressions. Some of these patients had constantly been talking about sexual activities even before the shock treatment. But no other form of treatment had provoked any acute sexual symbolization; the injection resulted in a very marked increase in sexual phantasy life. In other patients, this was an entirely new phenomenon. We know that the syringe as such has the unconscious significance of the sexual act, of impregnation, etc., but with the shock syringe this is true to a far greater extent. No other form of treatment provoked that outspoken amorous behavior which is typical in so many patients right after the shock. A demented and completely mutistic girl of 17, after the shock called for her mother and tried to embrace those around her. These examples are not meant to show that the affective expressions and the energy discharges are in all cases of a localized sexual nature; they do show, however, that in all cases the affective and vegetative discharges become more lively. Where the shock treatment is at all effective there is always an attempt on the part of the patient to establish contact. There seems to be a general activation of all primitive reactions in those patients who react to the shock. In popular language, one might say that the "animal," the "flesh," gets away from the inhibition by the "spirit." This is difficult to bring about in any other way, because the inhibitions, "morality," prevent it.

As far as the pupillary reactions are concerned which have been described—marked dilatation with the seizures and marked constriction afterwards—I find in my material a great variation from case to case. There is either dilatation without constriction after the seizure, or no or only little dilatation but marked con-

† Translated by the Editor.

* This is a pseudonym. Present conditions force us, unfortunately, to withhold the names of our European co-workers.

striction; in most cases one finds both reactions. My material seems to indicate that the best results are obtained in those cases which show the most outspoken pupillary reactions.

My material consisted of 35 women; three of these I did not observe long enough, so that I am considering only 32. They fall into four groups:

Group I: 10 of these 32 patients were so much improved that they have been discharged or are going to be discharged soon. 9 out of these 10 showed dilatation of the pupils with the seizures and constriction afterwards. One of them showed dilatation with the seizures but little constriction afterwards; she belongs to the least improved in this group. None of the 10 showed any noticeable change in character.

Group II: 13 patients showed a noticeable improvement although they still present definite signs of their psychosis. The best results in this group compare with those in Group I, the poorer results with those in Group III. These 13 showed less uniformity in their pupillary reactions. The most frequently observed reaction was dilatation with the seizures (increased sympatheticotonia) but little or no constriction after the seizure, or even dilatation after a temporary constriction.

Group III: 7 patients showed practically no improvement at all. These showed a very variable pupillary reaction; either dilatation but no constriction, or very labile pupils.

Group IV: 2 patients have to be considered separately. They showed considerable improvement after one course of treatment, but had a complete relapse when they were transferred to the open ward. A second course of treatment did some good, but did not approach the result of the first. These two patients, during the first course of treatment, showed dilatation of the pupils with the seizures and constriction afterwards. During the

second course of treatment, there was some dilatation, little constriction; or occasionally, no reaction at all with the seizures but dilatation afterwards; in other words, a completely paradoxical reaction.

It would be interesting if it could be shown that the refractory cases (i.e., those who show no improvement from shock therapy) are those in which there are no or only slight vegetative reactions with the seizure. The material is still too small to state definitely that this is the case. It would explain the fact that the cases of long standing respond least to the treatment, because in them the pathological ways of functioning have become well established in the organism. The substantiation of this concept that the extent of the vegetative reactions is the essential element for improvement requires more vegetative tests and examinations than I had the opportunity to make. Nevertheless, the vegetative reactions were so definite as to justify this concept.

Many observers have mentioned the fear of the treatment which the patients develop after having undergone one seizure. However, the literature contains *neither a description of this fear nor an explanation for it*. Particularly in female patients, but also to a lesser degree in men, the anxiety after a few treatments is so intense that the patients feel as if they were going to be drowned or otherwise threatened with sudden death. (This is highly reminiscent of the pre-orgastic anxiety which one observes during vegetotherapy.¹) The patients say that they not only *feel* as if they were going to die, but that they are convinced every time that they *will* die. In reality, it is the fear that the inhibitions will "die" or that one is going to "lose oneself," "lose control." (Orgasm anxiety as observed during vegetotherapy always shows the same connection; but there also patients express it as a fear of death.) This

¹ Cf. Walter Frank, "Vegetotherapy," *The Journal*, March 1942, 65-87.

anxiety is by far too intense to be "justified" on the basis of actual danger in the form of various complications of the treatment, like the fracture of a vertebra, etc. If such an accident happens, it becomes of course known in the wards; but there can be no doubt to anyone who has talked to these patients and has tried to calm them down, that this anxiety is based on certain physiological processes and a definite subjective experience.

In order to get a clearer picture of this subjective experience, the writer submitted to a shock treatment. A few seconds after the injection there was a pronounced feeling of tickling in the throat like a beginning cough; it felt as if the precordial region and the region over the sternum were being constricted; that is, there was the typical physical correlate of anxiety, like a claw gripping at the throat and the chest. Immediately afterwards there was a towering gray shadow in front of the eyes, a slight confusion and a buzzing sensation in the top of the head. It felt like the beginning of a narcosis or of a faint but was more unpleasant. It was a feeling of being grabbed by a wave and being carried away. When consciousness returned, there was absolute amnesia, i.e., no recollection of what had happened. The other physicians were absolutely unable to convince me that I had gone through a shock. My disbelief was so strong that I insisted on going on with my work in the ward and thought the whole thing was a practical joke on their part. According to the description, I behaved like an intoxicated and slightly manic person. My body felt light, as if I were walking on air. The only thing that forced me after a while to go to bed was a weakness in my knees and an increasing nausea. As is often the case with intoxicated people, I saw the world in a rosy light and felt extremely affectionate toward everybody. During the day I developed a violent headache, and bit by bit the memory came back. It was a typical

retrograde amnesia, i.e., that which was experienced last also came back last. It took a whole day before I remembered the time immediately previous to the shock. The lameness of the musculature lasted a whole week and the ability to remember everyday happenings was reduced for a long time. (Forgetfulness and confusion are typical manifestations during shock treatment.)

In contradistinction to the patients, I did not experience any anxiety at the moment of losing consciousness, nor did I show any objective signs of anxiety. In this regard, it must be pointed out that the physical phenomena described here are experienced as anxiety by most people. It is different, however, if, first, one knows the rational explanation of these phenomena. Second, and more important, these phenomena also occur in the course of vegetotherapy, accompanied by a great deal of anxiety. Inasmuch as I had undergone vegetotherapy, the anxiety had been experienced at the time when these phenomena occurred; thus they were known to me. This intense anxiety occurs in all patients toward the conclusion of the vegetotherapeutic treatment, and in connection with similar physical phenomena. It is what Reich called pre-orgastic anxiety.

If I have described these phenomena in some detail, it was in order to point out the interesting fact that most of these phenomena—in a less acute manner—occur in the course of the vegetotherapeutic treatment. In shock therapy, the shift from an artificially increased sympatheticotonia to a relative vagotonic (parasympatheticotonic) relaxation is brought about abruptly, is being repeated with every new shock and ceases in between shocks; in the course of vegetotherapy, this change takes place gradually, almost imperceptibly. Our neurotic patients suffer from a chronic vegetative disequilibrium, essentially in the form of a predominance of sympatheticotonic reactions, but also in

the form of more or less localized sympathetic and vagotonic reactions, that is, a disturbance of the harmonious interplay between the two antagonists. During shock therapy, one observes an acute and extreme change in respiration, particularly the occurrence of deep expiration; however, this does not last. In vegetotherapy, on the other hand, one makes a deliberate and sustained effort to establish the ability for deep expiration, that is, the ability to breathe with both chest and abdomen; the average person uses one or the other, or both, of these mechanisms, only incompletely. Thus, observations derived from shock therapy confirm the fundamental value of vegetotherapy.

To form an opinion as to the value of shock therapy for the treatment of mental disease is a different matter. Here, I will have to point out the differences between shock therapy and vegetotherapy. First of all, it goes without saying that shock therapy is used in a different kind of cases. Shock therapy is used mainly in psychotic or borderline cases. Vegetotherapy, on the other hand, is used mainly in neuroses, and cannot be used where the patient's conscious processes cannot be utilized in the procedure. Nevertheless, the comparison of the two methods will in part explain why, in my opinion, shock therapy alone cannot produce a cure (in our sense of full cure). The main point is that the shock treatment takes place independently of the patient's consciousness; that will say that all the conscious or unconscious pathological reactions which result in or from conflicts in the patient's life and environment are completely left out of consideration in shock therapy.

From a sex-economic point of view, energies are being set free which are discharged only partly. I have mentioned, for example, the sexual reactions occurring in the course of shock treatment. Quite plainly, these are the expressions of a

liberated sexual need, and it goes without saying that such a need cannot possibly be satisfied in any adequate way in a mental hospital. It cannot be satisfied for such reasons as that men and women are separated, that husband or wife are outside of the hospital, etc. But, in addition, sexual activities, such as masturbation, which would give partial gratification or rather a substitute gratification, meet with the customary concepts of the condemnable character of such activities. One only has to see the expression of horror on the faces of the nurses when they see patients' sexual manifestations in connection with the shock. When such things as baring the genitals or masturbation occur, they are immediately stopped by the nursing personnel. But even if one were not prejudiced, it would be difficult to give these things free rein. Even other forms of energy, such as anger, unrest and anxiety, have to be suppressed in the interest of hospital routine. For the same reason, one is almost forced to prevent discharges of aggressive energies or other actions which may influence the condition of other patients. Almost imperceptibly, the social living in the hospital makes one judge the patients' behavior moralistically; before being aware of it, one has said, "he is bad" or "she is nice" and thus gets away from a scientific comprehension of the patients' structure. It is wholly inconsistent to liberate affective energies with the treatment, and then immediately to suppress them again. The shock treatment requires much greater possibilities for individual therapy than a mental hospital can offer today.

The same holds for occupational therapy. When the patients, as it were, become alive and show interest in doing something, the opportunities one has to offer them are extremely limited. In the first place, it is mainly a matter of manual work, such as knitting, weaving, or outdoors activities; but this does not liberate

energies according to the patients' pleasure needs. One lacks the facilities for more varied forms of motion and for artistic work. In this field there are enormous possibilities, but they are limited first of all by lack of funds and personnel, but also by the point of view from which the work is considered. Namely, the point of view that if the patient works that is in itself a moral victory; the fact is overlooked that the work should be a source of pleasure.

Most therapists will realize that any improvement in a patient must be utilized by immediately moving him to an open ward and putting him to work. But, as I have already pointed out, circumstances do not allow to do this to a sufficient degree. On the whole, then, one must say that the energies that are liberated by the treatment and the needs that develop with the improvement are not satisfied; I repeat that this depends more on the routine and the economic circumstances of the hospital than on the individual director's concepts.

Many psychiatrists are also aware of the shortcoming which lies in the fact that psychotherapy is not combined with the shock treatment. They point out that psychotherapy is necessary before, during, and especially after the shock therapy. However, exactly *what kind* of psychotherapy should be instituted is not stated, and on the whole the problem is largely neglected.

From a vegetotherapeutic point of view, one might say that the shock treatment is a kind of mechanical gymnastics of the vegetative nervous system and the autonomic functions; thus it liberates vegetative energies. Where this liberation succeeds, there is considerable improvement. But since the treatment is purely mechanical, since it does not take in the whole personality, it will never really change the personality. This is clearly

demonstrated in the patients who were discharged as cured after shock therapy.

Mrs. N., 52 years old, had all her adult life been an apprehensive and pedantic person. Two years ago she became depressed, suicidal and completely apathetic. Hospitalized 1½ years ago, she showed no signs of improvement, was completely isolated, mute and deeply depressed. Shock therapy 3 months ago. After the seventh shock there was some animation; her husband noticed the difference. After 15 shocks there was a definite improvement: she began to talk, became more lively, somewhat more natural, and started to work. Began to develop insight into her illness. Was discharged as cured and remained well; her environment considers her well. At the time of discharge, she had retained a somewhat circumstantial, "school-marm" behaviour, very "refined," somewhat stiff in her motions, although considerably less so than before shock therapy. The pupillary changes from dilated to constricted were marked after every shock. There was also a lasting change in the pupils, in that after the treatment the pupils, under ordinary light conditions, were of a smaller diameter than before the treatment. A vegetotherapist would say that the patient became a socially adequate though neurotic personality, somewhat unnatural, formal and pedantic. The family, however, were so happy over her "cure" that they seemed quite willing to adjust themselves to this personality.

I could cite many such examples. Generally speaking, one can say that the patients turn from psychotic individuals into neurotic personalities with socially acceptable behavior. Where the environment can adjust itself to this personality, it may be assumed that the "cure" will last; where this is not the case, a relapse is to be expected. People in an advanced age will come up against fewer sexual conflicts and will therefore manage better.

As far as the mental hospital is concerned, it is quite obvious that hospital life cannot possibly be elastic enough to utilize fully the possibilities of expansion which the patient derives from the shock

treatment. The obstacles are both economic and administrative.

As vegetotherapist, one might think that the shock therapy would make many patients accessible to vegetotherapy who otherwise are unapproachable because of their rigidity. From a social point of view, one must say that, as things are now, shock therapy in the mental hospital gives certain definite results even though the improvement may be of short duration. It gives the patient and the relatives some hope and some possibility for better adjustment. From an economic as well as from the patient's subjective point of view, it is a great improvement even if nothing more is achieved than that the patient becomes capable of living outside an institution.

However, shock therapy will have no real significance until such time as its mechanism is understood and until we know what kind of aftertreatment is necessary. At any rate, it should give food for thought to the extreme constitutionalists in psychiatry. It seems unlikely that such a drug treatment would appreciably influence a purely endogenous condition.

One has to ask oneself how the vege-

tative deadness came about in the first place, and why it can be influenced or eliminated by vegetative means. One has to ask whether much could not be done prophylactically if children were brought up in a manner which would allow the biological functions to take a more natural course than is the case now. This would entail a complete reorientation with regard to human attitudes. Certainly, vegetotherapeutic experience points to the necessity, from a social preventive point of view, of a reorientation and a more natural form of living for the adolescent. The course of the shock therapy should open everybody's eyes to the fact that—inside and outside the hospital—the liberated vegetative energies should have possibilities for an outlet. If these were given, it is quite possible that many cases who are now negative would turn out positive. As they are not given now, shock therapy is in danger of meeting the same fate as many other new therapeutic methods which promise much but perform little and finally disappear. If this happens to shock therapy, it will be because one does not draw the consequences from the vegetative changes in the patient.

THE TREATMENT OF A DEPRESSION†

By CARL ARNOLD,* Ph.D.

The case reported here is the first case I treated consistently, from beginning to end, with Wilhelm Reich's character-analytic vegetotherapy.¹

A few years ago a young man came to see me and asked me whether it might be possible to help him. He was not interested in anything, did not care for his work, his family or the rest of his environment; he had no political, social or religious interests; there just was no fun in anything. He could not put his finger on anything definite that was wrong with him except one thing: he had no real sexual interest, never fell in love, never felt any sexual urge in the presence of women. On the other hand, he had phantasies and impulses with regard to men; often, when he would talk to a handsome man, particularly if he was a laborer with light, healthy skin, he felt the impulse to get close to him, to embrace him. These phantasies or impulses never went any further; he had never given in to them or even seriously thought of giving in to them. Because of these phantasies, he considered himself a homosexual; it was this that made him feel that his condition was pathological and required medical attention. He went to a neurologist who then referred him to me. Now he wanted to know whether the treatment would enable him to enjoy his work and to lead a normal family life.

His depression had already lasted several months. Before that, he had not felt

that anything was wrong with him and had been satisfied with the way things were going. He was the son of a minor small-town official, and was now 27 years old. He had only one brother, ten years his senior, who, as the patient said, had never played any considerable role in his life and now had been living abroad for many years. As far as the patient could remember, his childhood had been happy and rather uneventful. He was good in school and had gotten along well with his teachers. After graduating from the university, he had engaged in scientific work for some years, and after that had obtained, through an older colleague, a good position in an international firm which manufactured a mass article. His job was that of supervising the technical side of a part of the manufacturing process. His depression had become more intense just at the time when he had made a good start in his new job.

When he came to me, I had no time to take him on, and it was several months before I would have a free hour for him. In addition, I did not feel like taking him away from his work; he lived out of town, three to four hours by railroad. So I asked him whether he wanted to make an experiment: he would come to town every Saturday evening, have an hour then, one on Sunday morning and a third Sunday afternoon, so that he could go back Sunday night. He agreed to this. It was four to five months before I found time to take him on. In the meantime his father had died, an event which did not seem to make any particular impression on him.

Rarely have I had so much difficulty in

† Translated by the Editor.

* This is a pseudonym. Present conditions force us, unfortunately, to withhold the names of our European co-workers.

¹ Cf. Walter Frank, "Vegetotherapy." *This Journal*, March 1942, 63-87.

becoming clear as to my own impression of a person as with this man. He was a well-built young man of medium height, with a very polite demeanor. At first glance, he seemed to have an open face; if one looked more closely, however, it really did not tell anything. The eyes were open but cold; there was often an artificial smile which seemed to indicate compliance but also a certain facetiousness and a stubborn challenge, "Go ahead and see what you can do with me." His movements were somewhat slow and clumsy, but not rigid. He plainly disliked talking about himself; he waited until I asked him questions. These he answered in a dry, matter-of-fact tone, without any affect except a trace of hopelessness.

I started out by explaining to him that the goal of the treatment was that of making him clear about his own desires, of making him experience them in such a manner that he would get the confidence and the energy to realize them as far as possible. First of all, he had to get to know his own body and the impulses which he ordinarily did not let come through. In order to facilitate their coming through, I asked him to relax, to breathe deeply, especially to breathe out more deeply than he habitually did, and to give in to any impulses that he might feel coming through. Otherwise, I told him, he could do exactly as he pleased during the sessions: sit in a chair or anywhere else, lie on the couch, walk around in the room, etc., just as he pleased. If there was anything he wanted to say, he should talk; if he wanted to keep quiet, that was all right too. During the first hour, he sat in a chair most of the time.

I asked him to pay attention to what he felt in his body and his face. At first, he felt nothing, he said; it was as if he had not grasped the question. I pointed out that certainly he must feel the pressure of his body against the chair. That he did of course, he said; so I had him find the

various places where he did feel the pressure. I pointed out to him that he was sitting with a stiff back and tense shoulders. He realized this, and immediately switched into a new position and stiffened up in this new attitude. I pointed out the lack of expression in his face, but it took a long time before he developed any awareness of this. On the other hand, he realized almost immediately how expressionless his voice was.

For some time, this task of having him experience his body and his face and what he was doing at each moment was the main part of the work. It was clear that he usually thought out beforehand what he should feel and then found out that he really felt it, as, e.g., a pressure here and a tension there. From time to time it happened, to his great surprise, that he did not feel anything in a place where he had expected to feel a certain thing. Usually, after having recognized a pressure or a tension, he would change his position a little and then freeze in this new position as motionless as in the previous one. The more he began to feel his body, the more bothersome did it become to maintain these artificial positions. When I pointed out to him that he did not have to sit still, he began to move around in the room and to let himself go more when sitting or lying down. After some time, it was possible to show him that he merely took notice of certain sensations in his body and face and stopped there; that he hardly ever followed a sensation in its development and details. Most of the things which he recognized were things that he could figure out beforehand, that is, things which he thought I expected of him. When he began to show a little more motion, it soon became obvious that almost all his movements were entirely voluntary; if any involuntary movements occurred, as of a foot, a hand or a finger, they were soon either stopped entirely or became mechanical. When I pointed out this mechan-

icalness, he tried to cover it up. One movement which at first looked spontaneous was a rhythmical movement of one foot; it soon assumed an entirely mechanical rhythm and became quite uniform. When I pointed this out to the patient, the foot began to swing more freely; but soon I detected that the movement took place according to some complicated pattern, something like an eight-beat.

It became more and more evident that all his bodily sensations had a tone of unpleasure, and that for this reason he tried to feel as little as possible of his body and to think about it as little as possible. All his movements were of a voluntary character; that, he said, he did in order to make an end to a feeling of restlessness or unpleasure; on the whole, he could think of bodily pleasure only in terms of relief from restlessness and unpleasure. The same was true of masturbation which he had practised since puberty without much interest but in order to get rid of the restlessness in his body.

In the course of this work, he became increasingly dissatisfied with himself and his way of living. While working on his bodily sensations, he had always interspersed remarks about his daily life, both at the factory and the small-town boarding house. There was at first nothing in particular which he would criticize. After a while, as he became more and more troubled by his bodily sensations, he found more and more to criticize in his way of living, particularly with regard to his work. He felt that nobody paid any particular attention to him, neither his superiors nor his subordinates; it was always he who had to wait; his suggestions and questions were always considered in the second or last place; he felt that he never was able to put himself across. He hardly ever mentioned the sexual problem beyond stating, partly in response to my questions, that the "homosexual" thoughts kept cropping up as before.

After I had been working for some time on his bodily sensations and, in connection with this, on his authoritarian attitude which was evident in his manner of selection and recognition of his various bodily sensations, I let the patient lie on the couch and breathe as deeply as he could without forcing the breath. Before long, a wave-like rhythmic movement occurred in the body. However, for some time he himself did not take cognizance of it; not until I had him pull up his knees and move them in rhythm with the breathing. After he recognized the wave-like body movement, it was not long before he also realized that certain parts of his body did not take part in the movement; more than that, he realized that the movements were being inhibited in those parts. Although this movement, at first, had the same unpleasurable feeling tone as everything else he felt in his body, he soon became impatient, then annoyed and finally angry when he realized that he was unable to let the movement—or his breathing—go freely. One day when he complained that everything he experienced in his body was unpleasurable and that he could not conceive of any pleasure experience from his body, I pointed out that he was making certain small movements with his foot, movements which he himself did not notice. I asked him whether these movements were not pleasurable; they looked that way. When he paid attention to the sensations, his face lit up with amazement: "So it is possible to experience something positively pleasurable from one's body?" I asked him to see for himself, and for the whole hour he lay there with a lively interest and delighted expression on his face, discovering each moment new movements and new impressions from his body which it was a pleasure to experience; not a further word was said during the whole hour. It was obvious—both then and later—that he felt

this hour to be a turning point; and so it was, for me also.

During the period immediately following this, he was very well satisfied with the treatment and worked with great interest at the job of letting spontaneous vegetative movements come through and of finding out how he inhibited them. But this pleasurable state of affairs did not last long; it was soon replaced by an increasing dissatisfaction with his work; what bothered him most was that his work was being so little recognized, although he felt that he was doing *everything that could be expected of him*.

I concentrated on this expression of his and showed him that—from all he had told me about his life and work and from all he experienced during the sessions—this was and had always been a basic attitude of his: to do what people expected of him or what he thought they expected of him. For the first time he began to realize that there are other ways of approaching work, namely, out of one's own subjective and objective interest. These two "discoveries," that the body can provide pleasure and that one can work out of actual interest, he made in quick succession; they were the beginning of a thorough change in his attitude toward his sexual life as well as his work. I shall take up the latter point first, since it was this that we worked most on, although from this stage on, work on the sexual problem accompanied the work on the body and the work problem.

After the last-mentioned "discovery," the patient began to look at his work entirely differently, and at first it drove him to despair. He said that a great deal of his effort, more than half of it, was really wasted, had no objective significance, served no realistic purpose. But how could he, the junior, go and tell his superiors that the work he did was meaningless? There they sat, each with his job, each with his knowledge, each with his per-

sonal vanity. Would he not lose his job if he went and told them that they were all wet? And how would he, with his highly specialized work, find an equally good job? In addition, he began to doubt that the manufacturing process which he was supervising was as efficient as it should be. He shrank from entering upon the question, for he realized that if he found fault with the process, a conversion might turn out so costly that the management would refuse to consent to it; in that case he, who had criticized the present process, would hardly be in an enviable position.

Nevertheless, he came to grips with the problem. He undertook a microscopic examination of the product at various stages of manufacture, and found that a mistake was being made in one intermediate step of the process. This discovery necessitated a change in the whole process. He submitted his discovery to the management, and the change was made.

I had expected him to be delighted over his discovery and its result. But not in the least; he was hardly even aware of the fact that he had made a discovery which led to an important improvement in the manufacturing process. It did not increase his self-confidence and he was as unhappy as before at the thought of all the useless work he performed; he said it was not so bad as long as he did not know that he was wasting his time, but now it was simply intolerable. He complained about it to his brother abroad who tried to console him by pointing out that he should be glad to do a kind of work in which he could find 75% usefulness. To my patient, that seemed small consolation, apart from the fact that it was much more than 25% of his work that seemed useless to him. He was desperate because it seemed all too dangerous to criticize some of his superiors. I suggested he might find someone among his superiors who would cooperate with him. At first he saw no way of tackling the problem, but when,

after a while, the liberation of his bodily functions made him freer and more courageous, he saw new possibilities. When one day an executive from the main office came to the factory, he was able to put his concepts across to this man and to convince him of their practicability. With the help of this man, he got his whole work reorganized and got the company to establish a new laboratory with all the necessary technical assistance for which he had asked.

Just at this time, as he acquired a new attitude toward his work, he met a girl his age whom he had known as a small boy but had not seen in many years. He immediately asked her to go out dancing one Saturday night. This happened some time after he had discovered that it was possible to experience bodily pleasure. While dancing, he experienced—for the first time in his life, he said at first—a pleasurable sensation from the contact with a woman. But after having related this, it occurred to him that he had experienced similar sensations as a boy. A grown girl used to tickle and squeeze him, and for this she gave him 2 pennies every time she did it. On one such occasion, just as he was holding out his hand for the pennies, somebody noticed it and made fun of him. He felt terribly ashamed, and from that time on these things were over for good. I would like to mention the fact that during the whole treatment there were no infantile memories of significance for his later behavior other than this one.

He was very much in love with his old playmate and a short time later he proposed to her. She was not sure of her own feelings and wanted time to make up her mind. For some time they met as often as they could, usually every Sunday. As the work on his body made him freer, they became more and more intimate, without, however, entering a sexual relationship. She was definitely reserved herself, but according to what he said she

expected him to take a more active part. It was some time before he dared to do this, and then it was too late. She had fallen in love with another man and refused him. This came not quite unexpectedly for him, since for some time she had been more reserved than before; so, although the refusal hurt him, he did not take it too seriously.

The work on the body at this time consisted mainly in liberating vegetative movements in connection with respiration. With that there occurred several times, usually in connection with convulsive grimaces in the face, violent outbreaks of rage. These never lasted longer than a few moments. After every one of these outbreaks he was definitely freer and more courageous, both toward his girl friend and toward his chiefs. It was at this time that he managed to bring about the decisive change in his working conditions.

After a further release of muscular tensions, particularly in the legs, the lower back, the chest and the neck, the spontaneous rhythmical movements with respiration became more intense and of a more unitary character. As he realized that they came by themselves, he became afraid, but gradually learned to give in to them more and more. There were times when these movements were so intense that if once they had started he was unable to stop them voluntarily and had to let them run their course. One time, these reflex movements occurred while he was sitting in a chair, breathing deeply; in order to give his body a chance to move freely, he had to throw himself on the couch quickly. Another time—this was shortly before the break with his girl friend—the movements were accompanied by a strong erection, rhythmical clonic movements of the pelvis and ejaculation. The movements were accompanied by strong pleasure sensations. I should have mentioned the fact that shortly before the spontaneous movements became so in-

tense that the patient was unable to stop them voluntarily, he had experienced many times strong currents of warmth on the body surface, first in the legs, then in the abdomen and chest, and finally around and in the genital organs.

It was clear that we were dealing with the *orgasm reflex* discovered and described by Wilhelm Reich.¹ I had the definite feeling that there was something the matter with this reflex, although it took me some time before I found out what it was. On the psychic side, the patient did not as yet have the free, natural self-confidence that one expects to develop with a free orgasm reflex. In further studying his movements and his behavior, I was reminded of what had been so evident at the beginning of the treatment: his movements were without spontaneity, they were always mechanical. The same was the case now with the orgasm reflex; the body behaved more like a well-wound mechanism than like a naturally functioning organism. In an attempt to break up this mechanicalness I asked the patient to move his hand a little, as if he were using castanets; in doing so, he found that the movements of hands and arms gave him a definite pleasure sensation which was more intense than he had ever known it in these parts of the body. We then worked for some time on a similar loosening up of the legs and the chest, and after a while the orgasm reflex also became softer and freer and lost much of its mechanical character.

When the treatment had covered 153 sessions, over a period of 15 months, the summer vacation arrived. Since the break with his girl friend, he had gotten to know several girls but did not like any of them particularly. He then began to think of a young woman whom he used to see during the times when he was unable to fall in love. He wrote to her and they agreed

¹ Wilhelm Reich: "Orgasmusreflex, Muskelhaltung und Körperausdruck," 1937.

to spend part of the summer vacation together. In connection with his vacation he was supposed to do some travelling for his firm (the firm had given him funds for a research trip—another one of his suggestions which previous to his treatment had been flatly rejected).

He returned from his vacation in high spirits. He had come to the conclusion that he wanted to terminate the treatment; he felt that he had achieved what he wanted and that he could get along without my help. During his vacation, he had first made some study trips, and then he had met the young lady and had spent the rest of the time with her, first in the mountains, then at the seashore. He had immediately fallen in love with her and before long she returned his feelings. When they first met, she exclaimed in great surprise, "My goodness, what has happened to you? You have changed completely, you are all alive, and you never were that way before." Toward the end of the vacation, they had also been together sexually. Since they had no contraceptives, he had to practise withdrawal, something which he was hardly able to manage because his pelvis moved spontaneously. They were planning to get married.

I pointed out to him that his face was not as yet free, that there was still often something stiff and mechanical in his spontaneous movements, and that in the course of the treatment so very few infantile memories had come up. However, since he himself felt so well and confident, I could not advise him to continue the treatment. Thus he took leave, very grateful for the result of the treatment.

About two and a half months later, I had a letter from him; he was unhappy and wanted to see me. When he came, he related that the girl had said they could not go on with each other. As agreed upon, he had gone to her town and they had been together. Sexually, they had had

an opportunity now of being together without withdrawal or other limitations. But very soon it became clear to both of them that it was no longer as it had been during vacation. She found that he paid too little attention to conventions, and in addition she complained that he spoke too little and had no imagination. He, on the other hand, found that she was too demanding, that she always wanted him to spend money—although she could afford things as well as he—and that she always wanted to have things her way. In response to my question, he said he had well realized that in the sexual act she was not quite there, but he had tried to disregard this and not to think about it. After having talked some time about various disagreements that had come up between them, he said he had to admit that they really were not suited to each other, sexually or otherwise; he said he had realized this before, but had not dared to face the fact. Now he began to feel like looking for girls in his part of the country; he thought there must be girls there too, but up to now he had been unable to go out and look for them.

I had the patient lie down on the couch, and before a minute was gone there were spontaneous vegetative movements which after a while became unified in the orgasm reflex. The movements were softer and freer than they used to be, and the face participated; e.g., it gave expression much more freely to the pleasure sensation; but it was not entirely free. Apart from the face, the parts that were still somewhat rigid were the upper part of the chest and the region between the shoulderblades. But, on the whole, the movements showed clearly that the relaxation had further progressed since the conclusion of the treatment. This development corresponded to what he related about his work. He

utilized his more independent position for more independent work on an entirely objective basis; he no longer bothered about regulations and red tape any more than was objectively indicated. Thus, I had reason to hope for a good final outcome, though it is quite conceivable that whatever remained unsolved could provide a basis for a relapse.

Until more time has passed since the conclusion of the treatment, I cannot take up the various problems which the case presents. There is only one aspect which I wish to point out because this patient shows it much more clearly than any other case I have treated by the vegetotherapeutic method.

In most cases one finds that when a patient completely experiences an attitude, an expression or a tension, he also recalls spontaneously the situation which originally created them. In this manner, I have obtained in many cases a far greater wealth of forgotten infantile memories than in my earlier patients whom I treated by the psychoanalytic method. In the case described here, on the contrary, hardly any forgotten infantile memories came up—with the exception of the one described above—although we worked through very thoroughly his more or less infantile inhibitions in the form of their bodily expression. The problem raised by this observation is the following: Can a thorough correction of infantile attitudes conquer infantile anxiety and liberate the natural impulses, *without* the memory of those situations which created the inhibitions being recalled? In other words, is it sufficient to make the patient experience his inhibitions in their present-day anchoring, will this enable him to overcome them? This case cannot answer the question, but it points to a problem which we will have to keep in mind.

Editor's note: The author raises a very important question here. Anyone who for years has tortured himself and his patients with the method of free association is again

and again struck by the fundamental effect of handling the inhibitions in their present-day anchoring. If this is done, the corresponding memory frequently comes up spontaneously, almost like an afterthought. One cannot escape the impression that the memory itself is really not very important. This would seem to be in contradiction to the basic psychoanalytic principle that in order to remove the repression, the infantile memory has to be recovered. However, in an association-analysis, one may recover any number of pertinent recollections and yet, the symptom—or the inhibition of function—may remain, untouched. That is, we may then know, with reasonable certainty, that this or that inhibition has this or that historical causation. But this knowledge in itself does not remove the symptom, no more than the knowledge that one acquired an infection from a certain person on a certain occasion will cure the infection.

Arnold's case undoubtedly shows a great improvement. This does not lie in the elimination of one or several individual symptoms—which would mean little—but in a fundamental change in the patient's whole being and way of living. This in spite of having recovered only one significant infantile memory. However, the whole structure of the case makes it highly probable that this one memory was that of the decisive pathogenic trauma. The patient's outstanding characteristic and complaint was that of an inhibition of his pleasure function: there was no fun in anything, he had no self-confidence, in work as well as in love. The one important memory pertains just to this: his infantile sexual pleasure function was suddenly inhibited by something that made him deeply ashamed of it. In other words, compared with this one traumatic experience, all other infantile memories appear insignificant; and the treatment recovered just this one decisive memory. It is noteworthy that this memory was recovered at the time of the first reappearance of his pleasure function, when, as he said, for the first time in his life (actually, for the first time since the infantile trauma) he experienced pleasure from the contact with a woman. It was recovered not by way of association, but as a result of a change in vegetative functioning. This is why such a memory means so much more than when obtained in the course of "free association."

But there is another aspect to the problem. We can safely say that in this case a great many more memories were recovered, but *in the form of muscular and vegetative attitudes*. Because this is where the memories really are. It is their discovery in this form which really has a profound influence on the disease process. In an association-analysis, the memories are verbalized, and whether or not they have any affective content, whether or not the patient really re-lives them, is left to chance. In vegetotherapy, where the memories are discovered in muscular and vegetative attitudes, they are *experienced* and it seems of small importance whether or not they are also *verbalized*.

A NOTE ON "INTEGRATION" IN SCIENCE

By THEODORE P. WOLFE, M.D.

The ensuing remarks were prompted by the following statement:

A psychoanalytic study of biological phenomena is yet to come. It is quite certain, however, that it will not come from anyone who is primarily trained in psychoanalysis, but in all likelihood from the close cooperation of two individuals oriented biologically and psychoanalytically respectively who will complement each other and perhaps inhibit each other in getting too far away from established facts.—BEN KARPMAN, in a review of Ferenczi's "Thalassa: A Theory of Genitality." *Am. J. Psychiat.*, 1939.

A "psychoanalytic study of biological phenomena" is a strange postulate. It is inherently impossible of fulfillment. The fact is clear to most people that Ferenczi's "Thalassa" was not a psychoanalytic study but psychoanalytic speculation in biology ("psychologizing" biology), as was Freud's hypothesis of the death instinct.

If, however, "psychoanalytic study of biological phenomena" is merely a misnomer for Freud's postulate that "one day psychoanalysis would have to be put on a biological basis," then the above statement ("It is quite certain . . .") is indeed ironical. Because the biological foundation of psychoanalysis has been established by Wilhelm Reich, a man primarily trained in psychoanalysis. What enabled him to do it was the recognition and elaboration of the distinction between facts and speculation about facts—a distinction which is far from being as well known in science as most people believe; further, the realization that, while biological laws are valid in the psychic realm, the reverse is not true: psychic laws are not applicable in

the biological realm. A "psychoanalytic study of biological phenomena," however, could consist in nothing but just that: the application of psychic laws to the biological realm. The inevitable result would be the re-introduction of metaphysical factors.

The spectacle of the two individuals who "inhibit each other in getting too (*sic*) far away from established facts" is even more pathetic than it is amusing. Let's picture them: one is a psychoanalyst, the other a biologist. They speak an entirely different language; they don't understand each other. The psychoanalyst will try to inhibit the biologist in getting away from psychoanalytic facts (or theories), the biologist will try to inhibit the psychoanalyst in getting away from biological facts (or theories). They keep pulling in opposite directions. How can they "complement" each other? The psychoanalyst can only give a psychological interpretation to biological facts; that is his only tool; the result is metaphysics. The biologist sees no bridge from his findings to those of the psychoanalyst, because there is none. The only contribution he could possibly make would be that of understanding psychic manifestations as part of the total biological process; but that does not fit into biological thinking, mechanistic and teleological as it is. This is why Reich established the biological foundation of psychoanalysis not with the help of either the psychoanalyst or the biologist, but in spite of them. Both groups (with a few enlightened exceptions among the biologists) have been fighting him ever since.

Nevertheless, in spite of these basic in-

compatibilities, the two will try to integrate the findings of one field and the findings of another, entirely different field. These attempts at integration are old, we see them all around us: attempts to integrate psychoanalysis and biology, psychoanalysis and neurology, psychoanalysis and sociology, medicine and psychiatry, science and religion, etc., etc. Thus far, these attempts have failed, and, because they are based on a fundamental methodological error, they will never succeed. They are based on the assumption that the whole can be understood from a study of its parts. It cannot, because the whole is more than the sum of its parts. That is so much of a platitude that one is almost ashamed to repeat it. It is said by the very people who go on trying to "integrate." They know themselves that the reverse is true: the parts are the result of a differentiation of the whole; thus, they can be understood out of an understanding of the whole, but not vice versa. Everybody who has given the subject any thought knows this. That is not the problem. The problem is that

scientists, in spite of this knowledge, go on trying to "integrate." It sounds good: "Look at the enormous wealth of knowledge that we have accumulated; it's just a matter of integrating it; so let's get down to business, and soon we'll have an edifice of science of unbelievable grandeur and beauty." The trouble is, it remains a program, and all the talk about integration does not bring the prospect of such a magnificent edifice of science one step closer.

If, on the other hand, we study—as Reich did—the basic biological functions of the organism, their understanding leads inevitably to an understanding of all the various, seemingly unrelated, surface phenomena which a mechanistic science tries—in vain—to integrate. Then, we understand that a phenomenon like, say, castration anxiety (psychoanalysis) is the same as biological pleasure anxiety (sex-economy), a pelvic spasm (medicine), lack of independence (sociology), being withdrawn (characterology), sinfulness (religion), etc.

IN MEMORIAM

BRONISLAW MALINOWSKI

1884-1942

On May 16, 1942, Bronislaw Malinowski died of a heart attack at his home in New Haven. In him we lose a dear friend who not only maintained a personal relationship with us over many years but who also had an important part in the development of sex-economic theory. It was primarily his investigation of the predominantly matriarchal society of the Trobrianders which provided us with conclusive material regarding the sex-economic structure of primitive societies. This material gave us the ethnological proof of the *social* origin of sexual oppression and repression. It showed, furthermore, that sexual self-regulation, one of our clinical findings, actually exists in practical social terms. Malinowski's work, "The Sexual Life of Savages" (1929), continued Morgan's work on the clan structure of primitive societies. Not the family, as we know it today, formed the original social unit but the clan which derives from a common mother. It was Malinowski's great achievement to have been the first to discover the facts which make comprehensible to us the development of the patriarchal family from the matriarchal clan and thus the development of the patriarchate from the matriarchate.

Malinowski's functional methods of research also played an outstanding part in the comprehension of the origin of the family conflicts in the civilized human of today. Psychoanalysis defined the family conflict as a biological and therefore *unalterable* fact. Malinowski's ethnological findings proved unequivocally that the form of the family changes with social

development, that, in other words, it is dependent on the form of society at any given time and is not an unalterable biological fact. In providing these findings, Malinowski—without actively participating in the fight against the Fascist mysticism of family and race—has given us a powerful weapon in the scientific fight against the mysticism of race. For this, future generations, who will fully realize the significance of the family problem, will be deeply grateful to him.

Malinowski was the first, and I believe the only, ethnologist to apply *correctly* the findings of depth psychology. This is shown in his works "Crime and Custom in Savage Society" and "Sex and Repression in Savage Society." He was the first to use a functionalistic approach to problems of anthropology. Thus, he was a pioneer in the field of ethnology which prior to his work had been purely *historico-mechanistic* and *moralistic*.

The older ethnologists used to evaluate the sexual customs of the primitives *moralistically* instead of describing them objectively. Just as Morgan had investigated the natural clan society and as Engels had elaborated the connections between clan society and modern society, so Malinowski succeeded in giving us a true picture of the *natural* love life of the primitives, a love life which discloses unequivocally the laws of sexual self-regulation. It is due to him that we became able to rid ourselves of a distorted picture of the "savage," that we gained more confidence in the natural laws of life and became able to realize the high cultural

value of a natural sex life in the child. If a social order of the future is going to unite culture and nature again, Malinowski's elucidation of the *natural* morality and sociality of primitive societies will prove a cornerstone of a future cultural process. The positive, life-affirmative attitude toward infantile sexuality is going to be an essential prerequisite of this cultural evolution.

Malinowski's scientific achievements are too well known to be dwelled upon here. I may be allowed to mention some more personal facts which are known only to few. Being a scientific pioneer, Malinowski was a lonely man. All the formal recognition notwithstanding, he had to suffer a great deal from the usual human reactions to that which is new, really democratic and sex-affirmative. Only rarely did he show his inner self, a deep personality of the kind which makes one think of Beethoven's music. As a real democrat, he suffered deeply and silently from the irresponsibility of his fellow humans and the political rigmarole which plunged the European continent into the psychic pestilence. He was too much of an ethnologist and psychologist and too deeply anchored in functional thinking, to believe in the superficial means and the nostrums by which everyday politics pretends to master essential social problems. Thus, he was pessimistic with regard to a radical and early turn for the better.

On the other hand, he too, believed that one day it would be possible to put into general effect the laws of social self-regulation inherent in the human. In their discussions with him, our teacher groups

became well aware of this conflict in Malinowski. In long and serious talks he revealed that suffering which is the lot of every thinking person and every serious researcher when he sees himself confronted with the enormous chasm between petty everyday politics and sweeping biological and historical processes. He was, as we are, convinced that a way out of the chaos is possible only through a gigantic effort on the part of the biological and social sciences; on the other hand, his deep knowledge of the slowly grinding process of true science kept him from being unduly optimistic. His knowledge of the chasm between the basic problems of human life and the irrational strivings of the day kept him from taking an active part in public affairs. However, he proved in a practical way that he was ever ready to help with his full authority when Fascist mentality, in one form or another, threatened the search for truth or the advocacy of facts. He fully agreed with us in the evaluation of the basic elements of dictatorship of whatever kind; his ethnological research, like our clinical research, showed its root to be in the early authoritarian upbringing.

For sex-economy, which is *functional* sexual biology, Malinowski's work will always be a sociological fundament. There can be no doubt that in a radically changed society his historical discoveries will become living realities. To him, love, work and knowledge as the sources of human life were as meaningful as they are to us. We shall honor him by keeping his findings alive.

WILHELM REICH

SEX-ECONOMY AND EVERYDAY LIFE

I. CHARACTER ARMOR IN EVERYDAY LIFE

INAPPROPRIATE LAUGHTER

At the movies, one often observes the audience laughing at inappropriate moments. An example: A battle scene in a war film. All hell is loose, wounded soldiers cry out, others drop dead. A horse-drawn caisson races over a field. At a bump in the ground, the soldiers on it are almost thrown off the driver's seat. Half the audience breaks into laughter. They do not laugh about the bouncing caisson, for there is really nothing funny about it. In reality, they defend themselves against experiencing the dreadfulness of the battle picture. The bouncing caisson gives them a chance to evade the seriousness of the situation. The compulsive laughter is a defense against the seriousness; this is made possible by their being armored against unpleasure.

LASCIVIOUSNESS AT THE SIGHT OF SERIOUS SEXUAL SCENES

There is nothing more serious to human experience than the orgasmic fusion in the sexual act. Yet, when occasionally pictures of mating animals are shown on the screen, adolescents as well as adults react with lascivious laughter or dirty jokes. They know the longing for the biological fusion with the sexual partner, but they have never experienced it and had to struggle hard to armor themselves against it. This armoring reaction is expressed in the laughter at such scenes. It corresponds to the customary sexual joking of sexually unsatisfied people.

ARMORING AGAINST AWARENESS OF FASCISM

The *New York Times* of February 3, 1942 carried the following notice which strikingly demonstrates the armoring of the average mass individual against important political occurrences:

THEY WERE OVERLOOKED

No one gave a second thought to the two Philadelphia reporters who walked around town in the uniform of Nazi U-boat officers and addressing people in thick German accents. Naturally, it would have been otherwise if they had spoken in an exaggerated Harvard accent. To attract the attention of the waitress in a popular restaurant they invented some difficulty with the price list and said, "Was ist das?" The girl replied without looking at them, "Fifteen cents."

But if they had said to the girl, "We beg your pardon, Miss, but we have some difficulty in ascertaining the correct price for this baked apple with cream," she would have looked at them fast enough. After all, "Was ist das" does not sound very differently to a bus clerk at a lunch counter from "What is that?" If she heard the words at all she heard them in the conventional pronunciation, "Whaz-zat?"

In reality, the reaction of the waitress has nothing at all to do with the assumed similarity of the English and the German expression. Rather, it shows the far-reaching armoring of the average individual against the awareness of the Nazi uniform and what it represents.

2. MECHANISTIC MEDICINE AND NATIONAL HEALTH

The war mobilization in this country has brought to light a picture of our national health which is discussed by a keen observer as follows (*New York Times*, March 8, 1942):

Why does the health of the American people leave so much to be desired, from what one hears nowadays?

What about our New Army and the rejections for physical unfitness? General Hershey, head of the selective service, says: "Whether we are worse off physically than we were in 1917-18 is undoubtedly controversial. That our physical standards are higher now let us admit. The fact remains that while we may be no worse than we were twenty-four years ago, we seem certainly to be no better."

That is perhaps the most discouraging phase of the matter. Whatever may be the health of the American people and of its Army, we shall have to fight and win the war with what we have. But looking ahead to times of peace, we are driven to the tragic conclusion that social effort is a failure. Better food and better housing are of no avail. More play and fewer hours of work have brought no improvement in physical stamina. The labors of a whole new profession of social service, the work of Hull House and the Henry Street nurses have shown no results. Then what are we supposed to do to be saved? . . .

The question is, why have we no results

in the nation's health to show for what has already been done?

There can be no doubt that the improvement in the health of the people does in no way correspond to the gigantic efforts made. "Our present methods," states Dr. Cabot, "have failed to produce fit people." The question, then, as to *why we have no results in the nation's health to show for what has already been done*, is a highly pertinent one.

Our own medical experience makes the following conclusions inevitable:

1. Medicine, mechanistically and chemically oriented as it is, does not comprehend living functioning.

2. Thus, it does not comprehend the diseases of the vegetative system, the disturbances of biological pulsation.

3. The disturbances of sexual functioning are unknown to the average physician. They are left out in the curriculum of the medical schools, in spite of the fact that at least 60-80% of the total population suffer from them.

This state of affairs can be changed only by a transition from mechanistic to functional-biological thinking in medicine, and by a systematic comprehension of the biopathies (diseases resulting from sexual stasis). This will be possible only by collective investigations and by mental hygiene measures underwritten by society.

PHYSIOLOGICAL ANCHORING OF PSYCHIC CONFLICTS

I. PRESENT-DAY SITUATION AND INFANTILE HISTORICAL BACKGROUND

Ever since Freud, modern psychiatry has had to wrestle with a certain difficulty in everyday practice which is due precisely to the knowledge of the depth of neurotic disturbances and of their anchoring in infantile experiences. The more one knows about the unconscious complexity even of the simplest neurosis, the more helpless one feels when confronted with an everyday case which requires speedy diagnosis and therapeutic help; where real character-analysis, which requires a great deal of time and expense, is out of the question. This helplessness is basically different from that born of ignorance, as in the case of the general practitioner without any depth-psychological training. He tries to get along with such illusions as bromides or peptalks, thus saving the patient from the necessity of facing his conflicts. The helplessness of the trained physician is shown up occasionally in such tragicomic occurrences as the following which happened on a prison hospital ward:

There was a man on the ward who suffered from compulsive murderous impulses. It was all he could do not to jump at his neighbor's throat during the night and to choke him. Becoming more and more afraid of these impulses, he sought a consultation with the psychiatrist. He returned from the consultation all upset and reported: "What do you say to this! The psychiatrist told me I wanted to sleep with my mother and murder my father. And that I had a resistance against realizing that!"

Needless to say, the psychiatrist's procedure was wrong; but it is understandable out of his desire to utilize his psycho-analytic knowledge for bringing about a quick therapeutic effect. That such an

attempt can result in nothing but an intensification of the patient's defenses, goes without saying. Vegetotherapeutic training safeguards the physician against illusions and against such blunders; more than that, it supplies him with the means of achieving practical results in acute situations without having to delve into all the unconscious conflicts. This is possible because of the following facts:

The vegetotherapist knows that even the oldest infantile sexual conflicts are still active in the form of muscular and vegetative disturbances. Though he knows perfectly well that the neurosis in any individual case may be of several decades' standing and is deeply anchored in the psychophysical apparatus, he does not necessarily have to reach the deep conflicts. He looks for the place of the physiological anchoring of the psychic conflict and tries to alleviate the stasis of energy by establishing natural respiration and by releasing inhibited impulses. This is possible in a considerable number of cases, even in neuroses of long standing. The well-trained vegetotherapist knows, of course, that he does not "cure" a neurosis by releasing a few muscular blocks. However, he is able to bring about at least a temporary alleviation of the condition; an alleviation which is far more valuable than illusionary consolation or the explanation of unconscious contents while naively overlooking the deep-seated resistances. This can be illustrated by the following case.

A woman of 35 came to see a vegetotherapist because of "nervous headaches," insomnia and severe anxiety. In particular, she suffered from the fear of "going crazy" and having to be put in a mental hospital. She had seen any number of physicians; they gave her bromides or told her "it was just overwork" or "it was

just a cold." She suffered from a severe orgasmic disturbance and a neurotic fear of the pessary, which in turn made her husband neurotic. She also complained of feelings of depersonalization. Her present illness had started suddenly 3 months before. It was immediately evident that the patient inhibited her respiratory function quite severely. Correspondingly, she suffered from "shortness of breath." The abdominal musculature was tense, the pelvis retracted, the musculature of neck and chin extremely rigid. True, the "nervous headaches" had unconscious psychic contents and an early infantile history; but they could be understood as the immediate result of the spasms in the musculature of the head and neck; it was in these spasms that the unconscious contents were anchored. It was clear that the patient was making an enormous effort to hold back "something." After about 10 minutes of correct breathing, the patient began to have coughing spells. She jumped up and refused to continue the work. She was persuaded to go on trying "to get her chest down." She did, but now she developed the *impulse to vomit*, and soon she ran to the bathroom and vomited violently. After this, she felt a great relief and spontaneously related the following: Shortly before she fell ill, a woman friend of hers had been taken to the hospital for violent vomiting. From then on, she herself had developed the fear of being taken to the hospital should she vomit (that is, a case of hysterical identification). In the course of a few days she developed actual impulses to vomit; these she fought by holding back. This was the origin of her "nervous headaches" which resulted from the muscular spasms connected with the holding back. True, the vegetotherapist knows that the hysterical identification with the friend has an infantile basis. He also knows that a sex-economically healthy organism could not develop any hysterical vomiting impulses; that, in other words,

it is the sexual stasis due to genital anxiety (frigidity) which causes the displacement of vegetative excitation from the genital to stomach and esophagus and thus gives rise to the vomiting impulses. But, in order to bring about an improvement in the acute situation he need not deal with these depth-mechanisms. In the *emergency*, it is sufficient to release the inhibited vomiting impulses by releasing the spasms of the musculature in chest, neck and head. The *cure* remains for a correctly carried out vegetotherapy.

2. AN INFANTILE FEAR AS EXPRESSED IN A SPECIFIC INHIBITION OF THE ORGASM REFLEX

In spite of numerous detailed clinical examples, many psychiatrists and psychoanalysts still find it difficult to understand how the vegetotherapeutic eliciting of expressive movements also can reproduce the respective infantile memories. The following example shows particularly clearly the anchoring of a repressed memory in a present-day form of expression.

This example is from the concluding phase of the vegetotherapeutic treatment of a character-neurotic. The patient had come for treatment because all pleasurable life situations were ruined for him by the interference of an involuntary "No" in the form of a depressed, tearful mood. This character trait finally had also affected his working capacity and had made him incapable of working. The development of his orgasm reflex had succeeded to a far-reaching degree. For some time, a final inhibition of the reflex failed to give way. Consistent work on the muscular actions which inhibited the reflex brought to light an attitude of the muscles of the neck which corresponded to a ducking of the head. As soon as the orgasm reflex set in, the patient would pull in his head. Gradually, this was replaced by a bending forward of the head.

Simultaneously, his face began to show an angry, observing and threatening expression which reminded one of an "angry old Jew." When this was shown to the patient, he thought of "Liebermann," the name of a German painter. The patient's father was a painter and had shown him pictures of Liebermann when the patient was still at a very early age. Liebermann was a Jew. Now, when the patient let the orgasm reflex come through, he was able to reproduce the expression of an angry old Jew even more distinctly. However, the pleasurable orgasm reflex and the angry facial expression were at variance with each other. When the patient looked at himself in the mirror, he recognized in his sagging cheeks the tearfulness which used to overcome him in pleasurable situations. Suddenly he exclaimed, "But I look like a raven."

Then he remembered that, before he was three years old, he used to have a nightmare of a big black raven sitting at a piano in his bedroom and playing. Then he remembered that his father had at one time painted a picture of a raven. This picture hung at a certain place in an upper story which could be reached only by means of a circular staircase. He always would have liked to go up there to look at the picture but was strictly forbidden to use that staircase. Then he remembered a strong fear he had at that time: the fear that his father might make the acquaintance of Liebermann and learn from him a well-kept secret of the patient. Then followed the recollection that a few years later he had visited an uncle and there had kept gazing at an ashtray. On this ashtray was a raven whose long beak formed the instrument for clipping the cigars. Now, "Liebermann" made him think of "Lieber Mann" and "Lieber Gott" (Dear man, dear God).

These memories, although they had

never come up before, appeared now quite spontaneously and without the patient having any inkling of their connection with the idea of castration.

Clearly, the threatening raven at the piano signifies his own fear of punishment for masturbation. The threat of this punishment expressed itself in his face at the time when the orgasm reflex developed. It appeared as an *actual inhibition* of the reflex, not as a mere historical recollection. All this broke through in a single session, and without the patient having even thought of masturbation anxiety. At the end of the session he said, "I'm dissatisfied; something important is lacking here." The inhibition of his pleasure function by a structurally anchored prohibition had become evident.

During the following session, the infantile fright situation was fully elucidated. Together with the ducking of the head, there appeared now an anxiety reflex in the pelvis and the legs, as if the genitals had to be protected from a threatening danger. The patient made rattling sounds and finally emitted the word "razor." The patient used to watch his father shave with a straight razor and used to follow the motions of the razor at the neck with amazement and fear. These impressions were functionally anchored in the attitude of ducking the head. The anxiety reflex in pelvis and legs was coupled with the attitude of ducking the head, corresponding to the coupling of the idea that the razor might cut the throat with the idea that it might as easily cut off the genital.

This case illustrates in a particularly clear manner the mechanisms of infantile castration anxiety as discovered by Freud; but it illustrates, in addition, the sex-economic concept of the somatic anchoring of repressed memories in present-day pathological bodily attitudes and reflexes.

A. S. NEILL'S "THE PROBLEM TEACHER"

Editor's note: When in Oslo in 1938, I met Neill. It was quite an experience. Two memories stand out vividly in my mind. One is that of the discussion evenings at Reich's, and Neill again and again pointing the stem of his old pipe at Reich and propounding some searching question. The oldest man in the group, he nevertheless was never ashamed to profess ignorance and never satisfied until he really got to the bottom of a thing. He seemed to take nothing for granted—except the right of the child to freedom.

The other is that of an evening when Neill gave a talk to a large teacher audience in Oslo. It seems that before he went to the platform he was approached by a lady who said in some trepidation: "You aren't going to talk about that man Reich, are you?" "I certainly am," said Neill. When he started to speak, he began to tug at his necktie, as embarrassed speakers are wont to do. But it was by no means the audience that embarrassed him; it was the necktie. "I'm going to talk about freedom," he said, "so the first thing I'll do is to free myself of this," and took the darn thing off. The audience was very dignified. Right in front of me sat a gentleman who must have belonged to the upper strata of the school hierarchy: stiff shirt, bow-tie, bowler hat, walking stick and gloves. There he sat, stiff as a board, dignity personified. And then, in the course of his speech, Neill said: "Dignity is only our way of keeping the children from seeing what silly asses we are." I have met few people with as little defensive dignity as this great Scots teacher and few with more simple human dignity than he.

In the following pages, we print a few excerpts from the first chapters of his book, "The Problem Teacher" (Herbert Jenkins Limited, London, 1939. 192 p.)

WHAT IS A TEACHER?

"What would you like to be when you grow up?" I have asked the question hundreds of times. Only once did a child reply: "A teacher." I had to send her away from my school later when she turned out to be mentally defective.

Among teachers there are roughly two kinds of ungrown-ups: the kind that loves being a child, and the kind that hates his inability to grow up. The former is what we call "the born teacher": the latter is the hateful disciplinarian. The born teacher is not a problem: he loves his work and he loves children, and children love him. But he should be pensioned off round about the early forties because, when he arrives at the stage when play is an effort to him, he is apt to become a pessimist with a mechanical smile.

The disciplinarian teacher should of course be pensioned off before he leaves the training college. He is dangerous and damned from the word go. Psychologically he is at the same stage as the bully of Class IV, but he is a bully who is in the position of being winner in every scrap. The born teacher is the Peter Pan of love: the disciplinarian the Peter Pan of power.

Now we can try a definition of the problem teacher. He is the man who hates the child in himself and the child in everyone else. The lover of children hates all those trappings of education that warp and thwart the child. The hater of children likes the hateful disciplines and punishments that rob the child of freedom and happiness.

The word Education means literally drawing out. A good teacher does not

draw out: he gives out, and what he gives out is love. And by love I mean approval, or if you like friendliness, good nature. The good teacher not only understands the child: he approves of the child. The ability to teach a subject is of minor importance: the one criterion applicable to any teacher is . . . Do children fear him? If they do he is a bad teacher, even though he has 100 percent of passes every year. If he is respected by his pupils he is a failure, for respect implies fear. I have said often and often that if a child cannot address his teacher as a silly ass the teacher is a danger.

Sometimes reviewers and other critics say that I continually write half-true things merely to shock people. This "silly ass" test is one of the alleged shocking half-truths. To me it involves one of the most important truths connected with education. To be called a silly ass by a child is the supreme test of sincerity to oneself and to the child. The man who reacts with a smile is a silly ass and knows it: the man who reacts with anger is a silly ass who dare not admit to himself that he is. No man is honest, but the man who protects himself by dignity is the most dishonest of all.

The beginning of my days as a good teacher dates from the time when the class did get beyond my control, and it was then that I learned that one must first lose if one is to win. When I lost my leather tawse for ever I lost my fear of my pupils and they lost their fear of me. Funnily enough in those leathering days I was said to be an excellent teacher, but then any sergeant in the Guards would be called an excellent instructor. . . . Our educational drill sergeants, supported by all the power of the State, convey to the unfortunate children the idea that the spit and polish absurdities are the importances of life.

Teaching as it is today must attract the spit and polish type of man, that is the man with childish values. Shaw puts it:

He who can does: he who cannot teaches.

Only the man with the lance-corporal mind can adapt himself to such a system: only he can tolerate a horizon bounded by the schoolroom walls and the Board of Education Code.

The question arises why the lance-corporal type of schoolmaster is so often a hater. . . . It is only about two months ago that I had a letter from a woman in Scotland saying that her boy of nine is strapped severely if he has more than two spelling mistakes in his dictation. His teacher is a young woman.

. . . I have invited the obvious retort . . . "Such teachers don't exist nowadays: you are forty years behind the times."

Good. I admit it. I admit that the man I have depicted is a monstrosity that only exists by accident. At the same time I contend that he exists in another form, that a teacher with the same psychology is a danger even if he has never touched a child in his life. I visited a rural school not long ago. The headmaster told me that he used the strap only once in a blue moon. "The old harsh discipline has gone," he said. He took me round the classes. In each room the children jumped to their feet when we entered. They hardly looked at me: their eyes were glued on the head. He spoke to a few of them and they answered in that insincere tone that has fear behind it. It made me think of the times when I was one of the guard inspected by the adjutant: I also knew what it was to watch an authority in fear. I was sure that the head would have approved of polished brass buttons. I came away from that school feeling miserable and angry. The little tin god had a school ruled by fear and he was quite unaware of the fact.

I contend therefore that one does not need to use physical violence to introduce fear into children's lives. I contend that there are thousands of teachers, male and female, who evade the realisation that their rule is primarily one of fear, that in

their hearts they give out hate and not love. In that school I made a funny remark. The children were afraid to laugh: they glanced at the head to see if they dared. As he apparently did not see the joke himself he did not smile, and they wisely kept their faces straight.

I ask you in the name of humanity why children should not be in a position to laugh all day if they want to. I ask you what hopes for a sincere life children have when they have to be insincere little devils for six hours a day.

THE TEACHER AND THE STATE

When the teacher in a Moscow school asked his class the simple problem: If a man buys an article for 50 rubles and sells it at a profit of 10 per cent, how much does he get for it? the bright boy of the class promptly answered: Three years' hard labour. It was the correct answer in Russia because in Russia the schools educate children for Communism. In Germany and Italy they educate children for Fascism. The State must see to it that education will be such that the *status quo* is perpetuated.

Theoretically one would think that schooling is an antidote to family influence. It isn't: it is family life on promotion. In school we have the proper substitutes . . . father, mother, brothers and sisters, discipline, obedience. The result on the teacher's psychology is appalling. He becomes a father with control over a home of forty or more children: his word is law: he can dispense with the love that every father must have for his children, and he can give the children only the hate side of father. And this is true of the disciplinarian, for he has no love to give out, only hate. No, the school does nothing to counteract the evils of home.

Should then the home be abolished? No. A home is a necessity to young children: they must have the love that only

the parents can give: they must have the sense of security that the presence of parents affords. A child needs a home up to the age of three or four. At that age he should be sent to a boarding school where he can have all the happiness he requires without the temptation to attach himself over-emotionally to his family.

Dealing with children is a specialised job, and many parents simply do not know how to do it. If the child has a temperature or a pain in his tummy they realise their incapacity and rush to the doctor. But if the child cries or steals or has bad tempers they never think of their ignorance of child psychology; they treat the child themselves. Recently I had to deal with a boy of seven who is an expert thief.

"Say, Willie," I said to him one day, "will you join my gang?"

"What gang?"

"Oh, I want you to steal things and if you join my gang I'll give you half what I steal and you'll give me half what you steal."

"O.K." he said, and next day presented me with sixpence.

The only hope of curing him is to be on his side all the time, and I can do it because I know how to do it and have the opportunity that living with the boy gives me. But a father cannot do this sort of thing. The emotional tie between father and son forbids any treatment even if the father knows how to give it.

A few days later I thought it was time for me to do my bit. I handed him a penny.

"What's this for?" he asked.

"Oh," I said easily, "I stole tuppence from a visitor and this is your half."

As I walked away he said to one of the staff: "Neill didn't pinch that tuppence. He is a liar."

This was good news to me, for it was necessary that he should discover that I was as big a liar as he was himself. Only

then were he and I equals. But if his father had used the same method on him the boy would have feared to face the fact that his father was a liar, and he would have evaded the thought, that is he would have added a new repression to the many that he has already.

The State's attitude to crime is that of the old Calvinists: the sinner must repent and, if he doesn't, we'll give him what for. And this attitude is the attitude of official education. If a child offends against the school laws he must be made to suffer. The new way of trying to find out what is behind the offence is discounted, not because it is difficult, but because it affords no opportunity of expressing hate. I see little difference between the attitude children are forced to have to their teachers in England and the attitude children and adults are forced to adopt to Hitler in Germany. Both are power politics. And both systems afford opportunity to the little man to use his power without conscience.

THE TEACHER AND HIS EGO

With an audience that is compelled to be there, the teacher has little to contend with in the gratification of his own ego. In my own school where children can walk out of the classroom and stay out for ten years if they like, the teacher has some opportunity to limit his ego expansion: indeed teaching under such conditions puts a man on his mettle: he knows that, if he is a dud, the number of walkings-out will prove it. This is as it should be, for children should be the best judges of teachers.

In the State schools the teacher has no clear measure of his own importance and his own talent, so that the acquiring of a little tin god psychology is comparatively easy. For he is always right. When I lectured at a Midland university and in answer to a question from a student, an-

swered: "I haven't the faintest idea," the students appeared to be excited. Later I asked them why, and got the reply: "We were knocked out by your confessing you couldn't answer a question, for if you ask a professor or a lecturer a question he always knows an answer. None would think of pleading ignorance."

Teachers are less inclined to learn from another than men of other professions, indeed one cannot teach an old dominie anything.

Here again we have the tremendous power of the ego. I shall illustrate by a personal example. Five years ago when lecturing in Oslo I met a man who interested me very much. He was a psychologist called Dr. Wilhelm Reich. He had rich ideas that carried him ahead of Freud, and I desired to know more about his teachings. In the end I decided to go to him as a pupil.

Now part of Reich's science lies in his discovery that psychical repressions show themselves in the muscles. They manifest themselves as stiffness, especially of the stomach, neck, etc. To learn the method one must, of course, go through it, and every holiday I have had for the past two years I have gone to Oslo (where I write this book) to go through the process. Reich found that I had a stiff neck, and each time he touched the back of my neck it was slightly painful. For days he concentrated on my neck and I became more and more annoyed. Finally I got furious. I sat up and looked him in the eye.

"Reich," I said, "I have just discovered something. I have discovered that I don't believe a bloody word you say. I don't believe in your muscle theory one bit. You are a sham."

I lay down on the sofa again, and Reich touched the back of my neck.

"Good Lord," I said, "the pain's gone."

"Yes," said Reich, "and so has the stiffness."

Reich holds that envy and spite show

themselves in cramping of the muscles of the neck.

The only feasible explanation is that all my resistance to learning from another man was concentrated in my neck muscles, for, not only did I learn more easily afterwards, but strangely enough, found that I could read Reich's books more easily. I had always complained to him that his German was too stiff for me.

I went on talking to Reich.

"I confess that I have had a lot of conscious resistance to coming to learn from you," I said. "I am fifty-five; you are forty. I am a well-known child psychologist, and it has been difficult and shameful for me to come to you to learn new things."

I had found something very vital, namely that I was allowing my petty ego to stand in the way of my progress. It was one of the most important discoveries of my life, and I cannot see how I could ever have arrived at it without Reich's undoubted genius for psychology.

It will be seen that when I write of tin gods I am on ground that I know well. . . . This brings up the question whether the teacher should be an example to his pupils. The old schoolmaster thought so much of this aspect that he would hide his pipe if a pupil came round the street corner. Among teachers as a class there is the idea of uplift, of being a shining example in behaviour.

This attitude to education is deplorable. Heaven only knows that the system today is evil enough in producing little hypocrites without having the insincerity of the teacher added to it. No man is good enough to be a model to anyone, young or old. No man should have to live an insincere life. Children cannot learn humanity from an inhuman teacher. They can only learn in complete sincerity. I dwell upon this matter of sincerity. It is the criterion of life. I have said again and again that children come to me from disciplined schools, insincere little humbugs,

with false manners which they drop in a few weeks. Discipline and fear have made them act a part that is foreign to child nature, for a child is by nature a sincere little blighter. To me goodness and sincerity are synonymous, and in curing a young thief the fundamental method is to be so sincere with him that his own sincerity comes out. Sincerity is akin to love. In the process one has often to act insincerely, as in my example of lying to Willie about my stealing tuppence from a visitor. My insincerity had a purpose . . . to break down his resistance to sincerity by showing him that authority with its dignity is a myth. If he had not discovered that I was a liar I should have gone on swindling him till he did. With a normal child one never needs to do this, one never needs to lie, and if one does lie one does much harm. The teacher must never allow the child to lose confidence in his, the teacher's sincerity.

I can write freely about the problem teacher because the problem teacher is in myself. But the child is also in myself and my sympathies are mostly with the child. I know how the teacher is handicapped by the circumstances under which he works, by his social status, by his inadequate training, by his lack of freedom. I write about him mainly to help him to become aware, not only of his surroundings, but more vitally of his inner ego and its dangers. I write not as an authority who is better than the other fellow, or as one critic once said of me, as the only man in the regiment who is in step. Having had a free school for eighteen years I have been in a position to see things that the average class teacher has no means of seeing. For one thing I have seen children as they are when free from outside adult discipline, and what I have learned from them seems to be so important that I shall not be happy until every child and every teacher in the land has freedom to be sincere and happy. But unfortunately I cannot live for a thousand years.

REVIEWS

PSYCHOANALYSIS AND ORGASTIC POTENCY

SCHILDER, PAUL: *Types of Anxiety Neuroses. Internat. J. Psychoanal.*, 1941.

The article begins with the sentence, "It was a great step forward when Freud (1926) stated that anxiety is a reaction to danger." Sex-economic clinical experience and the development of sex-economic theory show clearly that, in fact, this was the greatest single step *backward* ever made in psychoanalysis. Designating anxiety a "danger signal of the ego," that is, making a metapsychological concept out of what is a basic biological reaction of the organism, meant sounding the death knell of psychoanalysis as a clinical science and putting it firmly and definitely into the realm of metapsychology.

Schilder attempts a classification of anxiety neuroses according to their *psychological* structure, especially according to the quality and structure of their aggressiveness. This alone would show clearly that he is not speaking of anxiety neuroses at all, but of *psychoneuroses*, predominantly of a pregenital nature. He speaks of "regression," "deep-going analysis of cases of anxiety neurosis," the type and analysis of transference, etc. Now, we know that pure anxiety neuroses are rare, and that every anxiety neurosis, if allowed to continue, will develop into a psychoneurosis. But then we are no longer justified in speaking of anxiety neurosis.

In a footnote to a case history, Schilder takes issue with Reich's concept of orgasmic potency.

The patient was also orgasmically potent in Reich's sense of the term. I have seen full orgasmic potency comparatively often in severe neurosis. The correlation between the quality of orgasm and the severity of a neurosis, if it exists at all, is not a close one. Reich's statements in this respect are too schematic. Neurosis is not a disturbance of orgasm but a disturbance in human relations and in psychosexuality.

Now, Schilder is not alone in stating, "I have seen full orgasmic potency comparatively often in severe neurosis." This statement has

been made again and again for the past fifteen years by psychoanalysts in the attempt to refute the orgasm theory. It simply means that these analysts do not know what orgasmic potency is. They still consider a man "potent" when he is capable of carrying out the sexual act, that is, if he is erectively and ejaculatively potent. Erective and ejaculative potency, however, are very frequently found with complete orgasmic impotence. That is, the act may not give any pleasure or even result in a reaction of disgust. Excessive erective potency, as frequently seen in compulsive sadistic characters, always covers up a severe disturbance of orgasmic potency.

Schilder's clinical description contradicts his statement. The patient to whom Schilder refers as "orgasmically potent in Reich's sense of the term" showed, among other things, the following characteristics: "He was not inclined to give any deep interest to any other woman [than his mother] and his sexual experiences consisted chiefly in having intercourse with girls he picked up with friends in the street. . . . The analysis of the symptom [fear that he might not be capable of eating] again showed the displacement from the genitals to the mouth and the fight to protect his openings against something that was being forced into them. His general mode of living was still unsatisfactory. Although he was fully potent, he had no human relation at all with the girls with whom he had intercourse. He still wanted to reserve his libido for his mother. . . . His life in general was very dull."

Now, this is the description of a man who is orgasmically *impotent* in Reich's sense of the term. Presumably, "fully potent" in this case means "erectively potent." An orgasmically potent man does not have intercourse with girls he picks up in the street, is not incapable of a human relation with his sexual partner, has no displacement from genitals to mouth, and does not have a generally unsatisfactory and very dull life.

This throws some light on Schilder's statement that "neurosis is not a disturbance of orgasm but a disturbance in human relations and in psychosexuality." Of course, a disturbance in human relations and in psychosexu-

ality are essential symptoms of the neurosis, but these disturbances are the result of and are impossible without a biosexual disturbance, namely, orgasmic impotence.

T. P. WOLFE

GENERAL SEMANTICS: THE MYSTICISM OF WORDS

ALFRED KORZYBSKI: General Semantics, psychiatry, psychotherapy and prevention. *Am. J. Psychiat.*, Sept. 1941.

This is just about the most absurd thing to find its way into scientific journals in a great many years. In the opening paragraph, the author makes the bold statement that "General semantics is a strictly empirical, natural science." The next few paragraphs soon make clear the fact that it is neither empirical nor is it natural science, but a system of erroneous assumptions and conclusions, presented in an elaborately neologistic language. The author wants us to believe that all our ills come from a wrong use of language, of terminology. According to him, the "power of terminology" creates a "serious problem" "because of the well-known difficulty of recanalizing our nervous systems," whatever that is. The author's view of the world is expressed in the following passages:

The human world in which we live is based on science (constructively or destructively) and therefore on non-euclidian, non-newtonian and non-aristotelian systems, yet our inherited orientations remain aristotelian, euclidian and newtonian, which are quite different. Under such conditions optimum human adjustment is, in principle, impossible. Psychiatric students can readily understand that the world is afflicted with what may be called aristotelian maladjustment, neurosis, or even psychosis. To remedy such conditions is difficult but necessary if we want to save our sanity.

Present day scientific researches and world developments show that the old aristotelian era is dying. The terrors and horrors we are witnessing in the East and the West are the death-bed agonies of that passing era.

And so it goes on and on, in the same pseudoscientific and neologistic lingo:

In general semantics we introduce two new unavoidable factors; namely, our neuro-semantic and neuro-linguistic environment as en-

vironment, which also requires a radical revision of what we know and should particularly interest psychiatrists and educators.

The introduction of the terms "unspeakable" or "silent" level eliminates another serious source of confusion. . . . By accepting this unified terminology; namely, "unspeakable," or "silent" level, we automatically eliminate endless, useless verbal bickerings.

In general semantics we introduce a general theory of evaluation having very little to do with the meaning of words by verbal definitions. . . . Thus, evaluation is more than an organism-as-a-whole term; it is a non-elementalistic term (6) because it implies inclusion of the environment. We need a special technique to handle such terms which I will explain presently.

The reader may think that these things are unintelligible because quoted more or less out of context; on reading the whole article, however, he will find them to make no more sense.

After 50 years of psychoanalysis and 20 years of sex-economy, we are offered this:

One of the reasons that psychiatrists have to deal so often with "sex" difficulties is the false knowledge their patients have about the functions of the gonads. To my knowledge this formulation is novel, and has escaped the attention of psychiatrists.

This formulation is indeed novel, and it is only to be hoped that it will continue to escape the attention of psychiatrists. Korzybski, on the other hand, believes that as a result of handling the "neuro-semantic and neuro-linguistic functioning of the nervous system," or people's concepts about their gonads, "many 'sex' troubles disappear." In the same paragraph he says:

It is no longer a mystery that a great many psychosomatic difficulties arise on semantogenic grounds, and there should be no difficulty in understanding that when semantogenic disturbances are eliminated, which is the problem of general semantics, beneficial psychosomatic consequences should follow.

So, the psychosomatic problem, already burdened with the erroneous concepts of "psychogenic" and "somatogenic," becomes further complicated by the introduction of "semantogenic" factors.

Under the heading of "Neuropsychic Mechanisms" we read:

Experience shows that the "cortex" and the "thalamus" are very often poorly integrated

functionally, and our main problem is to bring about a better integration if at all possible.

In contrast with animals, the human cortex matures at approximately 18, and many differentiations acquired in childhood through fear or pain, are mostly on the old brain level. This explains why many maladjustments, stuttering, neuroses and even psychoses, originate in childhood when the new brain is immature.

In other words, we have here a rebirth of "brain mythology," of concepts which have long been shown to be erroneous and have been thrown out by the more enlightened neurologists and psychiatrists. The function of such fabrications as that childhood maladjustments, neuroses and psychoses are due to "differentiations acquired on the old brain level," is of course that of camouflaging the fact that these diseases are due to the sexual repression suffered in childhood and adolescence.

Freud had the courage to point out these facts, willing, as a scientist, to face the wrath of the public. Then, a man like Korzybski has the effrontery to make the following statement:

Similarly Freud ascribed *one* undifferentiated "sex" to infants which revolted public opinion. If Freud had used the extensional devices he would not have gotten into such difficulties. He would not have used the word "sex" without indexes, dates and quotes, and he would have explained that an infant has a sensitive organ which could be labelled 'S₁⁰' at birth, 'S₂¹' at the age of one, 'S₃²' at the age of two, etc.

Yes, Freud could have done that, but if he had, there never would have been a clinical theory of sex, because "sex" would have become entirely meaningless. This statement of Korzybski's shows better than anything else the true function of the "extensional devices": to make everything into meaningless hieroglyphs. The sad part of it is that so many people fall for this trick and think that something is scientific because of the use of mathematical symbols.

If, as Korzybski seems to assume, neuroses and psychoses are due to a poor integration of cortex and thalamus (a pure fabrication), then therapy logically consists in "thalamo-cortical integration." This is done by "extensionalization."

To achieve the coveted thalamo-cortical integration through extensionalization, we utilize what I call the "extensional devices," always using a slight gesture of the hands to indicate absolute individuals in space-time, orders of abstractions, etc., involving thus the kinesthetic sense, which is well known to have an important bearing on our orientations.

The *extensional devices* are as follows: (1) Indexes, (2) Dates, (3) Etc., (4) Quotes, (5) Hyphens.

I call the first three "working devices," and the fourth and fifth "safety devices." The application may seem simple when explained, yet it is laborious and difficult to acquire as it leads to a profound neurological recanalization of a usually poorly integrated nervous system.

But what is "profound neurological recanalization"? Nothing but a Korzybski term without any basis in reality. But Korzybski has other therapeutic tricks in his bag:

The passive, *listening*, 'father-confessor' method is no doubt effective in some cases, but it is a very slow and expensive process. As general semantics is educational, and re-educational, we *lecture* on sanity and *methods* of sanity, with a rather high percentage of beneficial results, in a comparatively short time.

The whole system is so patently unscientific and devoid of any basis in fact that the reader will ask why on earth anybody should review it in a scientific journal. The answer is: the system of general semantics is important; not because of its rational or scientific content, which is *nil*, but because of its irrational sociological function. This function is that of evading facts by a flight into meaningless terms. This is a general characteristic of academic science, but in Korzybski's general semantics it has reached a pinnacle which will not be surpassed for a long time to come. Here lies the danger of general semantics, and this danger should not be underestimated. General semantics is a superb piece of escapology. The mass individual is constantly on the lookout for just that. There were times when religion served the purpose satisfactorily. With their increasing sophistication, people look for a less naive escape, and they find it in all kinds of pseudoscientific systems. The system of general semantics serves the purpose in a particularly beautiful manner: it is a complete escape from facts and at the same time so

abstruse that it almost sounds intelligent, certainly extremely "scientific." The unsophisticated individual is in little danger of falling under its spell. He will call it—as did a very intelligent but unsophisticated friend of mine—"double talk." But the academic mind will prove a fertile soil for it, and, unfortunately, those afflicted with the academic mind have a lot to say in this world. The flight from facts and feelings into words and concepts is a well-known defense mechanism. It is found particularly in compulsive characters who defend themselves against any emotional reaction by a process of intellectualizing and verbalizing. It is a mechanism with which the character-analyst has to fight constantly in a certain type of patient; it is the mechanism that made so many free-association analyses of compulsive characters fail, because it armored the patient most effectively against any emotional contact with himself and the therapist. Korzybski's proposal is fundamentally nothing but that of replacing one kind of intellectualizing by another: to replace an "aristotelian" system by a "non-aristotelian" system. But this he proposes to do on a national or even international scale: governments should officially employ experts in general semantics "to guide mankind toward sanity."

The reader may react to this by shrugging his shoulders and saying, "That's silly." But that is what people said about the rantings of Hitler before 1933. Let's see what Korzybski has to say about Hitler.

What interests us in general semantics most is the *new methods of destruction* of sanity and civilization, methods based on the 'war of nerves' and *verbal distortion* introduced by a sick Hitler and his associates, and aped by humanly ignorant Mussolini, Stalin and Mikados, who are fascinated by the success of the pathological performances of *verbal distortion* imposed on the world.

Here is an old and basic misunderstanding of Hitlerism: that it was brought about by a sick Hitler. This formulation is the most vicious misinterpretation of Fascism. It has an enormous appeal because it blames one man for something which is the responsibility of all humanity. In reality, Hitler's success is based on the mass disease of the people which he knew how to handle for his pur-

poses. No amount of "verbal distortion" could ever mislead a *healthy* people. The fact that most of Hitler's theories were erroneous, that many of his utterances were patent nonsense, did not diminish their effectiveness in the least; they are effective not because of their content, but because of people's receptivity for them. Hitler did not invent the theory of race. It had been there long before Hitler in the form of the metaphysical theories of heredity. All Hitler did was to make a system of it, to capitalize on the generally prevailing fear of sexuality and fear of responsible freedom, and to proclaim himself the savior who was going to save the world and to produce a new, pure race.

Similarly, Korzybski did not invent the human tendency to escape from facts and feelings into words. It is there, all around us. All he did was to systematize a rather general human failing and to capitalize on it to make himself the savior of an "aristotelian" world who is going to create a new race of "non-aristotelians."

And the academic world opens its scientific journals to this system, it reviews Korzybski's publications with approval, sometimes with certain reservations and doubts, sometimes with paradoxical feelings of inferiority about not understanding them, sometimes with a certain amount of condemnation, but always *taking their contents seriously* and always *overlooking the irrational function of the whole thing*. That this is the case, that, for example, an article like the one referred to here can be published in the official organ of the American Psychiatric Association, without any editorial comment, is more than disquieting, it is alarming. It shows the general blindness of academic circles to mysticism, and with that, to Fascism. It shows that the average academic mind is so closely allied to the thinking here represented that the posterousness of the system strikes hardly anybody as anything out of the way.

One reviewer of Korzybski's book, "Science and Sanity," recently published in its second edition, says that the title might better have been, "Monomania with a Scientific Camouflage." If it were nothing but that, no more need to be said. Everybody is entitled to his monomania as long as it is for his

private home consumption and is not a danger to society.

Suppose someone had the idea that his headaches and his constipation were due to the glass objects in his house. He would have a monomania about glass. He would replace all his windowpanes with transparent plastic, would remove the glass from his picture frames, would drink from cups instead of glasses, would use candles instead of electric light bulbs, etc., etc. A harmless enough monomania. But suppose he would call it a "Non-Socratic system" of "Universal Clipsics" (the name was suggested to me by the box of paper clips in front of me) and were able to convince—on the basis of a clipsic terminology—physicians, dentists, psychiatrists, teachers, lawyers and journalists that all our physical, mental and social ailments are clipsogenic, if he could organize American Congresses of "Universal Clipsics," an "Institute of Universal Clipsics" and an "International Non-Socratic Library," it would be a different matter.

Now, let us see whether General Semantics is a private monomania. We shall soon find that it is not. The author is Director of an "Institute of General Semantics"; he has organized "American Congresses on General Semantics," an "International Non-aristotelian Library" and has obtained considerable financial backing. The article reviewed here is an abridgment of a paper read at the annual meeting of the American Psychiatric Association in 1940! And it is published in the official organ of that Association! The bibliography appended to this paper alone contains, among other papers by Korzybski disciples, the following (italics are the reviewer's):

- "General Semantics and *dentistry*";
- "Evaluational disorders and *caries*";
- "General semantics: implications of linguistic revision for theoretical and clinical *neuro-psychiatry*";
- "Neuro-linguistic and neuro-semantic factors in *child-development*";
- "General semantics in *education, counseling and therapy*";
- "General semantics and *schizophrenic* reactions: neuro-linguistic and neuro-semantic mechanisms of *pathogenesis*

and their implications for *prevention and therapy*";

"A preliminary report on the *psychotherapeutic application* of general semantics"; and a book,

"The mask of sanity, an attempt to reinterpret the so-called psychopathic personality (*'semantic dementia'*)".

TIME, August 11, 1941, reports the following:

Last week 200 sworn enemies of Aristotelian logic gathered at the University of Denver for the Second American Congress on General Semantics. All disciples of Count Alfred Korzybski (founder of general semantics), all men who had applied general semantics to their various callings, they included professors, students, lawyers, doctors, psychiatrists, dentists, newspapermen, a musician, a movie producer. They had remarkable achievements to report.

Mathematicians Hugh G. and Lilian R. Lieber, who delivered their paper ("Science—The Modern Totem Pole") in blank verse, illustrated it with a drawing of a totem pole (see cut) built of five geometric figures intended to prove that science "has within it a philosophy which can protect us from the errors of our own loose thinking."

Edwin Green, assistant to the editor of the *Los Angeles Daily News*, . . . said, "Through . . . Aristotelian journalistic practices, the domestic press is . . . training the nervous systems of the masses in animalistic reactions . . ."

Experiments were reported in which general semantics had cured practically every known human ailment:

Dr. Congdon said that of 324 cases of student maladjustment (infantilism, alcoholism, kleptomania, homosexuality, all sorts of neuroses) 75% had been improved by general semantics treatments; some had been cured in an hour.

Teachers said they had cured pupils of poor reading, incoherent writing, stage fright, stuttering.

Lawyers said general semantics had helped them understand laws better.

A securities salesman said it had helped him save his clients' money.

A U. S. Army doctor said it had helped reconcile soldiers to Army discipline.

Doctors said it had helped cure impotency, frigidity, nymphomania.

A dentist said it had helped make fillings stay put in patients' teeth (by giving them emotional stability).

Dr. Hildreth Caldwell, a Los Angeles obstetrician, said it had helped make honeymoons happier.

This means that incalculable numbers of pupils, students and patients are being subjected to this delusional system under the guise of therapy and education. Diseases which it takes the serious physician months or years to treat effectively are said to be cured in one hour. What criteria of health must people have who make such statements!

These few samples alone make it clear that general semantics can no longer be considered just a private monomania without social significance. They show that it has found its way into medicine, dentistry, psychiatry, psychotherapy and education, introducing into these disciplines a new delusional element and promoting mystification in science and therapy. This just at a time when the world is engaged in a bloody struggle against Fascist mysticism.

The tone of Korzybski's publications is of an arrogance which is unheard of in scientific publications and reflects his role of the savior who is "concerned with the sanity of

the race" and is going to "guide mankind toward sanity." It is thus not surprising that he should quote "Man the Unknown," the book of Alexis Carrel, that other great mystic in science who has now happily disappeared from the American scene and who said, "As far as I am concerned I intend to devote the rest of my life to the problem of developing man in his organic and spiritual entirety. For the quality of life is more important than life itself."

In conclusion, I should like to contrast these Führer-like statements with the modesty of the real scientist who speaks on the basis of factual knowledge: "By and large, we, as humans as well as physicians and teachers, are as helpless in the face of the biological aberrations of life as, say, the humans of the middle ages were in the face of infectious diseases. At the same time we feel in ourselves that the experiencing of the Fascist plague will mobilize those forces in the world which are needed to solve this problem of civilization" (W. Reich, "The Function of the Orgasm," p. 219).

T. P. WOLFE

CORRESPONDENCE—NOTES

LETTER FROM A MOTHER

Dear Editor:

The article "Sex-Economic Upbringing" by Dr. Paul Martin in Vol. I, No. 1 of the Journal held such interest for me that I wish it could reach more young mothers and the obstetricians in whose hands they may perhaps suffer as I have. I will relate my own experience which must be similar to thousands of others.

After the birth of my first child in the maternity ward of a hospital, I suffered from over-abundance of milk. The 4-hour feeding schedule for infants was rigidly enforced with an 8-hour night period between feedings. No exceptions could be made to this rule, even for a patient in a private room or with a special nurse; it was (and still is, I believe) considered "bad for mother and baby." Being healthy and with much milk I was put on "dry diet" for *one full week* and my breasts bound tightly with thick towels to reduce the milk secretion and caking of the breasts. For one week I suffered and the 8-hour night was an agony of wakefulness and pain. I was not allowed the relief of a breast pumping. The result was striations (broken tissues) in both breasts.

After leaving the hospital I was instructed by my obstetrician to hold to the 4-hour nursing schedule—that this was most necessary for the baby's training in regularity. The result was that my child cried so hard between feedings that she was too tired to nurse fully when feeding time came around (this *never* to last more than 15 to 20 minutes). I was told to slap the soles of her feet to waken her when she fell asleep at the breast. Then the same thing was repeated with extreme discomfort to me from over-filled breasts, and hunger on the child's part from inadequate milk taken during the 20-minute nursing period every 4 hours. It took 3 full months of strain, anxiety and pain for my child and myself to adjust to this rigidly imposed schedule.

Later I was advised to wean my child at 6 months—even though she was gaining normally. I was told it was better for her and for me and that she would not learn to eat as well the foods she required if still "at the breast." I did this and went through over 3 weeks of pain and dry diet before my milk supply stopped.

I have never before read anything in any books on the care and feeding of children, medical or otherwise—I have read many—that rang in my ears with what seems to me such common sense as Dr. Martin's article. I have three children, all half-grown now, and I would give much to have been spared the unnecessary suffering, the spoiling of much of what should be full natural enjoyment in the experience of motherhood. I am in full agreement with what Dr. Martin says about the care of the child and the interplay between child and parent with the eliminating of inhibitions which are actually *endorsed* by the doctors and pedagogues of repute and authority. We mothers do not want to hand on to our children those rigidities which we have had forced upon us in the name of "right training."

Have other articles by Dr. Paul Martin been translated? If so, where can they be found? I wish that such articles could reach a larger lay public. I am sure many would be helped by such a piece as "Sex-Economic 'Upbringing'" who might never come in contact with the Journal. I wish the *Reader's Digest* would publish an abstract of this excellent article.

Sincerely,

Mrs. ———

WARNING AGAINST THE APPLICATION OF SEX-ECONOMIC KNOWLEDGE

This Journal will open many a reader's eyes to those diseases which are inaccessible to a mechanistic pathology. He will, increasingly, encounter and begin to understand the various diseases which are of a biopathic nature. If he is a teacher, practising physician, psychiatrist or psychoanalyst of this or that school, he will be greatly tempted to apply the method of vegetotherapy. But no matter how simple and clear the connection between sexual stasis and biopathies may appear to him, no matter how great his urge to help, he will be unable to grasp and judge the dangers of a practical application of his sex-economic knowledge. These dangers are enormous.

First of all, for the patient who is treated by an untrained individual. Deep down, the patient is armored against any contact with the living. The breaking down of this armor requires far-reaching processes of emotional reorientation which, in order to be successful, have to take place in a definite way. The technique of bringing this about requires years of intensive training on the part of the therapist. If the therapist lacks this technique, the breaking down of the armor may result in dangerous psychic and somatic reactions which he will be unable to handle. It would be frivolous to hold out hopes to individuals whose biopathies have brought them suffering and have led them to resignation, if these hopes can no longer be realized, be it for reasons of age, an unalterable life-situation or chronic, irreversible illness.

Second, every mortal, whoever he may be, is in some way a carrier of the emotional plague. He has in himself—the reader of this Journal not excluded—the fear of involuntary vegetative life (physiological pleasure anxiety). In order to apply sex-economic knowledge without wreaking damage, one must first have mastered one's own armoring to a sufficient degree.

Mental hygiene, if done correctly, is a vast and dangerous field. There are innumerable bitter enemies who only wait for the chance of saying, "See, I told you so," and of running to the police. There is no more bitter hatred than the hatred of the moralistic individual disillusioned in life, no more violent anxiety than physiological pleasure anxiety. On this thrives the irrationalism which dominates our times. Thus the well-meaning reader will abstain from any therapeutic experiments and uninformed utterances, if only in order not to endanger the work of the sex-economic physicians and teachers. The officers of the International Institute are always ready to help in any problems that may come up in this respect. On the other hand, they decline any responsibility for actions of any kind on the part of individuals untrained in sex-economy and vegetotherapy.

THE INTERNATIONAL INSTITUTE FOR
SEX-ECONOMY AND ORGONE-RESEARCH

FROM THE ORGONE AND CANCER RESEARCH LABORATORY

THE NATURAL ORGANIZATION OF PROTOZOA
FROM ORGONE ENERGY VESICLES (BIONS)*

Experimental groundwork for an understanding of cancer biopathy

By WILHELM REICH, M.D.

CONTENTS

Introduction

1. The vesicular disintegration of swelling matter (PA bions)
2. The question of "Brownian movement"
3. The T-bacilli
4. Lumination and attraction
5. Fusion and penetration
6. The natural organization of protozoa

INTRODUCTION

The orgone was discovered in a bion culture. Thus, I shall have to begin this presentation by a description of those orgonotic phenomena which take place at the borderline between living and non-living matter.

It is difficult to determine the date of the discovery of the orgone. Such orgonotic functions as attraction, penetration, pulsation and lumination had already been observed between 1936 and 1939 and studied in various bion preparations. Yet, at the time of these observations, I was unaware of the fact that I was dealing with manifestations of the specific biological energy. The experiments with bion cultures led to the discovery of the orgone in SAPA bions in January 1939 and in the

atmosphere in July 1940. (Cf. "The Discovery of the Orgone." *This Journal*, July 1942.) It was only after extensive work on the purely physical functions of the orgone energy (1939-1942) that I understood the observations made since 1936 in bions and bion cultures. The presentation in my book, "Die Bione" (1938), was still based entirely on traditional bacteriological and biologicistic concepts. The later knowledge of the orgone functions led to many corrections. For example, I used to believe that the cultures of cocci and bacilli which develop from bions represented a higher developmental stage than the bions; later I learned that, on the contrary, they result from a *degeneration* of the bions into biologically sterile forms no longer capable of further development. The direct developmental continuation of the bions leads to integration into a protozoon. Staphylo-

* Translated from the manuscript by the Editor.

cocci, streptococci, T-bacilli and rot bacilli are the result of a *degeneration* of living organotic plasma.

The following presentation of the bion experiments is entirely determined by the knowledge of the atmospheric orgone; thus, it is made no longer from a biologicistic, but from a functional energy point of view. Such errors and corrections are inevitable if one works in uncharted territory.

"Bions" are microscopically visible vesicles of functioning energy. The term "bion" means that the vesicles, into which all matter disintegrates if made to swell, are transitional forms from non-living to living matter. The bion is the elementary functional unit of all living matter. It carries a certain amount of orgone energy, which makes it function in a specific way biologically. It is a *unit of energy*, consisting of a membrane, liquid content and an amount of orgone energy: "orgone energy vesicle." In the following pages, I shall review the observations and experiments which have led to such far-reaching conclusions.

I. THE VESICULAR DISINTEGRATION OF SWELLING MATTER (PA BIONS)

Carbon is the substance which, together with oxygen, nitrogen, hydrogen and water, forms the basis of the infinite number of organic compounds as well as of living matter. Let us leave out of consideration the well-known chemical reactions and simply observe a bit of carbon with a good microscope equipped with apochromatic lenses.¹ For this we can use blood charcoal (in my experiments that made by Merck was used) or ordinary soot. Since

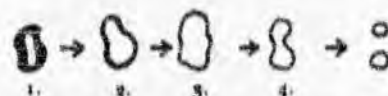
¹ All observations were made with Reichert microscopes ("Z-Mikroskop") which allow a magnification of about 5000x. The delicate biophysical processes like expansion and contraction, vibration, radiation bridge, etc., can be observed only at a magnification of over 2000x and are best seen at 4000x. It is not a matter of visualizing finer structural details, but *movement*.

the combustion of any organic substance results in carbon, its derivation makes no difference.

To begin with, we observe the carbon particle in a dry state at a magnification of about 300x. We see a black irregular body without motion. In the dark-ground, we see an essentially striated structure, interspersed with some vesicular formations. Where the striated structure and the vesicles meet, the light is refracted strongly.



Coal particle, dry



Development of a carbon bion

1. Thick wall of carbon, inelastic
2. Increase in fluid content, swelling
3. Membrane thinner, elastic; inside blue, vibrating
4. Coal bion in the process of segmentation

We then use a magnification of about 2000x (objective 80x, eye-piece 16x, inclined binocular tube). The striated and vesicular structure is now more distinct. There is no trace of motion.

We add a drop of ordinary water and observe again at 300x, then at 2000x. There is hardly any change. There is still no motion, except perhaps for an occasional round or irregular particle moving across the field; their size is rarely over 1 μ . On the whole, the field looks "dead." We see no contraction or expansion.

Now we put a bit of fine carbon dust into a test tube with water. Part of the dust sinks to the bottom, part of it remains on the surface. The water itself remains clear; no colloidal solution is formed. The preparation is *not* sterile. Each consecutive day we take a drop of

the fluid and examine it microscopically. We want to find out what changes take place in the carbon. It takes weeks before we observe a change. The individual spherical bodies which show some slight motion become somewhat more numerous. In the dark-ground, the larger coal particles, very gradually, show an increase in the number of round bodies within them. But the whole picture remains unalive. Even after months, the picture is essentially unchanged. We are struck by the fact that there are hardly any air bacteria (the test tubes are kept closed with a cotton plug). Macroscopically, the fluid is unchanged; it is still clear.

This is the control experiment. The experiment, that of *producing coal bions*, takes place as follows:

Now we work with all sterile precautions. All fluids are autoclaved at 120° C., all dry substances and tools are dry sterilized at 180° C.

We prepare test tubes with 50% bouillon and 50% 0.1N KCl solution which are autoclaved. Then we heat some coal dust on a spatula tip in a gas flame to white incandescence. In this incandescent state it is put into the sterile fluid. The fluid becomes black immediately; only the heaviest coal particles sink to the bottom, while the lighter ones remain suspended. In contrast to the control experiment, we have obtained a *colloidal solution*. In the course of half an hour, the black turns into gray. For several (3 to 6) days, the solution remains colloidal, then it becomes clear; all particles have sunk to the bottom.

Immediately after making the preparation, we take a drop, under sterile precautions, and study it under the microscope, again first at 300x, in ordinary light and dark-ground, then at 2-3000x. The picture is entirely different from what we saw in the control preparation.

The structure of the coal particles is *predominantly vesicular*. Upon continued observation, we notice that small vesicles

of about 1 μ detach themselves from the margin of the larger particles and move about freely in the field. In successful preparations, one notices motility at the margins of the particles in the form of expansion, contraction and vibration. If we observe long enough, we see how the small particles undergo a change before our very eyes. At first they appear "rigid," with a thick and black membrane. Gradually, the membrane becomes thinner. On the inside of the particle, we notice increasingly a *blue* or blue-green shimmer. The vesicles become tauter and show more motility inside. Many of them show an undulating vibration of their contents. The thinner the membrane becomes, the more intense becomes the blue glimmer and the more vivid the motions. Soon—the same day, more distinctly the following day—we see movements of *expansion* and *contraction*. Nobody who has closely studied these preparations has had the slightest doubt as to the living character of the movements. One can distinguish movements *from place to place* and *internal* movements of the contents, displacement of the blue color and of the intensity of the light phenomena, protrusions and retractions of the content. *The vesicle pulsates in an irregular rhythm.*

We send a galvanic current of about 0.2 to 0.5 M.A. through the preparation. The vesicles move toward the cathode, i.e., they are positively charged. (The vesicles in the control preparation are cataphoretically immobile or only rarely and slightly mobile.) After several days, when the particles are no longer in colloidal suspension, the cataphoretic phenomena also become weak or disappear. That means that the charge of the vesicles is a prerequisite for colloidal suspension and for motility, as Pauli already had assumed. It is also a prerequisite for the formation of cultures (cf. "Die Bione," p. 54 ff.).

Experiments with biological stains (Gram, carbol fuchsin) show the follow-

ing. In the control experiment, with plain carbon dust, the particles remain black: unprepared coal does *not* react to biological stains. The *coal bions*, on the other hand, immediately react *positively* (blue with Gram stain). It can be observed, furthermore, that only those particles react which have already undergone a certain bionous development (thin membrane, increased fluid and blue color inside) while the undeveloped particles react neutrally like those in the control preparation.

We observe the stained preparation at 3000x with oil immersion and find that most of the blue vesicles, which previously showed a variety of shapes, have assumed a spherical shape. There is a striking finding: in addition to the large vesicles of about 1μ , we find much smaller, *red* bodies which at 300x were not visible. The smallest among them are at the borderline of microscopic visibility, about 0.2μ long. They are found in groups around the larger, round and blue vesicles and around unstained crystals. They are elongated, with a point at one end, like a small lancet. In the fresh preparation we could not see them, but as we shall see, they can be found alive in other bion preparations. Cf. fig. 2, p. 209.

As became clear only after extended experimental investigations, these Gram-negative bodies are of extreme importance. They are the so-called T-bacilli which play such an important role in cancer. More about this later.

The bions, then, are biologically active forms, for—in contrast to the substance from which they originate—they react to biological stain.

There are other specifically biological reactions of the bions. Non-living substances, examined by fluorescent microscopy, always show nothing but their own individual color; for example, coal black, sodium chloride yellow, etc. The fluorescent examination of the coal bions, however, shows them to be not black but *blue*,

just as a culture of staphylococci or any organic tissue. This is another proof of the biological character of the coal bions.

Before investigating other characteristics of the bions, we must answer the question whether the blue vesicles develop only from carbon or from other substances also. The basic question as to the nature of biological energy in non-living matter would be easy to answer if it were found in carbon only. But it is more complicated than that. The more substances one examines, the more inevitable becomes the following conclusion: *All matter, if heated to incandescence and made to swell, consists of or disintegrates into blue vesicles.* For example:

Cooked foodstuffs. Muscle, when cooked, largely loses its striated structure and consists of blue, moving vesicles. The same observation can be made in any kind of vegetable. The size and shape of the vesicles may vary, but the content regularly shows a blue glimmer.

Egg yolk consists of individual blue vesicles which sometimes are found in heaps surrounded by a membrane. Milk shows, besides the fat globules, blue bions. Similarly, cheese, in particular those kinds in which bacterial activity is of importance, such as Kephir, yoghurt, Roquefort; further, casein of any kind. **Vitamins**, if studied at 2000x, are shown to consist of irregular blue vesicles which refract light strongly. **Egg white** when raw shows no structure; when cooked, heaps of blue vesicles develop. **Blood serum** shows similar phenomena; the blood platelets and the white and red blood corpuscles show an intense blue glimmer.

Moss and grass show a striated structure similar to muscle. If cooked, they disintegrate into blue vesicles. If one examines them, it looks as if there were algae present. One may ask then, whether the algae found in stagnant water are not the same as our bions, namely matter disintegrated into energy vesicles. Stagnant water is full of blue vesicles which serve as food for

protozoa. The bion experiments give a surprising answer to this question, which will be discussed in a different context.

We try to find out more about the *mode of formation* of the bions. We bring together, in a definite sequence, certain substances which show no structure. First we make the following solutions: a) 100cc water + 50cc 0.1N KCl + 2 mg dissolved gelatine + 50cc filtrated bouillon; b) some drops of egg white in KCl; c) some fresh lecithine in KCl. These solutions show no structure; only the lecithine shows membranes enclosing a space without an inner structure. We mix the three substances. Within a few minutes, microscopic examination shows the appearance of blue bion vesicles. While previously there was no motion, now the field is filled with moving forms. The gelatine combines several blue vesicles into a heap which contracts and expands. It is as if the individual vesicles on the inside were trying to move in different directions and were thus producing the inner motion. Generally speaking, we can distinguish four types of motility:



4. Heap of vesicles with amoeboid motility, or "protozoon" (ameba)

Forms of movement observable in bions.

If we now add blood charcoal powder we find the development of strongly mobile coal bions. We see how the carbon absorbs the protein-containing fluid. The lecithine tubes which previously were empty now become filled with vesicles. The picture is all "alive." We autoclave the mixture. The motility increases further considerably. Now there appear T-bacilli. The biological stain reaction (carbol fuchsin, Giemsa or Gram) is now positive.

This is experiment No. 6 which I communicated to the Académie des Sciences in Paris in January, 1937. In January, 1938, Professor Lapique wrote me that the autoclaved preparation, one year later, still contained contractile forms with life-like movement. This seemed all the more surprising as the sterile preparation was sealed airtight. Professor Lapique's letter follows:

Université de Paris
Faculté des Sciences
LABORATOIRE DE PHYSIOLOGIE
GENERALE

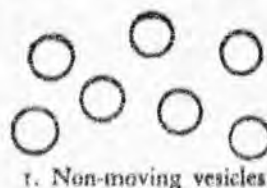
1, Rue Victor-Cousin (2e Arr.)

Sorbonne, le 25 Janvier 1938

Monsieur le Docteur,

Chargé par l'Académie d'étudier votre communication du 8 Janvier de l'année dernière, j'ai d'abord attendu le film que vous annonciez. Puis, ne le recevant pas, j'ai examiné au microscope les échantillons que vous aviez joints à votre premier envoi. J'ai constaté, en effet, les mouvements d'apparence vitale que vous annonciez. Il y a là quelque chose de curieux, en raison du long délai depuis la préparation.

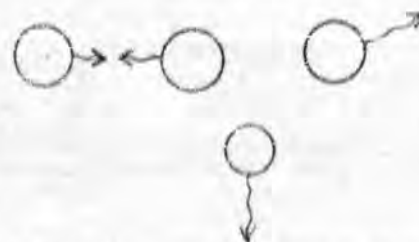
Je suis disposé à proposer à l'Académie



1. Non-moving vesicles



2. Vesicles moving but stationary



3. Vesicles moving from place to place

de publier brièvement votre constatation en la faisant suivre d'une courte note de moi-même confirmant le fait avec une interprétation physico-chimique n'engageant que moi. Laissant de côté votre théorie électrique qui n'a rien à faire avec l'expérience, voulez-vous accepter que votre communication soit insérée simplement sous forme de l'extrait ci-joint qui en réalité, est un résumé de la partie importante? Il me semble qu'ainsi vous recevriez satisfaction pour votre désir de voir vos recherches prendre place dans nos Comptes-Rendus.

Veuillez agréer, Monsieur, l'assurance de ma considération distinguée.

(signed): Dr. Louis Lapique

Professeur honoraire à la Sorbonne
Membre de l'Académie des Sciences

Translation:

Sorbonne, January 25, 1938

Dear Dr. Reich:

Charged by the Académie to study your communication of January 8, 1937, I waited for the film which you wrote you were going to send. When it did not come, I examined microscopically the preparations you sent with your first report. I have, indeed, found the life-like movements which you describe. There is something surprising here, in view of the long time that has elapsed since the preparations were made.

I would like to suggest to the Académie a brief publication of your findings, followed by a short note by myself confirming the facts and containing a physico-chemical interpretation for which I alone would be responsible. Leaving aside your electrical theory which has nothing to do with the experiment, would it be agreeable to you to have your communication published simply in the form of the enclosed extract which, in fact, is a résumé of the important part? It seems to me that in this way your wish to see your findings published in our Bulletin would be satisfied.

Very sincerely yours,
Dr. Louis Lapique

I withdrew my permission to publish the findings in the Bulletin of the Académie, for the following reasons:

1. Dr. Lapique's chemico-physical interpretation would have completely obliterated the *biological* character of the experiment.

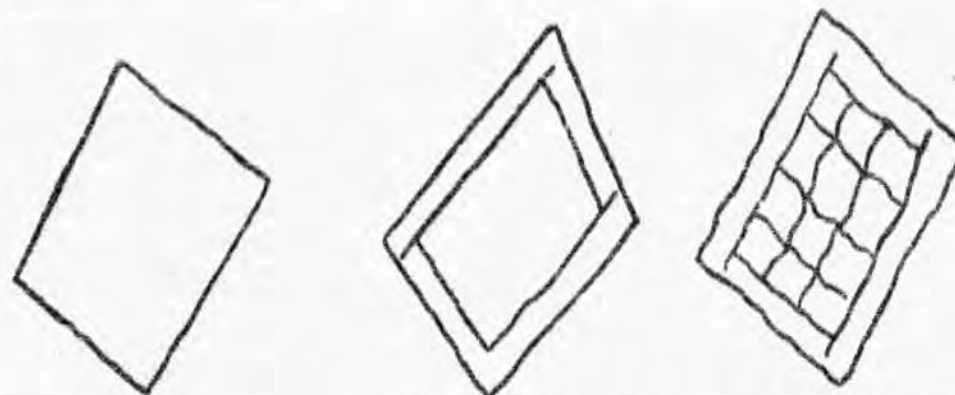
2. During 1937, it had become possible to make *cultures* of bions. This finding had been experimentally confirmed by Du Teil in Nice. Nevertheless, the Académie wanted to *omit* this all-important finding from the publication.

3. The résumé as suggested for publication did in no way render the extensive communication which I had sent to the Académie. The publication of this inadequate résumé would inevitably have led to misunderstandings and erroneous control experiments.

Among metallic substances, soft *iron filings* are most suitable for our experiment. We put some sterile iron filings into our standard bouillon + KCl solution and after only a few minutes we see small vesicles develop from the iron particles. This can be followed microscopically; if one puts an iron particle on a slide and adds KCl, one soon sees bions develop which after about 10 minutes cease to move. They have arranged themselves like small magnets in the form of magnetic force lines and cling to each other. (Cf. figs. 4 and 5, p. 210.)

A solution of iron bions becomes colloid in the course of a few days. The particles consist of heavy and angular energy vesicles which are intensely blue and continue to become "softer" and more elastic. The blue vesicles can produce cultures; this will have to be discussed elsewhere.

Humus consists of intensely blue vesicles which are generally mobile. Earth, when autoclaved, disintegrates completely into energy vesicles. The progressive disintegration can be followed by daily microscopic study. Cf. fig. 3, p. 209. *Sand* bions were discussed and pictured in my article



1. Angular form, showing, in the dark field, fine vesicular structure with striated arrangement.

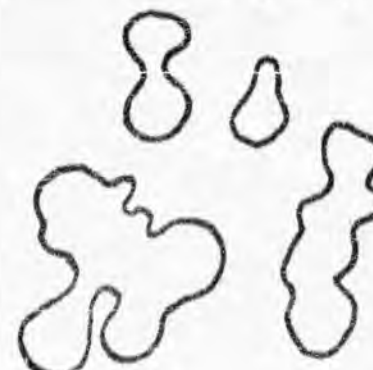
2. Appearance of marked striation with typical rectangular and rhomboid figures.



3. Softening; bending of striated structure.



4. Advanced stage of development into bion heap. The content between the structures shows intense blue glimmer. The heap already shows movement.



5. Iron filing bions of the PA type. Mobile, contractile, showing blue glimmer, capable of cultivation.

Changes in the structure of iron filings in the process of swelling in bouillon and KCl.

"The Discovery of the Orgone" (*This Journal*, July 1942).

"These experiments are difficult and demand a great deal of patience and perseverance. They cannot be done or be checked in the way a biologist friend of mine tried to do who simply threw some substances into bouillon and waited for the development of the bions. None of the experiments can be made without the knowledge of the process involved.

II. THE QUESTION OF "BROWNIAN MOVEMENT"

Before drawing definite conclusions from our observations, we have to clarify a few basic points.

The contention that the motion of the bions is due to a *specific biological energy* has been countered with the argument that it was a matter of "Brownian movement." Physics has known for a long time that the smallest colloidal particles are in motion, i.e., they move in the field in various directions. These movements have even been calculated. This "Brownian movement" is believed to be due to the impact of the molecules in the solution upon the larger colloidal particles.

That means, it is being explained on a purely *physical* and *mechanistic* basis. Such an explanation is incompatible with the manifestation of energy in the *biological* pulsation. Could this explanation possibly apply to the phenomena presented by the bion energy vesicles? An interpretation is valid only if it makes new phenomena comprehensible. It becomes invalid if it does not fit the observations. It becomes erroneous when it is strictly at variance with the observations and can be replaced by a new interpretation which makes the manifestations more comprehensible.

The mechanical "Brownian movement" is defended by the physicists like a dogma. True, such defense is justified in the face of mystical interpretations of the phenom-

ena of life. On the other hand, experience shows that the interpretation of "molecular movement" is itself not free from irrational, affective motives. If that were not so, the physicist who sees everywhere nothing but movement of a purely physical nature would not so violently refuse to consider facts which in certain instances contradict his interpretation. I have no illusions of ever being able to convince *these* physicists; on the other hand, I am convinced that the blind alleys into which a purely mechanistic concept leads will sooner or later force science to listen to new facts and arguments.

There is no doubt that there are movements of small particles which admit of a mechanistic interpretation. I believe myself that the movement of groups of vesicles the elements of which move but which are stationary (*cf.* illustration, p. 197) are not of a biological nature. Whether it is a matter of molecules pushing them to and fro I do not know, since I have never seen any molecules, no more than the proponents of the purely mechanical Brownian movement.

But let us, first of all, examine the requirements of a mechanico-physical interpretation. Since neither the particles nor the molecules ever disappear from the solution, the molecular impulses would logically continue indefinitely, and with it the movement of the particles. Furthermore, *all* particles of approximately the same size would have to be in motion. Third, the only possible movement would be that from place to place.

Contraction and expansion of the contents of the particles cannot possibly be explained mechanically. How could an impulse from a molecule outside produce a vibration inside, or even an expansion? We will subsequently get acquainted with a number of other characteristics of the bions which by no stretch of the imagination could be explained mechanically.

Observations made at a magnification of

at least 2000x,¹ reveal the following findings which do not fit into a mechanistic interpretation:

1. The movements are present at times and absent at other times. They appear and then cease again. Bion vesicles appear at the margin of coal particles or moss and begin to move when a sufficient degree of tension and charge is reached. Certain bion preparations show no movement at all. Where are, in these cases, the molecular impulses? After all, the molecules have not disappeared, and neither have the particles. And a third cause of the movements is not postulated by mechanism.

The conclusion is inevitable that *the external motion of the energy vesicles has something to do with their internal charge.*

2. The *internal* motility of many bions, their expansion, contraction, vibration and glimmering is a fact which cannot be explained by external impulses, but only by *internal* energy shifts. Thus, the *internal motility also must be a result of the internal charge.*

3. Bion research shows the living red blood corpuscles to be orgone vesicles. Observed at a magnification of over 2000x, they appear *blue* and show pulsation. Dead erythrocytes are not blue but black. They are immobile and no longer pulsate.

The motility of the erythrocytes can derive only from their internal charge, not from external impulses. With the blue orgonotic color the motility also disappears.

The basic question of all biology is that of the origin of the internal impulses of the living organism. Nobody doubts the fact that the difference between the living

and the non-living lies in the internal origin of the motor impulses. This internal impulse can be due only to an *energy* at work *within* the organism. The question as to where this energy comes from is answered by the bion experiment:

The biological energy which produces the internal impulses derives from the very same matter which composes the organism. Every living organism is a membranous structure which contains in its body fluids an amount of orgone; it is an "orgonotic system."

It may be added that the purely mechanico-physical interpretation of the motion of colloidal particles fails to explain a single one of the specific biological reactions. We have cleared ourselves of any possible suspicion of assuming a supernatural life force beyond matter and energy. We have established a connection between the energy vesicles and Einstein's functional theory of matter and energy. We have observed some basic processes which indicate the manner in which the orgone derives from matter, specifically, the processes of disintegration of matter and the swelling of the disintegrating particles. *These processes contain the solution of the riddle of living functioning.* The fundamental objective functions of biological energy are identical with the fundamental functions of living matter. The fundamental functions of highly developed organisms are the same as those of the smallest bit of contractile plasm. Any mechanistic or chemical concept must inevitably fail here. For it is not a matter of substances but of biological energy *functions*. This is also the opinion of many biologists. Thus, Öxküll writes:

Modern animal biology owes its existence to the introduction of physiological experimentation into the study of lower animals. This extension of the field of study did not fulfill the physiologists' expectations. . . . The reduction of the phenomena of life to physical and chemical

¹ This is the absolute minimum requirement; a more rigid requirement for conclusive observations is 3-4000x. Another absolute requirement is observation of the *living* preparation, not the dead, stained one. The Copenhagen biologist A. Fischer got quite upset and became unpleasant when he was unable to produce a magnification of over 1500x and I insisted on it if anybody were to consider himself qualified to judge my findings. The Giemsa stain of the bions, done at his Institute in 1936, was positive.

processes did not lead one step further . . . in the eyes of those scientists who see the essence of biology in the life process itself and not in its reduction to chemistry, physics or mathematics. ("Umwelt und Innenwelt der Tiere," Berlin, Springer, 1921, p. 2.)

III. THE T-BACILLI

In connection with the coal bion experiment, I mentioned the demonstration of very small, lancet-shaped bodies by Gram stain. These bodies were termed T-bacilli (T from *Tod* = death) because they have a twofold connection with the process of dying:

a) *T-bacilli originate from degeneration and putrid disintegration of living or non-living protein.*

b) *Injected into mice in high doses, they will kill the animals within 24 hours.*

If cultures of staphylococci on agar are left standing for a considerable period of time, there develops around the culture a *greenish margin* which, against the light, shows a *bluish glimmer*. It has a tendency to spread. At the beginning we made sure that we had a pure culture of staphylococci. If, weeks or months later, we take a sample from the bluish-green margin, we find only a very few cocci, but we find the field swarming with very small bacilli with a very lively zigzag motion. They are about 0.2 to 0.5 μ long and, observed at a magnification of at least 2000x, show a slightly oval shape. Cf. fig. 6, p. 210. Inoculated on bouillon, they give a culture fluid with a strong bluish-greenish glimmer and a strong acid and ammonia smell. The longer the bouillon culture stands the denser it becomes and the more intensely blue or green-blue. Cultures of rot bacteria (*B. proteus*), subtilis or staphylococci (cf. fig. 7, p. 210) agglutinate after a few days, either at the bottom of the test tube or in the form of a membrane at the surface. In contrast, cultures of T-bacilli never agglutinate. If the culture is a mixture, all

other bacilli agglutinate, while the T-bacilli continue to live.

T-bacilli can be obtained through degeneration of any kind of protein substance. Thus far, T-bacilli cultures of identical form and reaction have been produced from 15 different sources. *T-bacilli, then, are the result of degenerative putrid processes in tissues.* Following are some of the sources of T-bacilli:

Blood of cancer patients: T-bacilli can be cultivated from the blood of advanced cancer patients by simple inoculation on bouillon. This is one of the essential cancer tests in our laboratory.

Cancer tissues: Any kind of cancer tissue, fresh or old, shows T-bacilli on microscopic examination and gives T-bacilli cultures in bouillon or on agar. If boiled, it disintegrates almost completely into T-bodies with their characteristic red Gram reaction.

Precancerous cells and tissues also give T-bacilli, that is, they disintegrate into T-bacilli or already contain them fully developed. Epithelium of vagina, of the tongue, the skin, or from sputum normally shows no structure. If precancerous, they show in the dark-ground extremely small T-bodies. If KCl is added, T-bacilli come out of the tissue.

Degenerating blood (experiment): 2 to 3 cc of blood are spread out on a sterile Petri disk and dried for 24 hours in the incubator. This is dusted with blood charcoal which has been heated to incandescence. After another 24 hours a sufficient amount of KCl and bouillon is added to cover the substance. Microscopic examination and biological stain reaction immediately demonstrate the presence of T-bacilli. This experiment will have to be evaluated in a different context.

T-bacilli, no matter what their origin, produce in healthy mice cancerous, destructive and infiltrating growths. This aspect of the bion experiment will be discussed separately elsewhere. Here, I only

wish to point out the biologically important reactions which have to do with the orgone problem.

In making bion preparations, one always obtains two types of bions: The blue PA bions¹ described above, and the small black T-bacilli. These two types are biologically antagonistic: *The blue PA bions are capable of killing or immobilizing the black T-bacilli.* This takes place in the drop under the microscope as well as in the experimental animal. Cf. fig. 8, p. 211.

We put a drop of solution of earth, iron or coal bions on a hanging drop slide and add a small drop of a T-bacilli culture. Observation at 400x in the dark-ground, or better at 2000x in ordinary light reveals the following: T-bacilli which are in the neighborhood of blue bions show a restless activity, they turn round and round,

then remain, with trembling movements, in one and the same spot, and finally become immobile. As time goes on, more and more T-bacilli conglomerate around the blue bions: they agglutinate. The "dead" T-bacilli seem to attract and to kill the still living ones. This fact was the starting point of the orgone therapy experiments in cancer.

The same thing happens with the subtilis and proteus bacilli which are about 5 to 8 times the size of the T-bacilli. In them, the killing effect of the blue bions can be observed even more easily. Finally, the whole field is covered with dead bacilli.

From January 1937 to January 1939, injection experiments with PA bions and T-bacilli were carried out in 178 healthy mice. The result is shown in the following table:

Injection	Number of mice	Dead in 1 week	Dead in 15 months	Sick after 15 months	Healthy after 15 months
T-bacilli	84	30	30	24	0
PA bions, then T-bacilli	45	0	9		36
PA bions	39	0	0		39
T-bacilli, then PA bions	10	0	8 (two killed)		0

Of the 30 T-mice which died within 15 months, 25 were examined thoroughly for cancerous growths. 7 mice showed ameboid cancer cells in various tissues, 13 showed destructive, infiltrative growths of a cancerous character, the remaining 5 had chronic inflammatory growths. Those mice which survived the T-bacilli injection the longest time showed the most advanced cancer growths.

The connection between T-bacilli and cancer disease is of decisive importance; it will be discussed elsewhere.

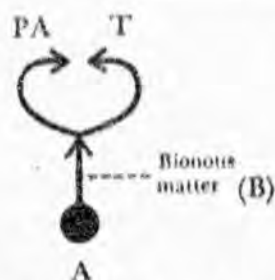
The significance of these experimental

¹ Cf. fig. 1, facing p. 128, July issue, and figs. 1, 3, 5, and 9, p. 209 ff.

findings for the evaluation of the orgone energy is the following:

1. *Theoretical:* We find, at the basis of living functioning, at the borderline between non-living and living, a function which is fully identical with our generally valid diagram of biological functioning: *All living functioning follows the law of the dissociation of the unitary and the functional antithesis and unity of the dissociation.*

From the non-living matter A orgone-containing mobile bions B develop. These bions dissociate into two groups, the PA group and the T group. *These two groups have an antithetical relationship: the PA*



bions paralyze the T bions. This fact, considering our knowledge of the physical function of the orgone, admits of but one interpretation: *The PA bions are fully developed, highly charged orgone units. The T bions, on the other hand, represent products of degeneration, they develop when tissues, cells or bacteria begin to lose their orgone charge.* They contain only very small amounts of orgone, they are very weak organotic systems. Since—as will be shown elsewhere from a purely physical standpoint—the stronger organotic system always attracts the weaker one and withdraws its charge, the fact that the PA paralyze the T finds its simple explanation. That is, the biophysical functional relationship between the PA and the T can be deduced from the purely physical functions of the orgone.

2. *Practical:* The T develop either through *degeneration*, in other words, through orgone loss in more highly developed forms, or through *primary insufficient development of free orgone* within an energy vesicle.

Thus far, T-bacilli have been produced in my laboratory through degeneration of the following tissues and bion preparations: dried blood, dried feces, autoclaved cancer tissue, autoclaved egg medium, which was dusted with charcoal and to which KOH was added, epithelium from the tongue which had been damaged by bridgework, degenerated vaginal epithelium, degenerated spermatozoa, degenerated rot bacteria, coal bion preparations of various kinds, from egg medium through the effect of potassium cyanide, and others.

The deficient orgone content of the T-bacilli manifests itself in a very peculiar fact which might well be described as "orgone hunger." It can be demonstrated in the following manner:

We filtrate blood which we have diluted about 10 times with normal KCl solution. A Berkefeld filter with pores of less than 0.25μ prevents any possibly present T-bacilli from getting into the serum. Microscopic examination at 2-4000x shows only fluid and the complete absence of any structures. We add to the serum a tiny drop of a culture of T-bacilli which is pure, that is, it contains no PA bions. Within the course of a few minutes, we witness a spectacle which is extremely exciting and which, in all probability, contains the secret of the "immune bodies" in the serum:

At first we see only T-bacilli move around in the field. But soon there appear, here and there, large blue vesicles with a membrane, around which more and more T-bacilli group themselves, just as in a mixture of PA and T. The T seem to have given rise to the formation of the blue PA bions in the serum; a control serum without T does not contain any PA. The PA, once formed, have a paralyzing effect on the T which begin to agglutinate.

Now another, even more peculiar process sets in. The heap of agglutinated T is black; it does not show any trace of blue. But in the course of a quarter hour or half hour *this black, dead heap begins to assume an intense blue color and to form membranous vesicles.* These are again nothing but PA bions. The dead T have withdrawn orgone from the serum and have developed into PA bions.

These two phenomena are as yet not fully explored. They are connected on the one hand with immunity and on the other hand with the formation of vesicular structures or vesicular disintegration in tissues which come in contact with T-bacilli.

If one applies T-bacilli under the skin of a healthy mouse, one finds after a few

days an inflammatory, non-purulent swelling; microscopically, this is shown to consist of vesicularly disintegrated tissue. Similarly, epithelial cells of cancer patients first disintegrate into T, after which abundant blue PA bions develop in the surroundings.

I shall interrupt here the description of these observations on the body orgone; further investigations will show of what conclusions they admit. At any rate, there is no doubt that the *T-bacilli lead to bionous tissue disintegration* and that *cancer cells organize themselves from bionously disintegrated tissue* in the same manner in which amoebae and other protozoa develop from moss bions.

THE T BLOOD TEST

The biological vigor (functioning power) of a cell is determined neither by its structure nor by its chemical composition. The disintegration of structure and of chemical constitution are the *results* and not the causes of the *biological disintegration*. For the structure as well as the biochemical equilibrium of the cell are themselves expressions of its biological functioning capacity. The biological function itself has hitherto been a mystery. The organotic charge of the cell makes it possible for us to determine the biological functioning capacity experimentally.

The red blood corpuscles (erythrocytes) of two individuals may be the same structurally and chemically and yet differ sharply in their biological functioning. Microscopic examination may show exactly the same form; the number of the erythrocytes and their hemoglobin content may be normal and the same in both individuals.

Now, let us expose samples of the blood to the same destructive influence. We autoclave a few drops of the blood in bouillon and KCl solution for $\frac{1}{2}$ hour at 120°C . and 15 lbs. steam pressure. Micro-

scopic examination may reveal widely different findings. The autoclaved blood of the one individual has disintegrated into large blue vesicles, while the blood of the other individual shows no blue vesicles but only T-bacilli. Gram stain shows the same differentiation: the one blood gives blue, Gram-positive vesicles (cf. fig. 9, p. 212), the other red, Gram-negative T-bacilli (cf. fig. 6, p. 210). This allows the following conclusion:

The one blood sample points to a strong organotic charge of the erythrocytes. After autoclavation, this charge shows itself in the blue bions ("*B reaction*"). The other blood sample points to a weak or minimal orgone charge of the erythrocytes. After autoclavation, this lack of charge shows itself in the absence of blue bions and in the presence of T-bacilli, the result of degeneration of the erythrocytes ("*T reaction*").

The T reaction is typical of advanced cancer patients in whom the orgone of the blood has been used up in the struggle against the systemic disease (cancer biopathy) and the local tumor. The T reaction is often present *before* any symptoms of anemia and can betray the cancer process long before the development of a palpable or visible cancer tumor.

Conversely, orgone-weak erythrocytes take up orgone avidly when it is introduced into the organism in the orgone accumulator. We find then that the autoclavation test reveals a disappearance of the T reaction and its replacement by the B reaction.¹ That is, the erythrocytes become more resistant to autoclavation; they contain more orgone.

The erythrocytes can be charged by the atmospheric orgone (the effects of the organotic sun radiation is based on the same principle). This can be checked experimentally. We mix on a microscopic slide biologically (i.e., organotically)

¹ Cf. "The carcinomatous shrinking biopathy." *This Journal*, July 1942.

weak blood with rot bacteria or T-bacilli. Due to the weak charge of the blood, it does not kill or agglutinate the bacteria and T-bacilli. If, now, we charge the organism organotically (the amount of charge can be judged by the autoclavation test), we find that the blood has acquired a strong capacity to paralyze and kill the same pathogenic micro-organisms. The same phenomena can be observed with smaller protozoa which are not damaged by organotically weak blood but are paralyzed by strongly charged blood.

The erythrocyte is a tiny organotic system which contains within its membrane a certain amount of orgone. If observed at 4000x the erythrocytes show an intense blue glimmer; their contents show a strong vibration; they expand and contract; in other words, they are not rigid as is commonly assumed. They carry the atmospheric orgone from the lungs to the various tissues. The connection between atmospheric oxygen and orgone can as yet only be guessed at. Whether the orgone is identical with the chemical particles of the air or basically different is an open question.

The organotic charge of the erythrocytes is also expressed in their shape and structure. Poorly charged cells are more or less shrunken and have a narrow margin of blue which is not intense. When the organism is charged, the erythrocytes fill out, the blue margin becomes intense and wide, sometimes extending over the whole cell. No pathogenic micro-organism can exist in the proximity of such strongly charged erythrocytes.

What the immunity to infectious diseases, colds, etc., has to do with this is still obscure; but it should not be difficult to find out the connection. In all probability, the degree of organotic charge of tissues and blood cells determines the degree of susceptibility to infections, that is, the so-called "disposition."



weak

Orgone margin narrow
Blue color weak
Membrane often shrunken
("poikilocytosis")



strong

Orgone margin wide
Blue color intense

Erythrocytes with weak and strong
organotic charge
(as seen at 4500x)

That it is the orgone charge of the erythrocytes which exerts a killing effect on protozoa and bacteria is shown by the fact that in the process of killing the pathogenic micro-organisms, the erythrocytes gradually lose their blue color, become black and sometimes disintegrate into T-bodies. The examination of cancer tissue in treated mice shows that the charged erythrocytes penetrate into the cancer tissue which, in their proximity, disintegrates into immobile T-bodies. But we no longer see any erythrocytes, only T-bodies. The cancer tumor shows cavities which on microscopic examination (dark-ground, 3-400x) are shown to be filled with T-bodies. Macroscopically, the content of the cavities is first blood-red, then becomes progressively rust brown, owing to the hemosiderin from the disintegrated erythrocytes. The latter have lost their biological charge. The typical secondary anemia of cancer patients is the expression of the fact that the biological energy of the blood has been used up in the fight against the T-bacilli and the cancer cells.

This will be discussed in detail in an article concerning the cancer experiments. Here, we were only interested in how the organotic charge of the blood cells acts

under various conditions. Summarizing, we can say that the strongly orgone-charged erythrocytes act upon bacteria and small protozoa just like bions, e.g., of earth, iron or coal. Since they are formed in the bone marrow, we must assume that the bone marrow has the ability constantly to create new bions. The organization of energy vesicles is a basic characteristic of animal and plant tissue. These facts underlie the orgone therapy experiments in cancer: By introducing orgone from the outside, we relieve the organism of the burden of having to use up its own orgone in the fight against the disease. This is a further proof of the identity of atmospheric and organismic orgone (= "biological energy").

The experiment shows the following:

1. An infusion of grass develops no or only a very few protozoa if it is kept in the orgone accumulator from the beginning. Apparently, the orgone charges the grass tissue and prevents its disintegration into protozoa.
2. Fully developed protozoa are not killed in the orgone accumulator.
3. T-bacilli are not killed in the orgone accumulator, but the blood of cancer patients becomes free of T-bodies if the patient has been orgone-irradiated intensely.

IV. LUMINATION (*Erstrahlung*) AND ATTRACTION

That animal blood radiates is a well-known fact, first pointed out by Gurwitsch, I think. Since, in the light of orgone biophysics, the erythrocytes are nothing but orgone energy vesicles, it is important to demonstrate the radiation microscopically. One of its main characteristics—as we find out in the field of pure orgone physics—is the "organotic attraction" which has nothing to do with iron magnetism. In the following, I shall describe some of the experiments which allow the observation of organotic attraction; they all have in common the procedure of microscopically ob-

serving the mixture of different kinds of bions in the usual bouillon plus KCl solution.

The killing and agglutination of bacteria by various bions, is, from the point of view of energy, nothing but an attraction with consecutive withdrawal of orgone by the stronger organotic system, the bion. In mixing various kinds of bions, we become acquainted with other important effects of the orgone energy.

Let us try first a sterile mixture of erythrocytes and earth bions. We need no more than a drop of diluted blood and of earth bion solution diluted sufficiently to make the observation of each individual bion feasible. Below 2000x no results can be expected. However, a good 80x apochromatic object lens with a 16x eye-piece in a microscope with inclined binocular tube are sufficient.¹

THE RADIATING BRIDGE BETWEEN TWO ORGANOTIC SYSTEMS

At first, the earth bions and the erythrocytes move individually by themselves. Gradually, however, they begin to group themselves, usually in such a manner that several erythrocytes collect around a large earth bion and come closer and closer, until they touch each other. Then, an intense radiation sets in where they touch each other. In places where the bodies are not touching each other directly, but are at a distance of about 0.5 to 1 μ , there develops a strongly radiating bridge between the earth bion and the erythrocyte which seems to connect the two. This bridge

¹ The use of a special water immersion lens which simply is put into the solution is recommended. The mechanical disturbances disappear almost immediately. The metal has no effect, for the phenomena are the same if looked at with a cover glass. However, working with direct water immersion is more convenient and quicker. Cover glasses are inconvenient anyhow at this magnification and with the necessary use of hanging drop slides, because they break too easily. Every kind of control shows that the immersion of the object lens into the solution produces no disturbance of any kind.

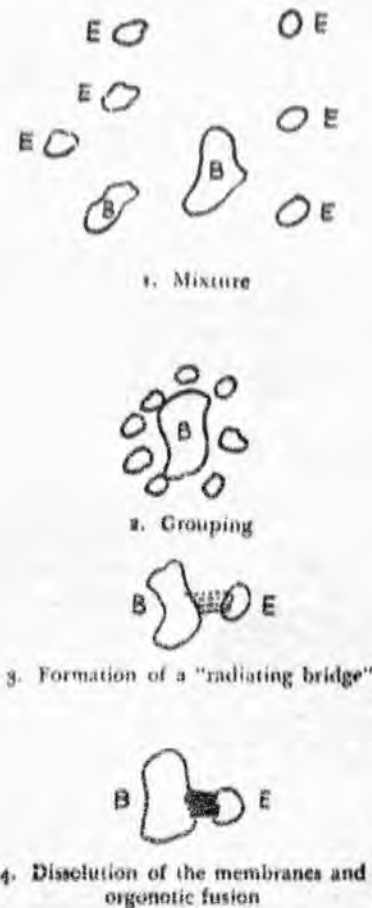
shows intense vibration and is alternately wider and narrower. Finally, the membrane between the two bodies is less sharply defined. If one only observes long enough, one can easily see how the erythrocytes begin to refract the light more strongly, their blue becomes more intense, they become bigger and tauter and show vivid pulsation. In this manner, one can charge erythrocytes with orgone just as one does in the body by orgone irradiation of the organism. If, in this experiment, one uses weak, deformed erythrocytes from cancer blood, their filling up and radiating is even more easily observable. Orgonotically weak erythrocytes exert little or no influence on bacilli and small protozoa. If they are charged with orgone, the effects appear. *The erythrocytes "fill themselves" with the orgone from the earth bions.*

Injection of sterile earth bions in cancer mice had the same effect as irradiation in the orgone accumulator: inhibition of tumorous growth, replacement of the tumor tissue by strongly radiating blood, and killing of T-bacilli. In the bion mixture we can observe directly what takes place in the organism as a result of bion injections. This mode of orgone application was used in my laboratory before the atmospheric orgone was discovered. After this discovery, the bion injections were replaced by irradiation in the orgone accumulator.

Between earth bions and erythrocytes no fusion of substance takes place, only the formation of a radiating bridge. The same is true of iron bions, coal bions, etc. However, coal bions and bions from autoclaved blood or any protein substance penetrate each other. This fusion will be shown to be of great importance for an understanding of the experimental production of tumors in mice by tar.

V. FUSION AND INTERPENETRATION

What sexuality and procreation have in common is that *two orgonotic systems un-*



Phases in the formation of a radiating bridge and orgonotic fusion between earth bions (B) and erythrocytes (E).

dergo an orgonotic fusion. In the protozoon, the fusion in copulation is followed by a *mutual penetration* of body substance. Fusion and interpenetration are material processes as well as energy processes. In the metazoon, however, they are much more complete from the point of view of energy than that of substance. In the act of copulation, the male penetrates the female; both organs then form a functional unity. In many hermaphroditic molluscs (many snails and worms) the penetration is a mutual one, but remains limited to the genitals. In the fusion of the gametes to a zygote, however, the fusion and interpen-

[Turn to p. 217]

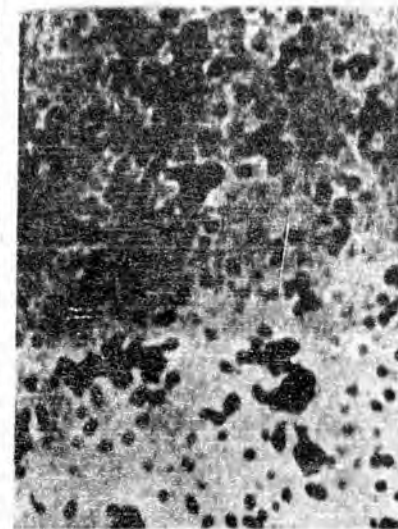


FIG. 1. Coal bions, from coal dust heated to incandescence and made to swell in bouillon + KCl.

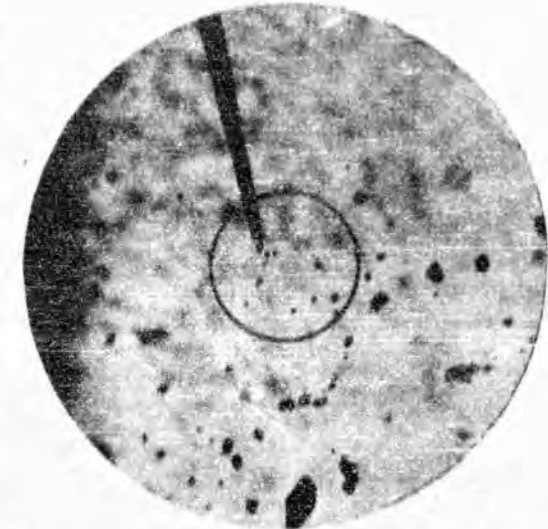


FIG. 2. Three *T-bacilli* (arrow). Gram stained (red). Present immediately after making a charcoal preparation. Apparent size at about 5000x; actual size less than 0.25μ . The large black spots are fine coal dust.



FIG. 3. Energy vesicles in earth crystals and humus.



FIG. 4. *Iron filing, dry.*
About 300x.



FIG. 5. *Iron filing, after 15 minutes in bouillon + KCl.* The vesicles, at first immobile, detach themselves and arrange themselves in lines corresponding to a magnetic field. About 500x.

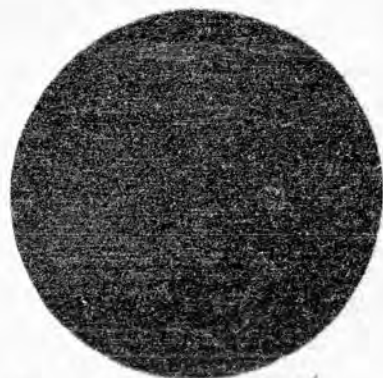


FIG. 6. *T-bacilli* from sarcoma. About 5000x. The same bacilli are obtained from the blood of cancer patients. (Cf. "T-reaction," July issue, p. 141).

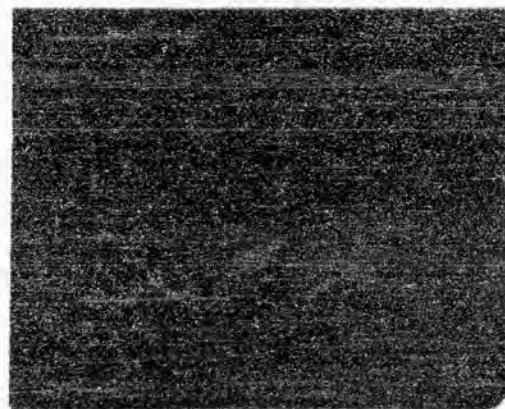


FIG. 7. For comparison: Bacilli obtained through air infection. Magnification the same as Fig. 6.



a) Blue bions. About 3 to 10 μ .



b) *Staphylococci.*

About 1 μ diameter.

Streptococci.

Bacilli.

About 4 to 8 μ long.



c) *T-bacilli.* About 0.2 to 0.5 μ .

FIG. 8. Typical forms of blue bions, black cocci and bacilli, and T-bacilli.

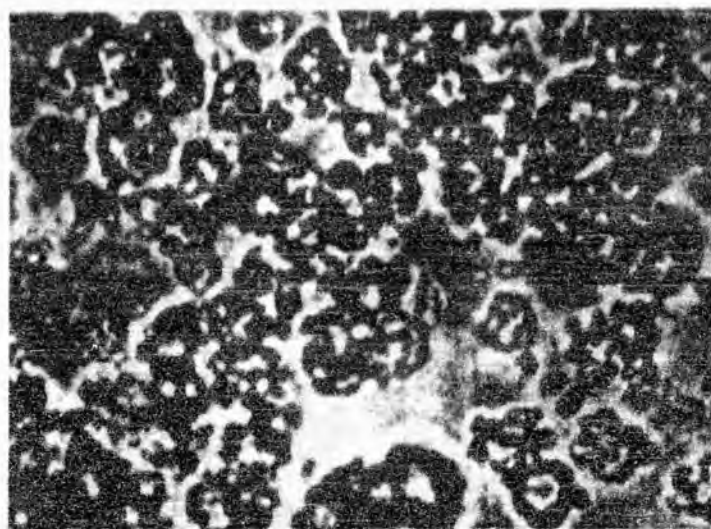


FIG. 9. Blue PA bions from autoclaved human blood, Living. About 2000x. (Cf. "B-reaction," July issue, p. 141.)



FIG. 10. Organization of a protozoon at the margin of a vesicularly disintegrated grass blade.



FIG. 11. Completely organized protozoon ("Org-protozoon") not yet detached from the grass blade. In state of expansion. Filmed at about 3000x. Note the bionous-vesicular structure of the protoplasm.

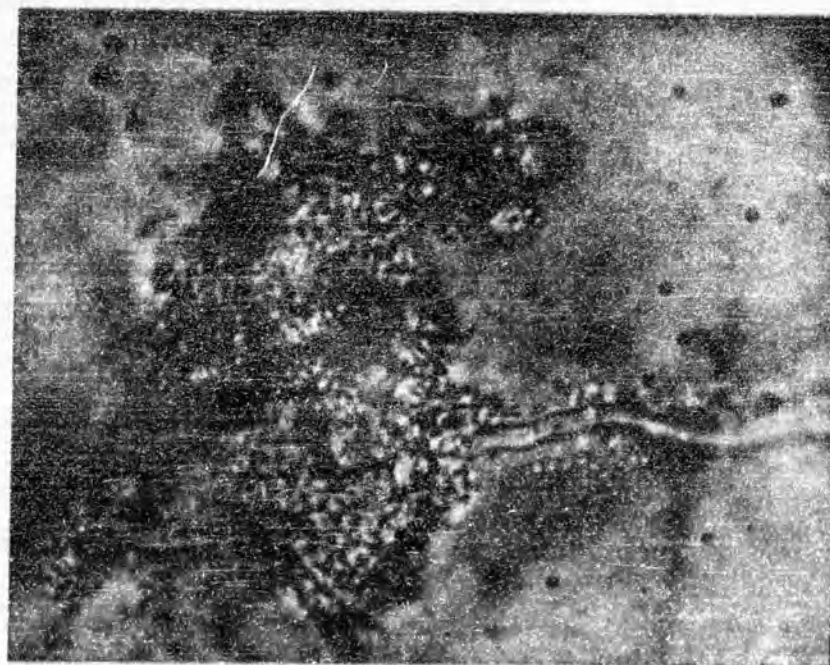


FIG. 12. Grass in a state of bionous-vesicular disintegration. From an incision. About 700x.

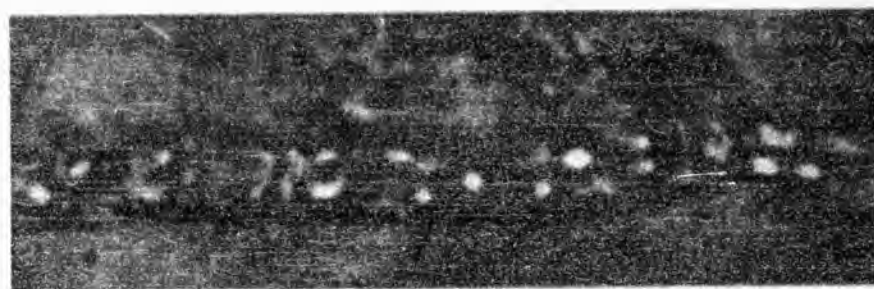


FIG. 13. Bion vesicles within grass blade, showing strong blue glimmer. About 1500x.

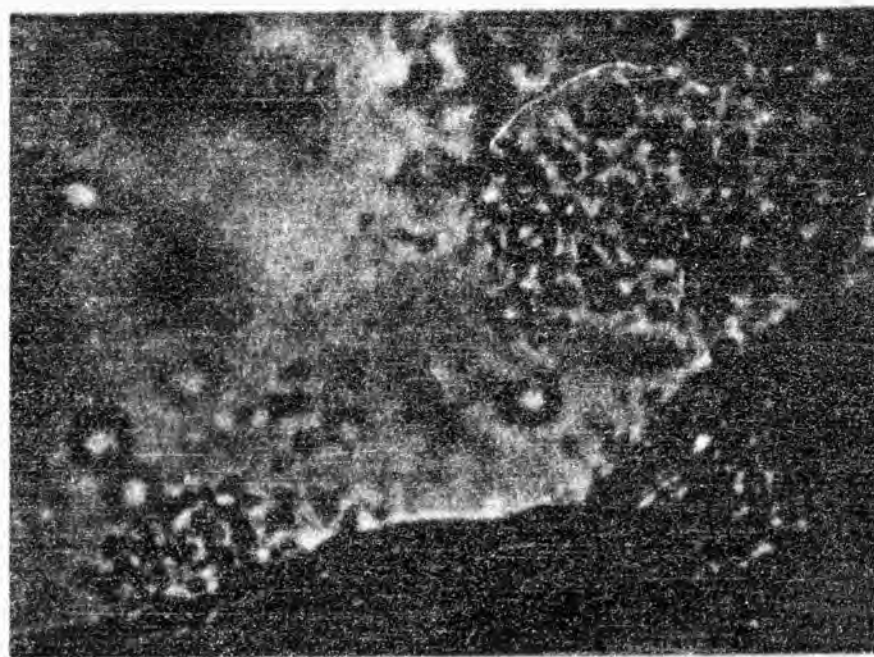


FIG. 14. A phase in the development of *ameba limax*. The protozoal germs at the upper right derive from grass which underwent swelling; each of them is developing into an ameba. At the lower left another protozoon is forming. About 1000x. Photographed with accelerated motion device.

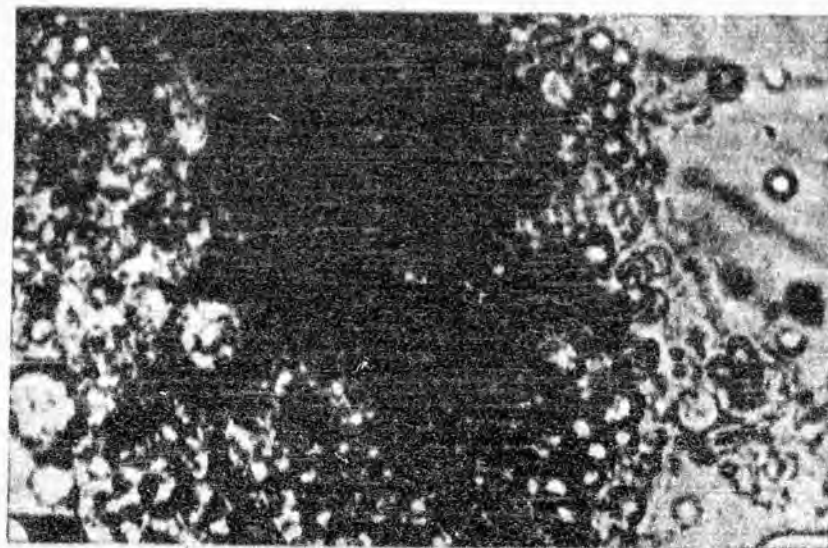


FIG. 15. A more advanced stage in the same preparation as Fig. 14. The large protozoal germs are in the process of transformation into flowing amebae. About 1000x.



FIG. 16. Dissolving protozoal germs (at the right margin of the heaps of disintegrated grass). Amebae which are detaching themselves (at the left and top).

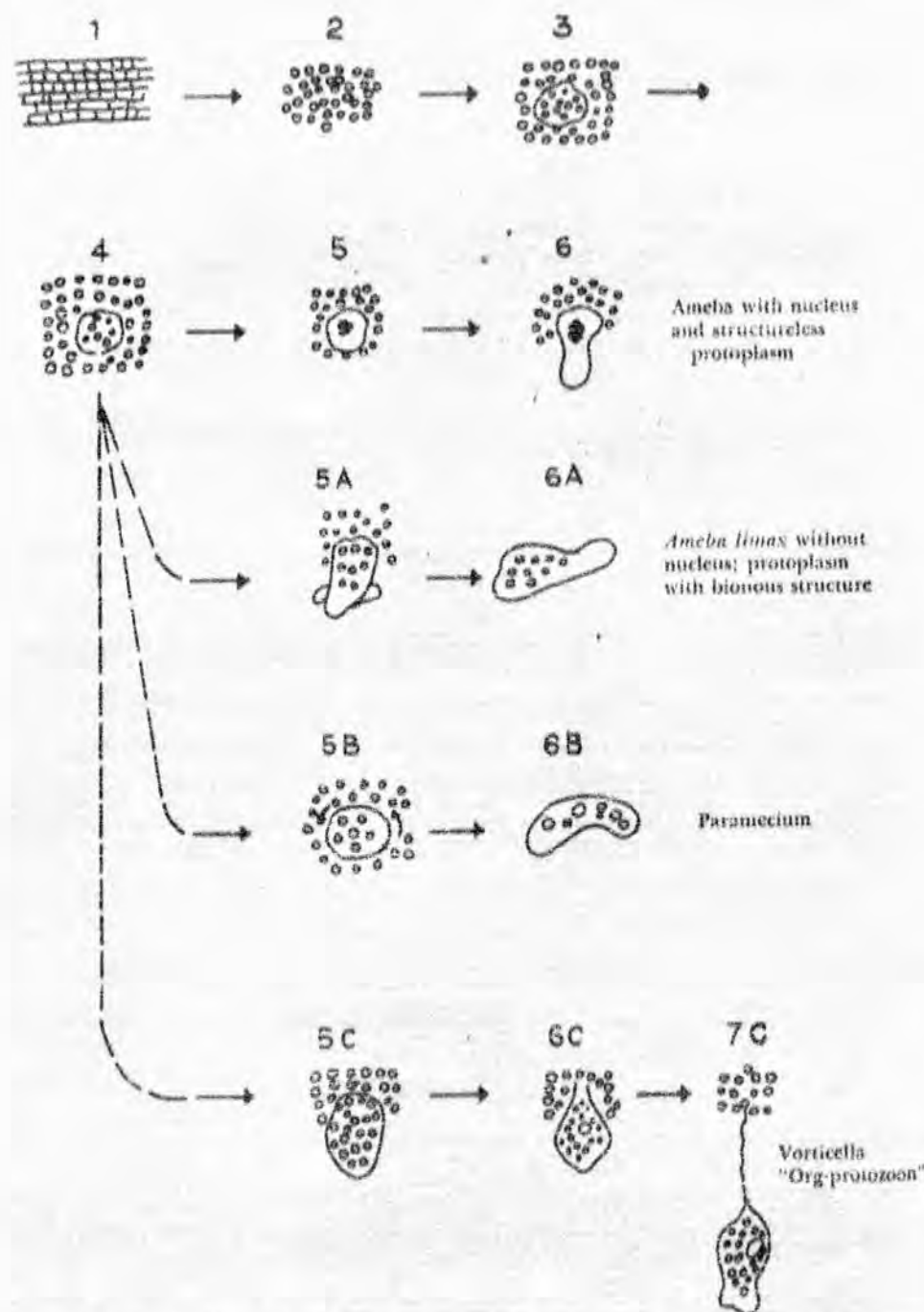
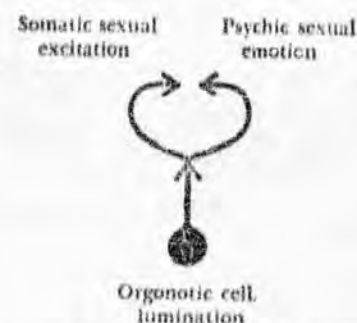


FIG. 17. Development of different protozoa from the sanic membranous bion heap. (1-4 = common stages of development; 5-7 = differentiation.)

tration is complete in a material sense also. While in the metazoa the fusion is limited to the genital organs and the gonadal cells, the *orgonotic function is a total one*; that is, two copulating beings (in the human only if orgasmic potency is present) fuse temporarily into *one orgonotic energy system*. The orgonotic fusion is always preceded by a lumination. Orgonotic cell lumination, physiological excitation and psychic sexual emotion are functionally identical processes. The psychic perception of a sexual object can produce physiological excitation (erection); conversely, physiological excitation (stroking, friction) can produce a sexual emotion. This psychosomatic process leads to orgonotic lumination of the total organism. Conversely, strong orgonotic lumination of the organism leads to the urge to physiological friction with accompanying psychosexual emotion. In terms of our diagram of biological functioning:



We have to take seriously the concept that energy manifestations in the metazoon are performed in *every* individual cell and that, strictly speaking, they have their origin there: the *orgone lumination* of the individual cell is what physiology and biology call "cell excitation" and what depth psychology calls "organ libido" or "cell libido." We have made a considerable step forward in the understanding of these processes, because now we know that an objectively demonstrable, specifically biological energy is at work in the cells. The basic energy functions are: formation of a

radiating bridge ("sexual contact"), lumination, fusion and interpenetration. Here, we only want to get an idea of the energy processes of fusion and interpenetration, as it can be seen in bions. We have good reason to be thrilled by the view of the fusion of a coal bion and an earth bion; the hypothetical concepts of "cell excitation" and "organ libido" have become tangible realities.

When the coal bions have been attracted by the heavier and thus less mobile earth bions and have formed the radiating bridge, we see the energy process continue which presents clearly every phase of copulation.

The "excited," that is, luminating bions approach each other more and more closely. At the points of the radiating bridges, the coal substance (in the form of bions) gradually begins to enter into the earth bions. It looks as if the earth bions were absorbing the coal bions. Finally, the smaller coal bions have penetrated completely into the body of the earth bions. They still can be distinguished clearly by their black membranes while those of the earth bions are brownish. The whole complex, consisting of earth bions plus coal bions, looks brown and black. Gradually, the black disappears, the membranes of the coal bions are dissolved. The earth bion becomes darker, its blue vesicles radiate more strongly. Finally, no coal substance is any longer visible.

One might also say that the earth bion has "eaten up" the coal bion. Such a differentiation of fusion in the sense of "eating" or "copulating" means nothing because on this most primitive level, the function of the biological energy is undifferentiated. It would be extremely difficult to differentiate the function of the incorporation of small protozoa by bigger ones from that of copulation.

Incidentally, this is true of the metazoon also if we describe energy processes and refrain from anthropomorphically and fi-

nalistically giving them a goal. Seen finalistically, a suckling infant fulfills an entirely different "goal" from that of the woman who takes a penis into her vagina. The first "serves" the "preservation of the individual," the second the "preservation of the race." But it is time to put a stop to such finalistic differentiations when we are speaking of *biological* functioning. From the point of view of *energy*—and no other point of view is biophysically tenable—the process taking place between the mouth of the infant and the maternal nipple is exactly the same as that between the vagina and the penis. The functional identity pertains to every last physiological detail. Let us not be influenced in such serious matters by the moralistic hypocrisy which declares the "sacred" act of nursing to be "asexual," so as not to "desecrate" it by equating it with the "dirty" sexual act. It is not a matter of being sacred or not sacred, but a matter of biological functioning. Only now we understand, in terms of biophysics, Freud's important finding that the infant's mouth is a *sexually* excited organ no less than the maternal nipple. This one piece of insight is ever so much more valuable for an understanding of the widespread inability of women to nurse their infants than all kinds of medical theories.

Thus, the question whether the earth bion has "eaten" the coal bion in order to "build itself up" and has thus acted "morally," or "reasonably," or whether it united itself "sexually" with the coal bion, is of no import to us. What matters to us is the basic character of the process, that which is common to all basic biological functions, be it eating, conjugation, copulation, the formation of zygotes or the sexual act of the metazoan.

The fact should be mentioned that there is such a thing as a *satiation* of the orgone hunger in bions. If one adds only a few coal bions to an earth bion solution, one finds no coal bions left after a few days. But if one adds a large amount of coal

bions, they do not all disappear.

Different kinds of bions show different degrees of "orgone hunger." Sand bion cultures, for example, are "greedy" toward coal bions; similarly, iron bions fuse readily with coal bions. Bions from boiled organic substances, such as muscle, are far less ready to take up the coal bions. These observations allow the conclusion that the less carbon a bion contains originally, the greater its tendency to take up carbon. The SAPA bions, derived from sand, originally contained no carbon, the iron bions only traces of carbon. The muscle bions, on the other hand, are composed of carbon compounds; thus their hunger for carbon is far less than that of the sand bions. I resist the temptation to draw the possible far-reaching conclusions concerning the origin of the plasma on our planet; we shall stick strictly to the facts.

Not only coal bions fuse with others. We shall also see fusion between earth bions and iron bions, iron bions and muscle bions, coal bions and blood bions, and others. Here is an enormous field for further investigation.

In summary: *The orgone energy vesicles show the basic functions of living substance fully developed: attraction, lumination, radiating bridge, fusion and penetration.*

These functions are specific characteristics of the orgone vesicles, for bions which have lost their charge also lose these functions. These functions, then, are not determined materially, but by *energy*. They are specific orgone functions and have nothing to do with magnetism or electricity.

Now we have a better background for an approach to the observations regarding the organization of protozoa and cancer cells.

VI. THE NATURAL ORGANIZATION OF PROTOZOA

I would like to preface this section with

the excellent statement with which the biologist Uexküll introduces his book, "*Umwelt und Innenwelt der Tiere*":

The word "science" has become a ridiculous fetish. It may be well to point out that science is nothing but the sum total of the opinions of living scientists. . . . By and by, all opinions are forgotten, changed or thrown out. Thus, without any exaggeration, the answer to the question, "What is a scientific truth?" is "An error of today." . . . We hope to progress from gross errors to less gross ones. But whether we are really progressing on this path is highly doubtful as far as *biology* is concerned.

Early in 1938, I published some accelerated motion photographs which in a simple and unequivocal manner demonstrated the fact that protozoa do not originate from alleged air germs, but from bionously disintegrating moss and grass (cf. "Die Bione," figs. 12, 13, 18-21, 23, 28 ff.).

In the interest of the scientific work which I advocate, I have to mention some painful facts concerning the reaction of the biological world to these pictures. Did it realize its "error of today" which lies in the tenacious contention that protozoa develop, and will always develop, from mystical "air germs"? Did it ever ask itself where the *first* germs came from? What did it say to the microphotos which spoke such a clear language? Some of its representatives professed astonishment that "I should have seen what thousands of scientists had overlooked." Is that an argument? Others asked whether I was an Aryan. Still others asked what fees I charged. Still others raised the question whether my academic teaching activities were necessary. Some cancer hospital officials demanded that I be examined by them in order to determine whether or not I was "entitled" to "occupy myself with such problems." By "such problems" they meant the *cancer problem*. They had guessed that I had come close to the problem of the organization of cancer cells. I was accused of having claimed that I could cure cancer, at a time when I myself had no

idea that I ever would be led to occupy myself with cancer experiments. The official cancer authority in Norway, Kreyberg, who intended to examine me, had never in his life observed a living cancer cell, and had never even seen stained cancer tissue at a magnification of over 600x. When I showed him cancer cells at 2000x he was flabbergasted and was unable to react in any other way than by becoming inimical. He failed to see the wide avenue of approach to cancer research, specifically, to the eternal question of how cancer cells develop from healthy tissue, or, to put it differently, *how an immobile tissue cell can change into a mobile cancer cell*. To his public utterance that I knew less about bacteriology than a medical student, I could say only that I was proud at the age of 40 to have maintained the ability of an eager student of medicine to learn new things, or to relearn things I had learned 20 years previously and then forgotten. The ossified official or "professor," on the other hand, wants only to "examine;" he feels himself above looking into a microscope and learning something new, even if it is something which he needs urgently lest he go on groping around in his own special field like a blind man. Instead, my sanity was questioned; there was, for 10 months, an almost daily dispute in the newspapers as to whether I was a charlatan or a genius, a Jew, a psychopath, or a sexual monomaniac. They asked the police authorities to throw me out of the country; they tried to bring a charge against me concerning the seduction of minors, because I had affirmed infantile masturbation. Such indecent behavior on the part of the academic world simply cannot go unmentioned; it almost cost me my existence in addition to the loss of many thousands of dollars and several good co-workers who became frightened. On the other hand, these microphotos rewarded me with the definite solution of the problem of the development of cancer cells.

With a very few exceptions, the world of biology, of the "error of today," kept silent about these microphotos. Today, 5 years later, the facts speak for themselves. Cf. fig. 10, p. 212 and fig. 11, p. 213 and figs. 4 and 5, facing p. 129, July issue.

The animal does not consist of a mechanical sum of organs, no more than the organ consists of a mechanical sum of cells. The total animal, each individual organ and each individual cell, each for itself, form an organotic system which is governed by the four-beat of tension→charge→discharge→relaxation and thus is a functional unit. It is characteristic of the living system that every one of its parts may operate according to the formula of tension and charge by itself or in connection with the total organism.

In modern biological literature, since about the first world war, the functional point of view has gradually come into its own besides the mechanistic one. One of the basic problems of biology is the fact that the functions of structures (musculature, nerves, glands, etc.) are mechanically understandable while the functions of the protoplasm appear like a miracle. One basic difference between the protoplasm and a machine lies in the fact that "fluid machines are inconceivable" (Üxküll). The protoplasm functions on the basis of characteristics which the machines do not possess. It functions *without having a structure*. It perpetuates itself through an equilibrium between assimilation and dissimulation, that is, through *function* and not material structure. As soon as the function ceases, the material substance collapses. *The material structure itself is dependent upon the function of the living plasm.* "The animal is an event" (Jennings).

These facts are inaccessible to a biology with a chemical, mechanistic orientation.

Let us see what answer the knowledge of the orgone functions provides to these riddles. One thing is obvious: A concept which has everything derive from "germ Anlagen" and which simply assumes that the "germ plasm" has always been there and always will be, without asking about its origin, such a concept cannot answer questions as to plasmatic functioning. For

according to such a concept, everything is already contained "materially" in the germ, just as the "preformation theory" assumes all future generations to be preformed in the gonadal cells. If, now, we can demonstrate, microscopically and photographically, *the process of non-plasmatic matter becoming plasmatic*, we will also gain insight into the *development of the plasma function. The plasma function has been shown to be identical with the function of tension and charge.* For from the alternating expansion and contraction in the biological pulsation all more complicated functions can be derived. Non-living substance does not pulsate, living substance pulsates. *It is precisely at the point of transition from immobility to pulsatory mobility that we have to look for the solution of the riddle of biogenesis.* This point of transition can, in fact, be demonstrated microscopically and photographically.

What harm the metaphysical germ theory did in biological research can be shown by the following facts:

I know of no textbook of biology which would contain a description of the *material* of infusions from which protozoa are obtained. They say nothing about *what takes place* in the grass or moss. They simply state that after a few days the protozoa are "there." The argument which again and again was used against the natural organization of protozoa, namely that no protozoa are found in moss which had been heated, cannot be taken seriously. In addition, it has long since been proved erroneous by various biologists. The tenacity with which it is upheld just the same betrays an interest which is *not scientific but religious*. We can now add: Even if moss which has been heated does not contain protozoa, it contains, nevertheless, blue bions. These bions, however, are found also in moss which has not been heated but which undergoes a process of gradual swelling.

In every textbook of biology we find the contention—which one author takes over blindly from the other—that the protozoa develop from germ cysts. They observed the fact that protozoa can take on spherical shape. This observation is correct, but it was misinterpreted. They observed two separate processes which they combined into one contention. One process is the protozoa's taking on spherical shape when they are damaged. The other is the development of spherical forms in grass infusions, and these have nothing whatsoever to do with the spherical protozoa. These round forms are the result of a gradual *development of bions into a heap of bion vesicles*. This spherical bion heap is a typical stage in the natural organization of protozoa.

We read in the textbooks of biology that the infusions are full of "algae" which also are supposed to have developed from "germs." That the protozoa live on these "algae" is correct. But who has ever seen the "germs" of such algae? And how is it that we find these very forms which are called algae in a preparation which consists of nothing but autoclaved blood or muscle tissue? These "algae" are nothing but our bion vesicles into which any organic tissue disintegrates when it swells. Instead of contending that the "germs" of the protozoa are in the air and that they "settle down" and develop where a "suitable" medium "presents itself," we shall go to the trouble of observing an infusion right from the start, for at least an hour every day, at a magnification of 2000x. There are no protozoal "germs" in the air at all (Plouchet). This superstitious belief of biology is no less amazing than what we are to see in these observations.

But first we will make a single experiment to see whether we can find any protozoal "germs" which have settled as "spores from the universe" on the grass or moss. Holding some grass blades with a pincette, we squeeze the "germs" into a

glass of unsterile water. We made sure that the grass was not in vesicular disintegration but had its normal cellular structure. Whatever we do, *we cannot find a single protozoon or a single cyst in the unsterile water into which we have dipped the grass. But what takes place in the infusion?*

In the course of 2 to 3 days the grass disintegrates into bion vesicles like any other substance which we make to swell (cf. fig. 12, p. 213, and fig. 13, p. 214). Even at a magnification of 4000x, no bacteria, cysts or protozoa can be seen. However, the disintegration of the grass progresses further and further; after another 2 or 3 days, there is hardly a blade which would show the original cellular and striated structure undisturbed. There may already be a few protozoa, but we focus our attention on the bions. We see how they conglomerate here and there into heaps and develop a membrane. We can follow every step in this development. Here and there we see some bion vesicles within a heap develop delicate rotating or vibrating movements. They assume an increasingly taut form and actually look like cysts. But they are not dried-up protozoa; they are forms *in the process of developing from a bion heap*. These bion heaps may be of various sizes and shapes. The tauter they are the more they assume spherical shape. They have filled with fluid, that is, have become mechanically tense. The first phase of the function of tension and charge has taken place. We have to look at one and the same form for many hours at 2000x and have to keep adding fluid so that it remains in focus. We also can take accelerated motion pictures. This makes the job easier, but many interesting details get lost. The development of such a vesicle into a pulsating protozoon takes 1 to 2 days. The protozoal primal vesicle (bion heap) remains immobile for hours, but, as seen in the accelerated motion picture, it gets tauter and tauter and more and more

demarcated from its surroundings. Gradually, a movement of the energy vesicles within the bion heap begins to set in. One can distinguish the following variations of motility:

a) *Rolling*: The energy vesicles within the bion heap roll rhythmically toward each other and away from each other. One has the impression of mutual attraction and repulsion. The causes of this rolling movement can only be guessed at: At first the vesicles of the disintegrating grass adhere to each other. Their orgone charge is the same as that of the other grass bions which do not develop into protozoa. In the process of the swelling and becoming tauter of the spherical heap of vesicles, more orgone must be developed within each of the individual vesicles, since, as in the coal bion, the swelling makes the membrane become thinner and the orgone charge more intense. When the vesicles within the bion heap have lost their mechanical connection with each other, their orgone charge can begin to manifest itself in motion. One of the first effects of this is the *orgonotic attraction* between the vesicles. The attraction on the part of more distant vesicles results in mutual attraction and repulsion.

b) *Rotation*: In many bion heaps the total content of the vesicles begins to rotate in one direction. This movement may continue for hours. It becomes more intense, and finally one sees the whole heap, including the membrane, rotate. In this process, it detaches itself from the surrounding bionous grass tissue.

c) *Confluence of the energy vesicles*: Not all of the bion heaps maintain the vesicular structure of their plasma. In many kinds of amoebae, the boundaries between the individual vesicles disappear and the plasma forms a homogeneous mass with a bluish glimmer. In others, the vesicular structure remains until they are fully developed. The same is true of cancer cells which develop in exactly the

same way from disintegrating animal tissue as the protozoa from grass or moss. *Cancer cells are nothing but protozoa which in the animal organism develop from tissue bions.* The process of organization of protozoa in grass or moss infusions is the key to an understanding of the organization of cancer cells in animal tissue.

d) *Pulsation*: At a magnification of about 3000x, one can see very small movements of expansion and contraction already in the bion heap. It seems that those forms in which the energy vesicles flow together, are much more apt to develop pulsation than those which maintain the vesicular structure of the plasma, as, for example, the "org-protozoan." (Cf. fig. 10, p. 212 and fig. 11, p. 213.)

A variant of the confluence of the bions can be observed in the primal vesicle of many paramoecia. Here, the small bions do not flow together into one mass, but, instead, groups of them form medium-sized vesicles within the larger body. These vesicles then show movements of rolling and rotating in relation to each other just as the bions from which they originated. *The more bions flow together, that is, the more fluid the plasma, the greater is the motility of the total organism.*

Particularly at the margins of the disintegrating grass, one finds, next to "finished" animals, every stage of development and form. As in the *ameba limax* and *proteus*, the nucleus is formed through a special concentration of energy vesicles which manifests itself in increased lumination.

The transition from one stage of development to the other is difficult to follow by direct microscopic observation because it is extremely tiring. Here, the accelerated motion picture device is a great help. In order to take moving pictures over a period of days, one puts the cover glass on the hanging drop slide in such a manner that it does not com-

pletely cover the cavity. One draws a little liquid over the edge of the cavity and forms on the outside a reservoir of fluid from which one can add to the preparation without disturbing the focus. Taking pictures with a cover glass completely covering the cavity is impossible, first because of the formation of air-bubbles, second because the organisms would suffocate. Thus far, we have succeeded in making microphotos of the bionous structure and plasma movement at a magnification of 2300x in org-protozoa. The finished film shows a process within a few minutes which in reality took 2 to 3 days.

Up to the formation of the bionous primal vesicle the development is the same in all forms of protozoa. But from that point on the protozoa differentiate themselves according to laws which are as yet unintelligible. Years of observation led me to the assumption that the first primal vesicles do not specifically belong to certain specific forms. Rather, the differentiation of specific forms sets in only at a certain point of common development (cf. fig. 17, p. 216). Here is a wide field for amplification and correction. Why certain forms, once they have developed, are reproduced again and again in the same form, is one of the greatest riddles. In this field, the functional point of view will have to stand many battles with the metaphysical theory of heredity which replaces searching and understanding by ready-made "genes."

Those primal vesicles which tend to rotating movement and have a structure consisting of large vesicles usually develop into paramoecia. The resting primal vesicles with a flowing content develop into amoebae limax (cf. fig. 14, p. 214, and fig. 15, p. 215). This difference is also expressed in the way in which the protozoa detach themselves from their matrix: the paramoecia do so by way of a rolling motion, while the amoebae simply flow away from the bionous heap (cf. fig. 16, p. 215).

The vorticellae, which I termed org-protozoa because of their orgasm-like contraction and expansion, may remain attached to the grass blade until they are fully developed (cf. fig. 11, p. 213). Others detach themselves and swim about freely, sometimes with a little piece of bionous grass attached to them.

The fully developed protozoa take up bions from the fluid by means of attraction. The attraction exerted by paramoecia on energy vesicles is enormous; it cannot be explained by the mechanical movement of the cilia. For the vesicles in the fluid do not move past the body as one would expect from the action of the cilia; rather, when they come within a certain distance, they are pulled toward the paramoecium with great force. The observation is unequivocal. The org-protozoa contract, then expand and open the mouth widely, whereupon the bions in the fluid flow into it with great force. The mouth closes, the animal again contracts into spherical shape, and there is a rhythmic "grinding" movement of the energy vesicles.

Observation at 2-3000x reveals interesting details with regard to the development of the internal impulses. At the place where the amoeba is about to form a pseudopodium, one notices first an intensive rotary motion of the vesicles. Then they show an intensified blue glimmer and the plasma begins to stream toward the periphery, that is, expansion begins. Many of the blue vesicles are taken along in this process; if so, they lose their blue color and become black. This allows the following interpretation: *The protrusion of the pseudopodium is preceded by a rapid and intense concentration of orgone which constitutes the source of the expansion impulse.* When the impulse is translated into movement, orgone energy is used up; this is the only possible explanation for the becoming black of the vesicles. I do not wish to generalize this conclusion because the phenomenon is not

found in all protozoa. The fact cannot be doubted, however, that *it is the orgone charge of the bions in the protozoon which provides the energy for the expansion impulse and the movement of expansion.* A mechanistic explanation by Brownian movement fails completely here. These observations also show the untenability of the chemical concept of plasma as being nothing but a highly complex protein molecule. *Living protoplasm is a complex protein governed by free orgone.*

The body of the protozoon shows a field of orgone energy which affects its surroundings. It affects bions, small bacteria and other small protozoa mostly in the sense of attracting or paralyzing them. Charged erythrocytes seem to be organotically stronger than paramecia or small amoebae, for they are capable of reducing the mobility of these organisms. The protozoon consists, from the point of view of orgone physics, *of a nucleus, a plasmatic periphery and an orgone energy field; it thus forms an "organotic system."*

I would like to mention a fact which thus far is incomprehensible but which seems of utmost importance. Every year since March 1936 to date I have made infusions of dried grass and moss and have studied them. In the course of these six years, I have never seen protozoa develop from grass or moss that was freshly grown that spring. Infusions of old, autumnal grass or moss, however, always resulted in abundant growth of protozoa. Of course, one is reminded of the fact that cancer cells develop rarely in the young but usually in the aging, "autumnal" human organism. But the fact is still not really understandable. It may also be that others will succeed in growing protozoa from spring moss. At any rate, this fact seemed worth mentioning.

Needless to say, the fact of the development of protozoa from bionous plant tissue does not conflict with their procreation by division. *Development by natural*

organization and procreation by division go on one after the other and side by side, as can easily be observed under the microscope.

There is hardly any better opportunity of studying the functions of tension $\rightarrow$ charge $\rightarrow$ discharge $\rightarrow$ relaxation than that provided by the protozoa. Their movements, their plasmatic currents, their expansion and contraction, etc., speak an unequivocal language in terms of our formula of living functioning. One can alter these functions by the application of weak electric currents, one can accelerate them and destroy them. But, as is shown plainly by the development of the protozoa, the energy behind these functions derives from the bions which constitute the protozoal primal vesicle. The locomotor functions of the amoeba, which as yet lacks any structure, are due only and alone to the orgone energy. The pseudopodia come and go as a result of the function of expansion and contraction. The amoeba does not send out a pseudopodium "in order to" reach an object, that is, not on the basis of an "aim" (finalistically); it does it functionally, when a certain object, through attraction, causes an expansion impulse in the organotic plasma.

We must, if for no other reason, in the interest of further research, always remember that living matter simply functions but does not betray any "meaning" or "aim." On the basis of "aims," everything is very easy to explain.¹ To find out

¹Translator's note: When I translated this passage, I had just been reading a chapter of a book in which the wife of a Polish landowner tried to teach the peasant women some simple measures of child hygiene. Her message was received with stony faces. "How many of you have lost babies? Don't you think that many of them would have lived if you had fed them properly and kept them clean?" asked the woman. "It was God's will," cried a peasant woman. "It was God's will," cried others. That was their explanation. It was simple, and as inviolable as the biologists' explanation of the origin of protozoa from "air germs."

the nature of unknown functions is far more difficult. The "purposeful action" of the amoeba can be reduced to the function of the orgone. For example: it incorporates a bion vesicle because the stronger orgone charge of the protozoon attracts the weaker charge of the free bion. True, in this process, the "purpose" of nutrition is fulfilled, but this is a *result and not the cause* of the action of incorporating. The protoplasm, then, functions not on the basis of mechanical, finalistic principles, but on the basis of *the functions of orgone energy.*

All biological functions can be reduced to the basic function of pulsation, that is, alternating expansion and contraction. The pulsation itself follows of necessity the two antithetical functions of the orgone energy, dissociation and attraction of orgone-charged organic matter. On the basis of the processes taking place in the plasma of the amoeba, we must assume the following effect of the state of matter on the function of the orgone:

The individual orgone-containing vesicles may, as in moss, group themselves in rows and form a striated structure of the tissue. This is to be ascribed to the organizing function of attraction. In other protozoa, the energy vesicles flow together and form a unitary mass. *Every concentration of orgone-charged matter due to attraction automatically calls forth an impulse to dissociation, to a separation of the particles.* When an amoeba has assumed spherical shape a vivid rotary movement sets in at the place where the energy vesicles have conglomerated most densely; this movement results in an expansion, that is, a separation of the vesi-

cles. Conversely, the separation of the vesicles from each other results in an impulse to rapprochement through attraction. This is what causes the contraction. As long as the plasma is sufficiently orgone-charged, every contraction leads to an expansion, every expansion to a contraction. This internal process appears externally as *pulsation*, no matter what its rhythm may be. Since expansion goes with hydration, contraction with dehydration, the mechanical and the organotic function fuse into the following four-beat: hydration (tension) $\rightarrow$ expansion (charge) $\rightarrow$ contraction (discharge) $\rightarrow$ dehydration (relaxation). However, the pulsation itself depends essentially on the coupling of *dissociation with attraction* and *attraction with dissociation* of the particles.

This process is particularly clearly demonstrable in the contractions of the org-protozoa: After every contraction there is a grinding motion like a friction of the vesicles in the body which goes over into an expansion. The expansion goes with the opening of the mouth which causes the attraction of energy vesicles from the fluid ("eating"), that is, a charging, which in turn results in a contraction into spherical shape, that is, a rapprochement of the internal vesicles. This process repeats itself endlessly.

We will meet this biophysical functioning again and again in various biological processes. In this article, I have tried to demonstrate the following important fact: *Biological pulsation, the basic phenomenon of living substance, is explained by the two antithetical basic functions of the biological energy, attraction and dissociation.*

Concluded April 1942

THE DANGERS OF FREEDOM†

By PAUL MARTIN,* M.D.

Bertrand Russell tells the following story in his book on child education:

One day he found his children sitting in a tree eating green apples. He told them he thought they'd better stop, otherwise they would get sick. The following day one of the children came to him and said: "Daddy, I got sick."

Today when so many people are taking potshots at freedom, it might be well to remember this little story. It shows how happy a person may well be for having been permitted to experience things for himself, even when it went so far as to make him sick.

Today there seems to be a universal tendency to solve problems by merely dictating a solution for all to obey and punishing those who do not follow orders.

Strict disciplinarians are also seeking to exploit the temper of the times. Consider, for example, the school system in general and physical education teachers specifically. Besides, it is war-time, which in itself tends to foster strict discipline. A contributing factor is undoubtedly this: Those who believed in freedom were unable to show they could handle the situation convincingly. A particularly striking example is Russia. After the Bolsheviks took over power there arose strong tendencies towards freedom in sexual customs and education, but these tendencies were not continued. The main reason is very likely that the people lacked the ability to bring about real freedom and self-regulation in both the fields mentioned. In Russia today we therefore find widespread restriction of sexual freedom and a type of education in

which discipline and authority play a decisive role.

Nevertheless I belong to those who believe freedom will soon receive immensely better treatment, because I am convinced that more people than ever are hungry for freedom.

The title of this article runs the risk of being misunderstood or used wrongly. People may say: "Even Martin warns against too much freedom, it's too dangerous!"

Therefore, I want to emphasize immediately that I *believe* in freedom—complete freedom for all that is healthy, and for all that is sick as long as it does not turn destructive. Only when freedom leads to a condition that is both sick and harmful should it and must it be limited. I hope to be able to show how completely and unreservedly I believe in freedom, and at the same time in the *necessary* limitations. Even Russell's little story indicates that freedom must be restricted. It is all very well to let children eat green apples, but we all draw the line at poisonous toadstools. Clearly it would also be insane not to place restrictions on murderers and rapists as long as they exist. Here the question is simply which restrictions are the most effective. It seems to me it would be just as insane to allow rapists and murderers to walk freely in our midst as it would be to allow a system of upbringing to continue which creates murderers and rapists.

We live under conditions where there can be no question of unconditional freedom. Since we know that freedom is a necessity if human beings are to develop their faculties and attain happiness, the important thing is to fight for freedom with *open* eyes. It is not enough to close

them and go after a static idea of freedom. We must understand where freedom leads: to the unfolding of the human personality and to the enrichment of humanity. We must also understand wherein the dangers of freedom lie: in man's pathological, ruined structure, and in rigid social conventions. Our goal thus becomes to aid man, with complete confidence in the infinite wealth of his powers, to unfold his possibilities and at the same time to avoid as much as possible the dangers that lurk by the wayside.

The first problem we are faced with is that we actually know so *infinitely little* about how people will react when they are given the chance to realize the inner biological urges that primarily determine their actions as in all other living organisms. This lack of knowledge is in itself no objection to freedom. Above all, we must continually point out that wherever we have seen freedom at work, i.e., among primitive peoples such as the Trobrianders and Arapeches, and wherever we as educators have brought it about by our teachings, the results have been completely convincing. Consider for example Neill's achievements at Summerhill, or consider those primitive tribes whose language has no word for "stealing," and among whom sexual crimes are unknown. You, as teachers, also know how the restriction of freedom frustrates the capacity for living. As a doctor, I can assure you that, exactly to the extent to which it is possible to eliminate the inhibitions resulting from upbringing and environment, my patients are able to develop their faculties, talents, and capacity for love; this change is so striking that one simply dares not realize the magnitude of these possibilities. The perspectives that open up are vast. No, we have no reason to feel doubtful of freedom! But in its way it is far more demanding than any other process. The great advantage of authoritarian systems of upbringing is that they tell the edu-

cator exactly how to react in a given situation: if the child behaves in such-and-such a manner, all you have to do is this-and-that. Look at the precision with which certain educators, notably the Americans, lay down rules for eating and sleeping.

The situation is quite different for the truly progressive educator. He has but one goal: to give the child opportunity to develop. His main task is to discover the desires of the child from its behavior, and as much as possible to keep his wants from not being realized, or at least to facilitate a release of emotion when realization is impossible. This is difficult enough with healthy children, as for example with the newborn baby. When I read Aldrich's book, "Babies Are Human Beings," it became clear to me that in many instances we disturb without thinking the self-regulation which alone leads to real freedom. What, then, is self-regulation? Aldrich taught me something about the bath given the newborn baby. Everywhere in the civilized world the first thing that happens to a baby is the bath given to cleanse it of the fatty substances covering it at birth. Aldrich firmly believes that this bath is harmful and that when it is avoided these fatty substances are absorbed during the following days into the baby's skin, giving it a much greater capacity for resistance. In the same way we believe that the important thing is to let the child determine how and how much it wants to sleep, eat, etc. In other words, let the child determine its way of living according to *its own* capacity, let it have *its own* joys, *its own* sorrows, *its own* anger. Naturally not everyone has the patience to allow a baby to cry violently half the night, and yet it is possible for a little child to have such strong feelings of rage that only after this period of time do they find full release.

The problem is much more difficult with children, or adults, whose development has been frustrated. Then the child has conflicting tendencies that push it in

† Translated by Marika Myerson.

* This is a pseudonym. Present conditions unfortunately force us to withhold the names of our European co-workers.

different directions with varying force. Here it is no longer merely a question of freedom: we associate with the child, and we can only achieve a real relationship if we ourselves know what forces in the child will lead to a healthy development of the child as a free and independent individual, and which forces serve only to defend against outward influences the stronghold in which his spirit is already imprisoned.

Let us take a very simple example, one which may antagonize many of you or give you the mistaken impression that the problem is only a sexual one. This example shows the importance of the attitude of the environment. The case is that of a four-year-old boy whom I knew well. He was a very lively child but had certain inhibitions deriving from the inhibition of his exceptionally strong and satisfying masturbation. Occasionally, however, the desire would break through the inhibition and would be gratified; then, the boy immediately became quite healthy and happy. But each time the effect lasted only a short time. He was living in the country during the summer and went about playing diffidently with his little penis many times a day, without quite daring to masturbate. After a while he became more courageous. His parents took care that everyone should regard it as quite natural. Finally he masturbated successfully. Immediately he became completely healthy and happy. Until now he had cried and complained but this vanished altogether. He had also seemed quite tormented and had been quite a burden to those around him; now he became free and joyous and it was a pleasure to be with him. Then his parents left for a vacation trip. When they returned, they found the boy had had a serious relapse. He cried and complained as before, and no longer masturbated. His parents came to the conclusion that the neighbors had frightened him. How it happened was never fully cleared

up. But a year passed before the child regained his composure and happy spirit and during this time he suffered a good deal. Finally a real love affair helped him over his troubles.

Things are rarely as simple as in this case. But at the bottom of every neurosis there is always a sexual conflict, most often masturbation anxiety. This was Freud's discovery and it forms the basic concept in classical psychoanalytic teaching. Reich, too, confirms this finding. His essential contribution is that sexual anxiety, particularly masturbation anxiety, forms the basis not only for mental conflicts but for all neurotic structure as expressed in a person's character and body. The whole living vegetative organism becomes inhibited. Its ability to function freely, in a self-regulating manner, flowing out towards the world, is destroyed by this anxiety. Neill, who also became a sex-economist, upholds this view in his latest book, "The Problem Teacher."

The attitude of the educator is clearly significant throughout the whole course of education. It is impossible to emphasize strongly enough that our unconscious attitudes, our whole outlook, are the decisive factors. Here is one of the greatest dangers of freedom. We give our children a certain proportion of freedom, bringing them up, as we see it, freely. But actually we remove only the superficial inhibitions. This is enough, however, to give the child a strong feeling of release and gratitude, making it feel a deep affection for the person who was the cause of this release. This in turn causes the child to behave, usually quite unconsciously, in accordance with that person's wishes. The teacher exclaims happily: "The : you are! I gave the child freedom, and immediately it became as a child should be!" This is the impression the teacher receives, and he deceives himself, the world, and the children as well. One could give countless examples of this state of affairs. More than

anything else this makes it necessary to differentiate sharply between what is called a free or progressive upbringing and one which really is free. I once attempted to show that much of the Montessori system followed this principle. If we look around with open eyes we can see it again and again. Its worst effects are found among teachers whose conception of "freedom" stands for practically nothing but uninhibited behavior. Here the result of so-called "progressive education" is the person who believes himself to be "completely free." He meets everyone and everything with exaggerated and uncritical self-confidence and belief in his own worth; all this together with utter lack of respect for anyone or anything. We find this in so-called progressive kindergartens and schools. We must bear in mind what is so often forgotten—that *freedom has nothing whatsoever to do with being uninhibited*. Quite the opposite: uninhibited behavior is nothing but an indication that the ability to choose from existing possibilities is lacking. Real freedom lies in the power to choose from existing possibilities the particular one you feel is right for you to follow.

The fact that we can influence children by handing them a piece of freedom or opportunities for freedom is so well known that it is used or, rather, consciously misused by many pedagogues. In this connection I want to name Anna Freud and one of the most unpleasant educators I know, the Vienna psychoanalyst Aichhorn. He uses the method in question quite consciously. He has an extraordinary ability to make children and young folks feel that he understands them. Then he uses the trust he receives to get them where he wants them, i.e., to inhibit them and make them obedient individuals.

Aichhorn brings us to the most important aspect of all in regard to "the dangers of freedom." Perhaps no other instance can teach us so much. Those of

you who know his book, "Verwahrloste Jugend," know what I mean. For the rest of you, I shall only mention that he took some of the worst "brats" in Vienna out to a camp, some barracks built to stand hard treatment. The camp was the scene of fairly serious battles before the group quieted down. The most important thing was the aggression, the desire to destroy, to take revenge, and all the rage that was revealed. You can see something of a corresponding nature in the outstanding Russian film "The Road to Life." You can read about it in Neill's books, and you can see it in any nursery school where the children are permitted actual freedom. I also find it among all my patients.

It is not difficult to understand. People in general and particularly those discussed here, are inhibited. They suppress their affects, first and foremost their feelings of aggression and, in the widest and narrowest meaning of the word, their sexuality. If we are to help them from a state of inhibition to a state of freedom, we must first allow all the suppressed feelings to flow out. This is what Aichhorn had the opportunity to observe, at any rate, the beginning of it, and it is this phenomenon more than any other that makes people so afraid of freedom as to say: "Man is a brute animal. Are there to be no limits? We'll have nothing but chaos and anarchy!" These and other objections are raised. Only when we understand all these objections and have seen and understood their real basis and realize the importance of the problems we face; only when we have witnessed a good many of the disagreeable manifestations that often arise out of the first measure of freedom and have seen how much evil and maliciousness and sickness people are hiding within themselves, quite without its being their fault, due to all the frustration they have undergone, when we have finally had our eyes opened and have chosen the path to freedom, then and only then may we call

ourselves true advocates of freedom. Then at last we have an opportunity to bring about a truly free way of living. Then we see that freedom leads not to chaos but to order, order that is self-regulating from within. This is the order that leads not to careless and uninhibited behavior but to limits chosen by man himself in accordance with his inner desires. Man becomes not an animal but a real person who can love and work and, if necessary, fight for his love and his work, not wildly and irrationally, but resolutely and consciously. It cannot be denied that we have a long way to go before the irrational creature of today, bound by authority, can become a free and independent human being.

But let's not lose ourselves in theoretical considerations but go on to something more concrete. How does it work out in practice? First, a few kindergarten examples. From one kindergarten, moved to summer quarters in the country, comes a desperate letter from the director: "I am about to drown in wet and dirty pants; one after another, children who have until now been clean are now quite the opposite. What shall I do?" I answer: "Have patience, and things will soon change." This is exactly what happened, but it is easy to understand that the occurrence was no holiday for the personnel of the camp. To say there ought to be more counselors will not solve the problem. The only real solution will come the day the teacher himself fights for and gains the respect due him and his mission; the day society realizes that the minister's mission is to comfort; the lawyer's, to protect society wherever it is threatened; the physician's, to cure where harm has already been done or to prevent it where it is imminent; while the teacher lays the cornerstone for the whole structure, or rather, helps it to develop.

In another kindergarten two older boys held an absolute reign of terror. But even here the teacher was able to hold out until

the problem was solved. In this case the teacher successfully understood the problem that lay at the bottom, the problem which Aichhorn did not dare to tackle although he recognized it. In "The Road to Life" as well, the starting point of the problem was sexual. "Sexual" is used here again in its full connotation. First of all, at any age, there is the problem of surrendering oneself, giving oneself up to the deepest sensations of pleasure. It is a fact that if you suppress feelings of love it leads to a greatly increased desire for aggression. We can therefore not expect this aggression to express itself normally unless there is opportunity for release of the sexual feelings. In the kindergarten mentioned above the children began to talk about sexual matters, genital and anal, in the typically "fresh," guilt-laden manner showing they knew they were on forbidden territory and were only trying to see how much they could get away with. The kindergarten teacher realized what was going on. She took the first convenient opportunity to talk honestly with the children about sex, and in doing this she brought about a much freer and more natural atmosphere so far as sexual matters were concerned. This helped to clear up the aggression and the "fresh" language as well.

It is my impression that we face the same problems with children in grade school, but here I have no experience of my own to rely upon. Neill gives many examples in his books that seem to bear me out. Sometimes it took days, weeks, even months, before a child decided to learn something of his own free will, or to wash himself, etc. As I stated earlier, Neill also believes that the role of sex is absolutely decisive.

During puberty the question of freedom takes on a character of its own. Even in early puberty the problems of becoming free and of breaking with the environment come strongly to the fore, simulta-

neously with strong pressure from sexual desires. This whole period is characterized by deep uncertainty, anxiety, and doubt. The period of puberty offers freedom a great chance. It would undoubtedly be possible to help young people to the utmost to become free and living beings—but at this time such help is practically never forthcoming. The attitude of society, particularly towards sex, during these years, is however so decisive that the problem becomes first and last a social one. This is true to such an extent that S. Bernfeld, the official spokesman among psychoanalytic child psychologists, has written a book with the sole message that so many dangers threaten the youth who succeeds in becoming free and healthy during puberty that possibly it would be better for him to remain neurotic.

Finally we come to the question: What about adults? What happens to them if you give them freedom? Do they also go through a phase during which suppressed and often perverted desires well up and dominate? Yes, this happens quite often! It results in many unhealthy phenomena. I remember with horror a good friend of mine who asked me quite seriously: "Is it freedom to go to bed with your best friend's wife without further ado?" He had just experienced such an example of so-called freedom. I told him that naturally such actions have nothing to do with true freedom but rather with the grossest misunderstanding of freedom. Free people naturally realize that such an act is not something one does "without further ado." This is an example of how freedom is discredited. It shows clearly why many honest and serious people come to believe, "May God preserve us from freedom if that's what it is!" There are people who swallow worse than this. Not long ago I heard of an example of how far this sort of thing can be carried. It had something to do with me as well. Rumors—often highly fantastic—are concocted about me,

as about everyone else who enters the fray of sexual problems. The reason for this will soon be apparent. One of the most common of these rumors is that I have sexual relations with my women patients. I understand that one young girl not only believed this rumor but was "reconciled" to her fate.¹ She had been very strictly brought up and had determined to free herself completely from this upbringing with one blow, with the result that she was left without any ideals. That is where this kind of free thinking, in reality a very deep misunderstanding of free thinking, had brought her. I must say that the idea of a doctor or a person whose business it is to advise his fellowmen misusing—and here we can speak only of misuse—his position by going to bed with his patients, is something I cannot reconcile myself to. There are many other ways in which sexual freedom is misunderstood. Recently, a professor of medicine mentioned in an article the cases of young women among his patients who receive sexual enlightenment and then throw themselves into the arms of the first best man who comes along and as a result have severe nervous breakdowns. Naturally such examples are used as arguments against sexual freedom—and not without reason! There is a good deal of propaganda for sexual freedom which sadly enough degenerates into the so-called "glass-of-water" theory. This

¹ Editor's note: I have seen this in two women patients. In part, this belief of patients is a relic from the common misinterpretation of the psychoanalytic concept of "transference" which, in the average lay mind, has the exclusive meaning of "falling in love with the analyst." This misinterpretation was fostered by the common neglect, on the part of the psychoanalysts, of the "negative" transference. In our case, this belief is apt to take on the form of "having to sleep with the therapist." These two patients had the idea that this was an indispensable part of the treatment and had tried to reconcile themselves to it. The idea is due to the above-mentioned misconception of "transference," plus the rumors set afloat by people who have perverse phantasies because they are unable to deal either with their own or their patients' sexuality.

theory states that it is just as natural to go to bed with another person as it is to drink a glass of water. This is of course a completely mistaken belief. A human being's sex life is the source of his greatest joy, the richest well of fulfillment in existence. It is not something that can be compared with the rather nonchalant act of drinking a glass of water. Much the same attitude exists in certain circles about abortions, and there are tragic examples of women who have several abortions and later go to pieces because of sorrow. Naturally these examples are taken advantage of by those who fight against a sensible solution to the problem of abortion. The notion that a person is either moral and virtuous, with a strictly monogamous or ascetic sex life, or else "sleeps around" indiscriminately, is extremely widespread. I once had a very talented and intuitive woman patient who I suspected was well on the way to such a state of affairs. I therefore questioned her very carefully as to whether the relationship she was about to enter upon would be good for her and told her my own doubts, but she was absolutely sure of herself. Yet this did not stop her from claiming much later that I had encouraged her to enter upon it. No harm came of it; she quickly realized that it had only been her own feeling that I meant she must have an affair that in spite of my warning had led her into it. "How can you believe in sex-economy and not have a lover?"

This conception of the "moral life" versus "lust" is closely related to other attitudes quite as widespread that can be formulated as "morality" versus "brutishness." Thus, either you check your desires and live as a "decent person" or else you are a "brute" who can be suspected of almost any vice. If you will only outwardly recognize the rules of official morality you may indulge in as many orgies as you please. The important thing is not to get caught. On the other hand, if you have a

straightforward and open love life there is no limit to the anger and revenge of society. The reason for such reactions is not difficult to discover. Religion and official morality are both equally anxious to teach people that a natural and straightforward sex life is forbidden and filthy. Indeed they succeed in ruining many people so completely that either they stay strictly within the boundaries marked as moral or else they give way to feelings of disgust and lewdness. Since man has a strong tendency to believe that everyone else feels as he does, it seems to him that all who do not believe in his particular ideals of morality *must be* indecent.

Here you have the basis of all the above-mentioned rumors, countless and sometimes unbelievable, which not only travel about but are taken for gospel truth about the very people who openly champion a really decent conception of sex.

The belief that freedom is uninhibited behavior goes far back. As far back as I can remember there have been social circles in our city that have used it as a yardstick. You can still find groups of people among whom it is improper to flirt with your own wife, or where it is considered wrong to even feel bound to someone. Here again we are dealing with people who believe freedom means the absence of bonds. *We believe freedom is the ability to make your own bonds and to loosen them yourself when you wish to do so.* Those who cannot accept bonds and those who cannot loosen them are equally sick, equally imprisoned, because both these inabilities are caused by anxiety. The fear of being bound to someone and of becoming dependent is often as great as the fear of being alone. Most people suffer from both of these forms of anxiety, but usually one or the other is dominant.

Our world today is full of examples showing it is not only sexual freedom that can be abused. Consider the hunting down of certain racial groups and all its brutal-

ity. Consider those who occupy positions of authority and how they misuse their power to oppress those working under them. Think how many would like to go out and take to drink if they only had the opportunity of doing so. Bear in mind the way teachers wield their power over their pupils. Then you will also understand that it is impossible to introduce freedom "just like that" into the school system with its present group of teachers. It does not follow that it is impossible to give much more freedom than is now given.

I have tried to show that people as they are constituted at present are so unused to freedom that even the concept of freedom has changed. That is why so often people absolutely don't know what to do with freedom, or how to use it, when they suddenly become free. That is why freedom is so often feared. Let me give you one more example illustrating the reason for this fear!

From many descriptions of prison life it is clear that many fine people who were imprisoned—most often political prisoners—for a long period, ten to twenty years or more, have experienced their worst crises after being released. They then felt quite helpless, alone and without contact with the world. It seemed utterly strange to them, because *it* had developed, while *they* had slept as in a cocoon behind prison walls, separated from a real existence. Something like this happens to many people who more or less suddenly become released from all the bonds and inhibitions that bound them previously. They are helpless and either give themselves up completely to their desires or else hurriedly do everything possible to find new bonds in order to avoid taking full responsibility for their own lives. The history of revolutions is filled with such examples.

Freedom is beautiful, perhaps the most beautiful of all possessions. But it throws upon people the unusual burden of having

to make their own decisions instead of having authorities, laws and rules decide their lives for them. It thus becomes necessary to help them bear this burden. (One might say that since Rousseau the whole history of modern pedagogy has been a chain of ever-repeated attempts to find the way to freedom. I say ever-repeated because each attempt got stuck somewhere because of the opposition and obstacles that came up).

So far we have considered only the dangers to freedom coming from within, from the inner powers of man himself that are chained, suppressed, and therefore unnatural. As educators and human beings, we must keep our eyes open to these dangers. Only insofar as we succeed in exposing an apparent expression of freedom as nothing more than a rebellion against a previous suppression, in other words, a mask for the lack of freedom, may we expect to succeed in helping ourselves and others attain real freedom.

However, this is merely the groundwork. Practically each step along the road brings us face to face with new opposition and new dangers.

It begins shortly after birth, particularly if the baby is born in a hospital, where so many of the arrangements do not take into consideration the needs of the child. These arrangements follow two well-known rules: the Board of Health "rule-book," with its "regularity and more regularity," never according to the child's own rhythm, but forced on it from the outside, and according to the needs of the hospital. Later on, doctors and pedagogues, all of them "authorities," are equally anxious to teach the child "good" habits of eating, sleeping, cleanliness, etc., and to get rid of "bad" habits such as thumb-sucking, biting, masturbation, sexual curiosity and others.

And there you are, forced to decide whether you will dare carry out your program of freedom, when the doctor, or

perhaps the grandmother, says: "Well, it's your own responsibility." Naturally you don't always dare. Or else there's trouble: the child must go to a hospital, a nursery, a summer camp, and there is no lack of kind people ready to teach the "spoiled darling" to keep himself clean, to "stop crying like that," to stop sucking, etc. Obviously the parent who is well off has a much better chance of overcoming these difficulties than the workingman who lives on the wrong side of the tracks.

Still, the period of early childhood is not the most dangerous nor is it impossible to overcome its dangers. Much greater difficulties face children attending kindergarten or school. Now they come into much greater contact with the outside world and family, neighbors, people on the street or in streetcars, and various official authorities begin to demand obedience. I don't wish to discuss here all the minor dangers in the form of shame, anger, etc., threatening each child who is different from "the way a child ought to be." But one danger is so important for those of you who are kindergarten teachers trying to bring children up in freedom, that you must face it squarely. This danger is that the child may be unavoidably caught in a situation of deep conflict. This may happen when the teacher is giving the child a great measure of freedom while the home, or other parts of the environment, consciously or unconsciously, work in opposition. Such a situation can put the child in a quandary of the worst kind; if you can't get the home environment to change its attitude the only way out is to refuse to take the child into the kindergarten. This is one of the occasions when treatment of the parents is the most important and difficult part of the kindergarten work.

During this period there are also complications from another direction, i.e., when a child wants to induct other children into "bad habits," masturbation or

sexual play, etc., or when he enlightens other children about sex. These difficulties are not too great, however, until the years of puberty. The dangerous period comes a little farther on in school, chiefly for children who cut school and become "vagabonds." Here again my own experience is rather meager. But in the cases I have seen, the children had good reason to stay away from strict and oppressive schools and homes.

If we did not consider that the majority of child care institutions—in their present form—constitute a danger to children, we would naturally have another viewpoint on these questions. But as yet it seems to me that everything we see and hear forces us to this viewpoint. Nowhere is there enough love, and even when there is an honest desire to develop it, the personnel is too limited in number. Practically everywhere the primary concern is to keep the children quiet.

I should like to refer at this point to a case from abroad. A girl of 16, unusually attractive, was brought to a psychiatric clinic. There was nothing whatsoever wrong with her. She had been brought in by the Child Welfare Department of a small country town. When she was about 14 years old and fully developed, the neighbors had her placed in a home for delinquents for having a love affair with a boy of the same age whom she cared for deeply. After that her life became a series of flights from the Home, which always caught up with her and brought her back.

Two years later I saw her by chance again in the same clinic. But now she was suffering from a definite case of hysteria. Her life had continued as before. She had traveled widely, even abroad, but it had been impossible to prove that she had had relations with anyone except the first boy and later only with men for whom she really cared. In spite of her hunted existence she had never prostituted herself and the only time she broke the law was when she and a girl friend took a hotel room without having money to pay the bill.

This case shows, as do Bernfeld's many examples, how destructive is the treatment accorded by society to healthy and free young people. The Child Welfare Department watches over the morals of the young people, as it is called. A man told me he could show me a group of houses in town where the young "savages" are taken away to reform school because of healthy sexual expression during their youth. As a matter of fact, this is not an isolated occurrence. In many countries the youth is threatened by an added danger—the intelligence tests given to determine feeble-mindedness—which in reality mean compulsory sterilization. The doctor is allowed such wide powers of interpretation in these cases that I absolutely cannot feel satisfied or safe, all the more so since I am not convinced as to the dependability of the intelligence tests or the hopelessness of feeble-mindedness (especially the light cases). However that may be, it is undoubtedly true that both sexually and otherwise the dangers attending a free and independent attitude are much greater during puberty. At this time also, strong physical feelings appear, and society has little to offer beyond unemployment and a tragic home environment. Simultaneously, even greater demands are made for "good manners," for example, one should be thankful to one's employer.

And then there are the family quarrels. For many young people, particularly young women, the fear of being thrown out of the home is the greatest obstacle to their own freedom. Add to this the dangers young people face through their own ignorance, and because they do not have access to contraceptive devices or do not dare seek the aid of a doctor to teach them how to use them, etc. At this point more than any other, more freedom is needed. And here particularly, any help is lacking!

Nor are the social dangers of freedom by any means inconsiderable in the case

of the mature person. I am not speaking only of the great leaders of our cultural history, who had the courage and independence to go against the stream. Nearly all pioneers have suffered persecution. They have often been punished by exile or imprisonment. I am not thinking only of pioneers, however, but of each working person who risks his job. Consider the case of a teacher in a country town! Imagine what would happen to him or her if they were to live freely or merely showed serious leanings towards freedom! The intolerance that practically everywhere pursues those who think, feel, or act differently is always sharpest in conservative circles, but it is just as well-developed and inhuman in its expression in the so-called more liberal circles. We have seen this in such liberal cultural organizations as societies for sexual reform and others. I cannot say if the same holds true among so-called progressive educators but Neill says this is the case in England.

The dangers threatening the freedom of mature persons often lie closer home than in organizations or in society generally, e.g., among one's intimate family. No more than to believe in the common idea of freedom can endanger a marriage, as I have recently seen. How much more then, a truly free conception of it! So far as I know, a mere kiss, innocent enough in itself, is often enough to make a young woman wish to have nothing more to do with a man for whom she really cares. You might laugh, if there weren't so much real tragedy in it. We must not forget, however, that these dangers are real. If we want to take the road to freedom, often a very difficult road—and it is worth taking, one's capacity for life grows with each step—we must face all the difficulties and understand that it is our duty to seek to overcome even those which seem to be of minor importance. And we must also understand that for children, the small people of this world—often the biggest,

humanly speaking—the dangers are much greater than for adults, who can rely on authority, position and advice for help.

In the foregoing I have spoken in a general way, emphasizing the idea of freedom, so often and so greatly misused. I have taken as my motto Neill's words: "Let real freedom have a chance, it has so seldom had it." I have disregarded the most serious aspect of the problem, the curative aspect, often purely psychiatric.

However, here we come upon dangers of such proportions that I must call your attention to them. From what I have already stated you will have understood that freedom in education demands more of those who practise it than any other form of upbringing. Consequently I must emphasize that especially in progressive education it is of the utmost importance to recognize the limits of one's knowledge and ability. This becomes particularly important with regard to medical questions, such as the danger of insanity. In dealing with people for whom such a danger exists, in other words with psychopathic cases, the question of a really free attitude as opposed to a forced, so-called free or sensible attitude, takes on particular importance. One of the most tortured human beings I have ever seen was a woman of 50 years, a patient in a psychiatric hospital. The head physician and I were agreed that her condition had been caused by a so-called "wild" psychoanalyst (that is, one not properly trained) who practised "masturbation therapy." He had encouraged this woman, who had been living in sexual abstinence, to masturbate. She was tortured constantly by the strangest sensations in her whole body, not least of all in her sexual organs. This was a very serious case but the occurrence is in itself not uncommon, I believe. Ignorant persons frequently advise people who have unhappy marriages or love affairs to seek sexual satisfaction only—and in this way drive them into conflicts

with which they cannot cope due to guilt feelings and sexual anxiety.

And let me point out here that this is not a matter merely of psychic phenomena.

We have all been brought up to speak of these things (and are even now sometimes forced to do so) as though they were purely mental, touching the organic only in isolated instances. This is not the case. We are dealing with *vegetative* phenomena, i.e., phenomena which are physical and psychic at the same time, as is all being and all form of expression, as is all sexuality, even if at times the physical or mental aspect may predominate. In the example I just mentioned of this tortured woman, the physical expression predominated. Her condition was directly brought on by the compulsion to masturbate and was characterized by violent physical sensations.

On another occasion I have seen a nervous breakdown precipitated by gymnastic attempts to relax the muscles of the face. As contrast, even though I must withhold his identity, I would like to mention the world-famous gymnast whose female pupils experienced the most violent reactions both with regard to sexual liberation and gynecological conditions when he tried to relax their pelvic musculature. He stopped the exercises and said: "This is evidently something fundamental, but I don't understand it and don't know how to manage it. I'll have to leave that to others." He knew quite clearly what he was able to cope with and what he ought to leave alone, and was free enough to leave it alone.

This is exactly what I would like to ask you to do: to work for freedom, work to give both yourselves and the children in your care the chance to live according to your and their own true needs so that you and they will be independent and responsible for your own acts.

And don't be frightened when you realize how many problems we are still un-

able to solve. Don't be afraid of the one thing that often seems so difficult: merely to say, "I don't know anything about this particular problem, I don't understand it—I'll have to leave it alone or pass it on to someone else, or find out where I may learn enough about it to cope with it." Only when you yourself know and admit

all that is not free or that is lacking in yourself will you be able to help others attain freedom.

A philologist friend of mine has told me that *freedom* not only actually but purely from the language point of view has the same meaning as *love*.

THE PLACE OF LITERATURE IN THE CULTURAL STRUGGLE†

By STEFAN HIRNING*

There is a book entitled "*Dachau*," written by a man who calls himself Walter Hornung and who was himself a prisoner in the concentration camp of Dachau. I shall quote his description of the arrival of a new group of prisoners at the camp.

There were twenty-five of them, mostly young people, but also some older men. At the roll call, they marched up in a separate column, with black and blue marks on their faces, their heads as yet not shaved. An SS man ordered: "Right face, march!" They took them over to the meadow. The wind carried the commands: "Stop . . . Get a move on, you swine! . . . Bend your knees . . . Stretch your arms!"

Soon one heard the sound of the first blows. Then the screaming and the blows continued for quite a while.

"Get up—get down!" "Get up—get down!" Faster and faster. The hobnailed boots landed on hips, buttocks and legs.

The prisoners were no longer able to get up; all they could do was to crawl. One of them remained lying, and an SS man pushed his face into the mud.

Then they had to stand in two rows, facing each other: "Hit each other in the mugs!"

The prisoners did not move. "Well?!"

The SS men stood behind the rows. When their command was not obeyed, they pushed the rows against each other so that the heads bumped. The people stood there rigidly like marionettes.

Now the SS men walked between the

rows and hit each of the prisoners in the face. "That's it! That's the way it's done! Now grab each other's hair and get pulling!"

They did not budge. "Well?! Get a move on!" Some of them began hesitatingly to follow the command.

"What? Nobody yelling?" There were new beatings with the fists and kicks with the hobnailed boots.

"Spit in each other's faces!" The SS men held their pistols cocked. The prisoners spit at each other.

"That what you call spitting? Look here!" An SS captain cleared his throat and spit in the face of one of the prisoners. "That's the way!"

Most of the prisoners cleared their throats and spit at each other. "Now lick the stuff off again! Go ahead!"

Some SS men grabbed the prisoners by the hair, pushed their faces together and forced them to lick it off. Others just stood there, pointing their pistols and roaring with laughter.

This concluded the entrance examination. They were marched off. The SS beating commando left the scene in high spirits.

A good many of these twenty-five were intellectuals. A great part of all the thousands of prisoners in the concentration camps are intellectuals—journalists, artists, teachers, writers. It should be noted—particularly at a time when many circles are inclined to speak disparagingly of the intellectuals—that it is just these intellectuals who, along with the Communists, are considered by the Nazis as unregenerate. It is best, therefore, to liquidate them. There are so many and such easy ways of doing that: shot while trying to escape, suicide, heart attack, appendicitis, etc.

I know that many people will resent being reminded of these things. They would rather think about more pleasant things.

But I believe it is extremely important to keep these things in mind. Particularly, as I am going to speak of "The place of literature in the cultural struggle," is it necessary to remind ourselves of the fact: In this way—and often far worse—are a majority of the men being treated who have played a role in cultural life; this in a country which is not far from ours and which we have always considered closely related to ours and even superior to ours in many respects.

The most important task of literature is this: to reflect the times; to portray reality; to show up and unmask the liars; to show to the swindlers who deceive us how they escape the truth; to show the lies with which we gloss over our own defeats; and the daydreams with which we fool ourselves.

Or put it this way: The task of literature is—right here and now—to utilize such freedom as we still have to prevent if possible a further restriction of this freedom; to prevent a "Dachau" here.

People will object: "But that is all so far away! We have so many other problems to solve. It could never happen here! Think of our national character!"

Well and good. But our national character, great as it may be, can nevertheless not prevent us from being killed by the same kind of bullets, from being poisoned by the same kind of gas, from being whipped with the same kind of lashes, from being confused by the same kind of slogans, or from rotting in the same kind of prisons as people of other nations.

For this reason, I shall disregard for the time being the special task of our own literature and confine myself to what literature has in common in all countries.

There is practically a consensus of opinion in most parties and cultural groups that we find ourselves in a very dark cul-

tural situation. There are signs that the culture of today is on the verge of perishing in its own cubbyholes. Technic develops at a terrific speed and cultural institutions with it. At the same time we see an ever-increasing tendency to what we might call the tyranny of the institution over man.

Wherever we look, we see how the various cultural institutions rapidly become the tombs of the very culture which they were supposed to keep alive. It is almost as if it had become a natural law that any institution, the moment it is created for the purpose of guarding a cultural gain, begins to betray it. In honor of culture, magnificent palaces are erected in which culture is imprisoned in a padded cell.

The Nobel Institute is a typical example. Founded to serve the purposes of peace, this is what it looks like in reality: it seems as if one had to be a general, war minister or member of the munitions industry, otherwise one does not have a chance as a candidate for the Peace prize.

This sinister development is most clearly visible in Germany. There the all-embracing cultural institution, the State, is on the way to becoming a cannibalistic monster. Unblushingly, the new gospel is being preached: Man exists only for the State, for the totalitarian State symbolized in the person of the Führer. And the totalitarian state—explains Ludendorff quite logically—has only *one* goal: the totalitarian war. We do not have to ask what totalitarian war will result in: it must lead to the total extermination of humanity.

The concentration camp at Dachau is not some accidental excess. It is the way in which the totalitarian state, of necessity, must proceed against its natural enemy, the thinking human. And as long as this state of affairs is not an exceptional one, as long as we see similar conditions in Italy, Japan and other totalitarian countries, as long as this emotional and social state of affairs has the tendency to spread, the most

† Translated by the Editor.

* This is a pseudonym. Present conditions force us, unfortunately, to withhold the names of our European co-workers.

This article was written in 1936. We publish it because, to our knowledge, it is the best thing that has been written on the subject, and because its contents are as true—and as timely—as they were in 1936.

important task for us who consider this development the worst of all disasters, is to clarify the questions:

Is this inevitable? Why is this so? Is this development an inescapable fate to which the world has to resign itself—or can it be stopped and overcome by correct insight and correct action?

If the reaction—as has happened in past years—goes from one triumph to another, then great masses of people develop a defeatist attitude, which attitude paves the way for new reactionary triumphs. There develops a vicious circle, a phenomenon which could almost make one believe in an "evil principle" at work in this world. In the following pages, we will meet this vicious circle again and again.

To a victory of the reaction, a great many people react like this:

"What's happened and what's happening seems to be unavoidable. It's fate." Or they think in despair, "After all, there must be something to it, if it is so successful." Or they think, "It's no use."

And they become passive, resigned, fatalistic; they fold their hands in their laps and let the evil take its course. It is this fatalistic attitude springing from defeat which paves the way for new defeats. It is this submission to fate which *creates* fate. The question remains: Is this submission inescapable? Is there no way of dealing with it? Our inner answer to this question determines, indeed, our attitude toward all problems of our time.

To begin with, we find the following: this defeatist attitude spreads apprehensiveness and thus conservatism in all previously liberal camps. For what is the core of all conservatism? Passivity, giving in, defeatism. (It is not by accident that the oldsters, those with a weakened vitality, are "naturally" conservative.)

The conservatives think:

It has always been as it is and it will always be so. There is no use doing anything against it. Furthermore, it would be

wrong to do anything against it, because if it is this way it's probably good. But whatever the arguments may be, they say, first and last: There is no use fighting.

Under this slogan, the innermost meaning of which is, "*Death* is approaching, but there is no use trying to run away from it," under this slogan incalculable generations of youngsters have been cheated out of life.

One thing is certain: If we give in to this slogan, we betray intellectual life. Conservatism and defeatism never give rise to an intellectual life. The first prerequisite of all intellectual life is: *There is use in it.*

One of the most dangerous results of the triumphs of the reaction and particularly of Hitler is a new and increasing contempt for the masses. This contempt spreads in all camps and paves the way, by tricky means, for reactionary thinking. A vicious circle.

Hitler has given this contempt of the masses startlingly candid expression (he himself being, emotionally, an outspoken "mass individual"). Again and again he has called the masses "pliable putty," intrinsically passive and feminine, incapable of thinking, but endowed with strong feelings, with a strong unconscious desire to be brutalized, to be ordered around, to be taken in hand and guided. His success would seem to prove him correct.

Another result of the Fascist triumph is an increasing contempt for the woman, an accentuated anti-feminist attitude in many groups. Another vicious circle.

For about six thousand years, during the whole period of history which we call the patriarchal one, the woman has been more or less suppressed. During the past few generations, weak attempts have been made in many countries to give the woman more equality.

What is the result? We don't have to look far to see that it is a disappointment. This disappointment is not everywhere as tangible as it recently became in Spain.

There, the left parties, after the revolution, achieved for women the right to vote. And then, at the first election, the women went out and voted just as their father confessors had told them to vote: strictly against their own interest, *for* their own suppression, *against* their own right to vote and *against* the very parties which had endeavored to return to them a part of their human rights. That was in Spain. But has not every other country had similar experiences?

After such experiences, one is inclined to think in one's disappointment, "There is no use giving this creature freedom, equality and rights. Plainly, she does not want them." And the reaction triumphs.

But we forget something important. This suppression has existed for thousands of years. It has deposited in all of us an intricate system of ideas, thinking habits and attitudes. The ideas of the inequality of man and woman have become a second nature with us, they have become an organic part of us, they *have changed us*. Then how could something as external as the right to vote suddenly change all this?

He who is being suppressed must of necessity in the long run adapt himself to the suppression; more than that, he must, if possible, derive advantages from it. But to derive advantages from an existing condition means inevitably to accept it, at least to a certain degree.

But not only the suppressed undergo a change; so does the suppressor. This is particularly evident with regard to man and woman. Get a number of men together and let them talk frankly. Regardless of their class differences or nationality, they will soon agree on one point: Woman is *weak, false* and a *liar*. And the women among themselves will soon agree that while the man is strong, and good on the football field, etc., he is at the same time stupid and easy to fool. This mutual hatred, this mutual contempt, is the basis of "love" in our times. Contempt, in the man,

breeds brutality. And his brutality breeds—in the woman—slyness, falseness and lying. A vicious circle—to the advantage of all reaction.

If people, from earliest infancy, are brought up to fear, to detest, to condemn and to suppress most of their natural desires, drives and needs, everything that has to do with sexuality; if these people as a result of this repression, gradually become crippled inwardly to such an extent that they themselves continue the suppression even after the external force is removed, they remind one of a person who in the course of time has developed such a fear of all that which is supposedly unclean that he no longer dares ever to clean up his room. He opens the cellar trap and—hastily and looking away—he sweeps everything doubtful down into the cellar and quickly slams the trapdoor again. What he swept down is not necessarily unclean. But when those things go on rotting in the cellar, without light, air and control, and stuff of the same kind is being added to it, it smolders into a heap of forbidden drives, of ungratified desires, of unconscious envy and hatred—until the *repressed* nature of these good people is as sinister, disgusting and dangerous as they believe the whole nature of bad people to be.

The *Evening Sun*, the largest conservative newspaper of the country, is the guardian of our morals. It fights against "pornography and sexual enlightenment"; to it, these two things are practically synonymous. It fights against the freedom of youth, against radical literature, against that horror which they call "the sexual chaos," the thing that would arise were one to eliminate the sexual prohibitions.

We laugh about it or we get annoyed, but we should not forget that from the point of view of their level and from their ignorance of that level, the *Evening Sun* is, in its way, correct.

The *Evening Sun's* unconscious is

pornographic (see above)—and the *Evening Sun* has itself an inkling of this fact. It so happens that in that kind of human the cellar trap does not close hermetically. Thus, a whiff of something occasionally ascends from the cellar to the front parlor.

No, they are right, in a way. There is a good reason why the *Evening Sun* can think of erotic freedom only in terms of brutality, perversions, promiscuity and chaos. There can be no doubt: if one were to free all these good people suddenly, as if by magic, of their sexual inhibitions, bad things would indeed happen. It would be like suddenly letting all the inmates of Sing Sing or Alcatraz out of prison and giving them a loaded gun and saying, Go ahead. Crime and chaos would result.

But we had no intention of liberating the *Evening Sun*. I even apologize for using its name as symbol for a whole milieu. This milieu will perish from its own defects. What matters is the coming generations, the people who have not yet been ruined, who still have a chance for a richer, freer and happier life.

Here, too, we should guard against illusions. They would have evil consequences for us and for youth. We have to realize clearly the fact that in the process of bringing about more freedom, socially, economically and sexually, there also will occur chaotic things. This is inevitable. We must remember that at the age of twenty, a person already has a long life behind him; as far as character formation is concerned, by far the greatest part of his life. In our society, he is, at that age, already broken and suppressed in one or many ways—or else he would not be in need of our help for liberation. There *will be* chaotic things which will cause angry shouts and indignant agitation. He who wants to get over a mountain which lies in his path must be willing to go uphill for a time.

Now as to the central problem, in which the reaction finds its most numerous and willing helpers.

In all kinds of ways, on thousands of occasions, directly and indirectly, we have been told: there is, and there always has been, and always will be, a *fateful and inescapable, a sad but unavoidable conflict between nature and culture*. Intellectual work, in the psychological jargon of our times, stems from the sublimation of the energy of primitive drives. That is, all intellectual work derives its energy, directly or indirectly, from these drives. Conversely, these drives—what is always meant and never mentioned is the sexual drive—if completely gratified, would drain energy, time and interest from intellectual work. Therefore, they are inimical to culture.

Some cultural philosophers have even gone a step further and contend that all culture is based on social injustice. Too bad, they say, but that's the way it has to be. In order to give some people the necessary time and opportunity for cultural work, others have to slave all the harder, at menial work and for less pay, so that there is a surplus for him who sits and thinks. Yes, they say, that is sad and somewhat offensive to our sense of justice, but that's the way it is and always will be.

This cultural philosophy gained some support from Sigmund Freud's later writings. Ordinarily, Freud is thought of as the incarnation of radicalism in psychic life; he was attacked violently for his destructive, revolutionary, poisonous radicalism. Hardly any of those who thus attacked him, however, are aware of the fact that Freud, in his later years, developed into something of a conservative old gentleman. The attackers are unaware of this, because, to be entirely on the safe side, they did not read Freud.

In his early years, Freud made great, epochal discoveries. He discovered infantile sexuality, the existence of which is no longer debated by any thinking person. He found, further, that the prohibition against the natural unfolding of this infantile sexuality, that is, its repression, leads

to all the neuroses which plague the world like a pestilence and represent the most terrifying, the most widespread, the most fateful disease of our times.

By his therapeutic method, Freud was able, in the individual case, to eliminate the neurosis more or less. But it was a method which was costly in time and money and never could become a therapy on a mass scale. What, then, should be done to help the masses of people with *their* neuroses?

The dependence of the masses, their passivity, their anxiousness and their authoritarian submissiveness which make them easy prey to a Hitler, a Mussolini and all the other demagogues, are caused not alone by poverty, poor housing, and all the inferiority feelings connected with these things. They are caused *also* by the neurosis which is produced by a kind of education the main function of which is that of suppressing and immobilizing major parts of the vital energies.

We must ask: Must this be so? Is it, indeed, necessary to keep the masses suppressed, in dirt, rags, and poverty, in order to make it possible for culture to exist?

A very high percentage of women in Europe and America are frigid, sexually cold; their central source of life and joy is extinguished; they experience living with the man as a painful burden; they finally begin to hate sexual life and the man; they make living together a hell and transfer their anxiety and their hatred to their children. This is caused in part by ignorance and brutality on the part of the man, an ignorance caused and maintained by anxiety, and in part by a genital anxiety acquired by the woman in childhood.

But that is how things are. One used to think that about half the women, were more or less frigid. Later, more extensive investigations showed these figures to be much higher: at least 90 percent of the people are psychic invalids, are broken and rotten in a most essential part of their

vital functioning. Should they continue to be invalids in order to make it possible for cultural philosophers to sit in their ivory towers and think?

Here, Freud and his school have evaded the central issue in a definite way and to an increasing degree. They cure the individual case and then, when the sick, frightened individual is delivered from his fears and the sexual life energy becomes free, they try to immobilize it anew. There it is, the energy, but if it were going to be used for what it should be used, well—one might come into conflict with traditional morals. So, the energy has to be sublimated, into intellectual work, esthetic enjoyment, athletic achievements, etc.

In fact, in his later works Freud gave support to the conservative, Christian, puritanical and ascetic concept that culture develops at the expense of natural drives, that, in other words, there is an antithesis between nature and culture.

But other investigators have corrected these errors of Freud and have developed his investigations further. Here, Wilhelm Reich has to be mentioned in the first place. He not only developed further Freud's depth-psychological work, but also utilized depth-psychological findings sociologically, pointing out the inescapable consequences which have to be drawn from this knowledge. Of his works, I wish to mention especially the following:

Massenpsychologie des Faschismus,
Einbruch der Sexualmoral, and
Die Sexualität im Kulturkampf.

Three books which nobody who wants to become acquainted with the cultural problems of our times can afford to ignore.

What do Reich's findings show with regard to the contention of the necessity of a conflict between nature and culture?

Yes, they show, *there is* such a conflict between nature and culture. But what culture? The authoritarian, patriarchal culture.

This culture, indeed, is based on two

principles: economic exploitation and sexual repression. But why is sexual repression necessary? Because it is one of the essential means of economic enslavement.

Sexual repression is one essential element in an education which has as its main goal that of instilling *fear* in the child, of giving it *guilt feelings*, of dinning into it all kinds of prohibitions, and of making it quiet, devout, apprehensive and dependent.

The sexual prohibition is the most important of these prohibitions, the most fateful of them, that which requires the greatest amount of energy for its maintenance.

This is really the way it is. The kindly, dependent, apprehensive, warped adult really consumes an essential part of his vital energies in the process of *suppressing* his vital energies, in obedience to the rules which in early, painful, now forgotten years were drilled into him by his parents who had been suppressed in the same manner; parents who, unwittingly, took revenge on their children for the suffering which was inflicted on themselves when they were children. Here we have the vicious circle at its worst, in its most terrifying form.

In other words, it is not true that suppression of natural drives *as such* furthers cultural achievement. Rather, this suppression serves the purpose of maintaining a definite social and cultural *status quo*. It makes man weak, cowardly, indolent and stupid, and at the same time insecure, full of guilt feelings, easy to manage, easy to exploit. It makes him a member of the masses which become putty in the hands of ruthless demagogues.

Now, let us assume that this man, seemingly, rises above the mass. He becomes an intellectual worker and may imagine himself to have attained a position outside and above the struggle of parties and classes, a free man, guided only by his free thinking which he himself creates. But wait a moment. The devil has moved along with

him. Sexual repression took hold of his body when he was a child—it is still with him. He is full of inhibitions, full of fear of complete vital fulfilment, though he may put it differently. He may say: *he has risen above the animal in himself*, or what not. Very frequently, he becomes more and more hateful of those who *allow themselves* full happiness in life. He may express it like this: *he fights for purity*. Actually, it means this: with all his intellectual freedom, he nevertheless is an obedient executive of that fear of life which once was forced upon him.

So one has to ask: Will not culture be endangered if the natural vital drives are given the freedom to develop? The answer is: certainly. That culture which is built upon suppression and fear will be endangered. That culture which lives on slavery, that culture which buys one fellow's wealth—no, not even wealth, his burdensome superabundance—with the misery of hundreds of human beings; this culture will be in danger once the natural vital forces are free to unfold in enjoyment and cultural achievement.

In short: the struggle for economic freedom and the struggle for sexual freedom are not two separate kinds of struggle. It is the same struggle, on one and the same front. One can go a step further and say: the fight against the reaction will not be effective until this fact is again recognized as a fact.

What, then, is the task of literature in all this? As we said, the task of literature is to reflect the times and to convey new insights. To this I would like to add: If, in doing so, literature fails to take the side of the weak against the strong, it has, nevertheless, failed in its task.

One may object: does that not mean making the confines of literature too narrow, too programmatic? Think of freedom . . . Well, freedom is a fine thing. And people, writers no less than others, certainly are entitled to their right of self-

determination. But when a fellow sits down to figure out a particularly clever, patentable water pail at a time when his house is burning over his head, well, we may not take away his right to self-determination, but we will feel that something must be wrong with him. Similarly, when a writer, in these our times, loses himself in exclusively esthetic problems—"art for art's sake"—we may be allowed to say: something must be wrong with him. We cannot be blamed for showing little interest in his esthetic water pail.

In these times, when culture threatens to be buried under cultural institutions, when discipline is proclaimed the greatest virtue, when murder is being made the highest goal in life, in these times literature has more difficult and more important tasks than ever. It has to be a salient and corrosive corrective of present-day circumstances. It seems to me that writers, due to their special characteristics, good and bad, are particularly suited to such sanitation work.

Not because they are superior to their fellow humans, but because they are a little different in a specific way.

Writers are very often people who have found it difficult to fit into a certain social mold. Well, if an object does not fit into a mold, the trouble may be with the mold or it may be with the object. The writers have the advantage of being sort of moving objects in a society which is in danger of becoming immobile. Furthermore, the writer is relatively—I emphasize, relatively—independent of the major cultural institutions. Writers, like artists in general, have the reputation of being a little less easy to rule than people in general. They seem somewhat like problem children.

But the childlike quality which the artists have retained and which in other people is more covered up because of fear of what this and that and the other person would think if they showed it—this quality is nothing but original nature within

us. On the strength of this original nature, the artists establish contact with their fellow humans. On the strength of this original, still living nature, literature may fulfil a task in a world in which logic and technic have developed in a crazy, life-hostile form and continue to grow out of bounds like a cancer.

Here we need a yelp from one of these problem children. It was one of these problem children who exclaimed at one time, "But he's got no clothes on!"

We have to keep this in mind: If such a literature is to have any justification for existence, it must go beyond the limits of what is considered *fitting*. The reason lies in the word itself. What is "fitting" is that which fits the powers that be. *But it cannot be the task of literature to suit the powers that be.*

If literature is really to be serious and "unfitting," it will inevitably be called irresponsible and immoral. It will be accused of "tearing down that which is sacred."

But there is hardly any indecency in the world which was not declared sacred at one time or another. And hardly any decent thing which was not declared immoral.

Thus, anyone who intends to achieve something positive in our times will have to expect to be called negative. There is even some justification in calling him that. For that which is warped and indecent has authority and power. Thus, anyone who wants to build up something is forced, to begin with, to pull down something else. Anyone who believes in something—really believes, I mean—will have to criticize, to deride, to annoy.

In times like these, characterized by falsehood, excess and abuse as well as by people's stupidity, credulity and readiness to be abused, literature may be forced to use harsh methods. One does not go at a manure pile with a silver spoon.

We have to be prepared to do literary

spade work for a long time, perhaps all our lives, work in the actual everyday struggle, without a chance of seeing results during our lifetime. But we have to do it, we have to be prepared to be that simple. Our predecessors were somewhat too refined.

Our predecessors worked so nicely with intricate equations that the whole world came to forget that two times two still make four. We have to be prepared to pay for that.

This is nothing to cry about, at that. Most writers who in their foolishness sit in their ivory tower and write for eternity achieve nothing, but the erection of an eternal monument to their foolishness. Their work usually has no other interest, not even for the present.

To summarize:

It is *not* true that the often irrational behavior of woman proves her inferiority and that, therefore, the age-old suppression of woman is justified. The truth is that continued suppression always results in inferiority. It is the task of literature to show this.

It is *not* true that nature and culture are of necessity opposed to each other and that suppression of the natural impulses, fear of a natural life, are prerequisites for intellectual achievement.

The truth is that a healthy enjoyment of life is the soundest basis for intellectual work. And it is one of the tasks of literature to show this. Incidentally, the poets have always been more or less aware of this truth and have defended it, although

vaguely. *Back to nature*, they said, which meant implicitly, *Away from culture*; instead of: *Ahead toward a unification of nature and culture*.

It is *not* true that the masses always have to be passive and receptive, nothing but putty to be shaped by someone, to have their opinions and actions determined by the few and chosen. That is the way it is, the way it often *has been*, but it does not have to be that way always! That is not *fate*; it is a transitional stage. Neither is it an inescapable fate that mentally ill demagogues are able to establish contact—just on the strength of their illness—with that which is ill in the masses and thus become able to play “Führer” roles. This is a sad transitional stage. And it is one of the tasks of literature to help in the transition to something else.

It is *not* true that that which is so and so and has been so and so also has to remain so forever. It is not true that suppression always has to exist in one form or another, creating hatred which in turn leads to revolution and revenge and with that to new suppression and new hatred.

It is *not* true that humanity is condemned to go around and around forever and ever in this miserable circle of fear and suppression, hatred and revenge. There is a way out of this circle. The way out is *knowledge*, a new and sharper knowledge.

This, the conveying of a clearer, more open, less apprehensive knowledge in *all* fields, is the main task of literature.

CHARACTER AND SOCIETY†

By WILHELM REICH, M.D.*

Editor's note: This article was written in Europe and before the present war. Many statements in it pertain specifically to pre-war Germany. However, to the discriminating reader this article will be of interest because many observations pertain not to Germany alone, but to all countries alike. The publication of this article at this time will enable the reader to recognize those facts which are as true of America in 1942 as they were of Europe in 1936, and to distinguish them from those other facts which have been forced on us in defense against the threat of Fascism. “Militarism” is a characteristic of Germany, but not of America. Though not an American characteristic, it has been forced on us now by the threat of Hitler. But the fact has to be kept in mind that militarism, even if enforced upon a nation from the outside, has an inherent tendency to perpetuate itself. This is apt to happen unless we are careful not to lose sight of the distinction between killing *for pleasure* and killing *in self-defense*.

In order to make my main subject clear, I have to start out with a brief historical review of the position of psychology in science. It originated from highly complicated developments in science, against the background of a medieval atmosphere of mysticism. The beginning of the machine age led to the development of mechanistic materialism which influenced human thinking decisively. On the one hand, the physical sciences led to enormous discoveries; on the other hand, their application to the problem of psychology and philosophy led to a complete denial of the existence of the psyche. As a reaction to mechanistic materialism, there arose a metaphysical ideology which considered the body dependent on the mind, and the latter as something supernatural. To this day, there are various psychological schools which treat the problems of psychic life without any connection with their material basis.

The first basis of a scientific psychology was laid by Freud. He introduced genetic

and causal thinking into psychology. At that time the questions, “Why is this so or so in psychic life?”, or “How did it develop?”, were unusual; today, they are a matter of course in psychological thinking. To try to understand human activity from the individual development meant also the application—even though unconscious—of the functional method in psychology. The introduction of the *concept* of “psychic energy” was revolutionary; however, Freud did not succeed in making this concept more than a simile.

All psychological schools stop at two lines. One line is that against *biology*. It is not very sharply drawn; the question as to how psychic functioning develops out of biological functioning was ever present in psychoanalytic work. In contrast, Freud drew a very sharp line against *sociology*. More than that, one feels that stepping over that line is actually being dreaded and prevented by all means.

A few decades before the beginnings of a scientific psychology, Marx laid the foundation for a scientific sociology. He realized the dependence of human activity and social ideology on social and economic processes. To this dependence, Freud added

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another: the dependence on unconscious drives. During the past twenty years, the seeming incompatibility of these two views has been shown again and again. On the one hand, human existence seemed to be determined by economic and sociological factors, and on the other hand, by biological drives. The problem was made even more difficult by a certain development in psychoanalytic psychology: the increasing tendency to "psychologize" sociology as well as biology, that is, to attempt to comprehend sociology and biology with the aid of concepts which can be valid only in the sphere of psychic functioning. True, Freud's point of departure had been the conflict between ego and outer world; it was not difficult later to recognize authoritarian society as the concrete factor in the outer world. But it soon became clear that the correct recognition was covered up and nullified by a biologicistic concept of the absolute and eternal nature of the family and of the unconscious. On the other hand, the lack of psychological thinking in Marxism led to economism, an ideology characterized by a complete lack of understanding of psychological facts and processes; it was one of the main factors in the victory of the political reaction in Germany. Freudian psychology, on its part, showed an equal lack of consistent sociological thinking; it remained unaware of the dependence of all psychic processes on the social process. This lack of psychological thinking on the one side, and of sociological thinking on the other, was a serious obstacle in the development of Marxist sociology as well as of psychanalysis.

The repudiation of the erroneous theoretical development in psychoanalysis and in economism resulted in sex-economy and political psychology. Their chief characteristic is that they have abandoned the respect for the two above-mentioned demarcation lines. In this psychology, the drives and the unconscious are no longer something either supernatural or somehow the

root of all things, but they are something which can be comprehended from two sides, the biological and the sociological. Only if we fully recognize this double dependency is it possible to comprehend the laws of psychic functioning, those that have already been uncovered as well as those which still are to be discovered. This raises two fundamental questions: First: *What is the relationship between the psychic and the somatic?* Without an answer, in terms of natural science, to this essentially unsolved question, the dynamics of psychic life, particularly of emotional life, cannot be understood sufficiently to develop a basis for practical endeavor. This question I shall not enter upon today. Second: *What is the connection between psychic structure and social structure?* I shall try to sketch a few of these connections.

Freud's genetic causalism made it possible to understand for what reasons of individual development a person had become as he was and not any different; however, this purely genetic and individual knowledge does not suffice to change an actual situation. For example, I can find out exactly what historical conditions led to the development of Fascism; but, no matter how many of these historical conditions I collect, they still do not indicate how Fascism might be overcome.

The same is true in psychic life. If an individual gives the impression of being beaten and I find that genetically this derives from severe oppression and beatings in early childhood, I will be able to understand every single trait of this beaten attitude; but that does not suggest how the individual could possibly overcome this attitude. If it is found that people react in an infantile manner because they have remained fixed in certain developmental stages, we must ask a further question: *What makes them maintain this infantile attitude, today, under changed circumstances?*

The Freudian concept of fixation in the infantile does not answer the question, for fixation itself is nothing but a description of the fact that these people remain infantile. Nor is the answer that it is repression which maintains the fixation satisfactory, for: what gives to the repression its strength and tenacity? The answer is simple. The same factors which, in infancy, produced repression and the fixation on the infantile level, continue to act throughout life, exactly in the sense of the early developmental inhibition. It is not a matter of a psychic state which was created at one time and continued to exist by itself, without any external influence; it is a matter of an inhibitory influence exerted by society all along. The fixation on an infantile level of sexual gratification can persist only for the one reason that society continues to prevent the attainment of actual sexual gratification. With that, we arrive immediately at the problem of social structure. The question arises: *What interest has society in keeping people on an infantile level by denying them the possibilities of developing a full love life?* This question had never been answered; more than that, it had not been raised.

In this connection I would like to try again to clarify a common and stupid misunderstanding. In discussions about the role of psychology in sociology one hears again and again a typical objection: "But, what about economic factors?" Erroneous concepts have an incredible longevity. There is no more erroneous question than this. The economic existence of man cannot be contradistinguished from his psychic existence. There are no factors in human existence which do not exert their influence through psychic life.

The effect of machines does not lie in the fact that they run, but in the fact that people work with them and that by doing so they change structurally. Human existence in general and social existence in particular have an effect only on the basis of

the changes they bring about in human structure and the activities which they force on people.

Now, as to character formation. By character, sex-economy means the typical way of reacting which has become structure. If groups of people, as, e.g., laborers, businessmen, etc., have a certain typical behavior in common, this behavior represents the influence of a typical common social situation upon their structure. Character formation is the result of an impact between vegetative, biological instinctual energies on the one hand and social existence on the other. But it is not a matter of the abstract and theoretical finding that character structure results from the conflict between biological and sociological factors. What matters is that *the resulting character traits are functionally identical with certain factors of our social structure and ideology.*

Biological functioning is governed by the laws of development, by the processes of storing and discharging energy, by a rhythmic alternation of activity and rest. The alternation of storing and discharging energy is experienced as a pulsation and a current in the body. There are people who appear completely rigid, un-alive and devoid of emotion, who have never known or admitted impulses of anger, love or anxiety. Today, character-analytic technique enables us to make these people again experience these vegetative currents and their biological pulsation. Previously, the patients complained that they did not feel alive, that they felt dead, etc. This means that by dissolving the rigid character attitudes, which are experienced as an armoring, we can liberate biological energies which were previously bound up. It was found experimentally that these energies are identical with bio-electrical energy [orgonotic energy, as we would say now.—Ed.].

This is of fundamental importance for character formation. Let us illustrate the

conflict between vegetative impulse and social pressure with the sphincter training of infants as it is practised in our society. We know that up to the age of three or four, children can be very much alive, and that at the age of about five they begin to go cold; they become "well-behaved." They lose the essential part of their motility. As things are today, this loss is essentially due to the prevailing method of sphincter training. If the child gives in to its impulse to soil, it is severely rebuked; the same is true of many other motor impulses. A conflict arises between "I want to" and "I may not." At first the child is torn between giving in to the desire on the one hand and fear of punishment on the other. It cannot stand this situation for long. It has to fight its own impulses, but also the prohibition. The child, previously active and lively, begins to watch itself; its muscular attitudes lose their naturalness and become rigid; the child becomes cold and rigid, in short, a "well-behaved" child who has adjusted itself to education, i.e., to society. While previously it showed a rhythmical biological alternation of tension and relaxation, it now begins to show a mechanism which is of decisive importance for the development of that contradictory character structure which is typical of authoritarian society. True, the newly acquired coldness and rigidity immobilize a part of the vegetative energy, but the body continues to produce new amounts of energy. But now, an inhibitory mechanism being present, the energy cannot be discharged as freely as before. Due to this inhibition of energy discharge, the pressure from within keeps growing; this necessitates an ever-increasing inhibition of the impulses. This chronic mechanism of inhibition I termed the *armor*. It expresses itself in character attitudes as well as in muscular attitudes. Everybody can feel the wall between himself and the world. It shows itself in the fact that one cannot establish an immediate natural contact

with people, in unnatural attempts to establish contact, in compulsive sociability, the fact that one can be lonely even though in company, etc.

After the armoring has taken place, there is a conflict between instinct and inhibition (morals or anxiety) which previously did not exist, because the child was born without morals and its activities were regulated by the biological principle of tension and relaxation. The difference between *natural biological self-regulation* and *moral regulation* of instinctual life is like that between a natural river and one that is dammed up. Under natural conditions, the river runs according to the natural contours of the land and according to its amount of water; when dammed up, it inundates the land and forms all kinds of secondary streams which may cause serious destruction. Exactly the same happens in instinctual life. The natural drives of the child, to eat, to suck, to exercise its musculature, to derive pleasure from its intestinal function and its genital, remain socially harmless and only further the child's development as long as they are not being inhibited. In the course of natural development, one interest after the other is replaced by a new one. However, society inhibits each successive phase of development by educational measures; this inhibition again and again creates artificial, unnatural cravings. The child acquires a sharp discrepancy between its own natural being and that which culture implants in it. This discrepancy merely reflects the absolute contradiction of culture and nature, of instinct and morality which is the characteristic of modern society. The natural reaction of the child is replaced by the compulsive antithesis of "this is bad" and "this is good." A child with a strong impulse to motor activity, having to wear a clean party dress and having to be careful not to get "dirty," because the mother likes it to look like a cute little doll, is one of the sorriest spectacles. Our experiences

leave no doubt that such suppression of infantile motor activity is one of the most harmful influences a child may experience. The control which the child has to exercise over itself, quite unnecessarily and only for the sake of a dubious "refinement," results in a disturbed household of its vegetative energy. This process of replacing natural behavior by artificial attitudes can be observed in every aspect of the child's life.

A second illustration of the armoring as a result of the conflict between instinct and outer world is the pleasure anxiety which takes its definite form in puberty. Adolescents of 11, 12 or 13 are still quite lively or have again become so; at the age of 16 or 17 they change again and grow cold as they did as children. With adolescents of about 14 or 15, one usually can talk rather freely about their sexuality; afterwards, it is more difficult, because they become inaccessible. This change from aliveness to coldness is a repetition of the same process which took place in childhood.

The most general result for character formation is the mutual lack of contact and the replacement of natural human relationships by artificial, formalistic relationships. In spite of our collective living, there are only rare individuals who are not fundamentally lonely, empty and superficial. This psychic situation creates the longing for "release," even for "dissolution" (vegetative, orgasmic longing). People have lost the capacity for freely swimming in the current of life. If, deep inside, they feel their will to live, but, due to their armoring, cannot express it, they must needs develop a longing for the "great experience." This longing is sentimental, or dreamy, and in most cases very vague and confused; it is a longing for something which will release them from their armor, from their isolation. In addition, people who cannot express their living motor activity must of necessity become afraid of life, helpless in the face of tasks

and happenings which, under normal circumstances and with their knowledge and technic, they could master without any difficulty. On the one hand, they are too well adjusted to the destructive demands of so-called culture; on the other hand, they have lost the ability to overcome real difficulties with which the times, circumstances and social processes confront them. One has only to listen to the usual conversations on the street, in the family, the restaurant, etc. What people say to each other is incredibly superficial; it does not touch upon the real problems of life; it shows complete lack of critique in the face of the most stupid ideologies. More than that, there is no doubt that the average human of today does not like being brought in contact with serious questions. Behind this dislike, one easily discerns a deep fear. The facial expression of people on the streets and their whole bodily attitude are cowed, un-alive; they reflect the misery of life.

However, it would be erroneous to conclude from this superficiality, as the "God-sent" Führers of millions do, that people are so stupid that you can pour into them whatever you want to. These same people who appear so superficial, empty and stupid, develop, under treatment, abilities, attitudes and a thinking which not infrequently can compare with that of great thinkers. This is no exaggeration. It only means that the general inhibition of life is reflected in the inhibition of the individual's capacity to be really himself. People are different on the outside and the inside, they are one way in a good friendship and another way in official life; different in their professional life and their private life. Life as we see it around us is a *substitute life*.

Let us try to get a general idea of the connection between the ideological structure of our society and the psychic structure of its individuals. Mechanized economy, this characteristic of our civilization,

is reflected in the mechanized human, in the empty life led by the factory or office worker of today from his 16th to his 60th year.

The problems we are dealing with here are found in a realm which official science is loath to approach. I have been observing for months the following picture in my neighborhood: Across the street lives a young official with his wife and a small child. Every morning on the dot of nine he leaves the house. On the stoop, he takes leave of his wife and child with a perfunctory kiss on the forehead and then he waves to them. Then he takes five or six steps, turns to the left and again waves bye-bye. We have no reason to doubt that he will repeat this same thing for another 30 years. One must ask oneself what mechanisms make it possible for a living being to carry out such automatic behavior, how he can stand it and how he can fail to take cognizance of it. Sex-economic clinical experience answers this question only in part. It explains the dynamics and the mechanisms of such unnatural behavior. But it does not explain the social function of such a phenomenon.

The fact that people of our civilization are cold, that they are walking corpses, that they are armored, is a highly important and interesting clinical phenomenon. But what function does it serve in society? We know that there is a profit economy and how it functions. But we have to ask the further question: How is it possible that people can bear it, that they are unable to change it, that they seem to endure in silence the suffering it imposes on them? The majority of people are being suppressed and exploited. The police does not have the function of satisfying people's "need for punishment," as some psychoanalysts contend; it has the function of keeping people from voicing their protests in an effective manner. The decisive factor lies in the average human character structure, in its false modesty and lack of criti-

cal faculties. From infancy on, people are trained to be falsely modest, self-effacing and mechanically obedient, trained to suppress their natural instinctual energies. Social ideology is governed by asceticism and duty in the service of a senseless "altruism." These basic elements of any reactionary ideology are represented in the human character structure by the *pleasure anxiety* which was acquired in childhood, and the inability to experience work as pleasure instead of as loathsome duty. Character-analytic therapeutic experience shows clearly that individuals who have come to know pleasure in activity and work become unable to engage in the usual kind of pleasureless work as duty without developing a strong inner aversion to it. But this aversion, the inner protest, on the part of the majority of people, would be the first prerequisite for a change of work itself.

In the ideology of our society, the antithesis of *morality and sexuality* plays a decisive role. Owing to this fact, hardly any human in this society can engage in a pleasurable activity without reacting, consciously or unconsciously, with guilt feelings. The antithesis of sexuality and morality in social ideology is also found in the human structure. It is anchored there physiologically in chronic muscular spasms which prevent the occurrence of biological sexual excitation.

Another example which strikes every thinking person is the fact that vast masses of people fulfil the ideology of "dying for one's country" with such punctiliousness, even abandonment. How is it possible, we must ask ourselves, that such a life-negative demand is accepted without any protest? That the demand is made is not the problem. The problem is the question as to why millions of people actually follow the demand and die for a country whose brutality and life-negating program is obvious. The usual answer is that the people are forced by machine guns to do

so. But if one looks at the behavior of the masses previous to the world war and now, one must conclude that this is not the answer. There is something at work in the people themselves which saves those interested in making war the necessity of using machine guns. Let us examine this in terms of an illustration.

Imagine the youth of 18 to 25 in any small place. The young people are lonely, unsatisfied in their material and cultural needs, unsatisfied in their natural biological needs, bored with their work, and tremendously suppressed at home. They hang out on street corners, killing time telling silly stories and displaying thoroughly unnatural sexual interests. Bored and dissatisfied as they are, the longing for the "great experience" inevitably becomes a central part of their structure. We have to remember that this longing has a very material basis in the above-described longing for the release from instinctual pressure. We are going through times now in which the magnitude of these phenomena becomes unequivocally clear. War is imminent; everybody has the feeling that nothing can be done about it; they are convinced that it will come like a fate and that it cannot be escaped. Of course, the fear of dying, of being crippled, etc., is there in all its biological strength; but it is completely drowned out by the emptiness of life, the sexual loneliness and the resulting longing for the "great experience." Italy demonstrated what war enthusiasm can spring from this longing. It is completely senseless to try to meet such facts with anti-war proclamations or propaganda. The broad masses have a more or less nationalistic attitude and are not impressed by any dry anti-war propaganda. It is not a matter of proclaiming pacifist sentiments, but of liberating, in actual life, those forces which alone can overcome the destructive power of the unfulfilled vegetative longings.

Just a few words about another example

from human pathology, the enormous role of alcohol in the life of the suppressed masses. Its function in the present social life becomes clear when one considers the motives of alcoholism. An essential aspect of the character armoring is the dulling of self-perception, the paralysis of sensations in the body periphery, which makes the body surface feel like an armor. Alcohol dilates the peripheral vessels and thus temporarily relieves the internal tension, provides the feeling of relaxation and makes one forget one's troubles. We do not deny the role played by oral erotism and homosexuality, but we realize how much more important than these academic findings is the fact that the average human feels empty and cold. This fact is nowhere mentioned in any scientific treatise on alcoholism.

Another example is the effect exerted by the movies. 98% of all modern films are love stories. They are all made according to one and the same formula: in the beginning they provoke in the audience all the desires that in actual life remain unfulfilled and give them an illusional satisfaction on the screen. Sexual experiences *outside* marriage, happiness in love between unmarried people, ridicule of the Babbits, etc., are dominant subjects in the early part of most films. But just as every screen love story begins with the affirmation of sexuality, so it ends with a glorification of a sex-negative morality. The films show quite clearly that business interests comprehend the general human longing for pleasure and happiness and know how to exploit it. But the gratification is not allowed to be real. The end of the story is the negation of life and pleasure, the arousal of guilt feelings, the portrayal of "well-deserved" punishment for plucking the forbidden fruit of pleasure. The problem which the film seemed to present at the beginning is not solved; on the contrary, it is again buried. The people will come back and keep the box-office busy.

We can say: Human structure and its contradictions fit into the structure of social ideology like two cogs of a machine.

Society as an institution reproduces itself not primarily by its laws, its bureaucracy or its police, but essentially by creating a basis for itself in the character structure of the masses. It creates in the average person a political helplessness and a lack of independence, the desire and the need to be led; it does this by means of authoritarian education and sexual suppression. The average human, brought up in this manner, understands nothing of the large social issues; all he knows is the small sphere of his own personal life, and very little about that. He needs to lean on somebody, he needs illusory gratification, mystical hope, ideals which are never realized and are impossible of realization. The society of today corresponds to this psychic structure. Social ideological structure and psychic structure are functionally identical.

It is not so that the so-called human consciousness is merely a reflection of social processes and conditions. Rather, society, by suppressing the natural instincts and thus changing them into antisocial drives, which in turn must be inhibited by morals, creates a character structure which corresponds to this society and in which the ideology of this society can anchor itself. In other words, society is not the result of a certain psychic structure, but the reverse is true: character structure is the result of a certain society.

What is anchored in the human structure is not natural conditions, but essentially mechanized civilization. I have had the fortune—or if you will, misfortune—to study the character of many people in many different countries. I found that their natural differences are completely irrelevant compared with what they had in common in their structure. What is the biological difference between a white baby and colored one? Do they

not develop fundamentally in the same way? What they have in common in infantile motor activity, infantile thinking, infantile way of looking at things, infantile sexuality, etc., is incomparably more important than the differences which are determined by their race. Only a peculiar kind of "scientist" can manage not only to overlook such facts, but to participate in building up a completely irrational ideology of race with its life-destroying tendency.

The average human who has gone through an authoritarian upbringing finds himself in an eternal and usually insoluble conflict between his psychic structure and his social existence. When therapy dissolves the pathological inhibitions of the natural drives, and people thus re-establish a natural contact with their own drives, with their own selves and their environment, moral regulation becomes unnecessary. This fact is usually misunderstood, simple as it is. To use again an old example: If a man is hungry and unable to obtain food, he automatically develops the impulse to steal; if he steals, he is threatened with jail; so he inhibits the impulse to steal. After a good meal, the impulse to steal disappears automatically; if the impulse is not there, no inhibition is needed. This simple mechanism applies to the more complicated situation of sexuality. If the natural demands of sexuality are re-established and are satisfied, there is no reason for the development of anti-social impulses and consequently no need for moral inhibition.

People who lack sexual gratification—be it for internal or external reasons—are constantly obsessed by phantasies of rape or perverse impulses of one kind or another; if they become capable of natural gratification, these perverse impulses disappear, and with them any need for their moral inhibition. In this way the antithesis of morals and instincts can be eliminated—even though only in the individual case.

Moral regulation then is replaced by an entirely different mode of regulation, sex-economic *self-regulation*.

Once one has comprehended these facts, they become a matter of course. However, there is one difficulty which the majority of scientists try hard *not* to see, in order not to come into conflict with it: the barriers which society places in the way of instinctual gratification. Even in individual therapy we are bound to come up against them sooner or later. When, for example, a girl of 17 or 18, who has fallen sick as the result of suppressing her adolescent sexuality, becomes aware of her sexual needs, she comes immediately into conflict with everything that represents "good moral behavior." Hardly anybody has any idea of the social obstacles which today stand in the path of a consistent character therapy. The alteration of psychic structure from the principle of moral regulation to that of sex-economic self-regulation presents an enormous perspective. However, one should not have any illusions as to its practicability. Such an alteration of psychic structure on a mass scale, based on a sexual hygiene according to the consistent affirmation of pleasure, is at present impossible. The reason is obvious: every prerequisite for such a change is lacking in our society.

I have tried to show the significance of the prevailing character structure for the present-day social structure. As soon as one tries to change human structure, society objects most strenuously. Everyone working in this field is soon made to realize that a general solution of the pathological conflict in the human presupposes a solution of the existing social conflicts. That is, an alteration of the social structure is a prerequisite for an alteration of psychic structure on a mass scale.

The interrelation of social structure and character structure goes still further. The social processes are contradictory. In the field of economy, conservative, inhibiting

forces are contradicted by forward-driving forces; for example, national tariff boundaries on the one hand, world-economy on the other. Collectivism of work is undoubtedly a great step ahead, but it is contradicted, in every aspect, by the neurotic fixation to the family. These examples could be multiplied indefinitely. In the character structure, we also find forward-driving and opposing conservative features. The desire for collective living, for a life that is really alive, for happiness, for genuine human contact, for joyful productive work, all these tendencies are opposed not only by the social structure, but also by such inner factors as fear of chaos, feeling of impotence, psychic rigidity, dependence on authority, etc. Conservatism in society thrives essentially on the psychic inhibition in the people; it thrives, in such movements as the Oxford movement and everything mystical and reactionary, on the vegetative energy in people which wants to express itself and cannot express itself; because it cannot, it becomes diverted into unnatural and *life-inimical* channels and thus can be utilized for *life-negating* purposes. The opposite is the principle of an economic order based on a full affirmation of life for the masses of people. Such a program includes the immediate natural contact between people, the prevention of life-negating processes, the fostering of the natural development of vegetative energy. The social process is only a continuation of the general process of nature.

The masses of people are not simply "passive," not simply "stupid and dependent." Rather, they are torn between fear of life, superficiality, lack of critique, and seeming stupidity on the one hand, and genuine, deep understanding of vital needs on the other hand. Every human of today carries in himself this dual nature, and the social development of the future has no more important task than that of making people conscious of the positive

aspects of this conflict and of developing them.

In this connection I would like to say a few concluding words about the task of the scientists. We owe to Marx a very simple explanation of the concept "radical." To be radical means nothing but "going to the root" of things. That is the task of the scientist. Every science, if it takes itself seriously and fulfills its task, is of necessity radical. Strictly speaking, there cannot be such a thing as a reactionary science. All the things that call themselves science and are at the same time in the service of reactionary ideologies, can easily be shown to be not science, but mysticism and superstition. Science and the scientist should not be expected at all to adhere to this or that political credo; but they should profess to being radical, that is, they should go to the root of things. Real scientific work today is being hampered to an incredible degree. Our times are characterized by mysticism and blind obedience to authority in the masses of people. Science is in great danger; hundreds of scientists have had to leave Germany just because they were scientists. Hardly any of them had any political affiliation; they were just scientists. When scientists have to flee and the general irrational thinking and acting is not counteracted by knowledge and rational action, still others will have to flee. To be cautious does no good. Those who did not dare to draw the conclusions from their findings had to flee also. If that is so, it is better to be consistent. The scientist has only one correct social task: *to continue his search for the truth in spite of everything*, not to give heed to any restrictions that the bearers of life-negating ideologies may try to impose on him.

The war which is at our door will bring about changes of a magnitude as yet inconceivable. For the time being the scientist can do no better than prepare for the time when the great change shall come. So many are busy trying to find ever better and more effective death-rays; let us hope that coming events will move the scientists to search, at last, for the *life-rays*.¹

We have to be prepared and ready for a time when a rational order, when all those who will work and will themselves determine their existence, shall need us.

¹ *Translator's note:* When I read this, in 1936, I understood what the author meant. It was the vision of a scientist who, in years of honest scientific effort, had come to know not only the irrationalism in scientific work, but had learned to understand its motivations. It was the vision of a therapist who had seen patients, made sick by the irrationalism in society, turn into rational beings capable of natural self-regulation, and who could envisage the same process in the future of society. I could see what he meant but felt that he was looking into a future which was infinitely far away.

When I read this passage again recently, not having seen the article for several years, I was stunned. The scientists are still looking for more powerful death-rays. Only recently, a newspaper carried a large headline: "GIANT X-RAY TREATS CANCER. 2-to-3-Million-Volt Tube is the Most Powerful in World." But in the meantime, in 1939, Reich had discovered the orgone radiation, that is, the *life-rays*. He made this discovery neither in the search for a new radiation, nor in the quest for a new therapy of cancer, but simply in the course of his consistent study of living functioning. Most probably, it could have been made only outside of the framework of official science. Making the discovery, the discoverer was not a tool of present-day society, but of the living function itself which this society continues to negate. It is only to be hoped that the witnessing of the present triumph of the life-negating forces will make people realize their vital needs and will make them take up the fight for their natural needs and rights, and that science will take its part in this fight.—T. P. W.

MECHANISTIC MEDICINE AND THE BIOPATHIES

By WILLIAM F. THORBURN, D.O.

The concept of biopathy is new in medicine. It is Reich's term for all pathological conditions which are due to a disturbance in the functioning of the autonomic nervous system.¹ This disturbance is always an interference in the contraction-expansion impulses of the organism, caused by character rigidities and muscular tightnesses formed in early life.

A biopathic disturbance is never confined to just one part of the body's functioning but may make itself felt in one way so strongly that our attention is focused on that condition and a specific diagnosis made. For example, a person with severe gastric ulcer might have a mild anxiety tightness in the cardiac area, and neurotic character traits not deep-seated enough to stand out as the main biopathy. Another person with predominant mental symptoms of schizophrenia would have somatic disturbances also but less noticeable. The selection of the field of the strongest biopathy is not yet clear, but we know from Reich's discoveries that it may be any place in the psychosomatic sphere under the control of the autonomic nervous system.

Of course, there are many pathological conditions to which the body is subjected which have causes other than autonomic dysfunctioning. Infections, specific and non-specific, injuries to body structures as a result of trauma, etc., do interfere with natural pulsation, but only secondarily.

It would be interesting, if it were possible, to have figures on the prevalence and severity of the different biopathic symptoms. How startled the world would be to know the actual number of rigid

women, impotent men, the prevalence of chronic nervousness, mild and severe, the intestinal conditions from a slight constipation to a severe colitis, the small number of people who can sleep "like a baby," etc., etc. All of these, and many more, are biopathies and, unless they are studied from the sex-economic viewpoint, are not and cannot be understood. This accounts for the confused and ever changing treatments given them by orthodox medicine.

There are some biopathic disturbances which, due to their severity, lead from mere functional conditions to actual organic lesions. These find their way into vital statistics when death is the result. The psychoneurotic biopathies also reach the records when their increasing severity leads to a diagnosis of actual insanity. To understand what is going on in the field of human illness, biopathic and non-biopathic, one may use the records of the New York State Department of Health for the last twenty years, as an example.

Deaths, chief causes, New York State, per 100,000 population

Year	Pulm. Tuber.		Pneumonia		Diphtheria	
	D.	%	D.	%	D.	%
1921	9,503	88.5	10,645	99.3	1,702	15.9
1925	9,162	78.9	13,571	116.8	1,001	8.6
1930	8,146	64.6	12,908	102.4	656	5.3
1935	6,847	52.4	11,018	84.4	102	0.8
1940	5,793	42.9	6,143	45.5	15	.01

First we examine the figures showing the progress in the fields of *Pulmonary Tuberculosis, Pneumonia, and Diphtheria*, the three most common non-biopathic causes of death. One must regard with admiration the splendid results of modern therapy in lowering the incidence of death

¹ Cf. Wilhelm Reich, The carcinomatous shrinking biopathy. *This Journal*, July 1942.

from these infections. The steady decline in the number of deaths, and of the death rate, makes comment unnecessary. Here is progress, definite and sure. Now, let us look at the corresponding figures for Cardiovascular Disease and Cancer.

	Cardiovascular		Cancer	
1921	36,594	341.4	11,163	104.1
1925	43,370	373.3	13,201	113.6
1930	48,487	384.5	15,144	121.8
1935	55,109	422.1	18,600	142.5
1940	64,987	481.3	21,384	158.4

Here, the figures are not so pleasant to examine. The two great killers in the field of biopathies, *Cancer* and *Cardiovascular diseases*, are steadily increasing, each year more alarmingly, in spite of the millions of dollars spent annually for all types of research directed at their cause and treatment. Nothing could demonstrate more clearly the fact that orthodox medicine is entirely out of touch with these conditions. The relation of sex-economic disturbances to cardiovascular diseases has been described many times by Reich and his co-workers. In going through character-analytic vegetotherapy, one of the outstanding experiences is the change from a condition of an anxiety-laden, tightened cardiac area to one which feels only vegetative freeness and relaxed functioning in the whole cardiovascular system. As to cancer, Reich's research and clinical experience leaves no room for doubt as to the biopathic nature of the scourge.

It might be interesting, at this point, to cite the figures on convictions for crimes, misdemeanors, etc., during the period of 1920-1940.

1920	40,691
1925	77,202
1930	175,530
1935	363,743
1940	1,155,986

Crime may be said to spring from one or both of two causes, i.e., disturbances in the individual character structure, and dis-

turbances in the social structure. These nourish each other, and no lasting progress in crime reduction is possible without attacking both.

Also on the increase is that other indication of a sorely disturbed society—*suicide*.

	Suicides	
1920	1,443	13.5
1925	1,664	14.3
1930	2,135	17.2
1935	2,180	16.7
1941	2,188	16.2

Whether stimulated by a social condition or not, suicide may be considered a type of biopathy, since only one with disturbed vegetative processes would be moved to actually take the step.

Insane in New York State				
Year	Males	Females	Total	% per 100,000 Pop.
1920	19,515	21,265	40,780	390.0
1925	22,667	23,858	46,525	413.6
1930	28,674	27,737	56,411	444.0
1935	36,124	33,943	70,067	493.0
1941	45,870	43,393	89,263	664.2

It is difficult to study these figures dispassionately. In a generation, the number of insane has more than doubled. What is going to prevent its redoubling in another twenty years?

Here we have the most severe biopathy in the psychic field comparable to the strongest biopathy in the soma, i.e., cancer, and in both cases the figures show a tremendous increase.

Surely, a society which takes its natural, bubbling-with-life children, and causes so many to develop such severe disturbances, is sick. Since, without characterological and muscular tightnesses these conditions could not exist, the only hope for their prevention lies in the mass recognition of the child's right to an upbringing which would insure his ability to develop and function, making living a vital, pleasurable experience. This is the aim of sex-economy.

A SEX-ECONOMIC NOTE ON ACADEMIC SEXOLOGY

By THEODORE P. WOLFE, M.D.

The following remarks refer to a round-table discussion at an annual meeting of the American Psychiatric Association.¹ The moderator, S. Bernard Wortis, pointed out that he had arranged to have representatives of many fields of thought present, endocrinologist, gynecologist, urologist, anthropologist, marriage counsellor and psychiatrist.

The *endocrinologist*, A. T. Kenyon, agreed that endocrinological defects are "not the sole" cause of deficiency in sexual desire and potency in the male. This statement, however, was based not on the realization of the actual causes of impotence, but on the observation that eunuchoids often have "an active and apparently satisfactory sex life." He pointed out that "the question of real importance here is whether endocrine defect has anything at all to do with that vast group of men who appear perfectly normal and yet fail in sexual performance." He believes this point "insufficiently explored," and suggests assays of urine for androgenic materials as the next step in research. He found that in the eunuchoid, testosterone propionate has often a powerful effect in increasing sexual desire and frequency of erections. The degree of the latter responses seems to be greatly qualified by individual differences in threshold which "we may assume are partly determined by the individual nervous system." He would expect that "granted a suitably sensitive nervous system" even endocrinologically sound men may respond to added androgens by increased sexual desire and potency and that

certain psychological handicaps to healthy sexual function may be overcome.

To this, the sex-economist would say the following: In sex-economy, the question as to "whether endocrine defect has anything at all to do with that vast group of men who appear perfectly normal and yet fail in sexual performance" has a different significance. For one thing, an individual who "fails in sexual performance" does not appear perfectly normal to us. Perhaps the speaker means "endocrinologically normal." Whether or not further research (like assays of urine for androgenic materials) will reveal aberrations seems quite immaterial. For, in a sexually disturbed individual, the whole sex-economy, i.e., household of biological energy, is disturbed. Hormones are nothing but part of this total energy; it is thus more than likely that the hormone energy is also disturbed. But such a finding has no more than academic interest. It is not causal, but only one of the many expressions of a disturbed vegetative equilibrium. For this reason, the hope that administration of hormones will cure the sexual disturbance is a false hope. It may, of course, as the speaker says, have a "powerful effect in increasing sexual desire and frequency of erections." But that does not solve the problem; on the contrary, it is likely to create a new one. The important factor in the maintenance of the vegetative equilibrium is not sexual desire and frequency of erections, but orgasmic potency, i.e., the ability to reach full genital satisfaction. The orgasmically impotent individual, being given hormones which increase his sexual desire and the frequency of erections, is confronted with the task of dis-

¹ Unsuccessful Sex Adjustment in Marriage. Moderator Dr. S. Bernard Wortis. *Am. J. Psychiat.* 96, 1940, 1413-1427.

charging not only his own dammed-up sexual energy, but, in addition, that introduced from the outside. Thus, the administration of hormones will certainly not "overcome psychological handicaps to healthy sexual function"; but it may well increase them.

Earl T. Engle, *endocrinologist* and research worker in sterility and fertility, emphasized the need of further research in this field "as we are totally and absolutely ignorant of the role of estrogens and androgens and their effects on the personality structure. All we know is that hormones are essential to reproduction."

Robert L. Dickinson, famous *gynecologist* and author of the *Atlas of Human Sex Anatomy*, emphasized the necessity of careful physical study in any research program of sex. "It goes without saying," he concluded, "that physical findings are so easily brought out that undue stress is likely to be laid on mere structure. The complicated and difficult analysis of psychological factors is of major import in almost any problem. But avoidance of complete study is not excusable."

This statement is an excellent illustration of the hopeless dilemma of the usual psychosomatic research. On the one hand, there is "anatomical structure," on the other hand, there are "psychological factors." I have attended meetings where this dissociation gave rise to a battle royal between the "somaticists" and the "psychologists." In vegetotherapy, we experience every day how "psychological factors" are anchored in physiological, or, if you will, anatomical attitudes. For example, the pelvis of a woman will be tilted backward to such a degree that it makes coitus difficult or unpleasant. This is generally considered an anatomical fact, a "normal lordosis." In the course of vegetotherapy, the woman will become aware of the fact that she is chronically holding her pelvis in a retracted position. She does this for fear of the genital sensations which would occur

if she would let her pelvis move freely. In other words, she does it because of genital anxiety, a "psychological factor." To the sex-economist, the "anatomical" fact of the lordosis and the "psychological" fact of the genital anxiety, are one and the same thing. As the woman overcomes her genital anxiety, the pelvis becomes mobile and the pathological lordosis disappears. Then, as I saw it happen recently, a roentgenologist may find that "the normal lordosis is absent." In this process, she will experience—if she did not do so before—the well-known "lower back pains," an indication of the antagonistic struggle between the muscles which try to overcome the fixation and those which try to maintain it. Dickinson's emphasis on the necessity for careful physical study is, of course, in itself entirely correct. But two facts should be kept in mind:

1) Anatomical variations are often considered the pathogenic factor when in reality they have nothing to do with the patient's complaint. For example, a retroflected uterus will be considered the cause of dysmenorrhea; the elimination of spasms in the pelvic floor and the uterus will eliminate the dysmenorrhea, while the retroflection persists as a harmless anatomical variation.

2) The artificial, scientifically and clinically untenable distinction between "functional" and "organic," "psychic" and "somatic" will always lead to errors in diagnosis and treatment.

Dr. R. Hotchkiss, *urologist*, pointed out that "the otherwise well adjusted male who develops impotence is most apt to consult first his family physician or a urologist." This points again to the importance of sex-economic training in medical school. As is evident from the urological literature, the urologist is particularly inclined to consider anomalies of the genital apparatus the causal factor of the genital disturbance when, in fact, these disturbances are either immaterial, or—more frequently

—the result of a disturbed genital function (in particular, of muscular spasms, disturbance in blood flow, and, as we have learned only recently, basically a disturbance of organotic charge, i.e., charge with biological energy).

In conclusion, Hotchkiss said: "As a urologist I ask whether a psychiatrist may do harm by unfolding or disclosing a complex mental disturbance to an otherwise well adjusted man complaining only of impotence; and finally, do too many consultants destroy the confidential relationship between patient and physician?"

To that the sex-economist would answer: Undoubtedly the psychiatrist can, and often does do harm: in this manner, unless his therapy results in an actual improvement of the genital function and thus in an improvement in the patient's energy equilibrium. "Otherwise well adjusted" is a dangerous term to use. A man can be impotent and perfectly well "adjusted," but he cannot be healthy. He may complain "only of impotence"; but impotence is not one symptom among many others, it is—in the sense of orgasmic impotence—the key to the neurosis.

Dr. Ernest W. Burgess, *sociologist*, referred to Terman's study of "Psychological Factors in Marital Adjustment." The most important factors were 1) conflicts in childhood; 2) over-attachment to a parent; 3) discipline in childhood; 4) cultural differences between the married partners. "These factors all loom larger than the actual sexual adjustment itself."

These statements illustrate, among other things, several errors in concept and methodology: 1) Such factors as enumerated are considered as one set of factors, and the "sexual adjustment" as another, independent factor, while in fact they cause each other; 2) The fact is overlooked that the childhood factors become unimportant if for one reason or another the individual succeeds in establishing a satisfactory sexual relationship; only dammed-up

sexual energy re-activates an infantile situation such as an "over-attachment to a parent."

In addition, these statements show something else: All such studies, whatever their differences in detail may be, converge in one and the same finding: *other factors are more important than sexuality*. The function of all these statistical and sociological studies is this: to prove that the cause of this or that is not a sexual disturbance, but something else. By peculiar statistical and logical manipulation, the simple fact is obliterated that all these "other factors" are a result of the genital disturbance, of the inability of the average human to regulate his energies in a biological manner.

Burgess mentions one finding of Terman's which confirms this view: "The part played by economics is a relative one—not the amount of money, but the attitude toward money which the couple has is most important." This *relativity* of "other factors" is the decisive point; it applies not only to money. We know that the attitude toward money, toward religion, work, society, etc., is relative to an individual's biosexual functioning.

Of Burgess' own findings, two are particularly revealing: 1. "The more closely young people were attached to their parents, the more likely they were to have success in marriage later in life"; and 2. "Those couples who were married in church or in synagogue had a greater success than those who were married without religious ritual." Here is an illustration of what I just called "logical manipulation." Both findings are undoubtedly correct. But they do not refer to *happiness* in marriage, sexual or otherwise, but to "success" in marriage. On this little substitution hinges the whole problem. Undoubtedly, individuals who have an infantile attachment—to the family or the church—will make a greater "success" of marriage. That is, they will carry their

infantile attachment into the marriage; the relationship will have the character of a sticky transference; they will take "marital duty" for granted; that is, the husband will insist on his "right" and the wife will not refuse it, whether she loves the husband and is sexually aroused and satisfied or not; they will cover up the inevitably resulting hostilities with a false, sugary affection; they will adjust their lives to the whim of the mother-in-law instead of the requirements of their own individualities; they will seek their satisfaction in the church or synagogue instead of in real life. Finally, even if the situation has become intolerable, rather than terminate it by a divorce, they will "make the best of it" because the relatives would object to a divorce, because it is against certain dogmata, because it involves "scandal," etc. And this is what the academic sociologist and psychologist call "success."

A discussion of the contributions of Jacob Conn, *psychiatrist*, and Sandor Lorand, *psychoanalyst*, would take up too much space. The last group to be heard from was that of the *marriage counsellors*.

Dr. Alexandra Adler started out with a highly pertinent statement: "To begin with, it is rather difficult to make a definite statement whether two people are well or poorly adjusted sexually." She told the story of an impotent young transvestite married perfectly happily to a woman fifteen years his senior. They slept in the same bed, kissed each other, but never came to sexual intercourse. "They were," Dr. Adler comments, "adjusted to each other though not to the community."

This passage made the writer pause for quite a while. My first reaction was: this is an unfair, extreme example; after all, what role do the relatively few outspoken perverts play compared to the millions and millions who are otherwise sexually disturbed? On second thought, I realized that the example is not at all as extreme as it seems. It happens that the

husband is a transvestite, but the basic situation is that of an impotent man and a frigid woman "adjusting to each other." A very common situation which comes about not only by mutual adjustment, but by the fact that impotent men and frigid women automatically drift together. Incapable of a normal sexual relationship, they establish a parent-child relationship of one kind or another; *they are "adjusted," but they are sick.*

In other words, the very term "adjustment" is an evasion of the real issue. As the majority of our social, legal, and ethical institutions are antisexual, "adjustment" to these institutions means inevitably biosexual sickness. The question, therefore, should not be: "Are people sexually adjusted?" but "Are they sexually healthy?"

Adler then pointed out a procedure she frequently encounters in her practice, that of advising marriage (i.e., sexual intercourse) or masturbation in psychoses and neuroses. She related the case of a frigid woman suffering from a compulsion neurosis, whose psychotherapist "threatened that he would not see her any more unless she masturbated. Faithfully she did, but her neurosis did not improve upon this advice and her relations with her husband became unbearable. The same advice is still being given to sexual perverts. I have seen at the best no effects and frequently a change to the worse."

The fact that this advice is still so frequently given has two obvious reasons. One is the knowledge of the fact that people are sick because they lack genital gratification; the other is ignorance of *orgastic impotence*. It is the eternal confusion of "sexual activity" and "sexual gratification." It is the helplessness of the average therapist confronted with orgastic impotence; thus, his therapeutic impotence may even make him threaten a patient into masturbation. That masturbatory activity in a genitally inhibited individual

not only does not help, but makes matters worse by increasing the guilt feelings and resulting in genital stimulation in a patient who is incapable of discharging the genital energy, should be obvious. To advise, or even to urge or threaten such patients into masturbation is not only stupid, but criminal.¹

Dr. Beatrice Berle expressed the hope that today—after a phase of innocence, where learning the facts of life seemed sufficient, and after a phase of Freud, "where all our ills were due to a father fixation, and quarreling at breakfast was a symptom of lack of orgasm"—we are approaching closer to the age of reason, realizing "the fact that sex problems cannot be considered apart from problems of the total personality." Her reference to "the truth of many of Terman's statements" makes clear the implication of this statement, namely, that besides, or rather, *instead of*, sex, other factors should be considered.

We sex-economists entertain the hope that the age of "reason," which is the age of rationalization and facetious sophistication, the age of academic discussions and evasions, will give place to the age of *knowledge*, a simple, honest knowledge which is the same for the professor and the "man in the street," because it is the knowledge of simple biological facts which apply to everyone.

Dr. Grace Barker pointed out that it would "appear that a marriage counselor should be able to correlate, integrate and utilize the contributions from the fields of endocrinology, anthropology, the social sciences, psychology, psychiatry, psychoanalysis, religion, philosophy, urology and gynecology. Since it is obvious that no one human being can be a specialist in all these fields, it would seem that the marriage counselor's special contribution

might be one of integration."² She concluded by saying that she would like to call attention to the importance of the counsellor's own *emotional adjustment*.

Sex-economic experience in sex counselling—based on an enormous material—leaves no doubt that the most important qualification of the counsellor is his own *sexual health*. "Emotional adjustment" may mean anything; if it is adjustment to authoritarian mores, it precludes sexual health and, with that, sex counselling which is capable of leading toward health.

Dr. Theodore Watters, Associate Professor of *Psychiatry*, concluded his discussion by saying: "As a last word to the psychiatrist, however, let me emphasize that sex in our civilization, in our scientific textbooks, as well as in our advertising has been oversold." The implication of this statement would seem to be that we should talk less about sex, and more about other things that Watters mentioned, such as "old-fashioned selfishness," ignorance of finances, "religious differences," "the whole attitude toward life and the standard of values," "minor matters such as halitosis."

The question is not, however, one of sex or any of these other things, but, how does the disturbance of the sexual function influence all these other things? Could it be that a person who cannot give himself, in love and work, shows traits of "old-fashioned selfishness"? Could it be that orgastic impotence and sexual guilt feelings lead to religious ideologies, and with that, to "religious differences"? Could it be that "the whole attitude toward life and the standard of values" is determined by whether an individual is capable of sex-economic self-regulation or whether he has to develop a compulsive moral character in order to inhibit the secondary antisocial impulses which owe their existence to the suppression of his natural

¹ Cf., e.g., the case cited by Martin, *supra*, p. 236.

² *Vide infra*, and "A note on Integration in Science," *This Journal*, July 1942, p. 171.

sexuality? And are things like halitosis really "minor matters"? On the other hand, will a biosexually normally functioning organism develop such things as halitosis?

A recent experience from my practice may serve as an interesting illustration here. It shows the role of biosexual functioning in the matter of body odor and the soil on which a considerable part of our cosmetic industry thrives. In the case of a woman patient who was severely inhibited sexually, I was struck by a peculiar body odor which I could describe only as "dead" or "musty." The patient became quite angry when I mentioned this, because she was extremely "dainty" in the care of her body as well as her clothes. Much later, after having established her sexual functioning to some extent, she related one day that a friend had told her: "You know, you always used to have such a peculiar odor about you, sort of 'musty'; I never dared to mention it for fear of offending you. But now you don't have it any more."

Why, finally, as Watters says, is sex "oversold"? It is, in our civilization, because our civilization is essentially sex-negative. For this reason, the sexual function, instead of being a natural function, becomes an ever-present problem. As to our scientific textbooks, they can hardly be accused of an *over-emphasis* of sexuality; it is, rather, a matter of a *wrong* emphasis. That is, the textbooks, to the extent to which they treat sexuality at all, deal only with sexual aberrations, but give no idea of normal sexual functioning.

And as to advertising, it is true that there is hardly any commodity that the advertising industry does not try to sell on the basis of "sex-appeal." Why? Because the advertising business knows as well as anybody else that the one need that is more burning than any other and is less gratified than any other, is the sexual need. By clever advertising, they make people feel—not consciously, necessarily—that this

or that article (for which they may not have the slightest use or need) will give them some sort of sexual satisfaction. In the more outspoken examples, the formula is, without any disguise, "Use this or that soap, pill, hairwash, perfume, etc., and you'll get your man (or girl)." For this, the advertising business cannot be blamed; this kind of procedure is one of the many logical and inevitable results of the general social suppression of natural love life.

Closing remarks by Dr. Wortis: "This meeting has emphasized the necessity for a pluralistic viewpoint in studying sexual behavior and sexual problems. The sexologist must be qualified and willing to integrate advances in endocrinologic, gynecologic, urologic, physiologic, sociologic, anthropologic and psychologic knowledge. Disturbance in sexual function may arise from one or several causes. As regards the role of the marriage counsellor, he or she must be a good listener and himself or herself have no problems or pet ideas to work off on the patient seeking advice. . . .

"The physician dealing with these problems . . . must mix with his scientific knowledge the essential quality of human sympathetic understanding. In this field, especially, the patient's confidence in his physician is the most important therapeutic instrument."

The writer would say that this meeting showed, first, that the *pluralistic* viewpoint is the prevalent one, and second, it demonstrated the fallacy and untenability of this viewpoint. It is based on the concept that an understanding of sexual problems can be achieved by an integration of endocrinological, gynecological, urological, physiological, sociological, anthropological and psychological knowledge. If one really tries to do this, one soon finds that the findings of these various branches of investigation are usually contradictory and incapable of being coordinated. Theoretically, there would seem to exist a con-

sensus of opinion that the whole cannot be understood from a study of its parts. In practice, however, this is not only what is constantly being tried, but even justified by the "necessity for a pluralistic viewpoint."

The contradictoriness and incompatibility of the findings within the various specialties derive from the fact that these findings, by themselves, and their relationship to the sexual process, cannot be understood without an understanding of *the sexual process itself* and the part these findings play in it. The sexual process itself is a biological process, and only a study of this biological process and its disturbance can lead to an understanding of its manifestations—normal and pathological—in the various fields of investigation. It is incredible but true that the natural sexual process is unknown in medical and sexological literature, that it never was studied before Reich's "Die Funktion des Orgasmus" (1927), and that there is still not a single branch of science which would concern itself with it except sex-economy.

The counsellor, Dr. Wortis continues, should be "ever mindful that there are no dogmatic laws of sexual behavior. People's methods for obtaining sexual satisfaction vary. Any happily, mutually acceptable, satisfaction-giving method is a good one."

We would say that the counsellor should be fully conscious of the fact that there *are* dogmatic laws of sexual behavior, such as taboo of masturbation, pre-marital abstinence, "marital duty," that, in fact, the sexual behavior of the majority of people takes place according to these laws. The counsellor should know, in addition, that there are other laws of sexual behavior, namely, *biological* laws; that everything in the dogmatic laws is at variance with the biological laws of the sexual process, and that this conflict is the basis of the neuroses and general human unhappiness. It is true that "people's methods for obtaining sexual satisfaction vary."

But one should realize that these variations are pathological and a result of such "dogmatic laws" as the ones mentioned above, and that real satisfaction can be obtained only if there is no interference with the biological process of orgasmic satisfaction. From the sex-economic point of view, one cannot agree with the statement that any mutually acceptable satisfaction-giving method is a good one. It may be "good" from a subjective point of view, that is, the individual may *not be aware* of any sexual dissatisfaction. A marriage, for example, in which the husband maintains an infantile-dependent attitude toward his wife, who, on the other hand, is a domineering mother type, may be "mutually satisfactory." But the satisfaction is based on the fulfilment of infantile, neurotic needs, and this very fact—the neurotic basis—makes real genital gratification impossible. The individual may not be aware of the connection between his lack of orgasmic satisfaction and his palpitations, "indigestion," "rheumatism" or back pain. Objectively, i.e., from the biological point of view of the regulation of vegetative energy, such a relationship is not a "good" one, because it results in a damming-up of biological energy in the organism with all its pathological results, psychic and somatic.

And finally, as to the patient's confidence in his physician being the most important therapeutic instrument especially in this field, therapeutic experience with patients who have gone from physician to physician shows clearly one thing: that patients, quite generally, have very little confidence in their physicians, and that this lack of confidence has one basic reason: patients feel that the average physician does not understand either their normal sexual needs or the disturbances of their sexual functioning. This will inevitably be so until sex-economic knowledge becomes an integral part of the medical curriculum.

II. THE FASCIST NEWSPAPER CAMPAIGN IN NORWAY*

By GUNNAR LEISTIKOW

The history of sex-economy illustrates again and again the operating of irrational argumentation. Hardly any other scientific discoveries have so thoroughly shaken well-established scientific beliefs or aroused such violent anxieties. Thus it is small wonder that Reich had to experience many times over what other scientific pioneers such as Pasteur, Einstein or Freud had to suffer before him. In the following pages I shall try to give an account of one particularly violent phase of the irrational fight against sex-economy, the Fascist newspaper campaign in Norway in 1938, and some of the events that preceded it. Hardly ever did the fight against his findings take the form of scientific discussion. The main weapons in this fight were lies, distortions, and defamation. It would be impossible to understand the extent to which such weapons were put to use were it not for the fact that the findings themselves aroused violent anxieties and thus provoked all kinds of irrational reactions.

One of the main points of divergency from psychoanalysis was the sex-economic differentiation of genital and pregenital pleasure and the recognition of the importance of orgasmic potency. Another was the emphasis on the prevention of the neuroses instead of on their individual therapy, and therefore on sexual education and sexual hygiene. It was for this reason that Reich founded and directed sex-hygiene clinics in which thousands and

thousands of adolescents and adults sought advice about their sexual disturbances. In order to make this work possible on a mass scale it was carried out within the framework of the socialist party of Austria. However, the dominating clique of that party soon began to oppose Reich's views as being too radical. In particular, his booklet, "Zur Kritik der Sexualreform," published in 1930, criticizing the usual shallow and ineffective sexual reform movement, to which the Socialist Party also adhered, provoked the wrath of the party bureaucrats. One of them, Karl Kautsky, son of the well-known socialist theorist, wrote a review of Reich's booklet, which in many respects foreshadowed the later slandering campaigns against Reich ("Gleichheit" No. 7, 1931). Without even entering into a discussion of the factual problems he made a preposterous accusation on purely political grounds, accusing Reich of "having used the sex-hygiene clinics as a shop for communist propaganda after a short guest-role in the Socialist Party." The truth of the matter was that a few Communist physicians who had greater insight into the necessity of prophylactic measures than the Socialist party leaders had collaborated with Reich and the other Socialist physicians. This seems indeed a flimsy excuse for such an accusation as that made by Kautsky.

There could be no doubt, however, that on the whole the Communists had a better comprehension of the relevant problems than the Socialists. Thus, a few years later the German Society for Sex Education, founded by Reich, became the largest

mass organization affiliated with the German Communist Party. But this only aroused the opposition of the Communists, again on political grounds. They had to admit that Reich, with his social and medical handling of sexual problems, reached far greater numbers of people and much more effectively than did the party with its boring economic twaddle. But just this success made them jealous and uncomfortable. History repeated itself. Just as a few years before the Austrian Socialists had done, so the dominant group of the German Communists now started a campaign against Reich which finally led to his expulsion from the party. While the Austrian Socialists had accused him of "opening a Communist propaganda-shop," the Communists now branded him a "counter-revolutionary." First they turned against him for being a psychoanalyst. Psychoanalysis, they said, was a "phenomenon of bourgeois decay," "untenable scientifically," or at least "un-Marxistic," since no allusion to it could be found in the writings of Marx and Engels, both of whom had died long before Freud published his discoveries. They censured Reich for trying to revise Engels, saying that, "while Lenin called 'the Origin of the Family' one of the best Marxist treatises, Reich, like all counter-revolutionists and revisionists, attempted to improve upon and to forge Marxism." Reich's finding that sexual frustration affected all classes, they said, was preposterous. Disturbances of the orgasm, they maintained, were a "bourgeois affair," and if Reich thought otherwise he simply "denied the existence of class differences." His books, they said, "only caused confusion" and they thought it was "high time to put an end to this damned sex-philosophy."

Reich's fight for the sexual health of German youth caused the Red liberators to accuse him of "turning our gyms into brothels" and to call his educational

pamphlets "spitting at the proletarian girls." His theories and findings were condemned as "un-Marxistic rubbish" and "bourgeois ideology" and as "an attempt to obliterate the party line by sexual questions." In addition, the Communists considered sex education unnecessary because, as they said, "the sexual problem solved itself."

The Communists, however, were not the only ones to attack Reich at that time. The Nazis were no less shocked. But while the Communists called his activities counter-revolutionary, the Nazis, on their part, considered them a "Communist plot." At the very time when the Communist agitation against Reich was at its height the Nazis' "Völkischer Beobachter" wrote the following about Reich's book, "The Sexual Struggle of Youth": "It is the Communists' call to German youth to revolt against all moral regulations which they consider mere shackles of Capitalism."

When Hitler came to power Reich had to flee Germany. He went to Denmark and there wrote and published his book, "Die Massenpsychologie des Faschismus." In this he gave the world what had hitherto been so fatefully lacking: an understanding of the mass-psychological factors which underlie Fascism and made Hitler's success possible. One would have thought that the Communists, after their defeat in Germany, would have been the first to appreciate the scientific study of their own defeat and their enemies' success. But nothing of the kind. The party line, proclaimed from Moscow, denied that there had been any defeat at all and stated that Hitler's regime would soon collapse and be replaced by a Communist regime in Germany.

Under these circumstances a book which not only pointed out the defeat but also inquired into its causes was considered a nuisance. This all the more, since a great many party members failed to see the logic

* Second in a series of articles on Irrationalism in the Fight against Sex-economy. Cf. I. Biophysical functionalism and mechanistic natural science, by Wilhelm Reich. *This Journal*, July 1942.

of the party line and eagerly sought for a true explanation of the defeat. The fact that Reich had dared to question the wisdom of the party line was considered sufficient not only to ban the book as dangerous but also to expel its author from the party.¹

When Reich came to Denmark, this country seemed to offer particularly good chances for teaching psychoanalysis. True, as a foreigner, he was not allowed to practise. But a number of people were eager to study the practice and theory of character-analysis with him. Peculiarly enough, this small, highly cultivated country had, up to that time, ignored psychoanalysis almost completely. At a time when psychoanalysis had already

¹ Editor's note: Reich was connected with the German Communist Party through the Communist fraction of the "Sozialistischer Aerzterverband" (Socialist Medical Association) in Germany. He was engaged in mental hygiene work in large organizations which were not party organizations and counted Liberals, Socialists and Communists among their members. Later he founded the "Verband für Sexualpolitik" which also was not a party organization and which, within a few months, had tens of thousands of unpolitical members, that is, people belonging to no party, Christian Socialists and even National Socialists. This large membership developed mainly in the industrial cities of Western Germany. Reich's work was based on his sex-economic concepts and for this reason led again and again to conflicts with the functionaries of the Communist party who believed they solved sexual problems with purely economic-political slogans, without entering on the real problems of the sex life of the masses. Reich never was a political or paid functionary of the Communist party, nor was he ever politically active in the usual sense of the word. Considering the far-reaching sexual reforms which had originally taken place in Soviet Russia, the Communist party seemed the most favorable framework for making sex-economic concepts comprehensible to large masses of people. However, as it turned out later, not only did the Soviet Russian laws (after 1934) regress to authoritarian, anti-sexual, even reactionary measures; more than that, it was the Communists who turned into the most violent opponents of sex-economy. Reich's expulsion from the party was the result of the publication of his book, "Massenpsychologie des Faschismus", which for the first time disclosed the sex-economic content of the Fascist ideology.—T. P. W.

been taught for many years at special institutes both in Europe and in America, it was not even mentioned in Danish universities.

Under these circumstances one would have expected Danish scientists and authorities to welcome an outstanding representative of psychoanalysis who would make it possible for Danish students to study this field at home instead of having to travel abroad in order to do so.

Far from it. Irrational reactions prevailed and what had happened to Freud thirty years earlier now happened to Reich. Official medicine could not tolerate a man who questioned the very basis of traditional psychiatric thinking. When the police authorities asked the Department of Health whether Reich's admission to the country as a teacher was considered of value for Danish science, Clemmenson and Schroeder, two psychiatrists of the old hereditarian school, answered the question in the negative. They justified this judgment with the remarkable statement that psychoanalysis was not needed in Denmark, because, as one of them put it, "our old methods of mental treatment are good enough."

Such a standpoint was not easy to maintain with regard to an internationally established branch of science, particularly in a country which tried to uphold a reputation for scientific pioneer work, and especially with such a weak argument as, "our old methods are good enough." Then an incident occurred which, in itself innocent, gave these worthy psychiatrists the hoped-for chance for an oblique attack on Reich. A young woman suffering from hysteria had been imploring Reich for some time to take her on for analytic treatment and had threatened to commit suicide should he refuse. In order to prevent a disaster, Reich finally agreed to see her for a few sessions, without pay, only in order to make a diagnosis and to advise as to what should be done. Having

no license to practise, Reich could not take her on for treatment. To this the girl reacted with an attempt at suicide.

As it happened, the girl was sent to the very hospital where Dr. Schroeder was senior physician. Thus the head psychiatrist of the Department of Health had placed in his hands an unfortunate situation which he immediately made use of as a weapon to defend his own prejudices. He accused Reich in public of "having driven the girl to suicide by a treatment which he had practised unlawfully." In these public utterances, Dr. Schroeder carefully avoided mentioning such facts as that the girl had been suicidal long before coming to see Dr. Reich and that, in fact, she had previously made a suicidal attempt; and that her recent attempt at suicide was not the result of any treatment by Reich, but of the fact that *he had to refuse treatment*.

These sensational accusations were of course eagerly taken up by the daily press and soon a fight was on between the friends and foes of psychoanalysis. In this fight, the latter had the upper hand, largely because of the generally prevailing ignorance of psychoanalysis. In an article in the *Berlingske Tidende*, the most prominent daily paper in the country, Reich was accused of "psychoanalytic quackery." This judgment referred less to Reich than to psychoanalysis as such which the writer considered "a kind of scientific quackery." As to Reich, he suggested expelling him from the country, in order to "prevent one of these German so-called sexologists from fooling around with our young men and women and converting them to this perverse pseudo-science." It is noteworthy that this article appeared anonymously; years before its writer had been involved in a spiritualist scandal.

As a result of this campaign Reich had to leave the country because the authorities refused to extend his permit to stay. However this did not terminate his teach-

ing activities. Reich settled in Malmö, Sweden, only two hours across the sound from Copenhagen, and his Danish pupils crossed the sound several times a week in order to continue their training.

Then Reich's Danish opponents attempted another attack on his reputation by filing a charge of pornography against Edvard Heiberg who had published an article of Reich's in a magazine edited by him. This was an article which had previously been published in the "Zeitschr. f. psychoanalyt. Pädagogik." Heiberg was sentenced to 40 days in prison. The incident is worth mentioning because it gave rise to all kinds of irrational contentions. For example, the Copenhagen *Arbejderbladet*, a Communist paper, accused Reich, of all people, of having collaborated with the police in the case against Heiberg, the very man who was charged with pornography for having published an article of Reich's. The paper added that Reich, "in return for a job well done," had had his permission to stay in Denmark extended. As we know, and as they knew, this was a lie.

Reich did not stay long in Sweden. One of his students, Prof. Schjelderup from Oslo, arranged for his being invited to the University of Oslo to teach character-analysis. There, at the Psychological Institute, Reich was to have the opportunity of carrying out his bio-electrical experiments. He moved to Oslo in October 1934.

For about three years, he continued his research and his teaching peacefully. Occasional attacks by the Nazis or the Communists had little effect, since neither party had much influence in Norway. As long as the research results were not published, the official world of science had little to say, and in the meantime Reich's influence and reputation grew steadily as a result of his teaching. Several psychoanalysts resigned from the International Psychoanalytic Association to join Reich's organization.

Things changed after the first publication of the bion research in the "Zeitschr. f. Polit. Psychol. und Sexualökonomie" in 1937. The newspapers got wind of it and published a number of sensational articles. This was the beginning of a campaign of irrationalism which was to last for many months. Immediately, no less than three professors of medicine and physiology at the University of Oslo, Langfeldt, Mohr and Hansen, gave the press their "expert" opinion on the bion experiments, calling the whole thing utterly unbelievable and impossible. They had only read the report and were ignorant of the experiments. This did not keep them from giving detailed explanations of their own for the phenomena described. This attitude, and the use of such expressions as "rubbish" and "nonsense" in judging a scientific report, was severely criticized by part of the daily press.

This first attack was soon followed by one from another quarter, that of the psychoanalysts. In 1934, Reich had been expelled from the International Psychoanalytic Association, because of his continued insistence that psychoanalysis did have social consequences and that they could not be evaded. In order to maintain his independence, he had not availed himself of the opportunity to join the Scandinavian group of psychoanalysts. Between then and 1937, sex-economy had developed to such an extent that it no longer could be called psychoanalysis. As most psychoanalysts realized that sex-economy was the first development beyond Freud (in contradistinction to all other "unorthodox" movements within psychoanalysis, all of which had been away from or against Freud), they felt uncomfortable for a number of reasons. None of them had ever been able to disprove a single one of Reich's scientific statements. So they had to take recourse to other means.

An attack of the vilest sort was launched on October 27, 1937, by the Norwegian

psychoanalyst Ingjald Nissen, who declared in a newspaper interview: "Psychoanalysis in this country has become sort of a weedy garden, where all sorts of parasites and climbers strike root and almost choke what is of value." He complained about the "quackery" of "psychoanalytic sectarians" who "not even call themselves psychoanalysts any longer" and practice "some sort of quasi-medicinal relaxation analysis" which "only leads to sexual excitation." Something must be done about it, Nissen felt. He suggested that the physicians (who were completely untrained in psychoanalysis) and the orthodox Freudians should get together to decide who should be allowed to practise "psychoanalysis."

Who was this Nissen, who not only started the psychoanalysts' attack on Reich, but carried it on in a series of newspaper articles? It was the same Nissen who, a few years before, had highly welcomed Reich's move to Norway and had reviewed his books with the greatest enthusiasm. As long as Reich stayed within the general framework of psychoanalysis, Nissen called him "one of the greatest psychoanalysts." Now that Reich had gone beyond the confines of psychoanalysis, and, in addition, was getting into a heated public controversy because of his findings concerning biogenesis, now, Nissen suddenly felt Reich "lacking the broad knowledge of the subject (psychoanalysis), without which, we feel, no analyst can do." A good example of irrational inconsistency.

The newspaper campaign took on new violence after the publication of the book, "Die Bione," the first comprehensive presentation of the findings concerning biogenesis. The leader of the campaign became the psychiatrist Johan Scharffenberg.¹ He never tried to disprove Reich's

¹ According to reports from Norway, Scharffenberg took a very courageous stand against the Nazis during the early occupation. Unfortunately, this does not absolve him from the actions we have to describe here.

findings. He simply misused the authority of his official position to make statements which were such that nobody would have taken them seriously had they not come from the great psychiatrist Scharffenberg. Thus, he declared Reich to be a "psychopath." Some months before, he had already chipped in with Nissen. In a newspaper article, headlined "Psychoanalytic Quackery," published in January 1938, he had called Reich—by implication—a quack. Now, in April 1938, he launched a series of newspaper articles under the heading, "Are the experiments of Dr. Reich scientifically valid?" In these articles, he did not advance one single objective argument; instead, he threw into doubt Reich's integrity, even his sanity, by all kinds of insinuations.

The public reaction was that, after all, Scharffenberg had a right to disagree with Reich, but, as some people pointed out in letters to the Editor, the fair thing to do would have been to carry on a discussion in some scientific publication, instead of using the whole authority of a famous psychiatrist with a lay public which was in no position to judge the issue.

Scharffenberg began his campaign of defamation—for such was what pretended to be a discussion of scientific findings—by mentioning that Reich's permit to stay in Denmark had not been extended. He failed to say why—so the reader could imply anything he wanted. In the next article he added to the information that Reich had an M.D. from the University of Vienna the little remark, "according to Mrs. So-and-So." He thus started the rumor that Reich was not a physician at all. He spread the further rumor that Reich had wished to arrange sexual intercourse between patients at the Dikemark psychiatric hospital for experimental purposes. "It has been said," wrote Dr. Scharffenberg, "that Dr. Reich uttered the wish to make his 'main experiment' during sexual intercourse between psycho-

paths." "It has been said" is sufficient for Dr. Scharffenberg to put such a rumor into print, adding, as if to disclaim responsibility for his statement, "I have not been able to obtain full clarification on this point."

Soon, two more representatives of official Norwegian science joined Scharffenberg in his campaign. They were Professor Kreyberg, Norway's foremost cancer specialist, and Professor Thjötta, a well-known biologist. They made statements in the daily press to the effect that they had "checked" Reich's bion experiments; that what Reich called bions were well-known microbes; that there were no living microorganisms at all in his preparations; that Reich had less knowledge of bacteriology than an undergraduate of Oslo University.

The facts of the matter were the following. Reich, having discovered organisms which never had been described before, submitted samples of some early cultures to these two scientists, asking them to identify them if possible. It soon turned out that a collaboration of these scientists such as Reich had wished to establish was impossible. Thjötta had the impertinence to advise Reich to put his time to better use, while Kreyberg tried to have Reich subjected to an examination in anatomy and biology in which he, Kreyberg, would have been the examiner. As was shown, this cancer specialist was unable to recognize a living cancer cell under the microscope when it was shown to him; he had never looked at living cancer tissue before.

Now these two authorities publicly "refuted" Reich's experiments on the basis of what they called their "control experiments." All they had was certain preparations submitted to them for their opinion as to a definite question. "Control experiments" were out of the question, because they lacked the knowledge of what they were dealing with and the knowledge of the original experiments; more than that,

they did not even have microscopes powerful enough (2000-4000x) to make the phenomena in question visible. But how was the public to know that? All they knew was that Kreyberg and Thjötta were "authorities." Kreyberg kept referring to Reich as "Mr." instead of "Dr." He finally had to admit that his purpose in this had been that of making the public doubt that Reich held the degree of M.D.

This and more of its kind was, of course, grist for the mill of all kinds of Fascist writers who thus were given new ammunition against this "Jewish pornographer of the worst kind," etc. Papers such as *Morgenbladet* and *Tidens Tegn* began to ridicule Reich, now that "Professor Kreyberg has not left him a penny's worth of reputation and that Professor Thjötta showed his experiments to be mere dilettantism." Reich's repeated statement that he had never said he "created life," but that he was only demonstrating in the laboratory a process which was going on in nature all the time, was to no avail. His opponents kept referring to him as "self-styled creator"; the influential Fascist *Tidens Tegn* even carried an editorial headlined "God Reich."

A few days later, the same paper let the cat out of the bag: Reich's permit to stay in Norway had expired, and, according to authoritative sources it seemed doubtful whether it would be renewed. The whole campaign turned out to have the purpose of compromising Reich to such an extent in the public eye that, should his permit not be renewed people would think it had happened to an imposter and charlatan, and rightly so. That being public opinion, nobody would protest against an expulsion.³

³ Editor's note: When I was in Oslo in 1938, I had to apply for a permit to stay (the first 3 months no permit was needed). When I applied at the special police office (Alien Police), they asked me why I was in Oslo. As soon as I told them I was studying with Dr. Reich they threw up their hands: "Impossible!" Not only that,

Yet, this attempt was all too clumsy. It backfired.

Scharffenberg himself brought about this reaction with a new series of articles headlined, "Is Dr. Reich a serious scientist?" With these, he aroused the average Norwegian's sense of justice and fair play. It was at the time when the faculty of medicine of the Oslo University had to answer the state authorities' question whether Dr. Reich's presence in Norway was to be considered an asset to Norwegian science. As soon as Scharffenberg renewed his attacks, there appeared in the daily papers an open letter to the faculty, signed by a great number of well-known writers, scientists and artists, asking the faculty not to be influenced in their decision by senseless statements being made in the press. At the same time a letter from the well-known anthropologist Malinowski, then teaching in London, was published, in which he stated most emphatically that he would consider it a great loss to science if an "original and sound thinker" like Reich were not allowed to carry on his research. One of Norway's most prominent writers pointed out that all the excitement about the bion experiments was only a smoke-screen for machinations to get Reich out of the country. He also pointed out some of the

they asserted that Reich had no right to teach. Although I repeated my application through a lawyer, the permit was refused to me. This for the simple reason that I was working with Reich. They knew, of course, that during the succeeding 4 months, I was staying on in Norway "illegally." But they also knew that if they had tried to expel me, there would have been such a public uproar—because of Reich's reputation—that the better part of wisdom was not to attempt it. The men in the Justice Department who had the say about Reich's permit of residence were the Minister of Justice Jonas Lie and the Alien Police Commissioner Konstad. Lie, at the time of the Nazi occupation of Norway, revealed himself as a 100% Fascist. Konstad was generally known as Fascist and Alien buster. Lie had kept him in office in spite of the protests from the democratic public. The character of these men, then, throws some light on Reich's difficulties.

irrational features in the campaign: Reich was being attacked as a psychoanalyst though he had long since ceased to be one; as a "Red" though he had long since been branded as an enemy by the Communists; and, last but not least, he pointed out, Reich had incurred the wrath of all kinds of reactionaries and neurotics because his science dealt with the subject of sexuality.

One of Scharffenberg's colleagues revealed the fact that Scharffenberg's admitted aim in writing these articles was that of getting Reich out of the country. Public opinion turned more and more against Scharffenberg; the "Friends of the Right of Asylum," an organization of which he was one of the founders, even considered his expulsion from the organization.¹

However, the whole feud was sidetracked by the authorities who had to decide about the renewal of Reich's permit of residence. They found themselves in a dilemma. On the one hand, there was the verdict of such an important body as the faculty of medicine, who, in spite of the facts and the appeals made to them, had decided that there was no need for having Reich in the country. On the other hand, there was public opinion which was such as to make it difficult for them to expel a well-known scientist. In this dilemma, someone had a bright idea. Reich was allowed to stay, but there suddenly appeared a Royal decree to the effect that anybody who practised psychoanalysis had to have a special license from the Govern-

ment. It was generally understood that such a license would be refused to Reich.

What made the position of Scharffenberg and his friends even more difficult was Reich's attitude in the whole matter. He refused to enter into any kind of irrational fighting and simply went on with his work. Only twice did he enter the discussion at all: Once, in the very beginning of the campaign, he made a public appeal to be left alone until his experiments had advanced to a point where a detailed report could be published; and later, he suggested a public investigation of his bion experiments (a challenge which his opponents wisely refused to take up). The licensing of psychoanalytic practice did not have the desired effect. The authorities had no chance to refuse Reich a license, because he never asked for one. Character-analytic vegetotherapy, at that time, had already progressed so far beyond psychoanalysis that it no longer could be considered psychoanalysis; thus, the practice of vegetotherapy had nothing to do with a license to practice psychoanalysis. In addition, because the constant publicity over almost a year and the hostile attitude of some key-men in the medical profession made the continuation of the research increasingly difficult, Reich decided to leave the country to continue his work in a more hospitable and broadminded America.

To that extent, Reich's opponents had attained their goal. But, while they had made it practically impossible for Reich to go on with his work in Norway, and while his bion experiments had been publicly called charlatanism, the work kept progressing: in the beginning of the campaign in 1937, the T-bacilli were discovered; while the campaign was raging in 1938, the first findings with regard to cancer in mice were made; in January 1939 the orgone radiation was discovered in the SAPA bions, and in 1940 in the atmosphere. Though the emotional pest was raging, the work went ahead.

¹ Editor's note: A woman teacher out in the Norwegian country who had followed the press campaign against Reich, wrote an article against Scharffenberg in which she hit the nail on the head and named Scharffenberg's real motive, which, although known to those trained in sex-economy, had never been mentioned in the press. "She had heard rumors," she wrote (thus taking off Scharffenberg's method of defamation by "hearsay"), "that Scharffenberg was an ascetic and, furthermore, at an age when even the devil himself takes to the monastery." This hit home. Shortly thereafter, admitting publicly his incompetence, Scharffenberg gave up his campaign.

CORRESPONDENCE

ON THE PSYCHOLOGY OF ADOLESCENCE

A teacher writes:

I have read with great interest the early issues of your journal and I have been deeply impressed with the principles of sex-economy which are stated therein and which are elaborated in Dr. Reich's book, "The Function of the Orgasm." They have illuminated for me many of the contradictions in our educational treatment of adolescents.

The difference between the sex-economic point of view and that of conventional educational practice is illustrated, I believe, by the following problems.

Education for democratic citizenship has long been regarded as a major goal of formal instruction. In at least one important respect the schools have failed to achieve this objective. Intolerance, with its corollary, race prejudice, is a dominant feature of our adult society. What is the attitude of pedagogy towards this problem? May I quote from the "Psychology of Adolescence" by Luella Cole. "Many adolescents are also intolerant—a trait which marks them off from both the child and the adult. The child has the tolerance of ignorance and insensitivity to social stimuli, while the true adult has the tolerance of knowledge and understanding."

We are well acquainted with the average child's complete freedom from intolerance. It is not uncommon to see on the streets of New York mixed groups of children, gentile and Jewish, white and colored, Occidental and Oriental playing happily together. There is no question of tolerance: the right of each child is accepted by the others as God-given and not the subject of sufferance or permission. Is this ignorance and insensitivity or is it a natural feeling for life? There are exceptions, of course; where they occur, we may

look for prejudiced statements in the home.

This lack of intolerance carries over into early adolescence. We may observe in the first grades of high school that children of different faiths and diverse races are, frequently, the closest of friends; the white girl and her colored school mate regard each other as social equals. With sexual maturity, however, the picture changes: divisions occur, segregation, unconscious at first, manifests itself. At the senior prom, the Catholic boys and girls form one clique, the Protestants another; the Jewish children are grouped apart; and the colored boys and girls are tolerated. What has happened? And why? These students have just completed four years of high school education, they have studied intensively the American democratic system, and even before they are graduated, democracy has failed. They have made their adjustment to the neurotic forces in society, and no amount of further education seems to be able to alter the situation for the prejudice exists in even more marked degree among the teachers themselves.

That the beginnings of tolerance and intolerance occur with sexual maturity are not matters of speculation; they can be observed, as I have observed them for ten years, by every teacher of adolescents. What has happened? Just this: the strong natural instinct for sexuality which the adolescent feels at this time is rebuffed by school and home authorities. The adolescent is faced with the choice: to rebel and be treated as an outcast or to adjust (oh, that word "adjust"—what crimes are not committed in its name!) to society's unnatural demands and thereby lose his natural feeling for life and people. But really, an alternative for the adolescent does not exist. It is we, his teachers and

CORRESPONDENCE

275

parents, who are faced with the choice of a natural self-regulated sociability or a forced, artificial tolerance which is never more than surface deep.

But the adolescent's conflict is not resolved so simply. A frank discussion with any boy or girl in late adolescence will reveal the severity of the internal struggle. Superficially, he may accept the conventional morality of our time, but both in feeling and action, he longs for and strives for sexual happiness. If the adolescent boy or girl gives way to this instinctual urging, the result, too frequently, is a confusion paralyzing in its psychic effect—pleasure, disgust, desire, remorse and anguish. Amid this welter of internal dissension, can we expect the adolescent to exercise an impartial and independent judgment on social problems?

What, then, of those adolescents who have made a perfect adjustment; i.e., who have bought peace at the price of their mental and physical health? Are they not in a position to apply those precepts of democratic action which underlie the scientific approach to social questions? This group constitutes the great majority of our adolescents. What do we find? The Regents' inquiry into the cost and character of public education in New York State has revealed that the schools have failed to prepare students adequately for the responsibilities of citizenship in a democratic society. Since this inquiry is so highly regarded—its extensive research fully merits this esteem—may I incorporate this conclusion from its report "Education for American Life": "As to democracy and freedom, youth follows adults in being rather 'hard-boiled' and inadequately prepared to do what is required to preserve either." Should we be surprised at this attitude of youth? Have not we, the adults, insisted that he "adjust" to our way of life, our attitudes, our morality? What is such an adjustment but the sacrifice of

his independence based on an inner harmony with his sexual needs and emotional life and the acceptance of a dependence upon authority?

More instruction, more book "larnin'" is, obviously, not the answer. No! Not all the tea in China nor all the knowledge of a professor of history and political science could create a democratic citizen out of a frustrated adolescent. Knowledge is important, and sex-economy has recognized its importance, but knowledge is socially constructive only when applied by a natural, genital character. Recently, Howard M. Bell surveyed the youth problem for the American Council on Education. In his report, "Youth Tell Their Story," there is the frank recognition of this failure. Youth, itself, feels a deficiency in its educational growth and asks for more education. But not of the kind that they had had in school previously. No. Youth wants to know about life, about sex particularly, from an understanding of which it has been barred. On no other subject was there such unanimity of opinion.

What conclusions may we draw and what is the outlook? One deduction is inescapable. The development of the democratic character is not possible in a sex-negating environment. In this we see the result of Dr. Reich's formulation: sex suppression serves the function of making the adolescent, and later the adult, submissive to authority. The practical social effect is the maintenance of entrenched privilege.

In closing, I should like to quote from the introduction to "Youth Tell Their Story." "If there is anything in the nature of the present situation for sober adults to view with alarm, it is not that youth will rise in revolt against the programs and policies of antiquated institutions that are intended to serve them, but that they will, with a supine meekness, continue to ac-

cept these programs and policies exactly as they inherit them."

Of such stuff is fascism made.

THE OLD QUESTION OF MAGNIFICATIONS OVER 2000X

A reader of the Journal writes:

Dear Editor:

I am aware of a questioning doubt on my part. I have never heard of a microscope with a magnification of more than 2000x. I should like to know if you have a microscope with a magnification of 5000x. . . . There is a well-known bacteriologist here who claims that all living organisms give off a radiation. No one will believe him, but he insists upon it. As a result, can you imagine, his reputation as a bacteriologist has suffered. The academic attitude of official science! . . .

Comment:

Questioning doubts about microscopes with a magnification of over 2000x are not new. It seems that even the research world is still largely ignorant of the Reichert microscope which gives a magnification of 5625x, although it was put on the market as long ago as 1937. Since 1930, Leitz has been building a microscope with an objective lens system which by itself magnifies 150x; combined with an eye-piece of 25x, it produces a magnification of 3750x. The Reichert microscope has an inclined binocular tube which magnifies in itself 50%, i.e., it adds half of the given magnification. The given magnification being 3750x, this tube adds 1875x; the upper limit thus is 5625x.

The photograph of the T-bacilli (*This Journal*, July 1942, facing p. 129), however, was not taken at this magnification. It was taken with an objective of 150x and an eye-piece of 7x, giving 1050x. The binocular tube adding 525x, the micro-

photographic magnification is 1575x. The enlargement of the Leica negative to 9 x 12 cm resulted in a total magnification of 4725x. The T-bacilli have also been photographed with a 12x eye-piece, giving a microphotographic magnification of 2700x. The size of the T-bacilli is just at the margin of visibility, that is, about 0.2 μ . It can be readily seen that there is nothing mysterious about the magnification of 5000x. In view of the fact that microscopes providing this magnification have been on the market for a long time, and in view of the fact that these findings and technical details were published as long ago as 1938, the argument that "there is no such magnification" belongs in the realm of irrational argumentation. Nobody has a right to pass judgment on the bion findings until he has at least availed himself of the technical equipment indispensable for their study.

DISASTROUS FADS IN INFANT UPRISING

A physician writes:

Dear Editor:

For some time now, the streets in various parts of New York have presented a peculiar spectacle. Babies in their perambulators lie on their stomachs. One can see how they strain to keep their heads up; but they always drop back on the pillow. The muscles of the back are all tense. Some of the babies cry, others moan, still others struggle in vain to get out of this uncomfortable position. When I saw this for the first few times, I thought the mothers had put the babies on the stomach by accident. But when I saw more and more of this torture, it became clear that it was not an accident. It was, rather, one of these sporadic and yet endemic manias; one of these manias of improving on nature "with all the means of scientific and technical achievement."

Hardly two decades ago, physicians and mothers alike had the superstitious belief that the infant's legs, which are naturally bent, should be straightened. To bind the baby tightly, with the whole body straight, like a mummy, was common practice. The babies were miserable, but since they were unable to talk they could not tell the physicians and mothers that it was perfectly natural for a baby to have its legs bent, that that posture was comfortable while the straightening of the legs was painful. This fad was due to the physicians' and mothers' fear that unless the babies' legs were artificially straightened, they would remain bent. Only after decades of such abuse of the infantile organism, which did untold damage to the children's emotional development, did they finally discover that the children learned to walk properly, and developed straight legs, even if they were allowed to hold their legs in such a way as they themselves found comfortable.

No sooner had this wrapping torture been abolished than a new torture was advocated with all the world's scientific authority. Famous European pediatricians—completely ignorant of the infant's pleasure function which they even asserted did not exist—suddenly found that the infant's organism, in its nutritional function, had to be guided according to "strictest scientific principles." According to these principles, the baby was to be nursed only so and so many times a day; this had to take place at prescribed times, not a minute earlier or later; the infant was not to get one gram more or less than what "science" prescribed. Again the infants protested with crying, but also, more seriously, with severe intestinal disturbances. But again, they could not express themselves directly.

A third torture is only now in process of going into oblivion: the tying of infants' hands for the prevention of their touching their genitals and of thumbsucking. This

torture had persisted over centuries and had made neurotics out of generations of people. It served only the satisfaction of a certain need on the part of the adults: they did not want to be reminded of their own infantile desires for thumbsucking and masturbation. It took a Freud and two generations of analytically enlightened pedagogues to start the fight against this torture. And yet, we are still far from the times when the infants' pleasure function will be given free development.

And now we are apparently witnessing another kind of torture. The infant, instead of looking up into the beautiful sky and into human faces, always has the white pillow in front of it. The infant's spinal column, instead of being allowed its natural rounded form, is forced into a lordosis, a pathological attitude which in this way is produced not only around puberty but already in infancy. If one inquires for the motive for this torture, one is informed that it is good for the "strengthening of the musculature of the neck and the back." One must ask why it is that science is so concerned exactly about the musculature of neck and back while not paying any attention to the musculature of the abdomen, pelvis and genitals. Would it not be better to utilize any of the well worked out methods of infant gymnastics, instead of producing this early lordosis?

There is good reason to distrust this concern over "the infant's well-being." The muscular attitude which is forced on the children is exactly the one which one finds in the adult in the form of chronically fixated rigidities of the musculature of neck, back and pelvis, with the corresponding lumbago, lordosis and scoliosis. It is the very muscular attitude which is at variance with the orgasm reflex and makes the orgasm reflex impossible. Such measures are extremely harmful. In reality, they are not determined by any concern for the child, but by irrational

motives. One has to agree with those physicians and teachers who strongly condemn such artificial and unnatural measures. Keeping infants arbitrarily lying on their stomachs has a devastating effect on their physical and emotional development. It should be our task to aid the natural functions of the body and not to inhibit them. Old experienced physicians consider the most important principle of the medical art that of "*nil nocere*," of not doing any harm, and to take a hand in the process only if nature cannot cope with it. Lying on the back is just as natural for the infant as having its legs bent in the hip and knee joints. If a baby, now and then, prefers to lie on its stomach, let it. But to force it to do so, because of some erroneous and preconceived idea, is another thing. Against such a dictatorial measure, which is bound to produce another generation of neurotics of a new type, those who are interested in the normal development of children must raise a vigorous protest.

REALIZATION OF CHANGE

Dear Editor:

I have always been interested in the graphic arts as a form of self-expression, and have studied something of the history of Art. Lately I have started to develop a latent aptitude for drawing and am studying the technique of water-color as a hobby.

Recently I was looking over some fine color reproductions of landscapes, portraits and nudes in an art portfolio belonging to a friend. As usual the landscapes held me spellbound, as my study has centered chiefly about landscape painting. The portraits I passed over rapidly as they seldom compel my attention. I attribute this fact to my present inability to understand the human face or to read lineal expression.

Then I came to the nudes. There were

several by Henner that were familiar to me and some that were unfamiliar. Suddenly I became aware of the fact that I was seeing these pictures in a new way. I was struck by the beauty of the feminine curves, the tenderness of the flesh tones, the soft line of neck, breast, hip and thigh. The unexpected emotional quality of my response amazed me so that I began to analyze it. I realized then that the vegetotherapy treatment I have been undergoing had brought about a profound change in my attitude toward the nude figure in Art. I will try to describe my former point of view as it is now apparent to me, in sharp contrast to my present attitude.

Formerly I used to wander somewhat aimlessly through galleries, feeling vaguely compelled by the beauty about me, academically interested in the styles of artists whose work I had studied, seeking out the pictures I recognized. Whenever I encountered a nude I paused with a sort of guilty excitement. The sense of guilt was so strong that I would be compelled to look about surreptitiously to see if anyone, particularly a man, were noticing my interest in the subject. I sensed then that my interest was pornographic, and for that reason was ashamed to tell anyone of my reactions to these pictures. I was also strongly drawn to pictures of women suckling their babies. Religious pictures of Madonnas and Child seldom interested me unless they represented the Madonna with the Child at her breast. Incidentally, I felt "safe" in gazing my fill at these pictures because they were "religious." No one could possibly think me "sexy" for looking long and hard at a religious picture!

I feel now that my interest in these mother and baby pictures was due to my own empty and starved condition. So great was my need at times that I would go into a gallery with the express purpose of looking for such representations, feeling guilty at the thought of my object in being there. On such occasions I would hurry

feverishly past landscapes, portraits, famous primitives; nothing had the slightest power to hold me but such pictures as I have described, nudes or pictures representing a mother holding her child to her breast. Interestingly enough, I was guiltily aware of being more delighted with a picture showing the breast exposed through an opening in the dress than in a completely nude figure. I felt more "wicked" and excited at seeing a fully-dressed woman exposing her breast than a completely nude woman.

In contrast to this attitude, I return with relief to my present realization of change. I now see the artistic nude figure as a thing

of beauty, glowing with health, containing the vibrant meaning of life itself. Malvina Hoffman's "Column of Life" as pictured in her book, "Heads and Tales," now fills me with a heart-felt gratitude for the quickening experience that it affords me. My feeling when I look at that picture embodies all the growing serenity of mind and sense of true values that the vegetotherapy treatment is making possible for me. The realization of change is so startling that it seems hardly credible that it is I who am looking at these pictures with such insight and deep natural pleasure, unmarred by guilt or feverish excitement.

NOTES

ON THE TECHNIQUE OF IRRATIONALISM IN SOCIAL LIFE

The American movie film "Emile Zola" splendidly depicts the technique used by the emotional plague for the destruction of decent human beings. The charges of the military clique against Dreyfus went something like this: "Dreyfus worked very hard. Crime! He led a quiet family life. Crime! He studied eagerly the secrets of military science. Crime!" The fact is generally overlooked that this technique of defamation is not something which happens in rare and isolated cases, but it is a chronic and ubiquitous disease of our society.

In December 1941, Wilhelm Reich was arrested and detained in Ellis Island for over 3 weeks. This senseless procedure was probably the result of a denunciation. On January 5, 1942, he was unconditionally released, and his "case" was closed as far as the authorities were concerned.

Then, in May 1942, a friendly neighbor came over and related the following story: The day before, two plainclothes men had come to see him and had asked him whether he had noticed anything queer going on in Dr. Reich's house. They gave the neighbor the following details: Dr. Reich, they said, had given rise to all kinds of suspicions at the place where he had lived before (which was in the same suburb, only a few blocks away). For example, they said, he used to pay his rent promptly on the first of every month; where did he get the money? Sometimes there had been lights in his study until three o'clock in the morning. Sometimes, they said, one heard queer noises from his house; apparently he must be an "abortionist," a "Communist" or a "Fascist." In addition, he kept rabbits in his backyard. What was particularly suspicious, however, was the hedge around the place which he let grow very high. There had been quite a number of other queer goings-on there.

The neighbor, who knew about Reich's scientific and experimental work, told the detectives that Reich was devoting all his time and money to cancer research.

As Reich knew that such seemingly silly occurrences often enough can lead to serious consequences, he wrote to Police Commissioner Valentine of New York, advising him of the fact and asking whether it was true that a new investigation was under way. At the same time, he himself requested that another house search and an investigation of his activities be undertaken and definite charges be made against him should the facts warrant this.

A few days later, Reich was visited by a police official who reported that all police precincts had been questioned about the matter and that it was found that no police investigation of any kind was pending against him. Neither did the FBI or the District Attorney's office know anything about such an investigation. In other words, the two "police detectives" had been imposters. The official suggested that Reich keep in touch with the police and gave him the telephone numbers of the police offices where he should call if he were molested in any way.

This story is related here not only as an oddity, but as an example of the ways and means with which the people afflicted with the emotional plague fight against Reich's scientific work. These ways and means are exactly those which the Fascist pestilence employs everywhere in an attempt to defame and destroy its deadly enemies, *truth* and *decency*.

Thus far, the police have not succeeded in identifying the instigators of this machination. Undoubtedly, they are the same people or groups of people who instigated the infamous Norwegian press campaign in 1938 and the senseless arrest in New York in December 1941. It is only a question whether they are part of an organization or unconsciously Fascist mystic individuals. Their technique is simple. They take completely harmless everyday facts and relate them in such a manner as to make them somehow suspicious. The same fact, as well as its exact opposite, may equally well be used for the purpose. For example: "He always pays his rent promptly the first of the month (*where does he get the money*, is he perhaps a paid agent of Moscow? or an abortionist?" etc.) or, "He is always behind with his rent (*what does he do with his money*, perhaps finance Bund activities?" etc.).

In employing this technique, they make use of the neurotic mechanism of biopathic people who react to the scientific elaboration of natural sexual processes or to the description of new, unusual facts, with anxiety and animosity. This mechanism is an essential part of what is called "public opinion" and which, *erroneously*, is taken for rational judgment. This public opinion is, as a rule, the creation of a few neurotics who have failed in life and are unable to stand happiness in love in others and are unable to tolerate the search for truth or a behavior which is truly alive. Techniques of this kind, which the emotional plague has developed into a fine art, have hitherto not been understood.

Nor are there any rational measures against them. German Fascism has constantly made use of these techniques to confuse millions of people in all countries; with the help of this confusion it has come to power and has been able to secure its place. It is the very technique which made *the same people*, before Pearl Harbor, call Roosevelt a warmonger who was driving the American people into disaster, and who defamed him, after Pearl Harbor, by saying he had prepared for war too little and too late and was thus driving the country into disaster.

The workers of this Institute have been on the track of this technique of the Fascist emotional plague for a long time. It has been some time now since it revealed its secret. It is hoped that before long the means will be found to put a stop to these things.

A. S. NEILL'S "THE PROBLEM TEACHER"

Editor's note: This continues the excerpts begun in the July issue, p. 180 ff.

THE TEACHER AND THE SCHOOL SUBJECT

I have already suggested that the school subject is one of the means used by the State to prevent the child from being educated. It is a safety valve. The only dangerous subject is History, and the textbooks are so written that they are almost dangerproof. Fortunately the State cannot eliminate the teacher's adding his own version to that of the approved book unless it is a State of the totalitarian type with a terror behind its commands.

Both elementary and secondary schools fail to be educative because they only provide for the intellect and the memory. Education should be creative all the time, but every schoolmaster knows that his work is almost without creation. Only when creation is recognized as the only dynamic factor in education will our schools be real places of education. So long as learning poetry is preferred to writing verse; so long as reading Shakespeare is more important than writing a play; so long as vulgar fractions on a blackboard are of more moment than fractions used creatively in making something in wood or metal, our schools are failing to educate.

New pupils come to me with long Reports from their previous school.

Mathematics—fair.

English—some advancement on last term's work.

Drawing—very good, but is apt to be careless in detail.

General Behaviour—inclined to show off too much in class, but improving.

If I issued Reports at the end of term I should feel inclined to make them after this fashion:

Mathematics—lousy, but that doesn't matter.

English—his vocabulary has improved

since last term, but he should be warned against using it in Aunt Mary's presence.

History—haven't the least idea and have no wish to discover.

General Behaviour—his parents will find out how that is before he has been an hour in the house.

Now I am being skittish, yet I cannot see what attitude one can take up other than a humorous one. The whole subjects racket is a joke, only the specialists cannot see it, and the children dare not see it. When Smith Minor is fifty how much will it matter to him or anyone else what opinion his English teacher gave of him when he was twelve? Negatively it may matter a lot, for the millions of school reports that have been issued have helped to lower the self-confidence of millions of children, have given unnecessary fears to millions of children. This is known to all of you who carried home the damning Report to a father you knew would be irate. How many children have "lost" their Reports on the way home?

But it isn't the Report that is the culprit: the evil lies in the teachers' attitude to the subject. If Reports are to be retained I propose that they should be written by the children themselves, about themselves with an appendix about the teacher. Such a Report might run something like this:

"I hate Maths and the Maths Mistress is a beast. I like English because Mr. Brown lets us write gangster stories or anything we like. My history is pretty bloody, but Miss Green is so dreadfully dull with her tiresome talk about Roman Civilisation. Handwork is O.K. in a way, but we aren't allowed to make what we want to. Who wants to make a pen tray? I want to make guns and aeroplanes. I

loathe drawing since Miss X came because she keeps breathing down the back of my neck all the time. Worse still she eats garlic."

What an excellent thing it would be for schools if the children were allowed to write Reports of their own! How spring-cleaning! How disastrous to century-old cobwebs! How exhilarating to subjects specialists! Alas, most of the Reports would be lies: even if they could be published in a School Magazine anonymously, each critical child would fear that anonymity would fail to protect from staff vengeance.

THE TEACHER AND SEX

It is a human right of everyone who has reached sexual maturity to have a sex life. Today this can only be had in marriage, and all extra-marital relationships are condemned by law and morality. Owing to the marriage stipulation many teachers have no sex life at all. There are thousands of women who, for one reason or another, have never found or taken a husband, and many of these women teach in our schools, indeed the more respectable a girls' boarding school is, the more spinsters are on the staff. Men teachers have sometimes to work for years before they can afford to marry and set up house. Owing to the respectability of their profession they cannot easily have a sex life that is taboo in the eyes of morality. The teacher in the big city may have comparatively safe opportunities, but the teacher in a small town or village has too many eyes to evade.

Let us consider the consequences, the price society pays for its sexual morality. Repressed sex always becomes converted into something else, often anxiety, sometimes nervous breakdown, probably sometimes physical breakdown, often just pure irritation and hate of life. Anxiety is the commonest direction that repressed sex takes.

In our moral society we have not only the daydreaming of the children during a lesson: we have also the phantasying of the sex-starved teacher. This is often attached to fear of authority, and such teachers live in dread that the head will come into the room and catch them bending. A sex life does not abolish fear: it abolishes the neurotic fear, the phobia. Fear of bombs is not neurotic but fear of mice or spiders is. Fear of school inspectors in the days when they had the power over the teacher's salary was a real fear; fear of an inspector today is an unreal fear. It is an emotion attached to the wrong thing. This is another evil result of sex suppression: the sex emotion is transferred from its original, unattained or unattainable object, and it can attach itself in a negative form to other objects, children perhaps. Only a teacher who is not having a sex life will flare up if a child writes a sexual word on the wall.

It is one of the tragedies of education that a married woman is not allowed to teach. Not that marriage itself is an exact criterion: many married women never get a full sexual satisfaction owing to their inhibitions or to the inhibitions of their husbands. A married woman, however, has at least the chance of a sex life whereas her unmarried sister has none.

This brings up the vexed question of women teaching boys. The usual argument is that they cannot keep control. I say control be damned. Children should be taught by both sexes. Boys require a mother substitute, girls a father substitute. The difficulty is that today these substitutes are so often without a sex life. One result is that the teacher of either sex has an unconscious sexual attitude to the children. This is seen in favouritism. Sometimes an unmarried man will attach his emotions to an attractive little girl in his class; sometimes the unmarried woman teacher has a like attitude to a boy. Sometimes the emotion is so strong that when the favourite is

absent the day's work is dull and tiresome. I hasten to say that this emotion is never conscious, at least the underlying sex emotion is never conscious. It is a fact that emotion can be quite dissociated from age, and a man of forty can have a "pash" on a girl of ten, because the man of forty whose adult sex life is not in order, regresses to emotions long past. This follows easily because in childhood sex and love are frowned on so much that early fixations are formed, fixations that live on till death. . . . In the case of the sex-repressed teacher the temptation to break away may be weakened by the constant association with the family in the form of many little brothers and sisters.

One of the great dangers connected with the sex-inhibited teacher is that of conversion of sex energy into jealousy. I found in myself that my anxiety lest two young people should sleep together had, as its main root, my own infantile jealousy. I know of a large girls' school where the staff shows its dislike of visible breasts, and the girls come to be ashamed if they do not look like flat-chested boys. This is not only caused by jealousy on the part of the sex-starved women: it has another root also—it springs from the scorn of sex that the unsexed person develops. "Anyway sex is an overrated thing. We must do all we can to ignore its existence."

It may be masculine arrogance on my part when I say that women teachers who have no sex life are more dangerous to children than men teachers in the same predicament. A woman who has let her youth slip by without having a sex life, has little opportunity of beginning one when her peach-like charm has gone. Hence the oldish woman renounces sex as unattainable, while the oldish bachelor hopefully glances at the ankles of the young girls. Lack of a sex life seems to lead to more irritation in a woman than in a man.

What is then the solution? That only

married teachers should be allowed to deal with children? Do we not all know married teachers who are as bad as unmarried ones? Haven't you and I known scores of married headmasters who were cruel brutes, married women who were shrews?

That brings me back to the theories of Dr. Wilhelm Reich. I have already mentioned his belief that repressions show themselves in the muscles, appearing as stiffness and cramping. These repressions are primarily sexual, so that all the muscles of the body are, as it were, fortifications guarding the sexual apparatus from danger. When the child is corrected morally he stiffens his stomach. I took that with a large grain of salt when I first heard it from Reich, but on examining the small children of Summerhill I was astonished to find that the ones who had been brought up without morality had soft stomachs, while the children of the religious and moral had stiff stomachs.

Reich contends that because of sex prohibitions few men and women in a civilised country ever get the fullest enjoyment from the sex act. He holds that muscle tension prevents a true orgasm reflex. The result is that many women have sexual intercourse without a real orgasm (a fact that every doctor and psychologist has known for years). Many men perform the act without getting the enjoyment they desire, and not infrequently one hears a man or woman say: "It's an overrated pastime."

Reich's theory is the only one that explains the reason why married life is so often unsatisfactory. It explains the raging virago of a wife who nags all day long; it explains the husband who seeks pleasure out of his home most of the time, and I don't mean only sex pleasure, I mean his darts and clubs and hobbies. Married life is not synonymous with love life, indeed, marriage is the greatest obstacle that love can meet, for marriage involves per-

manency, and love cannot be made permanent by law: love should be free.

So long as love is unfree, marriage will be accepted as the only respectable means of having a love life. That marriage is the greatest danger to love is certain: its possession, its bondage, the economic dependence of the wife on the husband, these are all fatal to love, because marriage is static and love is dynamic. Emotion can be repressed but it cannot be destroyed. If Mrs. X falls in love with Mr. Y her social surroundings may prohibit her from ever consummating that love, and the price is a heavy one: her married life must become a lie, her sex life with her husband must be an unhappy prostitutionary one, her children, infected by her unhappiness, must suffer and be unhappy. Worst of all she is haunted by a sense of guilt, even though she has never kissed the man she loves. It is the story of a million women, of a million men. It is the story that explains why countless women find the sexual act unpleasant, why countless men find it unsatisfactory. Marriage is the surest way of converting love into lust.

Love is lust with tenderness added. In love both parties have the same tenderness to each other after sexual intercourse as before. If love is absent the man generally wants to get away from the woman after the act. Under a sane sex morality love would be the only criterion of sex behaviour: men and women would sleep together solely because they wanted each other, and no third party would have any right to interfere or to forbid.

However, since we do not live in Utopia, we must look at things as they are today. In our schools stand thousands of teachers who either accept morality or feel themselves confined and confined by it. How does their attitude affect the children?

It is not easy to say. What a child acquires unconsciously is still a hidden secret, only partly guessed at. One thing is

certain, however, that the unconscious of the teacher does in a mysterious way affect the unconscious of the child. A sex-repressed headmistress will quite unconsciously give her girls a guilty feeling about sex. The mere fact that sex as a topic is taboo in school denotes that the new generation, having no education on the subject, is forced to accept the current morality of sex. True there are teachers who try as well as they can to obviate this by giving sex instruction about the bees and the pollen. One young man of my acquaintance tells me he feels like blushing when the word pollen crops up in conversation: it is obscene to him. Sex instruction can get nowhere until we tell children truthfully that the chief element in sex is pleasure, for it is the pleasure of sex that makes it taboo.

Reich's view of sex repression has wide social significance. . . . His book *Der sexuelle Kampf der Jugend* (The sex battle of youth) will, I hope, soon be available in English. In this book he emphasises the misery of sex among the young, how that they have no place for love, how that as a substitute for love they seek furtive, unsatisfactory sex congress in corners and lanes; how that they are mostly ignorant of preventives and in any case are too poor to supply them. It is the book of a brave fighter for freedom, a book that has raised more hate and passion than any book I know. Reich wants to see a new morality, founded on love and not on vested interests and possession.

If Reich's analysis of society is right, and personally I believe it is, what harm is being done by the teachers' acceptance of conventional sex morality? The schools are producing not only wage slaves but sex slaves. Sex is the creative force in life and our revolutionaries hope to remake the world by ignoring it, hope to remake it by their heads alone. Rebels with a sense of guilt are handicapped from the word go. This is why so many rebels are haters;

they hate the rich rather than love the poor; they hate not as free men but as bound men. They think that their chains are from Capitalism and they are quite unaware that the strongest chains are those of their own repressions, not only sex repressions but spiritual repressions.

Sex repression and economic suppression allow much emotion to go to seed, so that when a Hitler comes along the emotion can be showered on him. Emotion for a Hitler is fundamentally the same emotion that goes to religion. In some of his followers it is an emotion of worship. It is not without significance that the South German greeting has changed from *Grüss Gott to Heil, Hitler*. The coming war will be to many a holy crusade, and as long as we have an unattached emotion, we shall have our Hitlers and wars and poverty and exploitation.

I have wandered far away from the school and the teacher. That is as it should be, for the teacher's job is only partly in the school. He is part of society and if society is what I have described it as being, he is part of the whole suppressive complex that is a conspiracy against human nature and human pleasure. And by sticking only to his school subjects he is helping to perpetuate that society; he is helping to bolster up a civilisation that denies economic and sexual freedom to human beings.

If the teacher's attitude to sex is a limited one he is not in the position to understand or to help children with sex difficulties. The teacher with a guilty conscience about masturbation cannot help the child with a like conscience. The so-called dull child who daydreams his class life away is so often the child who cannot solve the awful problem: Is sex sinful or not? All the discipline or talking in the world cannot help such a child, but the sympathetic understanding of the teacher can. Worries about sex take up more of a child's libido than all the school subjects

in the world. The teacher who fears to face the sex question sees only the ability or inability to do arithmetic or to behave well in class. He sees only the outer shell of the child.

Many people indignantly assert that too much importance is attached to the sex question. They declare that children are not obsessed by sex. I once taught in a co-educational school in London, where the pupils were all of good middle class. In two years I never heard a sexual word, indeed, I discovered that boys of fifteen did not know the vulgar words for excrement or even the sex organs. I was greatly puzzled but light dawned upon me when the headmaster held a long lecture on the enormity of a boy of nine's kissing a girl of eight. But I did not realise how much the apparent sexlessness of the middle class was a myth until I had a school of my own. I find that children of five from middle class homes react to freedom by showing an intense interest in sexual and excremental affairs, so much so that their language is sometimes awkward when the wrong type of visitor is being shown round the school.

... a question that teachers often ask me: "Is it necessary for a teacher to be psychoanalysed?" Hitherto I have answered: "Yes. You can't deal with others if you are unaware of your own unconscious." I have lost my certainty now. I have been saying for years that psychology could not advance far until it joined up with physiology, until body and soul were seen as a unity. That is why Reich interested me: he was the first psychologist I had met who considered the body at the same time as he considered the psyche.

One difficulty is that there are so few books that can really help the teacher to an understanding of child psychology. Books on psychoanalysis usually deal with more or less pathological cases. The teacher should study all schools, taking from each what he feels he can accept. He should be

warned that his own repressed attitude to sex may make him overvalue the psychology of Dr. Alfred Adler, a doctrine that is apt to attract the timid ones whom Freud scared away with his sex theory. But now that Freudianism is so respectable, Adlerianism may begin to lose ground, for Freudianism only shows up causes; it does not translate its theories into action. Reich says: "If we free sex repressions, what then? What is the patient going to do about sex activity? How can our youth have a sex life even if they get rid of their repressions? They have no facilities. Therefore we should aim at changing society so that sex can be free." The Freudian would say: "That is not our affair. I deal with the individual, and it is not my job to help him to a sex life; all I do is to show him what is behind his lack of sexual satisfaction, and then he can do what he likes. It isn't for me to advise him in any way. Nor is it my province to reform society so that sex repression will be abolished."

I have an uneasy feeling that the Freudian fears freedom as much as the Calvinist did. Freud was welcomed in England as a distinguished refugee; Reich has been driven from country to country. It is always a dangerous thing to advocate real freedom.

THE TEACHER AND HIS DIGNITY

The gulf between a teacher and his pupils is very similar to that between officers and men in the army, and it has the same basis... familiarity breeds contempt, and discipline and obedience are undermined. In the army and the classroom we find the servile "Sir"; we find similar commands.

Respect is an enemy of sincerity in life. It is a word I personally should like to see taken out of the dictionary, if taking it out of the dictionary could miraculously abolish what it stands for. It stands for fear and nothing else. It is impossible to associate it with love, for love can only exist

between equals. Dignity is the means by which a teacher demands respect.

Instead of preaching against dignity I shall describe how a school runs without a scrap of dignity on the part of the staff, and in consequence, not an iota of respect from the pupils. The staff is addressed by Christian names. Nicknames flourish most easily in a disciplined school, surreptitiously of course, and we have never had in Summerhill any craze for them. The younger children call Parsons the hand-work teacher Snips or Nippers, but the older ones call him George. To the children and the maids I am Neill. Shakespeare didn't know what he was talking about when he said that there was nothing in a name: there is everything in a name. The gulf between George and Mr. Someone is a very, very wide one.

When a child calls his teacher George he is free from fear. When a teacher accepts being called George he is free from dignity. Then we have a situation in which the personality of the teacher cannot stand between the child and the work.

This is important. Work should always be done with a single aim—the acquiring of knowledge or skill or both. When a "respected" personality stands between a child and his work, the work is no longer one of a single aim: it becomes a constellation of teacher plus work. In Summerhill work is never done because of the teacher's personality. There is no desire to please the teacher.

It is noteworthy that people of real dignity are never dignified. The wife of a profiteer displays much more dignity than a duchess, naturally, because she is unsure of herself... The class explanation of dignity is not the whole story. There is the psychological side. The temptation to wear a psychological top hat is in every one of us, and boiled down, the teacher's dignity comes from his belief that his is a top hat job. His is the dignity of the boy who has attained to long trousers.

No man or woman ever grows up. The main reason for this is that no child is allowed to live out its playhood, but another reason is that no child is allowed to satisfy completely its childhood curiosity about life. This is seen in the average adult's finding of humor in watercloset stories, or in sex stories. It is seen in the adult's delight in cartoon pictures of destruction, and in slapstick comedy of the screen.

The dignity of the teacher is his defense against his betrayal of his innate childishness. He is the cripple boy who could not go with the band that followed the Pied Piper to the never-never land. The child in him has the same attitude to schoolbooks as the children in his class have; he has the same longing for freedom that the children have. He dimly feels that one touch of real humanity would blow the educational system sky high. That is why he must always have perfect control over the pupils and over himself. That is why he must be so very careful in his language, never allowing the suggestion of slang or vulgarity.

Tidiness is also a form of dignity, of attempted grown-upness. The inherent interest in science is killed in thousands of children by the stupid insistence that they write out every experiment neatly in an exercise book. The only excuse for neatness is utility; a garage finds it more useful to have its nuts and bolts arranged in boxes according to size than to have them all mixed up. A teacher should have one box for pencils and another for pens, but he should not give the children a divided

mind that will have science in one box and the description of science in another.

Tidiness has this in common with grammar that it exaggerates the means at the expense of the end. Tidiness is dignity applied to objects. Children when left to themselves have no use for tidiness. That is because a child sees in the object only a means to an end, and that is why children are often so annoying to adults when they use, as means, things that the adult values or overvalues.

That dignity and tidiness are related is seen in the value that is attached to dress. It is significant that the teachers in Summerhill dress carelessly in old clothes with open-necked shirts, while State teachers have to appear at work in decent clothes. That is explained by the fact that dress and dignity are external things, hiding nakedness.

It would not be true to say that the teaching profession is overdressed, or even consciously interested in dress. What I am complaining of is that the profession is not interested in undress. If our schools were staffed by teachers who wore open-necked shirts and shorts, the dignity of the profession would be automatically lessened.

The urgent need is that teachers become human, that they become members of the gang, that they identify themselves with their pupils, that they renounce all claim to be superior in any way. Their dignity is a barrier that must be broken down if the next generation is to have any chance of facing life more bravely and honestly than our generation has done.

