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The Plasmatic System (Part I): The Immune Function

Charles Konia, M.D.

Editor's Note: *Dr. Wilhelm Reich identified the plasmatic system as the basic life apparatus which he described as comprised of the autonomic nervous system and the vascular system. This article, originally published in 27(1), 1993, is the first of two by Dr. Charles Konia that advance our understanding of the plasmatic system to include the immune and the endocrine systems. This first article also develops a groundbreaking functional understanding of the immune system. In the process of developing functional concepts of antigen and antibody, Dr. Konia for the first time brings a functional energetic approach to the traditional concept of receptors: which can now be understood as "perceptors," the somatic sites of perception. With this concept Dr. Konia has extended the understanding of the functions that comprise contact—excitation and perception—into the somatic realm. Basic functions in the entire field of biology can now be put on a solid functional, rather than mechanistic, basis. The implications of this understanding are profound for all of biology and medicine, but particularly for neurology, immunology, and endocrinology. Somatic biopathies in general can now be better understood in terms of problems of contact, thereby opening up a new, practical means of approaching them clinically. [Peter A. Crist, M.D.]*

Introduction

The plasmatic system maintains the vital functions of the organism. It consists of two major divisions: the autonomic nervous system (ANS) and the vascular system. Together these systems 1) anchor the *pulsatory function* within the organism, and 2) maintain its *orgonotic charge* at a certain level (the orgonotic capacity) above that of the environment.

Shock is a life-threatening situation in which the level of the organism's orgonotic charge is suddenly diminished, a condition which is akin to *acute anorgonia.* There are two forms of shock: neurogenic shock which involves the vegetative division of the

plasmatic system (ANS) and vascular (or cardiogenic) which involves the vascular division. The involvement of the two divisions of the plasmatic system in shock illustrates the importance of this system in maintaining the energetic integrity of the organism, a clear indication of why it deserves to be called the vital apparatus.

Reich was the first researcher to identify the two major components of this system (Reich 1948). However, there is ample anatomic and physiologic evidence to show that the plasmatic system is actually more extensive. It involves other organ systems that are not only developmentally (embryologically) derived in close association with it, but also function in an integrated manner together with it.

The Autonomic Nervous System

First, we will review Reich's important contributions in elucidating the functions of the plasmatic system. In contrast to the central nervous system (CNS) which is organized on the basis of bilateral symmetry, the ANS is a core-periphery system organized on the basis of radial symmetry. Mechanistic medicine does not fully grasp the importance of this system's role in maintaining the vitality of the organism. It views the ANS exclusively as a motor system innervating smooth and cardiac muscle (i.e., involuntary muscles) and the glandular cells.

Reich was the first to develop an approach for a satisfactory comprehension of this system. Microscopic observations made by Reich of worms revealed the similarity of the rhythmic movement of their ANS (which *preceded* the actual movement of the organism) to the pulsatory movement of protozoa (amoebae) (Reich 1948). Since protozoa had, as yet, no organized nervous system, he drew the logical conclusion that what was of primary importance in motor activity was the *pulsatory movement itself* and not the organized structure of the nervous system. Similarly, sensation is an *energetic* process which only secondarily becomes structuralized as sensory nervous tissue. In higher organisms, the ANS contains the basic life function of pulsation as seen in its simplest form in an amoeba. Placing primary emphasis on energy movement and not on structural details, Reich was able to penetrate to the heart of the life function: *full, unrestricted, spontaneous pulsation.*

The ANS consists of two functional components, the sympathetic and parasympathetic divisions.

The core-periphery arrangement of the ANS is recognized in two anatomic features:

- Each autonomic innervation requires two sets of neurons, a preganglionic fiber and a postganglionic fiber.
- The central location of the sympathetic division and the peripheral location of the parasympathetic division.

The sympathetic nervous system (SNS) is *centrally* located along the *thoraco-lumbar* segments of the spinal cord. Their ganglia are placed *centrally* at large distances from the organs they innervate. The ganglia of the parasympathetic nervous system (PNS) are *peripherally* located (in the brain and along the sacral segments of the spinal cord). Their ganglia are placed close to the organs they innervate; that is, at the periphery of the organism. This is referred to as the craniosacral division. It follows from these anatomical considerations that central excitation is functionally identical with innervation of the SNS while peripheral excitation is identical with innervation of the PNS.

In contrast to mechanistic thinking, functionalism is capable of satisfactorily grasping both psychic and somatic aspects of the living. The pulsatory function of expansion and contraction can be demonstrated in both the psychic and somatic realms. In the psychic realm, expansion and contraction correspond to the emotions of pleasure and anxiety.

In pleasure, a central impulse moves *outward* to the periphery; the organism reaches out to the world. The most prominent manifestation occurs in the sexual function. This is shown in the following diagram:

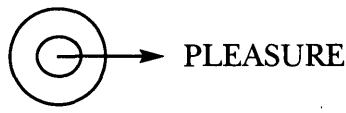
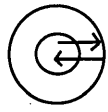


Figure 1

In anxiety, a central impulse moves outward to the periphery but becomes blocked in its outward movement and turns inward. The organism withdraws into itself.



ANXIETY

Figure 2

All biological functions are based on the unimpeded oscillation of expansion and contraction (pulsation) of biological orgone energy. The autonomic innervations of the various organ systems can be derived from this simple principle. From this perspective, the functioning of the ANS, which makes little sense to mechanistic medicine, is full of significance. Parasympathetic and sympathetic simply reflect two directions of movement. Sympathetic innervation effects movement from the periphery to the center (central excitation) while parasympathetic innervation effects movement from the center to the periphery (peripheral excitation). The solution to the riddle of the ANS was one of Reich's major discoveries and provided further evidence of the correctness of his functional thought technique.

The following table, taken from Reich (1949), shows the opposition of the sympathetic and parasympathetic divisions of the ANS on various organs:

TABLE I

FUNCTIONING OF THE AUTONOMIC NERVOUS SYSTEM

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

In health, there is unimpeded oscillation between the sympathetic (contraction) and parasympathetic (expansion) divisions of the ANS, between center and periphery *with emphasis on expansion.* The most intense manifestation of this pulsatory activity of the living is in the orgastic convulsion. *Sexual excitation is a primary function of the plasmatic system.*

The periphery consists of the outer membrane (skin) of the organism, while the core or center consists of the abdomen, which contains the major plexi of the SNS (the solar and the hypogastric plexi).

Written as an orgonometric equation:

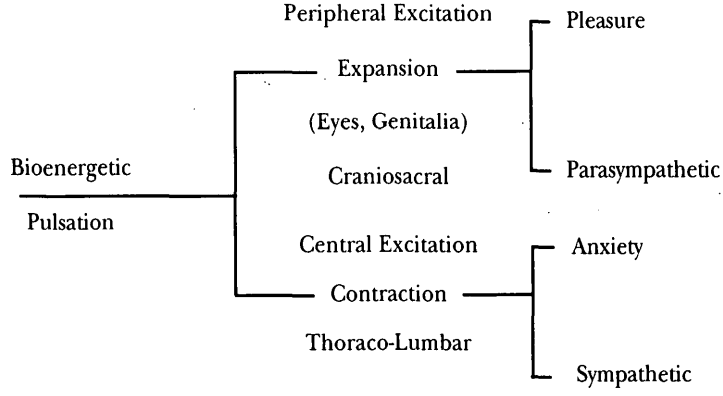


Figure 3

The parasympathetic division of the autonomic nervous system regulates the *movement of fluids* of the vascular system (blood) by way of the antagonistic innervation of center (heart) and periphery (peripheral vasodilation, inhibition of heart rate, reduction of diameter of coronary arteries) while the sympathetic division inhibits peripheral blood flow (peripheral vasoconstriction, stimulation of heart rate, dilation of coronary arteries).

Reich credits Kraus and Zondek with the important discovery that various chemical substances function identically with autonomic functions. That is, certain chemicals, themselves, function in a pulsatory manner to promote expansion or contraction. In terms of

their roles in expansion or contraction within the living system, the functions of various biochemical substances and electrolytes are identical to the functions of the ANS. The pulsatory function occurs at every level of biological activity from the simplest functions of bioenergetic expansion and contraction that occur at the cellular level, to the organized functioning of the ANS and the highly complex biochemical events occuring in the central nervous system (see Table II).

TABLE II

VEGETATIVE GROUP	GENERAL EFFECT ON TISSUES	CENTRAL EFFECT	PERIPHERAL EFFECT
Sympathetic	Decreased surface tension	Systolic	Vasoconstriction
Calcium (group)	Dehydration	Heart muscle stimulated	
Adrenalin	*Striated muscle: paralyzed or spastic*		
H-ions	Decreased electrical irritability; Increased 0_2 consumption; Increased blood pressure		
Parasympathetic	Increased surface tension	Diastolic	Vasodilation
Potassium (group)	Hydration (tumescence of tissues)	Heart muscle relaxed	
Cholin	*Muscle: increased tonicity*		
Lecithin	Increased electrical irritability		
OH-ions	Decreased 0_2 consumption; Decreased blood pressure		

The interrelationship between various chemical substances and mass-free orgonotic functions will become even clearer when we discuss other aspects of the plasmatic system. Before doing so, however, it is necessary to discuss the second major division of the plasmatic system, the vascular system.

The Vascular System

The second main component of the plasmatic system is the vascular system. This includes not only the blood vessels themselves, but also their various functional components, the blood cells and plasma.

The functional distinction between the two components of the plasmatic system is that while the ANS is concerned with *energetic motility and the direction of excitation between center and periphery,* the vascular system is concerned primarily with the functions of *charge and discharge.*

Charge refers to the *quantity or amount* of orgone energy. Levels and movement of charge and discharge are critical in biological systems. We speak here of *quantities* of energy. Quantity of energy charge and degree of motility (excitability) are two physical characteristics of orgone energy. Both are contained in the two main divisions of the plasmatic system.

For example, emotions can be defined by their intensity, that is, the amount of energy contained in a particular expression, and also by their motility, their degree of liveliness. An emotion can surface rapidly and yet not have much intensity behind it. Conversely, an emotion can be quite intense but not very motile.

Similarly, biochemical substances can be grouped according to whether they function in an excitatory manner (i.e., neurotransmitters such as norepinephrine, acetylcholine) or whether they function to maintain orgonotic charge (hormones).

When primary biological impulses from the core are thwarted by an external inhibition, energy that would normally be discharged in motor activity is bound in the voluntary musculature leading to a

temporary state of armor. This is experienced psychically as frustration. Under optimal conditions, i.e., if the inhibitory forces are removed, this energy is discharged motorically and there are no further sequelae. If the biological impulse is repeatedly inhibited by an external source, then the energy is permanently bound and the armor becomes chronic. The antithesis between an internal and an external force is replaced by an antithesis in which both forces are internal. This internalization of opposing forces is identical with chronic armor and is responsible for one of its three characteristics, chronic muscular contraction.

There are two other characteristics of the state of chronic armor. The first is chronic sympatheticotonia. The second is chronic respiratory inhibition, the function of which is to reduce the intake of energy charge (oxygen) and to maintain an energy equilibrium at a lower level than that which would effect impulse expression. The function of the armor is to prevent the expression of secondary destructive impulses contained in it.

There are two considerations in the process of armor formation that are often overlooked but that require special emphasis in our understanding of disease processes in general:

- The expression of the original frustrated impulse at the time of its inhibition in childhood was vital for the organism's health.
- In infancy and early childhood, when chronic armor is still not present, the external threat is experienced as a profound attack on the biophysical integrity of the organism. The attack is experienced biophysically as a threat to its life. It is no less real and life-threatening to the individual than any physical threat regardless of whether it originates from a strictly emotional source (as a parental threat), a purely physical source (as a threat of physical injury or a chronic stressful situation), or an actual threat to the life of the individual. The life-threatening nature of these external insults is the original, rational basis for armor formation.

When an unarmored organism, for example a young infant, encounters a threat—regardless of its source—the response is fundamentally the same, one of *biophysical contraction* of varying duration. This biological response will be appropriate and depend both on the source of the threat and also on the particular biophysical nature of the organism (its particular make-up and state of development). If the threat is emotional, the organism responds defensively with anger or emotional withdrawal (sympatheticotonia). If it is physical injury (for example, circumcision), the response is anger and a physical withdrawal of the involved part from the source of injury.[1] If it is infectious (bacterial, viral, etc.), the organism's response varies according to the state of differentiation of the immune system. It will be shown later that the adequacy of this response depends on the degree of intactness of the vital apparatus, specifically the SNS and the white blood cells involved with the immune processes. *Regardless of the level of biological organization at which the organism is threatened, the response is appropriate to the source of the threat and always the same: defensive attack (biophysical expansion against a contraction) or simply biophysical contraction (withdrawal).*

Cellular Components of the Vascular System

All objective measurements of the blood components involve a determination of energy concentration or charge (or its equivalent, mass, i.e., oxygen, hemoglobin, red blood cell mass, etc.) and the interaction of these charged substances with other systems (i.e., sedimentation rate, electrophoretic studies, etc.).

a. The Red Blood Cell

In order to understand the relationship of orgone energy to oxygen, it is first necessary to understand the relationship of the primary realm of mass-free orgone energy functioning (which mechanistic science does not recognize) to that of the secondary material realm. Functional considerations force us to the conclusion that the secondary realm developed out of the primary realm.

[1]Anyone with any degree of contact witnessing a circumcision will not mistake hearing angry crying when the infant is being injured.

Although this is not the place to discuss this question in detail, a few observations regarding the red blood cell (RBC) will be presented to demonstrate that oxygen and orgone are not the same thing.

1. Microscopic observation of the RBC reveals that the orgone field of these cells is not reddish, but is, in fact, bluish. The oxygen that is contained in the hemoglobin molecule is present mostly in the center of the cell which, indeed, has a pinkish coloration, but this is distinct from the bluish orgone energy *field* of the RBC. Similarly, arterial blood is redder than venous blood which has a purplish (i.e., bluer) tint. See Figure 4.

Figure 4

2. The orgone energy field and the intensity of its blue coloration varies from person to person depending on the individual's degree of health. Yet, in these same individuals, at least those in the early stages of illness, no abnormalities, structural or otherwise, may be detected in the RBCs themselves or in the biochemical substances or measurements related to oxygen. Also of note, the field becomes more intensely blue if the individual is charged in an orgone energy accumulator.

3. When RBCs are observed *in vitro* in physiological saline solution, they begin to show structural changes in the form of vesicular formations. These vesicles, which are orgone energy units called *bions*, also have a bluish coloration. They are motile and pulsatile. When subject to an electric current, they are cataphoretic (attracted to the negative pole). They react to biological staining (blue with Gram stain).

Microscopic observation of the RBC is part of the Reich Blood Test which evaluates the vitality of the organism (Raphael). Depending on

the state of health of the organism, the RBC typically breaks down in one of two ways:

- The B-reaction, which is typical of either health or where the orgone charge of the organism is high, or
- The T-reaction, which typifies states of low vitality or low orgonotic charge.

Thus, the T- versus B-reaction is an indication, not primarily of the biochemical constituents of the RBC, but of the degree of orgonotic charge of the organism as reflected in the RBC. In the B-reaction (B refers to the appearance and predominance of large PA bions) the orgone energy in the RBC forms large blue bions (2 microns in size) that are peripherally located. In the T-reaction, smaller bions with less intense blue color are formed. In addition, tiny particles appear mainly on the surface of the cells which begin to form spikes (T-spikes). From these spikes, small highly motile particles, the size of large viruses (approximately 0.25 microns), detach. These are called T-bacilli and are found in conditions of low orgone charge.

Similarly, the autoclavation of blood with high orgonotic charge yields large blue vesicles (PA bions), while the autoclavation of blood with low orgonotic energy charge yields T-bacilli. Thus, the B- versus T-reactions are antithetical functions of tissue breakdown. They depend on the degree of preexisting orgone charge (vitality) of the tissues.

Pathogenic microorganisms cannot survive in the presence of blood with a high orgone charge. When highly charged blood (B-reaction blood) is placed in the vicinity of T-bacilli, the T-bacilli become paralyzed and agglutinate. During the process of destroying pathogenic microorganisms, the RBC loses its blue coloration, turns black and may itself degenerate into T-bacilli, demonstrating that the orgone charge of the RBC actually destroys these organisms. Similarly, RBCs permeating cancerous tumors degenerate into non-motile T-bodies. In these RBCs, the hemoglobin can be observed to turn from red to rust (hemosiderosis), illustrating that the iron bound to the

hemoglobin molecule becomes separated into its ionic form due to the loss of orgonotic charge of the RBC.

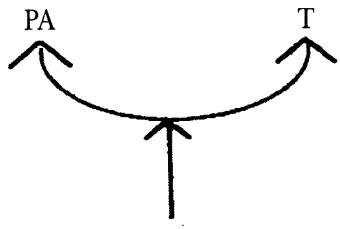
From these observations, we conclude that 1) the RBC is an orgonotic system containing a discrete amount of orgone energy within its membrane; 2) the predominance of the B-reaction over the T-reaction is identical with the predominance of life-positive forces in the organism over degenerative processes; 3) the Reich Blood Test is an objective and accurate method of estimation of the organism's vitality.

Any substance when heated to incandescence and made to swell will produce bions. The B- versus T-reaction can be demonstrated in bions obtained from non-living sources as well (i.e., carbon, iron, etc.). Regardless of the source of bion preparations, the final bionous products are of two basic types: large blue PA bions or small blackish T-bacilli. These two forms are antagonistic to each other. PA bions are capable of killing or immobilizing T-bacilli both *in vivo* and *in vitro*. T-bacilli agglutinate in the presence of PA bions.

The T-bacilli were named by Reich after the German word for death, *Tod*. Injected in high doses, T-bacilli are capable of killing mice in 24 hours. T-bacilli are about .2 to .5 microns in size and have an acrid and ammoniacal odor. They probably represent the first stages in the development of viruses.

From these observations, we are permitted to draw the conclusion that PA bions are highly charged orgone energy units. T-bacilli represent products of degeneration appearing when tissues, cells or bacteria *lose their orgonotic charge* or when there is *insufficient* orgone present within these energy vesicles.

We can formulate this functional process in this way:



BIONOUS MATTER

b. The White Blood Cell and the Immune Function

Before consideration of the immune function, certain points require emphasis. The first is that classical immunology attributes primary importance to certain white blood cells (lymphocytes) and related biochemical substances. This is correct only insofar as acquired immunity is concerned. From considerations presented here and that which follow, we must conclude that the immune function originates from more fundamental biological processes than those involving white blood cells. Classical immunology recognizes this developmental process. It distinguishes *innate* immunity, which includes immunological functions that are present at birth, from *acquired* immunity, which is a more specialized function and implies that the organism has had prior contact with a foreign agent (antigen). This contact is called immunization and triggers a chain of events that leads to the activation of certain white blood cells (lymphocytes) and the synthesis of proteins (antibodies) with specific reactivity against the foreign antigen. By this process, the organism acquires the immunity to withstand and resist a subsequent attack, or exposure to, the same offending agent.

A functional rather than a mechanistic approach to immunology shows that the acquired immune function has its bioenergetic origin in more fundamental biological functions, including those at the basis of innate immunity. Functional thinking assumes that lymphocytes in the immune function are of significance only as a result of more basic bioenergetic functions. Also, both the total organism as well as all of

its component organ and cellular systems are functionally self-contained and characterized by the same four-beat pattern of tension-charge-discharge-relaxation. Each component of the organism functions according to the four-beat formula both independently and in association with the whole organism. Finally, bions, the orgone energy vesicles, demonstrate many of the same basic immunological functions of completely developed living systems.

The immune function must have its origin in biological functions even in the absence of white blood cells. This is shown by the aforementioned observations that the RBC is capable of agglutinating T-bacilli and that pathogenic microorganisms cannot survive near RBCs with a high orgone charge. *The immune function is based on bioenergetic functions that become structuralized as the acquired immune system,* present only in vertebrates. The orgonotic charge of the tissues and blood cells (the degree of B-reaction) itself determines to a great extent the degree of susceptibility to infection and the "disposition" to disease.

In the following demonstration, Reich vividly illustrated the presence of orgone charge in the blood and the antithetical functions of PA bions and T-bacilli: To blood plasma that had passed through a filter of pore size of less than 0.25 microns to catch T-bacilli, he added a preparation of T-bacilli. The field, which had originally contained only T-bacilli, suddenly became full of blue vesicles surrounded by T-bacilli. He concluded that the T-bacilli drew orgonotic charge from the plasma and were themselves transformed into PA bions and that *T-bacilli stimulate the formation of PA bions in biological systems.* In this context, Reich introduced the concept of "orgone hunger" which describes the process whereby orgone-deficient T-bacilli draw off orgone from the surrounding medium and are themselves transformed into PA bions. The phenomena will have great significance when we later discuss immune functions.

The similarity of this phenomenon to the function of acquired immunity is unmistakable. The orgone energy of the host organism,

when in contact with a foreign agent (T-bacillus), responds with a defensive reaction and the production of bions. The T-bacillus is a prototype of an antigen while the bion is the vesicular reaction to it (antibody). From this we can conclude that the acquired immune function described by the antigen-antibody reaction of classical immunology is rooted in fundamental bioenergetic functions of the protoplasm.[2]

One of the major functions of the immune system is the production of soluble proteins that circulate freely and exhibit properties that contribute specifically to immunity. These soluble proteins are called antibodies and they belong to a class of proteins called globulins due to their *globular* or vesicular structure. These vesicles are most likely identical with but more specialized than the PA bions observed by Reich in his investigation of bions. During phylogenic development, these vesicles probably form the complex biochemical substances which govern the immune response of higher metazoa.

When placed in an electrophoretic field, globulins migrate just as bions do. Owing to their migratory properties they have been called gamma globulins (in contrast to the more rapidly migrating albumin, alpha-globulin, and beta-globulin). Today, all globulins are known collectively as immunoglobulins.

A Functional Approach to Understanding Immunity

Reich's elucidation of the B- versus T-reaction and its implications for understanding immune functions are unknown to or have been ignored by classical immunologists who have followed the purely structural mechanistic premises of molecular biology. His discoveries open the door to a depth of understanding not available to the classical immunologist.

A satisfactory theoretical understanding of immune functions must account for two basic characteristics of immunity:

[2]Any antigen, foreign to the organism, is specifically bound by specific antibodies or specific lymphocytes. An antibody is a serum protein (globulin) formed in response to immunization.

- Specificity—The ability of the immune system to "recognize" among the many different substances it has had contact with and to respond only to those which threaten the integral unitary functioning of the organism.[3]
- Discrimination between "self" and "non-self"—A cardinal characteristic of the specificity of the immune system is its ability to "recognize" and respond to substances that are foreign or "non-self" and "avoid" responding to substances the organism is composed of.

We postulate that this function is derived from primary, that is, mass-free orgone energy functions. Its manifestations give rise to the *perceptual function* in living systems. Since it belongs to the primary domain of orgone energy functions, it cannot be defined in terms of time and space, i.e., inert material functions. It is a dimensionless function. We propose that *complex biochemical molecules (i.e., immunoglobulins) increase orgonotic charge.* This gives rise to the development of a specific perception and the specificity of antibodies. In a similar fashion, a high orgone charge gives rise to the *specificity* of the perceptual function in metazoa in the form of a specialized sensation. The orgone charge of antibodies gives rise to its ability to specifically "recognize" a foreign substance (antigen). Quantitative increase in orgonotic charge gives rise to qualitative changes in perceptual specificity.

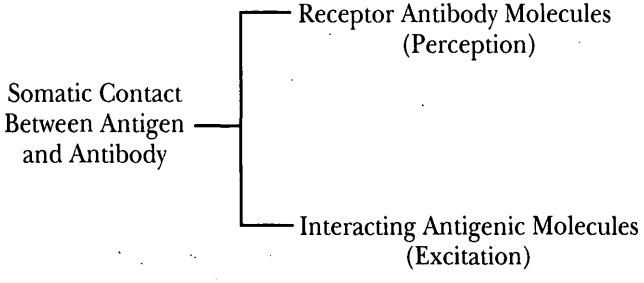
To my knowledge, the perceptual function, heretofore discussed only in the psychic realm, is being introduced for the first time in immunology, a somatic function. Its physical basis consists of antibodies which "recognize" (perceive) specific antigens. *These antibodies, which reside on the surface of B- and T-lymphocytes, are functionally identical with sensory receptor cells of the psychic realm*[4] *and represent the structuralization of the perceptual function in the somatic realm.* Both receptor systems are located at the periphery of their respective systems. The psyche involves the organism in relation to its

[3]It may be argued that allergic reactions do not constitute a threat to the organism and therefore are an exception. However, allergic reactions occur secondary to the presence of armor or following a previous infection, that is, following a prior threat to the organism.

[4]The cell is not the unit of life but a highly organized orgonotic system with a specific function. Sensory cells express the perceptual function in the psychic realm.

environment (psychic contact) while the soma involves the relationship of the organism as a whole to its several component functions (somatic contact).

The highly energetic receptor molecules (antibodies) *perceive* other molecules that specifically interact with them:

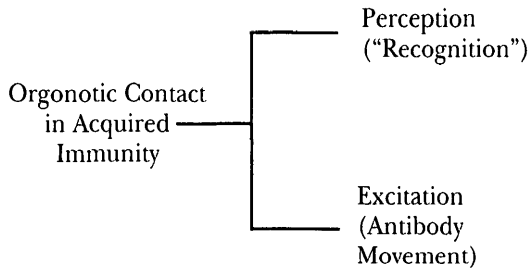


When we apply the concept of the antithetical nature of the B- versus T-reaction to immune systems, we acknowledge these qualitative properties of orgone energy functions in the organism. This knowledge renders unnecessary the mechanistic hypothesis of an infinite number of receptor sites for antigen "recognition." (See later)

The functional formulation of B- versus T-reaction contains both qualitative and quantitative properties of immune function. The *quantitative* predominance of the B-reaction over the T-reaction is the predominance of all life-positive reactions in the organism.

Immunological proteins are *highly motile* in both their structural variability and in their dynamic range of movement. Antibodies can dramatically change shape as their environment or their function require (Harris 1992). *Antibody function determines its structure and not vice versa as mechanistic theory asserts.* The molecular movement effecting immune specificity must be based on the contact and interaction between antigen and antibody which, in turn, is based both on the *perceptual function* of orgone energy (in the case of immune function called "recognition") and on the excitatory function (movement).

In the specific or acquired immune function in which "recognition" occurs we have:



We propose that the immune function, which originates from the primary realm, undergoes certain levels of development of the perceptual function. (See Table III)

REALM	ORGONOTIC PERCEPTUAL FUNCTION
PRIMARY	MASS-FREE ORGONE RECOGNIZES AND REACTS TO DOR
SECONDARY	a) BIOLOGICAL ORGONE RECOGNIZES AND REACTS TO MATERIAL DOR, IRRITANTS, AND FOREIGN BODIES (T-BACILLI, VIRUSES, PARASITES); INCLUDES INNATE IMMUNE RESPONSE
	b) ACQUIRED IMMUNE RESPONSE

Table III

T-bacilli and viruses, which probably originate from them, contain properties that are life-inimical to the organism. They draw off orgone from PA bions that originate from the organism's life energy ("orgone hunger"). This accounts for the debilitative effect of viral infections.

PA bions, on the other hand, are capable of immobilizing and agglutinating T-bacilli.

In contrast, mechanistic medicine is incapable of satisfactorily understanding immune functions. A fundamental flaw in mechanistic immunology is the introduction of the concept of "recognition" or "discrimination," a concept that is used to explain exactly what physical processes need to be understood. This is a mystical practice and is similar to the use of the term "consciousness" when applied to processes in primitive biological systems. The question left unanswered is exactly how does the immune system *recognize* particular foreign substances (antigens)? Since the immune system is capable of "recognizing" literally thousands of foreign antigens, how is the response to any one accomplished? To answer this question, the immunologist proposes the *clonal selection theory.* This theory states that antibodies and lymphocytes of myriad specificities exist at birth *before* there is any contact with a foreign antigen. The lymphocytes participating in any given immune response have pre-existing *antigen-specific* receptors on their surface membranes with each lymphocyte having receptor molecules of only a single specificity.

These postulates describe the existence of a large repertoire of possible specificities formed by cellular multiplication and differentiation *before* there is any contact with a foreign antigen. The introduction of the antigen then "selects" from among all the available specificities those that are "adapted" to respond. Lymphocytes combining with a foreign antigen are "stimulated" under "appropriate conditions" to proliferate and differentiate into clones of cells making antibodies of that particular specificity.

This is a good example of how both mechanistic and mystical thinking complement each other. The problem of explaining a specific "recognition" of a foreign antigen, a *mystical* concept, brings in the mechanistic clonal selection theory which, in turn, because of its limitations, introduces further mystical concepts, i.e., empty phrases such as "adaptation," "stimulation," "appropriate conditions," etc.

These, in turn, require further mechanistic concepts which we need not go into here.

To be theoretically consistent, adherents of the clonal theory also have to account for the ability of the organism to "recognize" "self" antigens from other "non-self" antigens, without stimulating a self-destructive immune response. This is explained by having "self" antigens "reach" the developing immune system prior to some undesignated maturational step to "shut off" those cells that "recognize" it specifically so that no subsequent immune response against the host organism is induced. Otherwise, the organism would react to itself as it does in autoimmune diseases.

In order to solve the problem of the *qualitative specificity* of the antigen-antibody response, the mechanistic immunologist introduces the concept of *an infinite number* of receptor sites consisting of inert matter. This is a mechanistic (mechanical) concept and is similar to saying that, given an infinite amount of time, anything can happen. Regardless of the merits of this form of reasoning, it does not really explain the processes that demand understanding. In both psychic and somatic realms, mechanistic thinking confuses the material *structure* upon which perception is based with the energetic *function* of perception. *It is simply not possible to understand the function of antigen-antibody specificity or the ability of an organism to distinguish self from non-self with concepts related to inert matter.* Molecules are composed of atoms which are "lifeless." Invoking the principle of an infinite number of antibody receptors or an infinite combination of material interactions between antigen and antibody does not explain *how* the function of "recognition" takes place.

In contrast to the myriad specificities (which have yet to be demonstrated) required by the mechanistic clonal selection theory, functional immunology requires only *two* factors, the life-positive B-factor and the life-negative T-factor.

This brief critique of present-day immunology demonstrates the limitations of the application of mechanistic thinking to living

functions and provides the beginning of a framework for a more satisfactory understanding of immune functions contained in functional thinking. The specific functions of the myriad complex biochemical molecules involved in immunological reactions await elucidation at a future time. *It is not our intention to minimize or ignore their importance.* Our only caveat is that the function of these substances must be understood within the framework of orgonomic functionalism and not that of mechanistic materialism if a true understanding of the immune function is to emerge.

The Relationship Between the Immune System and the Plasmatic System

For many years, immunology was restricted to studying the effects of injecting various substances into the host organism and determining the elicited products. A major development came in the 1950s with the recognition that lymphocytes were the major cellular components of the immune system. During the time of Reich's investigation into the nature of bions and his discovery of the plasmatic system, the function of these cells were unknown.

In contrast to the immune functions of the RBC, which can be considered a manifestation of the *innate* immunity of all organisms possessing a plasmatic system, the white blood cells, and, in particular, the lymphocytes and macrophages, are concerned with the function of acquired immunity. There are three major white blood cell components involved in acquired immunity. Two of these cell types come from a common lymphoid precursor cell but differentiate along different developmental lines. One line matures in the thymus (T cells), the other matures in the bone marrow (B cells).[5] Cells of the B- and T-lymphocyte series differ in many functional aspects, but share one important property of the immune response: namely, they exhibit *specificity* toward an antigen. Macrophages constitute the third cell type: They function as "accessory" cells in the immune response. Unlike lymphocytes, they lack the capacity to respond to a specific antigen.

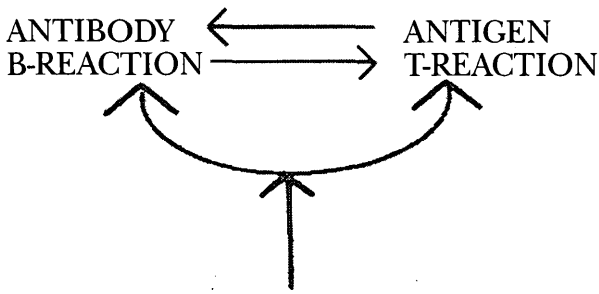
[5]The designation of T-cells and B-cells of classical immunology is not related in any way to the T- versus B-reaction in orgonomy. This coincidence is unfortunate.

Typical of orgone energy manifestations, the immune system consists of two functional components. One is a *humoral* component, which consists of B-lymphocytes. These cells secrete antibodies (globulins) which are a heterogenous mixture of proteins, all of which share the ability to interact specifically with antigens. The other is the cellular component consisting of T-lymphocytes. Unlike B-lymphocytes, which produce soluble circulating antibodies, each T-cell circulates directly to the site of the antigen to interact with it.

Since the WBC is part of the vascular system, we must extend our understanding of the plasmatic system to include the immune system. Later, we will show that the immune system is anatomically related to the sympathetic division of the ANS, a further indication that it should be included in the plasmatic system.

During the course of phylogenetic development, the highly charged WBC has become specialized in its ability to destroy specific pathogenic agents (viruses, bacilli, intermediate forms, tumor cells) and to neutralize antigens produced by these agents through the manufacture of antibodies against them. These highly complex and specific biochemical substances produced by lymphocytes *function in an antithetical manner* to the antigens contained in these noxious agents. They represent the function of the orgonotic B-reaction that interacts with the more specific manifestations of the T-reaction. *The same B- versus T-reaction is the basis of all immune reactions. It occurs at all levels of biological complexity and becomes more specialized and specific in higher metazoa.*

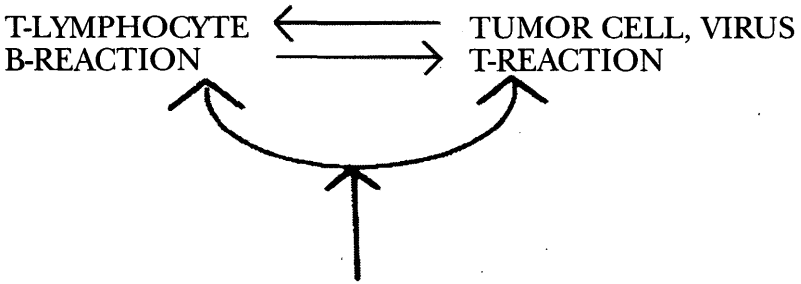
The humoral component of the immune system is composed of B-lymphocytes. When an antibody from a B-lymphocyte interacts with an antigen, toxins are precipitated or otherwise neutralized. In the case of an invading cell, the interaction triggers a cascade of events resulting in the death of the cell. This reaction can be shown with the following orgonometric diagram:



IMMUNE RESPONSE OF
THE B-LYMPHOCYTE

The *cellular* component of the immune system is composed of the T-lymphocytes. The major effector cell is the highly cytotoxic T-lymphocyte or killer T-cell. It mainly destroys virus-infected cells or tumor cells. Microcinematography (Young) of the interaction between T-lymphocytes and tumor cells reveals that, at first, the lymphocyte makes direct contact with a tumor cell through its pseudopods. Then the membrane of the tumor cell becomes riddled with holes from a cytotoxic substance discharged from the lymphocyte. The target cell finally swells from the influx of water and ruptures leaving behind the cell nucleus and debris.

Viruses and cancer cells belong to the organism's T-reaction since they are all probably derived ultimately from T-bacilli. Accordingly, the B- versus T-reaction, in this case, can be written as follows:



IMMUNE RESPONSE OF
THE T-LYMPHOCYTE

The exact bioenergetic *function* of biochemical substances involved in immune responses has to be understood if we are not to get lost in a maze of detail. For example, we know that on the ionic level, calcium ions, which function in the direction of contraction, are required in the immune function.

Supporting evidence that the immune response is identical with the function of bioenergetic contraction and also that the immune system functions in close association with the SNS (contraction) and is, therefore, part of the plasmatic system, is provided by the following considerations:

1. The SNS and the sympathetic centers in the hypothalamus have a profound *stimulating* effect on the immune system. Sympathetic excitation promotes lymphocytic proliferation, differentiation, and migration. Parasympathetic activity (i.e., sexuality), on the other hand, *inhibits* immune functioning (Arora).

The association between immune activity and autonomic functions can be understood from a functional energetic standpoint: In the expanded state of sexual excitation, defensive functions are temporarily suspended on every level of biological functioning. On the deepest level, the organism surrenders involuntarily to the orgastic convulsion. Bioenergetic contraction, on the other hand, is associated with defensive functions from the most superficial psychic level to the deepest level involving immune functions. When the immune function ceases, as in states of chronic anorgonia, the individual becomes susceptible to cancer. In this condition, the SNS loses its ability to become excited.

2. There is a close anatomic relationship between the SNS and the immune system. All components of the immune system, the B- and T-lymphocytes, as well as macrophages, are in close anatomic relationship to nerve terminals of the SNS. *Direct contacts have been demonstrated between lymphocytes and sympathetic terminals by electron microscopy.*

Destruction of the SNS, or the corresponding centers in the hypothalamus, render experimental animals highly susceptible to

chemically induced and experimental tumors and also reduce their survival time. In addition, exposing experimental animals to *chronic* anxiety suppresses proliferation of large granular (killer) lymphocytes.[6]

3. Neural and immune cells manufacture and use *identical or related biochemical substances* in their functional interactions. In the spleen, lymphocytes undergo further division and differentiation. High levels of norepinephrine (a sympathomimetic substance) are available in the spleen to combine with adrenergic receptors on target immune cells.

4. Cells of the immune system (i.e., macrophages) residing in the central nervous system, alter both primary neural activity as well as the effects of neuronal activity on the function of other organs.

5. Certain viruses (measles, HIV) have an affinity for and damage both the nervous and the immune systems, indicating shared cellular responses suggestive of their common origin and place in the plasmatic system.

6. The effects of chronic emotional stress on both systems illustrates the critical influence of the ANS on the immune system. The role of both the immune system and emotional factors in the pathogenesis of diseases of the nervous system requires careful functional investigation. Both emotional and environmental stress impair immune reactivity. Psychosis, depression, or bereavement reduce the responsiveness of the immune system. Similarly, overcrowding, avoidance conditioning, and similar physical insults result in a lowering of resistance to viral infection and an increased incidence of neoplasia. The greater incidence of cancer in depressed or chronically anxious individuals has been documented in the orgonomic and traditional medical literature for decades. The debilitating effects of chronic sympatheticotonia, stress, and anorgonia (depression) on the immune system is the physical basis for the disposition to cancer and other chronic illnesses.

[6]We postulate that chronic anxiety (stress) exhausts the immune system as well as other components of the plasmatic system. In contrast to acute anxiety, which involves the SNS, chronic anxiety activates the increased production and secretion of steroids from the adrenal cortex, which are immuno-suppressive.

More will be said of the relationship between the immune system and the plasmatic system when we discuss the endocrine system in a future article in this series.

In sympathetic excitation, the perception between self and non-self is increased. This is the basis for defensive reactions in both the psychic and somatic realms and at every level of biological functioning. In parasympathetic excitation, the perception between self and non-self is effaced in varying degrees, reaching totality at the acme of orgasm. At this moment, consciousness dissolves and the organism is reduced to a perceiving ego.

The distinction between self and non-self is manifested in immune functions as the "recognition" of antigen by antibody. What is called recognition is nothing but the perceptual function "recognizing" what is foreign to the organism in the somatic realm. This is increased in states of acute sympatheticotonia and decreased in parasympatheticotonia.

In conclusion, the basic identity and antithesis of life functions that Reich demonstrated in the realm of autonomic functions (pleasure-anxiety, parasympathetic-sympathetic activity) can also be observed in the functioning of the immune system (immunosuppression-immune stimulation). This is shown in the following table:

TABLE IV

	EXPANSION	CONTRACTION
ANS	PARASYMPATHETIC ACTIVITY	SYMPATHETIC ACTIVITY
EMOTIONAL REALM	PLEASURE	ANXIETY
IMMUNE SYSTEM	IMMUNE RESPONSE (B- vs T-RESPONSE) INHIBITION	IMMUNE RESPONSE (B- vs T-RESPONSE) STIMULATION

(To be continued)

References

Arora, Prince K. 1989. Neuromodulation of Natural Killer Cell Activity. *Neuroimmune Networks: Physiology and Disease.* New York: Alan R. Liss, Inc.

Harris, L.J., et al. 1992. The Three-Dimensional Structure Of An Intact Monoclonal Antibody In Canine Lymphoma. *Nature* 360, November.

Raphael, C., et al. 1952. Orgonomic Diagnosis of the Cancer Biopathy. *Orgone Energy Bulletin* 4(2).

Reich, W. 1948. *The Discovery of the Orgone, Vol. I. The Function of the Orgasm.* New York: Orgone Institute Press.

Young, J. 1988. How Killer Cells Kill. *Scientific American,* January.