

THE STRUCTURE OF INSANITY

A STUDY IN PHYLOPATHOLOGY

BY TRIGANTBURROW, M.D., PH.D. Author of "The Social Bans of Consciousness"

LONDON KEGAN PAUL, TRENCH, TRUBNER & Co., Ltd. BROADWAY HOUSE, CARTER LANE, E.C. 1932

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> A QUARTERLY JOURNAL OF GENERAL AND APPLIED PSYCHOLOGY

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"Why think? Why not try the experiment?" John Hunter— Letter to Jennet, August 2,1775.

> Printed in Great Britain by R. I. SEVERS, CAMBRIDGE

EDITORIAL NOTE

With this reprography, a facsimile of The Structure of Insanity of 1932 by Trigant Burrow. Plexus Editor(e)s is starting its new collection Classic Revivals. The aim of this collection is to retrieve from oblivion valuable works which, be it with bad intention or with guilty negligence, have been alienated from our public libraries. We believe that this is a symptom of the very same "social neurosis" which Trigant Burrow describes and denounces in this little book. Trigant Burrow was the first Native American psychoanalyst to practice psychoanalysis in America and to be able to do so, the first one also to subject himself to a didactic analysis - five times a week with Jung in Zurich between 1909-1910. He was charter member of the International Psychoanalytic Association - the only one present at its foundation in Nuremberg - and equally of the American Psychoanalytic Association. As a president during 1925-26, in Bad Homburg he submitted to the International Congress of Psychoanalysis the results obtained from his investigations with the Laboratory Method in Psychoanalysis or Group Method of Analysis which lead him to the discovery of the method of research and psychotherapeutic procedure which he named Group Analysis. Inspite of having left behind six books and having written more than 70 articles describing the method, his work is still ignored in psychoanalytic as well as groupanalytic circles. It is con the intention of repairing within reason such failure of memory of a work and breaking the "confabulation of silence" to which this author was submitted, that Grup d'Analisi Barcelona in 1992 has decided to reproduce and redistribute this little book.

P.S. In recovering and making known the work of Trigant Burrow during the Congress of the IAGP in Montreal 1992, Juan Campos edited an exact copy of the original of the little jewel of "The structure of insanity" of 1932, which very well presents certain central ideas of the author. Apart from publishing bilingual versions in alternate paging English/Castilian and English/German, the editor in a PS to his editorial makes reference to the manuscript notes made by Burrow himself on the margins, annotations which in this Blog could not be reproduced exactly (See the blue italic annotations). If somebody was interested in these we would ask them to contact the administrators of this Blog.

THE STRUCTURE OF INSANITY

INTRODUCTION

Wars are fought because of a disagreement in the meaning of a word or an idea. Many people are insane and require confinement in asylums while others are sane and may move freely about in the community because of a difference of meaning in the word or idea of sanity. Some people are bad and must be held in prisons while others are good and may go at large because of this same difference in meaning of the idea or word 'good'. In the sphere of human behavior one of man's deepest social needs would seem to be some basis of interchange that is not dependent upon an agreement as to the meaning of a word or an idea.

Students of science whose function it is to investigate actual material as it presents itself to immediate observation neither agree nor disagree as to its meaning, because their material is not dependent for its meaning upon a word or an idea.

The material itself determines its meaning. For this reason the laboratories of chemistry or of biology do not argue. They do not contend for the meaning of their material. Only people with *ideas about* the material of the laboratories argue and contend about its meaning.

It was very difficult at first for man to put aside ideas or words or opinions and, instead, placing his eye at the lens of a microscope or a telescope, merely to focus his attention upon the field before him and observe what was there. Of course, now that our laboratory attitude toward the structural world of phenomena has been scientifically established, it does not seem to us that this was an outstandingly difficult achievement. In the years that have followed this bionomic innovation in man's processes, the *results of* this achievement have quite eclipsed the achievement itself. With these accumulated results, any third-year medical student, with his far wider knowledge of bacteriology, could to-day quite confound a Koch or a Pasteur. Because of this, the real achievement of these earlier investigators is quite lost sight of. It is quite lost sight of that the vast mass of microscopic and bacteriological data which comprise the results of bacteriological technique and which fill the text-books of medical students to-day does not at all constitute the real contribution of these original discoverers. The contribution of these investigators lay in the circumstance that they set aside opinions, words, ideas and, holding their eye steadily at the lens of a microscope, submitted themselves wholly to the authority of the material they found there.

Science thus far has consisted in the observation of material outside the observer in so far as the observer has been able to put aside opinions, words and ideas and the mental systems of meaning which rest upon these habitual social images. There is now needed the scientific observation of material *within* the observer himself. Man has reached a stage of development in which it is necessary that he examine objectively his own processes. This also may be accomplished only in so far as the observer is capable of laying aside "private" and traditional opinions. It may be accomplished only in the measure in which he becomes less subservient to traditional social attitudes and to images which pertain only to himself and to his own mental systems. As Ogden and Richards remark in their work on The Meaning of Meaning, though in a somewhat different context: "Any theory of interpretation which can refrain from making images a corner-stone has clear advantages over those which cannot".

The present study in the field of the inter-physiological reactions of man as a social organism does not pretend to offer a mass of results at all comparable to that which is now the heritage of any third-year medical student in his acquaintance with the structural field of biology. Such results must remain for future investigators. This study attempts merely to offer to scientific investigation a different field of observation and a different technique for observing within that field. It attempts to offer for observation material that exists within the organism of man in the absence of the ideas and opinions which now so largely shape and determine the reactions of man's organism. It offers to man a laboratory approach to himself and to those processes within him which are not subject to an acquired or socially conditioned agreement or disagreement on the basis of either common or discrepant ideas or opinions.

Perhaps the position of a laboratory which attempts to study, apart from ideas and opinions, the material natively resident within man is best expressed in a statement, setting forth the principles and aims of The Lifwynn Foundation for Laboratory Research in Analytic and Social Psychiatry, written by the Assistant Secretary, Mr. Clarence Shields:

"Contrary to the prevailing sense of surety in what man *feels* with reference to his own relation to other individuals, the daily affective inter-reactions between individuals do not represent trustworthy expressions. In this sense, the feeling-life of man has not yet reached an end in its biological development. It has not yet by any means come into its maturity. Though feeling is one of man's oldest assets, there is very little in our so-called normal life, beyond a superficial refinement, to distinguish the inter-relational feeling-background of childhood from that of maturity... Regardless of age and in all classes of people the customary feeling or affect of man is neither reliable nor mature. It does not represent an accurate expression of the basically biological relation of individuals to each other.

And so perhaps it may be said, in this very relative sense, that man's feeling-life is still, as it were, in its gestation period... Since feeling is subjective and individual at the same time that it is sociological, to study feeling means to study one's own feeling in its sociological setting ".

Man is to-day in the throes of a worldwide economic depression. This economic depression, like other social reactions belonging to the sphere of human behavior, is necessarily bound up with ideas and opinions which rest upon a basis of verbal or social agreement or disagreement. The present depression, however, with its ideas and opinions is not the actual disorder; it is but the symptom of the disorder. A physician does not treat a symptom in his effort to remedy a disordered condition. He treats the condition of which the symptom is but an indication. The present thesis, to which I was first led through studies of mental patients, is the outgrowth of researches in inter-physiological reactions, apart from words and ideas, as these reactions of the organism of man are observable in the behavior of individuals and of social groups. The idea that is bound up with our momentary economic depression represents a widespread social sign or symptom of a physiological behavior-disorder within the social organism. This physiological disorder, though social or phyletic, is identical with the physiological impairments that underlie the ideas or mental symptoms occurring in the individual, and, like the latter, calls for the same clinical method of approach as is applied in response to any symptomatic phenomenon occurring in the field of medicine. It is, therefore, required that we apply to the pathological material underlying our social signs and symptoms the same principle of observation that has been applied to those structural agencies of disease which science has isolated in the laboratories of chemistry and of bacteriology. As the situation is social and world-wide, we are faced with the demand to establish a laboratory approach to man's economic and industrial life which lays aside words and ideas, signs and symptoms, and, basing its approach upon the observation of actual material, conducts its inquiries according to principles and methods which are correspondingly world-wide and phyletic.

Ι

Science has to do with our observation of structural processes as they are directly presented before us. Philosophy has to do with opinions or ideas as indirectly inferred from our traditional habituations. The tendency of medicine has been increasingly away from philosophical inference and opinion and toward the tangible materials of science. But in the sphere of medicine that deals with man's inter-individual reactions—in the sphere of his mental and social inter-activities— there has been a notable reluctance in keeping pace with this progressive trend characteristic of the medical sciences elsewhere.

Apparently the reason for this general lag in the mental field is that man's mental and social life involves man himself: it involves those inter-individual reactions of the organism as a whole which compose the thoughts and feelings subjectively experienced within man and which are perceptible only as his observation recoils upon himself. As science has dealt always with structural processes which are objectively perceptible outside the organism as a whole, it is natural that an objective, morphological view of conditions existing within the organism as a whole should present unusual difficulty. It is natural that man, as he comes for the first time to enter into himself as a race or species, should confuse the method of observation applicable to phenomena objectively presented before his external senses with a method of observation that is pertinent only to those internal morphological alterations which underlie his subjective behavior and which reflect his own thoughts and feelings.

The term morphology is used here not in a sense that is intrinsically different from its customary meaning, but in a sense that involves an altered basis of observation with respect to the morphological data observed. I am not advocating at all the type of structural interpretation which attempts to trace the source of mental disorders to the presence of some hidden disturbance within a specific organ or part-a type of interpretation which Adolf Meyer has so consistently opposed these many years.¹ I have not now in mind, for example, an impairment of function in the thyroid or adrenal glands nor in the endocrine system in general. The idea of morphological causation that underlies the present thesis refers rather to those inter-relational factors represented in the summation of alterations and disturbances that have occurred within the total organism of man in the course of his functional evolution as a species. An obvious example of a morphological alteration affecting the race of man is represented in the structural modifications coincident with the altered function entailed by the change from the pronograde to the erect posture. Of course, any alteration of function that has become racially crystallized is de facto a morphological alteration. We know from comparative anatomy that an over-activity of the brain of man has caused an overgrowth of the encephalon and that here too there is presented, therefore, a morphological alteration that affects the organism of man as a race.²

But there also exist morphological alterations due to inter-relations which are internal to the organism as a whole. Phylogenetic researches offer evidence that within the neural structures of man as a species or phylum there exist certain morphological modifications which are now habitually reflected in man's mental and social reactions. It is these morphological changes, like the erect posture now assumed by man, which are due to functional alterations that are coincident with our evolution as a species. And it is the purpose of the phylogenetic

¹ Meyer, Adolf, "The Dynamic Interpretation of Dementia Praecox", American Journal of Psychiatry, 1910, Vol. XXI, pp. 385-403; "Genetisch-dynamische Psychologic versus Nosologie", Zeitschrift fur die gesamte Neurologie und Psychiatrie, 1926, pp. 406-427.

² Roberts, Morley, *Malignancy and Evolution*. Quated by W.M. Wheeler, *Emergent Evolution*, p. 48, (Psyche Miniatures).

technique to render observable within ourselves as individuals of a common species these functional alterations occurring within the total organism. $^{\rm 3}$

But in order to observe the functional alterations that have to do with man's subjective feeling-reactions and thus to understand why these reactions are less accessible to man objectively than manifestations and reactions which exist before him in the world of surrounding phenomena (including the observable processes of man himself), we have first to learn how to observe objectively man's own observational processes. It is not difficult now for man to place his objective interest attention upon disordered conditions which are in front of him, whether existing in man himself, or in some other organism, but to be objectively interested in a disordered condition which is wrapped up within his own subjective social processes and which affects his own inter-relations is another matter. Our problem is thus an ecological one. It bears directly upon man's capacity of interest in relation to his social environment. Experimentation with inter-individual reactions under controlled group or community conditions clearly points to an habitual deviation of interest or to a deflection of function in the domain of those social processes which relate the feeling or interest of the individuals of the species to one another. This deflection of interest or feeling, this impediment in the sphere of man's mental and social interactivities apparently marks an impairment in the organism's primary function of attention and, affecting thus man's natural facility of observation and rapport, this deviation of attention is reflected in our economic and industrial life as a race. First, then, let us examine the process of observation itself. Let us examine it as a function of attention. To this end we shall approach the study of the process of observation or attention as asubjective condition of the organism that mediates its relation to the palpable world of phenomena. Regarding observation or attention as

³ The use of the terms *phylogenesis* and *phylopathology* in a paper by the author, "The Physiological Basis of Neurosis and Dream", *The Journal of Social Psychology*, Vol. I, N°. 1, febrero, 1930. See also "So-called "Normal" Social relaciónships", *American Journal of Psychiatry*, Vol. X No. 1 Julio, 1930. the organism's subjective focus upon the objective situation before it, we shall consider the process of observation or attention quite apart from the habitual prejudice of the individual observer and examine the mechanism as it characterizes the species of man throughout. The process of attention entails, of course, specific vaso-motor, muscular, visceral and neural alterations. For, as we know, the condition experienced subjectively as attention or concentration of interest has its substrate in definite physiological tensions and strains as these affect the vascular, neural, glandular and muscular systems internal to the organism. For the moment, though, we shall consider the function of attention as we now commonly understand it—as a mental experience— and we shall later consider this function in its physiological bearing. There are, however, certain preliminary considerations which it would be well to review.

The first circumstance that may well arrest our interest lies in the fact that all of man's objective data, all the facts of science, all the minute discoveries in the vast field of those processes which man has learned to know and to correlate objectively—all these facts without exception have been reached through the medium of language, that is, through the written or spoken word or symbol. To put it differently, one may say that the vast mass of agreed signs and symbols which constitute the language of man are an organic concomitant in mediating the conscious relationship of the species to the external world.

Eminently worthy of note also is the circumstance that, in dealing with the objective world in its ordinary, manifest expression, the naming of an object is synonymous with the perception of it. The act of articulation is an intrinsic part of the perceptive mechanism. But in the more exact procedure of scientific analysis, in the process of apperception, an object or process is always first looked at or examined, while the name which is socially agreed to symbolize this object or process is only later attached to it. We do not name things and then observe them, but we observe them and later give a name to them. This is the unvarying law of scientific observation—the law which gives precedence to the act of attention or observation as it directly relates the observer to the process observed, and then subsequently affixes a name, sign or social designation to this object or process. There is first, then, the sheer reaction of perception, and there is secondly the directive reaction of apperception. Perception is reflex, immediate, and is a response to mere outer sign or appearance. Apperception is reflective, sustained, and is a response rather to intrinsic substance or process. While the one is subordinated to the caprice of the symbol, the other subordinates itself to the discipline of observable organization and meaning.

Now let us consider the mechanism of attention or observation with respect to those processes which we commonly assume to be man's own bona fide feelings or sensations-the sensations of love or hate, fear or courage, joy or sorrow, contentment or regret, anger or good-will, hope or despair, jealousy or trust, suspicion or confidence, co-operation or competitiveness, aggression or surrender, recalcitrance or submission, enterprise or indolence, etc., etc., etc. Here I am, you see, already giving names to processes for which it has been socially agreed that these names shall stand. But certainly I have never seen, in the ordinary sense of objective observation, any of the processes thus designated. I have never seen them in the sense in which my attention focuses upon an object in front of me. I have seen the evidences of them. I have seen certain gestures, movements, expressions of language, changes of posture or of facial expression, and from these outer manifestations have inferred the corresponding inner subjective state. But my point is that neither you nor I have ever directly seen the states of emotional alternation we so designate. While we know from the direct report of our objective senses just what is the aspect or appearance of an elephant, a tadpole or an amoeba, we have not the remotest idea what jealousy or love or enterprise looks like. This means that in the subjective sphere we are pursuing a method that is not the method characteristic of objective science. It means that, contrary to the method of objective science, we are using names, symbols, or agreed terms to represent conditions which we have not actually observed at all and to which, therefore, we have never given our attention in the sense of direct scientific observation.

Because the motives of man's interest or attention are so intimately bound up with his feelings and emotions, we have, as scientists, something to consider in this situation. If I am not mistaken, this situation, because of the feelings and emotions it involves, is one that is of vital importance in our efforts to solve the riddle of man's conflict, individual and social, clinical and industrial. For notwithstanding that the universal appeal of our present method has led to its universal adoption in the field of our subjective processes, we are unwarranted in employing a method which presumes to follow the method of science but which, upon analysis, is found to be inconsistent with objective canons. I should like, therefore, to indicate in this paper the need of setting aside propositions and formulae respecting the processes of observation now habitual to the *individual*-propositions and formulae that rest upon a socially unquestioned Euclidean premise of thinking and feeling-and I should like instead to regard attention as a physiological process that underlies the behavior of man as a *race or phylum*.

Before the introduction or invention of language, of socially agreed signs and symbols, or before the adoption by man of the projective, intellectual mechanism of attention as we now know it, the organism's adjustment to its surroundings was effected, as we know, by means of certain general tensional alterations. These reactions constituted an integral, a systemic or an organic mode of adaptation or attention. Through this process of attention the organism as a whole encountered its environment as a whole. That is, the total object of the environment engaged the total interest or feeling of the organism. In response to this integral species of attention the organism performed its various ' instinctive ' functions-the function of locomotion, of rest, the function of nutrition, of elimination, of herd or family interplay, of sex activity as of the corresponding interludes of sex quiescence. By virtue of these functions, alternately cumulative and dissipatory, the animal procured its food, gathered for the winter, sought shelter, found repose, grew tense or relaxed, slept or awakened. There was thus maintained that physiological balance of tensions and releases through which the total organism secured its 'internal adjustment to external conditions'⁴.

This organic reciprocity, this synergy between organism and environment is, of course, no less the biological basis of the organism's total function to-day. This organic rapport between internal tension and external stimulus tends equally to-day to maintain in man, as in the lower animals, an equal balance of adjustment between inner and outer processes. Of special interest to the present theme, however, is the fact that, in their racial homogeneity, these internal tensions constituted for man, as for the lower orders of animals, a medium of inter-individual communication as comprehensive and as efficient for the purposes of the organism as a whole as the sophisticated symbols of interchange that have come to serve the purposes of man in his social inter-communication to-day. Whatever 'mental' agreements have come to be interpolated socially in the course of man's functional evolution, this organic mode of attention that mediated the adjustment of the organism as a whole still maintains unabated its physiological primacy.

These internal postural tensions that relate the total organism to the environment and to other individuals of the species I have elsewhere described as the cotentive processes in contrast to the attentive, and the state or condition in general as co-tention. In the present paper, however, we shall speak of this species of internal tensional adjustment as the organism's systemic or integral attention. With this integral mode of attention in mind as man's primary basis of adjustment to outer stimuli, we may now consider the process of attention that relates the organism of man socially to the objects of his environment as this relation is effected through the medium of the symbol or of language.

As we know, language is the relating of the organism to an object or process through the selecting of some part or feature of this process or object. In this way language is synonymous with the organism's contact with the outer appearance of an object. This relation or association is coincident, of course, with the reproduction or imitation, vocally or otherwise, of the part or feature selected. For example, the German word, Uhu, for owl, is derived through imitation or mimicry of the characteristic feature represented in its call. This reproduced feature or part, representing the outer mark or appearance of the object, is thus brought into the organism and becomes now the characteristic sign or symbol of the object as a whole. As we also know, this selection of a characteristic part or feature of the object is performed through a specially selected part or feature of man's organism in contrast to the organism as a whole. This selective part of the organism resides within the cerebrum and the adjacent structures constituted of the external projective senses, chiefly the visual and auditory sense-organs and the laryngeal system. So that the function of observation or attention, as ordinarily understood, consists primarily in the recording of objective impressions through their reproduction in socially agreed mimicries or symbols. This species of attention, as was noted, is circumscribed within the cephalic segment of man and is a phyletic function that is socially mediated by means of its exterioceptors.

To see some outside object, then, is to attend to, or be in relation to, a part of it. It is to place a part-function of the organism in relation to a part of the outside object. This mechanism prevails where-ever man's relation to the objects of the environment is attained through the medium of the symbol or of language. But, as we have just recalled, there are in man certain tensions and reactions which are systemic and

⁴ Spencer, Herbert, *Principles of Biology*, Vol I, p. 99. See J.S. Haldane discusión of the organism's "internal environemant", *The Philosophical basis of Biology*, 1931, pp. 14 and 67; and the latter's quotation of Claude Bernard, p. 66. Compare also W.B. Cannon's, *Bodily Changes in Pain, Hunger, Fear and Rage*, 1915.

through which he negotiates his relationship to the object as a whole. Such reactions represent systemic, integral functions. They are not cerebral part-functions. They are expressions of the organism as a whole. That is why we do not 'see' our total sensations. That is why they do not lend themselves to observation or attention in the sense of a pro-jectively 'seen' part, sign or symbol.⁵ That man should habitually presume that he sees such subjective expressions, and that he acts upon this unwarranted assumption 'in his customary behavior, is a circumstance which we shall attempt to account for a little later.

At the moment I would especially like to emphasize the fact that the function of symbolic attention performed by the organism in relation to its object is selective or partitive. It is selective or partitive because, contrary to the integral mode of attention, it is restricted to the part represented by the cerebrum and its exterio-ceptors, and because the contact made with the outlying world of objects is made correspondingly with a selective or partitive feature of the object as a whole. That is, the whole object is cerebrally symbolized through this imitative part-function of the organism.

Now the sum or the circumscribed system of objective senseimpressions obtained through their *subjective* reproduction symbolically (with its concomitant sum of circumscribed neural and vaso-motor reactions) has also its own special designation or identity. The *subjective* identity or designation that sums up or synthetizes this socially inter-functioning symbol-exchange as a whole is the linguistic or symbolic social substantive known to each of us as' I', or 'I, myself. But note carefully that while this social substantive' I' represents the sum or whole of the cerebral, selective or symbolic system, the social substantive "I" does not represent the organism as a whole. If we will keep clearly in mind the delimitations of the symbolic system with its identity in the social substantive 'I', we shall be better prepared to consider later the confusion that has arisen between those subjective processes experienced by the part of the organism located in the cephalic or symbolic segment, and the processes subjectively experienced by the organism as a whole.

I must not be understood as derogating in any sense this specialized part-equipment of man. On the contrary. For it is due precisely to the similarity of our sense-perceptions-to the phyletic commonness of our sense-organs—that there has developed a definite scientific criterion of observation within this partitive, symbolic sphere.⁶ Through this common or generic basis of man's physiology what is objectively observable is also consensually controllable through the morphological correspondence of the sense-elements in each individual observer. So that this ' I' so-called-this symbolic, cerebral unit that forms the core of the partitive personality of each of us-is not at all without its criteria of scientific observation with respect to the objects before it. This symbolic identity or social substantive ' I', which is the synthesis or sum of the various symbolic designations through which we identify the objects about us, is not at all without its consensual authority when observing the objects it so designates. But this ' I' or social substantive is quite out of its field when it attempts to give objective definition to experiences not objectively observable by it-when it attempts to symbolize or designate objectively, as though partitively or cerebrally observable, those subjective sensations and reactions which are internal to and characteristic of the organism as a whole.

III

Having considered the social substantive 'I' as representing the sum or whole of the cerebral, selective or symbolic system in contrast to those processes which represent the organism as a whole, our next task is to consider the relation of man's process of attention or observation to those sensations and reactions that are expressions of the total organism. In view of what we have just learned of the cephalic or partitive type of attention, with its delimited mimetic or projective function, we are immediately prepared for a quite extraordinary observation in regard to the sensations internal to the organism as a whole. We are prepared at once to recognize that all of

⁵ Psychological Behavior-Reactions in the Individual and the Community", *Psyche*, Octubre 1930.

⁶ Psychiatry as an objective Science, p. 300.

the emotions which we now give an objective name to, emotions which we assume to be expressions of the total organism-love or hate, anger or good-will, jealousy or confidence and the rest-are only partitive projections, only selective symbolizations. They are emotions which have been derived solely from a misapplication of the partitive or projective process of attention limited within the cephalic segment. They represent the organic anormaly or partial or segmented feelings. In brief, what man now takes to be the physiology of his feeling is only the vocabulary of his feeling. For these designations are coincident only with man's confused, arbitrary attempt to symbolize, or to objectivate partitively or cerebrally, sensations or feeling-states that are internal to and coterminous with the total organism. But we have just seen that these internal feeling-states are not objective, not symbolizable. They are not to be perceived by the eyes or the projective senses, because they are not processes that occupy a place in front of the eyes or exterio-ceptors. Our attempt to project sensations that are essentially internal is due to our having inadvertently attempted to apply the partitive function of attention to processes which belong to the systemic or integral system of attention expressive of the organism as a whole. If we are to observe the processes internal to the organism as a whole, we must adopt a form of attention that occupies the organism as a whole, or a form of attention that is internal and integral rather than projactive or partitive in its mechanism. This calls for a definite morphological readjustment as it calls for a new instrument of morphological observation. For it means that we shall have to move back to a position of observation more internal to the organism. It means that we shall have to cultivate a form of attention or a focus of interest that will allow the perception of processes which lie behind the exterio-ceptors or within the body-processes of man. And this process leads us to the consideration of a further highly interesting circumstance. It leads to the recognition that there are states of reality, conditions of experience, sensations and reactions internal to the total organism which do not lend themselves to objective description or symbolization but axe appreciable and efficient only as they are direct expressions of the function of the organism to which they pertain.

We have always known this, of course, with respect to certain more obvious conditions internal to the individual. We have known, for example, that while we may describe symbolically the various elements which physiological chemistry has shown to enter into the process of digestion, the actual process itself as subjectively performed within us is in no way directly accessible to us. This explains the seemingly inconsistent circumstance that a physiological chemist may have an indigestion which he is unable to get rid of despite all his scientific or objective information about the chemistry of digestion, while an ignorant day-labourer, when it comes to the practical experiment of actually digesting his daily meals, may perform the function with complete efficiency or even gusto and yet not entertain cerebrally the ghost of a notion what the process is all about. The labourer's relationship, you see, to the process of digestion is integral, systemic, organic, while that of the physiological chemist, in his capacity as scientific investigator, is partitive, projective, cerebral and digestion is unfortunately for him not a function that is performed by the cerebrum.

There are chemical processes, then, connected with digestion which are quite inexplicable because they cannot be reproduced experimentally outside of the organism or in front of one's cerebral process of attention. There is, of course, ample evidence of their occurrence, but these processes themselves are not susceptible of observation in the sense of their partitive or symbolic projection. He can drop in the food, but there the physiological chemist parts with it; for the physiological process of digestion is, from the point of view of consciousness or subjective awareness, a quantity equal only to x.

Likewise in the sphere of those organic processes which are internal and phyletic—processes which relate to the nutrition, reproduction and survival of the race and knit together the individuals of the species in common physiological functions—there are inter-individual reactions which are not objectively observable by the selective, cerebral process of attention but are reactions of the total organism for which the symbol can represent only an unknown or consciously unappreciable quantity. The physiological chemist uses perfectly legitimate symbols in his observations *about* the chemistry of digestion. He does not presume, however, to apply symbols to the intrinsic, unobservable function of digestion, since this function occurs only within the organism and is not reproducible outside the organism. On the other hand, in the sphere of the intrinsic feelings and sensations that belong to the organism and that are 'perceptible' socially, man's universal recourse is to a completely arbitrary ('wilful') interpretation of them. The result is the replacement of the intrinsic feelings or sensations of the total organism with purely partitive, projective 'emotions'. Accordingly, in the field of our own feelings, a field in which, after all, everyone is still a layman, everyone holds his feelings to be quite proprietary and to be reproducible at will outside the organism through his cerebral symbolization and projection of them ' emotionally'. So that as things stand to-day this field of our inter-individual reactions is lamentably jumbled up with all manner of pseudo-symbols and arbitrary designations-symbols and designations which have originated wholly in the cephalic or projective sphere of man's interchange and which do not in any way relate to or touch the internal or integral sphere they are presumed to stand for.

If we are really going to know *about* these reactions as the physiological chemist knows about the reaction of digestion, if we are going to achieve a scientific laboratory approach to processes that are now internal and integral and therefore unobservable partitively or symbolically, we shall have to clear away the vast category of symbols that has resulted from the confusion between the integral and the partitive spheres of attention-between the sphere of the actual sensations of the total organism and the sphere of our presumable information about these sensations. Examples of such arbitrarily projected symbols have been citedlove or hate, aggression or submission, fear or courage, etc. But there are symbols of particular moment to the psychopathologist which refer to conditions that are equally undemonstrable because they are equally projective and partitive substitutions for expressions of the total organism. These symbols of psychiatric pertinence are represented, for example, in such alternatives as satisfaction or denial, sexuality or repression, sadism or masochism, depression or elation, transference or resistance,

homosexuality or heterosexuality, psychic disease or psychic remedy, etc., etc. While these terms may serve as handy designations, they are, after all, mere symbols, mere words, mere partitive projections of conditions which exist in their integral sum only in the morphology of the organism as a whole. Such 'meanings' only indicate certain external, symptomatic, 'cerebral' categories and do not bear any relation to the internal modifications that occur physiologically within the organism. These conditions integral to man's organism become appreciable and efficient, therefore, only in their actual functioning and are not translatable into any cerebral, selective or symbolic substitutes.

In the midst of this very unsettling state of affairs—a state of affairs in which we find ourselves habitually dealing with appearances instead of with actualities, in which we assume that we have a definite objective appreciation of reactions as observable phenomena when they are not observable phenomena at all and when we have no direct appreciation of them whatsoever—the only solution is to return to the morphological seat of this mal-function within our own processes and to examine this pathological deflection in its primary, physiological expression. We shall be assisted in this if we will first consider the original instance of man's attempt to apply the purely integral experiences of the organism as a whole to the partitive or symbolic sphere of his experience.

IV

It was the lot of each of us as infants or children to be given an alternative symbol or designation which was to cover all conditions affecting the behavior of man. This designation or word or idea was called 'good ' conduct as contrasted with conduct symbolized as 'bad '. But the reaction so designated was never given objective description. This admonitory conduct, unlike the physiological behavior of the

organism, whether of man or animal, had no definable meaning. It was a haphazard provision for regulating human behavior which rested upon no demonstrable data. The actual existence of this so-called ' goodness' was never placed before the organism's attention as an objectively observable actuality. Whatever was connoted by the term had to be taken wholly on faith. For the alternatives, good and bad conduct, in contrast to the physiological behavior of the total organism, are utterly lacking in scientific criteria. Conduct which in certain periods of time and by certain communities is held to be good, in other periods of time and by other communities is held to be bad. What is good at one time or for one individual is not good at another time or for another individual. What is good when people are looking takes on a very different interpretation when no one is in sight. But in spite of these evident discrepancies-discrepancies which form the legitimate material of our humorists and satirists-there has persisted without modification throughout the species this fixed idea of good and bad. It has persisted notwithstanding that the only authority for this good-bad alternative has resided in the opinion or belief of the parent as an expression of the community in which this belief has been for ages socially fostered.⁷

From the background of phytopathology it will be found that this arbitrary criterion in the sphere of feeling or behavior is coterminous with the partitive or selective identity that is cerebrally designated as 'I'. Says the parent: "I tell you such and such are right". Says the parent: "Mother knows". Says all society: "I am the mother. I am the parent. I know what is right. I know that there is something that is the guide to human behavior that goes by the name of good". In short, *in its partitive feeling*, the social substantive' I' and this socially designated but objectively undemonstrable criterion called good and right are synonymous.

The social behavior, then, of civilized man does not arise from an internally actuated feeling, but is projected into an *image* of an internally actuated feeling or into the *outer appearance* of an

internal feeling or sensation. This ineptitude in our social physiology is due to civilization's increasing abrogation of the systemic process of interest or attention and to the coincident shunting of the total feeling or behavior of the organism toward the avenues of expression now mediated through the partitive process of attention. The symbolic or partitive function has to do, of course, with appearances—with objects as they appear outwardly to the partitive or projective senses. It is inevitable, then, that with the inauspicious effort to translate the total organism's internal sensations into this partitive, projective system, these total sensations should have become so transposed and distorted as to have been henceforth treated as if they were partitive or projective appearances. It is inevitable that, as a result of his highly salutary trick of symbol-invention, man should have fallen victim to the illusion that he sees as if before him, as if projected outside of him, sensations and reactions which are internal and integral to his own physiology.

As was stated a moment ago, the mass or sum of the collected impressions acquired through the partitive or symbolic function of the cephalic segment is represented in the synthesis of impressions we symbolize in the identity called 'I'. 'I', the social substantive through which each of us synthetizes or sums up his cerebral experiences, is, therefore, a cerebral or partitive identity. It is an identity which is restricted solely to the organism's selective relationship to the external world of actuality. But now with the intrusion of internal and total feeling-sensations into this partitive or symbolic zone, with the attempt to symbolize or project by means of the cephalic segment feelings and sensations that are specific to the organism as a whole, there has resulted the artificial conversion of these total sensations into partitive and divisive feelings or affects. Through this mechanism the social substantive 'I' becomes throughout a partitive affect-substantive and its identity a wholly partitive affect-identity. When we come, therefore, to examine the numberless pairs of alternatives of feeling such as jealousy or trust, love or hate, anger or good-will, etc., etc., all of these emotional alternatives which we assume to be integral sensations are found to be but variations upon this original theme

⁷ The Social Basis of Consciousness, International Library of Psychology, 1927.

of a partitive or divisive good-bad alternative with its sole sponsorship residing in the affective social substantive 'I'.

This habit which we have socially established among us of viewing processes as though they existed in front of us, when their whole existence is resultant upon our arbitrary projection of them in front of us as though actual, represents a deflection of the attention of the total organism and is not a habit which is socially easy to overcome. Man has acquired an enormous impetus now in his pursuit of his own projected and divisive affect. What is called 'I' is very tenacious of the arbitrary images which this social substantive has arbitrarily projected in front of itself. The organism of man habituated to the sponsorship of this quite autocratic arbiter of its own processes is very awkward, very confused in its attempts to regain the organic authorship of its own primary feeling-states. But however great this artificial impetus, however long established this habitually partitive conduct or outer appearance of behavior called 'good ' or 'right', undoubtedly the physiological recovery of the total organism's internal feeling-behavior is now the essential step for man if his cultural growth is to continue to advance in the direction of scientific adherence to organic order.

And so our task is that of focusing the organism's integral process of attention upon the seat of its own deflected processes upon the exterio-ceptors themselves and upon the strains incident to the affect-tensions due to this deflection. This task calls for a very unusual and exacting process of concentration as it calls for a very unusual instrument of observation. Through this process of concentration, however, and through the effort to bring to the focus of attention conditions and reactions inside the organism by returning to the morphological seat of this malfunction, there results the perception of sensations of strain within the cranial segment which give indication of the tension and conflict-neural, vaso-motor and muscular-which are present within the cephalic structures. As this conflict is coterminous with the physiological alterations that underlie man's effort to project or see, as though existing in front of him, feelings and reactions which are internal to the organism, the conflict involved is a morphological conflict. It is not

projective, not symbolic, not imaginal or psychological but resides in the tissues which are the seat of these internal sensations.

So far, then, we have regarded observation or attention as the organism's subjective focus upon the objective situation before it and have considered two distinct processes of attention. We have also considered how man's relationship to the external world and to his fellows is mediated through these two processes of attention. We saw first how man's projective or intellectual attention pertains to the objective, partitive sphere of his sense-perceptions with its symbolic connotations of surrounding objects. And in this system or sphere we saw that the sum of impressions is represented in the identity of the social or linguistic substantive 'I'. On the other hand there is man's systemic or integral attention pertaining to the systemic, integral sensations of the organism as a whole, and we saw that for these organic sensations, as for the integral function of digestion, there is no objective symbol but that their existence is appreciable only in terms of the organism's total function as it relates man phyletically to the world of actuality.

We saw also that these two processes of attention or interest, involving two distinct processes of observation, are not at all distinct in the mind of man but that, on the contrary, both processes have been confused each with the other. This confusion is indicated in man's attempt to translate internal, integral processes of adaptation or attention in terms of the cerebral, selective or symbolic process of attention or adaptation. It is indicated in the dissociated attempt on the part of the linguistic or social substantive 'I' to give objective designation to internal, total experiences not objectively observable by it.

V

Turning now more specifically to the phyletic morphology of our problem, let us consider the two neural systems or tracts that underlie these two separate species of attention. The first consists in the shorter arc that connects the optical and auditory receptors with one another and with the speech organs of the throat, mouth and larynx. This system, which is the substrate of the partitive or symbolic mechanism of attention, has its seat chiefly in the prosencephalon or cerebrum. The second of the two arcs or systems is the more extensive, complex channel for the transmission of stimuli and, extending as it does through the centers of the diencephalon and medulla, the stimuli conducted along its fibres pass into the visceral, vaso-motor, *lymphatic* and involuntary muscular systems through the ramifications of the sympathetic and vagus nerves—a net-work of nerve structures which thus mediates connection between the total organism and the outside world.

The first or partitive system of neural inter-connections, with its facility to identify objects by means of the symbol, has its own subjective tensions and strains as these are pertinent to this neurally specialized type of attention; and correspondingly there are the subjective tensions and strains pertaining to the integral type of attention with its specific neural organization in relation to the object or environment as a whole. That is, both types of attention enter into our inter-individual reactions as social elements. They both establish an inner rapport with outer conditions which should go toward making a healthy, functioning society of human beings. The first-the partitive or symbolicspecies of reaction as it functions independently is quite intact in relating the organism to its partitive, symbolic environment. The second or integral system is no less intact in mediating the relationship of the organism as a whole to the whole environment. But the rub comes when, in the physiological mediation of the organism's rapport with the environment, we confuse these two species of reactionwhen the response of the partitive system of neural interconnections, with its specific vaso-motor and muscular tensions located within the cephalic segment, becomes involved in the response of the integral system of neural inter-connections with its specific vaso-motor and muscular concomitants located within the organism as a whole.

From a consideration of these palpable physiological factors operating inter-individually among us, we may realize to what extent

the social health of the race depends upon the integrity of the neural inter-reaction of the individuals composing it as this integrity in the neural organization of the species is reflected in man's subjective function of attention. But there needs no special ambassador from the ranks of religion, science or politics come to tell us that society to-day is far from being a healthy functioning aggregate of co-ordinated elements or individuals. There needs no oracle to reveal to us that society throughout presents, in fact, the unmistakable symptoms of discord, ill-adaptation and disease.

Observations in phylopathology directed toward the discovery of the causative factors of this ill-adaptation as it occurs both clinically and industrially disclose symptoms which afford evidence of a conflict that affects the processes of the total organism of man as a species. These observations point to a conflict that is inseparable from the conflicting processes that pertain to the two types of man's adaptation or attention. The social organism when functioning as a whole, as represented by such aggregates as we find in early primitive tribes, functions far more smoothly, with far greater ease and internal co-ordination, than similar groups representing social man to-day. In such primitive groups there is found a physiological unanimity of interest or function within the whole group-organism. There is not as yet the private distinction or isolation of the individual resulting from the feeling-miscarriage involved in the intrusion of the selective or symbolic zone of interest or attention upon the organism's total sensation. The individual has not become artificially quarantined as an affect-social-substantive.

On the other hand, in the inter-functioning of the elements composing the social groups or communities of civilized man there is superimposed upon the interest or adaptation actuating the whole organism an ulterior and extraneous zone of interest or adaptation. There is interposed, as it were, a socio-cerebral lamina of feeling which belongs to man's symbolic or cerebral identity. In short, there is introduced the social substantive ' I' with its interest or feeling not in the survival of the individual and the race as a whole organism but in the obsessive self-conscious effort to maintain a type of affect or interest that has to do with the good-bad imagealternative on which depends only the individual's outer appearance. Between these two modes of interest, attention or *feeling*—the one mode expressing the organism as a whole, the other mode representing the deviation of man's feeling into the mere affective social image⁸—there is an irreconcilable clash and a coincident impairment in the organism's total function.

As we know, it is the paradox of healthy functioning that we possess it in the degree in which we are unaware of it. A stomach or a knee-joint is not felt except as there is pain and impairment in the harmonious function of such a part or organ. Similarly with the functioning inter-individually of the elements or individuals composing the species as a whole, only with dysfunction and impairment is there consciousness of the mechanism of interindividual function -of man's social and industrial interrelationships. Now with the awareness of impairment within some organ or part of the individual, the focus of interest is promptly directed to such diseased organ or part with a view to its restoration to health. But with the impairment in the function of the organism of man as a whole, as these impairments are registered in the behavior of the individual or the community, the tendency, due to the deflection of man's integral attention, is not to focus *attention* upon the seat of the disharmony that constitutes the impairment to the whole organism. But accustomed, as we now are, to the exaggerated use of the symbolic or selective system, our measures of repair for this disorder that resides in man's phyletic morphology inadvertently take recourse in projection, in symbolization, and in the futile attempt to isolate, to objectivate and to remedy, as though it were a separate part or element, a situation that is essentially generic and integral.

The situation, however, that concerns our racial deflection of attention is shown to reside precisely in the conflicting tensions and strains incident to the interference between the paths of response belonging to the partitive and to the integral systems of man's interest. The conflict of these neural, visceral, vaso-motor interconnections is a morphological conflict and its pathology cannot be studied and controlled apart from its morphological seat within the body structures. The strains and tensions from which man now seeks surcease through recourse to symbolically objective remedies may be focused and resolved only in the measure in which the organism as a whole becomes conscious of these tensions and strains as they are definitely perceptible within the cephalic tissues. To express it in terms of practical experimentation: these conflicting strains are rendered observable only as one's habitual partitive process of attention is suspended and the organism as a whole permits itself to sense the cerebral tensions incident to the conflict within the cephalic structures. It is in the over-stimulated visual sense-organs, due doubtless to the reflex eye-movements inseparable from the process of selective attention, that the internal awareness of stress is most markedly perceptible. Certainly the tremendous overdrive of the sensations of the total organism toward the region of the projective senses, especially toward the region of the eyes, and their impaction in these parts due to the conversion of total sensations into partitive affects, are definitely perceptible through the tensions and strains localized in these structures.

It should be remembered that, in seeking a method of observation which depends for its efficacy upon an integral mode of attention, the instrument of observation, like the instrument of the microscopists, is specific to and inseparable from the type of material to be observed. To cite a specific example of the type of observation or attention to which I refer, suppose we take the very frequent instance of the emotion of irritation or anger. Let us assume that I see, as we say, an angry man in front of me. Let us say that he is angry with me. Perhaps this expresses itself in physical signs or threats, or it may be in such symbols as language. Perhaps he is calling me unflattering names. Well, do I actually see an integrally angry man in the sense in which I may see a nerve reacting to electrical or chemical stimulation and as the physiological chemist, in his objective experimentations, sees actual material before him? Or do I merely see and hear certain partitive signs from which I secondarily gather through my mental or partitive acquaintance with these signs that this man is angry? In this circumstance I am certainly very undependable in assuming that I see the physiological

⁸ "Social Images Versus Reality", *The Journal of Abnormal Psychology and Social Psychology*, Vol. XIX No. 3. octubre-diciembre, 1924.

reaction of anger, for I am forming my conclusion and am reacting without a basis of direct observation. But I would call your attention to the fact that this is precisely what we all normally do. The signs of ' anger' are taken as fully warranting the assumption that anger is a condition integral to the organism, rather than a fancifully projected affect due to the attempt to symbolize partitively the actuality of the total organism. Accordingly, one is under the compulsion to punish or to wish to punish the apparent offender. But no healthy organism-that is, no organism functioning as a whole- could possibly react to the so-called anger of another individual with counter-anger on his own part. Recognizing beneath the outer expression we symbolize as anger' the individual's stress and pain, the response of the organism whose systemic attention is intact, would be in the direction of easing, of mitigating the partitive tensions now habitually projected as anger.

Let us take, then, the more scientific position. In this case the angry man is representing a condition common to the race as a whole and the outstanding symptom of the race as a whole is the confused tendency of each individual to place his feeling in front of him through a deflection of attention. This man who is angry with me believes that I have done something 'wrong' or something which I 'ought not to have done'. Here you see in full swing the identity of the social substantive 'I' with its divisive premise of the good-bad alternative. For observe that the man always bases his assumption in regard to me upon a premise that has no other authority than the wholly private and undependable authority that resides in the divisive affect-substantive called 'I'. There is no objective criterion-no definable entity. But this divisive 'I' is the supreme arbiter in determining whether this or that one, for this or that reason, merits his anger or his good-will. Of course the emotional alternatives might as readily be suspicion or trust, love or hate, confidence or jealousy, etc. It is inconsequential what are the two arbitrary terms of this divisive affect-projection. But upon analysis what we actually find is that these emotional reactions are in every instance specific modifications of the general emotional reaction (the divisive affect-projection) which is found in its

amoeboid state in the great divide fancifully projected by man as right and wrong, as good and bad—a division sponsored by and presided over by the social substantive 'I'.

But again the divisive affect-projections called right and wrong, however prevalent, are authoritative only socially, traditionally. They have to do only with the symbol, the projection, the outer appearance. Restoring these projections to the organism they become definite physiological tensions and strains appreciable in the cranial segment as a deflection of attention within the organism as a whole. My course, then, in respect to my vis-a-vis will not be toward an equally uncultural premise. It will not rest upon an arbitrarily projected affect presided over by the ' I', with its premise of an affective ' right and wrong ', but, through the employment of the integral or feeling sphere of attention, my course will be in a direction consistent with the method of science when it employs the partitive, symbolic, or the apperceptive sphere of attention, in its relation to the world of outer objects. I shall endeavor to observe the subjective material presented not only in a manner that is phyletic and, therefore, more consistent with the customary tenets of scientific observation, but I shall observe the material internally, integrally. In this way I shall give to my socalled opponent the opportunity not only to observe the condition with me but to observe it as material that is phyletically common to both of us. To state the situation again in morphological terms, the internal strains and tensions of my so-called adversary (ordinarily transformed and projected into mental conflicts and misunderstandings) become converted into reactions which, through their perception mutually as reactions occurring habitually within the total organism of each of us, are rendered internally appreciable as physiological alterations or refractions due to an interference between the paths of response that constitute the neural substrates respectively of the partitive and the integral modes of attention.

I must not be thought to take the position that there is no such thing as an elemental, biological anger, that there is nowhere an expression of anger that represents a true biological expression. The reaction of anger described, however, is of a totally different character from the spontaneous feeling-reaction that rests upon an integral, biological basis. The reaction of the animal that is physiologically roused to resentment in response to an encroachment upon its physiological need (when, for example, another animal attempts to seize its food) is a wholesome, an integral, a physiological reaction. Such a reaction tends to preserve the animal and the species as a whole. But when someone thinks that another's conduct is not ' right'—not what it ' ought to be '—he is merely unconsciously re-enacting the phantastic attitude induced in him when as a child he was taught what was ' not right', what ' ought not to be. He is unconsciously merely imitating the partitive, symbolic assumption of the mother (or guardian) who, responding to the socially inculcated partitive basis about her, inculcated in him this ' not right '---this ' ought not to be ' constellation. This is physiologically a totally different reaction from the response of the organism as a whole. This partitive behavior rests upon an extraneous and projected affect. It rests upon a subversive non-integrative *image*-assumption in respect to man's feelings which operates to impair and ultimately destroy the individual and the species.

On the other hand, to turn again to the consideration of the partitive affect, one must not be misled when, instead of a hostile reaction before him, he is confronted with a reaction that is quite benign-when one's vis-a-vis presents not the projected affect of anger but of appreciation, affection, respect. Because, after all, as often as not the affect presented is highly pleasing. As often as not one has said to him what he likes to have said to him. Yet, from the standpoint of the organism as a whole, what I like to hear said to me is no more dependable than what I do not like to hear. And this more flattering social image or projected affect is equally my undoing if I react in turn to the person opposite me with a no less autocratically projected affect—if in my own self-flattery I determine his conduct, as expressed in his approval of me, from an equally unstabilized premise of ' good and bad ' rather than in an attitude of phyletic scientific observation. For it may be demonstrated phyloanalytically that the flattering projections we interchange socially are not less spurious organically than those less pleasing reactions which so arouse our spleen. And so, from the basis of man's integral sensations and reactions, the process of attention that leads me to ' think' that someone is angry with me or is pleased with me is confused thinking. The process of attention that leads me to ' feel' that I am angry or pleased with another is confused feeling. In other words, the cerebro-affective reaction of man in his role of the social image ' I', with its symbolic, partitive projections, is a distorted and divisive affect-reaction.

This arbitrary attaching of symbols or meanings to feeling-states to which such meanings or symbols are not applicable is a serious situation socially. It is a situation that marks a serious faux pas in man's cultural development, and involves a definite impasse to the scientific understanding of the processes that underlie man's subjective behavior. Observation affords evidence that the social substantive 'I' has become the instrument for inducing divisive and dissociated affect-projections that now prevail throughout the social tissue of man in its entirety. It offers evidence that man's integral basis of attention or adaptation has been inadvertently deflected from its natural course and that this deflection is the expression of a social process. In this situation there is need to Lay aside whatever opinions and ideas are expressive of mere partitive affects and to give to our mental constructions the biological support of the organism's total feeling-reaction. To this end our only course is to abrogate the prevailing attempt to apply to processes internal to man as a whole the species of attention which is applicable only to those detailed objects and processes which lie in front of his external organs of perception. Only in this way may we recover our balance in the sphere of those interindividual sensations and reactions which belong to the organism as an internal phyletic unit.

It is precisely here in the unconscious authoritarianism of the social substantive 'I' that philosophy tends to impede the natural course of scientific progress. It is precisely this social substantive 'I' which, sooner or later, invariably diverts the course of practical scientific observation into unproductive philosophical speculation. Under its guidance the total organism's intrinsic co-ordination in the biological scheme of things becomes falsely appraised because the appraiser, being always the projected social substantive 'I', is always a presumably extrinsic and not-to-becomputed factor in the genetic process. Consistent with the tenets of an emergent evolution, science concedes that the place in nature occupied by man's beliefs, opinions and ideas must also be included as an intrinsic part in the evolutionary scheme of events⁹, and yet they cannot, of course, be included on the wholly extrinsic basis of the partitive 'I' when it presumes to *look on at* the scheme as though outside of itself. For, however organically extraterritorial this 'I' may *seem* to the individual 'I', upon an inclusive, phyletic basis this partitive social substantive is as intrinsic a part of the organism as a whole as any other process occurring in the total, phyletic organism whether of mollusk or of man.

VI

In the years of my experience in psycho-pathology I have never seen a neurotic individual whose feeling did not rest unconsciously upon the projected affect-alternative of ' right and wrong ' as the underlying premise of human behavior. I have never seen a normal individual or a normal method of mental therapy that did not rest unconsciously upon this same underlying premise of human conduct. But whether in the unassimilable neurotic or in the convivial normal, whether in the symbolic disorder or in the symbolic remedy applied to the disorder, I have never seen a ' psychological' or partitive problem which was in truth a psychological or partitive problem. In every instance, the patient's symptoms and complaints—the symbolically (psychologically) reminiscent or referred pain— were the substitutes for *morphological conditions actively operative in the immediate moment and directly observable in the physiological strains and tensions concomitant* to them 10 .

As I come now to a consideration of our thesis in its more practical application to daily living, I find myself brought straightway back to the point from which my investigations originally set out— to the *biological meaning* of the phenomenon known as the mental patient and to the problem of his individual and social readjustment. I find myself occupied with the problem that relates the manifestations of nervous disorders and insanity, as expressed in the individual, to the distorted and aberrant manifestations expressive of the behavior of the social community as a whole.

Much has been said in recent years, and quite justifiably, of the disordered state of the sexual life of neurotics, and this disordered sphere has been assigned as a causative factor in mental conditions. Phylogenetic investigations of the reactions of integral social communities, however, give indication that the sexual constellation of both neurotic and normal is distorted and ill. And not only this, but phylogenetic investigations of social communities make evident that these disorders of the sexual life of both neurotic and normal are but a secondary episode in the disorientation of man's feeling-life throughout. They make evident that these disorders are mere fragmentary expressions of a deflection of attention or adaptation that is community-wide. If these alterations or deflections of function, now crystallized within the phylum, are morphological factors which are habitually escaping our observation, the need is that instead of restricting the range of man's observable morphology we extend the range of his morphological observation. The aim, therefore, of the

⁹ Jennings, H.S., *The Biological Basis of Human Nature*, Nueva York, p. 371.

¹⁰ "Every great advance in physics has been at the expense of some generally accepted piece of metaphysical explanation which had enshrined itself in a convenient, universally practiced, symbolic shorthand. But the confusion and obstruction due to such shorthand expressions and to the naive theories they protect and keep alive, is greater in psychology, and especially in the theory of knowledge, than elsewhere; because no problem is so infected with so-called metaphysical difficulties—due here as always to an approach to a question through symbols without an initial investigation of their functions ".—Ogden, C. K. and Richards, I. A., *The Meaning of Meaning*, 3rd Edition, p. 14.

phyloanalytic method is the application of a technique that will enable the patient to acquire a facility for rendering his own physiological tensions objectively perceptible to him. But, as this partitive, this deflective adaptation of the neurotic is only one phase of a deflection that is ecumenical, the manifold expressions of normal society represent as definite symptoms of deflection and introversion as the more marked expressions occurring in the pathological subject. If alterations of feeling are manifested in the sexual distortions of the hysterical or schizoid patient, such distortions are equally present in the anomalies of feeling now regarded socially as the manifestations of 'normal' behaviour.

The aim, therefore, of the phyloanalytic technique, in rendering objectively observable these partitive tensions within the organism, is not restricted to the isolated ' patient' but possesses an application that is social as well as individual, that is industrial as well as clinical. We need more and more to bring home to us that the meaning of attention is adaptation, that it means man's relation to the objects about him and the employment of these objects in the service of those needs which contribute to his maintenance and survival as an individual and as a race. Thus adaptation or attention is essentially industrial. It is the industry of the organism as a whole in its application to the environment as a whole. Hence the importance of bringing to objective evidence those deflections of interest which constitute obstacles to man's natural survival. Unless we can bring into relief certain objectively observable processes that underlie the mental field of man as an organism, the pathology of the mental life must continue to lag far in arrears in the general march of the medical sciences.

We have somehow quite passed over the circumstance that there are internal sensations belonging to the total organism of man, which, like the feelings that pertain to the sex life, are deep-seated within the organism. We have quite passed over the feelings that belong to the affectional life of man, to the common interests of work and play, the feelings of interchange which contribute to man's nutritional needs—feelings of industrial continuity and economic survival. These feelings organic to man are, like the sensations of sex, not restricted alone to the superficial ectodermal structures and to the external senses with their symbolic mediation in the prosencephalon and adjacent parts. On the contrary, these more deeply racial, organic reactions, whose relation to the surrounding world is mediated through the function of the diencephaion, are, like the functions of sex and reproduction, located within the deeper meso- and endo-dermal structures. Of course we ' know ' all this theoretically. That is to say, we know it partitively. But when we come to consider how man's feeling or interest is connected with the physiological process of attention as this process relates him to his environment, we fail to sense within ourselves the biological significance of an aberration within this sphere as a causative factor in producing dissociation in the feeling-life of the race. It is true that the partitive or symbolic mode of attention, though but a recent acquisition in the evolution of the species, has quite generally superseded in prominence the integral mode of man's attention in relating him to the objective items of his environment. But the process of attention that is integral and systemic and that was a factor in determining the social behavior of primates over millions of years prior to man's acquirement of the symbolic or projactive process of attention, cannot be ignored in our reckoning with the economy of man to-day as a social and industrial organism.

Persistent daily experimentation in and with inter-reactions, as they are directly observable in actual social groups, affords evidence that this distortion of attention or perception in man is a reaction which in its acutest phase is inseparable from such conditions as exist among us socially in the form of industrial confusion, of insanity and crime, of economic disorder and wax, not to mention the countless minor inadequacies of behavior that characterize the daily activities of so-called normal individuals. It is because of the sociological bearing of this fundamental alteration within the organism of man as a species, it is because of its clinical effect upon the individual and its economic and industrial effect upon the community as experimentally determined, that man's utmost scientific consideration needs be given to this neuropathological impediment within his own attentive processes. Surely it must be evident that the social and economic disorder and unrest throughout the world to-day are an integral part of the more specific pathology that confronts the physician and the criminologist in the court or the clinic. Surely in the midst of this general social situation there must be evidence of the need among scientists for such a specific and controlled laboratory inquiry into prevailing conditions as will lead to an *integral* recognition of a common social cause for a common social disorder. The social symptoms of world-wide pain and futility, of economic distress, of industrial desperation, together with the endless repetition of insignificant palliatives that represent purely peripheral, symbolic and dialectic intermediations- all these are evidences of man's generic social pathology and plainly attest the community's kinship in a community-wide disorder. The failure to reckon with this generic situation in the domain of those investigations that relate to man's behavior-in the domain of man's mental and social activities—is due to the fact that there are as yet no normal standards in the sense of definable morphological criteria. It is due to the fact that there are only normal standards in the sense of social protections arising out of social habituations.

However disturbing it may be to traditional prepossessions, there is the urgent need to recognize that the adaptation of civilization is, throughout, a partitive adaptation and that the problem confronting us is an ecumenical problem. As governmental procedure is itself an expression of our partitive civilization, governmental legislation with its purely partitive function is powerless to adjust the economic and industrial disorders that are menacing the foundations of society to-day. Our national programs of adjustment with all their earnest intentions do not possess the scientific qualifications for providing a substantial solution of our difficulties. Nor is there anywhere extant a basis of international parley competent to relieve man's economic and social disorders upon any but a superficial and ephemeral basis. The problem confronting us is generic and biological. There are unmistakable indications that man's own social processes are on the threshold of a biological genesis. The signs clearly point to alterations in the community-life which

affect the very basis of man's inter-reactions. The physiological disturbance that characterizes man's functional inter-reactions as a race is not a circumstance for political debate or social conference.

There is a new era opening to man with which social discourse and politics can make neither contact nor compromise. Neither can politics do aught to stem or divert this swelling tide of man's evolution as a social process. The factors which enter into this epoch-making adjustment of man as a social organism are quite beyond our customary partitive basis of jurisdiction. We are faced with an emergent process in the affairs of men, and the efforts of the economists and statesmen to adjust social inequalities of opportunity and of resources are but visionary and impractical schemes in the absence of a medical and biological reckoning with the subjective dissociations of feeling and of interest that are the basis of these social inequalities.

To cite one such widespread symptom of man's social-image pandemic, due to his partitive digression of attention or adaptation, consider the unlimited economic expenditures which are made annually in the interest of man's idolatry of mere outer appearance. Even the enormous yearly expenditures for personal embellishments attested by the records of commercial enterprises supplying cosmetics alone are but an infinitesimal item in the ledger of man's economic disequilibrium due to the deflection of his interest to his own image or appearance in substitution for the function of the organism as a whole. The partitive and symbolic customs and ceremonials which, under the guise of religion, are substituted for the natural expression of the integral, objectless devotion of man's own organism, and the increasing toll of righteous self-inflictions represented in war, in insanity and crime axe evidences again of society's vast and wasteful expenditures due to its blind subscription to an obsessive social program of ' good ' behavior or ' good ' outer appearance. Inevitably the study of these expenditures takes only the *outer form* or *appearance* of economic and industrial problems, and in consequence the present efforts toward their adjustment do not in reality touch the real internal problem. They appeal only to man's credulous propensity for patching up the surface, the outer appearance—a vicious trend that not only heightens the expenditures but increases the complexity of our economic problems.

The problem of human relations is a problem in attention. The process of attention is a physiological process that relates the organism to the objects about it. Words, opinions, ideas are but the outer signs and symptoms of a specialized and selective part of this physiological process-the part which serves us merely in naming or identifying the objects or processes about us. On the other hand, the impetus to attention subjectively experienced as interest or feeling, as it relates the organism to the total object or condition about it, is a socio-physiological reaction involving the functional activity of the organism as a whole. Such a social process cannot be mediated through a merely partitive, selective, symbolic reaction, with its symbol, word or idea, but can only be effected through the integration of the partitive, cerebral mechanism with the integral organism's total process of attention. Through this directive union of the partitive mechanism with the integral organism's total process of attention man is brought into a relationship with the objects of the outer environment which give to them the apperceptive significance of scientific organization and meaning.

If man's subjective life is disordered throughout because of a deflection of attention that leads to unhealthy mental and social adaptations, it is the obligation of psychopathologists as well as of laymen to accept their subjective implication in this general feeling-disharmony. It is our obligation as physicians to reckon with the morphological implications of the two basic types of attention which mediate man's contact with the tangible world of reality and which, when confused, lead to widespread social disorder. Man's attention or interest is an inter-individual, social activity and whether cerebral or of the total organism it is still a social, inter-individual function.

And so the morphological alterations in man's neural structures with their attendant vaso-motor and allied systemic reactions alterations which occurred with the inception in man of the selective, partitive function of the prosencephalon and which formed the basis of his linguistic or social inter-communication—are morphological conditions which must be kept distinct from, unconfused with, the morphological conditions prevailing in those neural structures which mediate the relation between the internal sensations of the organism as a whole and the surrounding environment. It is the failure to reckon with this morphological distinction in our functional life that has been the impediment to the advance of science in the mental sphere as in the sphere of man's sociological adaptation generally.

In respect to a certain very wide range of disease-entities namely, infective diseases-medicine had its beginning only in the recognition of the definite structural causes or in the recognition of the bacterial agencies responsible for these temporary disturbances in the intra-functional life of the organism. In the field of our mental and social activities or in the field of man's inter-functional reactions we still await the beginning of a medical interpretation of these maladaptations of function through recognizing the physiological lesions that are the structural causes of these inter-functional distortions. We still await the development of a department of medicine which will deal with these generic inter-functional conditions upon a laboratory principle that is identical with that which underlies the laboratories of bacteriology and pathology —a principle which envisages the larger need of conserving and promoting the health of the community as a whole rather than of merely protecting and treating the individual case without regard to its generic community sources.

As students of medicine and biology it is really time that we dropped our domestic pre-occupations with the naughty dream excursions of Mrs. Brown, or the virtuous compulsive ceremonials of Mr. Jones as well as the naive ministrations of Dr. Greene with his concern solely for or against the socially protective conformities or nonconformities prescribed as normal. It is time that the whole category of good-bad (normal) alternatives, which are sponsored only by the divisive social substantive 'I' and to which patient and doctor are alike the unwitting social victims, be regarded as superficial symptoms of a deeper-seated disorder existing throughout the human species and that accordingly we take up seriously the laboratory study of the physiology of man's behavior as a social animal.

Before closing I want to acknowledge the element of the personal equation that inevitably accompanies the presentation of this thesis. The present observational background of all individuals is made up of restricted, partitive habituations. This is (---) the unavoidable condition of habitually disordered attentive processes. Working as I must from this same background, I am necessarily under a constant handicap in attempting to bring an adequate and undeflected feeling-expression to a thesis that aims to present an undeflected, integral formulation of our all-too-human problems. In saying this, however, I am merely stating the conditions of a task which an increasingly integral basis of feeling and thinking on the part of my colleagues will more and more alter and assist. And my hope is that this assistance will slowly materialize for me and for others as gradually, through the stimulus of a phylogenetic encompassment of man's inter-relational problems, there is the wider dissemination of an integral basis of approach to our individual and social conflicts.

To conclude, then: in mental disease, whether it be represented in sensory repression or in motor aggression, whether in the manifestation of clinical insanity or of social crime, whether in political strife or in industrial disturbances, there is need to abrogate mental and social images as therapeutic agencies for these disorders, and, laying aside opinions and ideas, to recognize the existence of morphological data represented in those physiological tensions and strains directly involved in the distortion of man's attention as a social process. After all, what is outwardly reflected as ' mental' is always a species of attention. The underlying physiology of the species of attention, however, that has to do with objects presented in front of man-outside of his own periphery-is very different from the species of attention that has to do with processes occurring within man's own tissues as internally perceptible to him. Accordingly, 'mental' reactions, as they occur within the organism, call for a very different type of attention if these internal reactions are to be brought to scientific observation in the sense of objective morphological data.

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