Society Transactions

NEW YORK NEUROLOGICAL SOCIETY

*Three Hundred and Seventy-First Regular Meeting, held at the
Academy of Medicine, March 4, 1919*

WALTER TIMME, M.D., *President*

BILATERAL FRONTAL HEMORRHAGE WITH MENTAL AND PHYSICAL SIGNS PRECEDING AND ACCOMPANYING THE HEMORRHAGE. Presented by DR. FREDERICK J. FARNELL, Providence, R. I.

This case was that of a woman, aged 49, whose make-up, as far as could be ascertained, had always been considered normal. With a clear history of no previous attacks or upsets she developed a mental state not unlike the manic form of manic-depressive insanity, which settled, after several months, into a hypomanic condition. Physically there was hypertension; blood pressure 210 systolic and albumin in the urine. Approximately twelve months after the onset of the so-called functional psychosis, she had a cerebral hemorrhage with clinical signs suggesting the intraventricular type. This was followed by a complete change in the mental picture. From a functional psychosis with thought (thinking) disorder, she settled into an organic psychosis with an obstructive disorder, or an intellectual loss. The physical state then improved and she was soon up and about, but there was no change whatever mentally. In five or six weeks signs of cerebral compression developed and ultimately contributed toward her death.

The interesting features might be grouped as (a) mental and (b) physical, in an individual who developed two psychoses. Her first aberration was characterized by emotional elevation, acuity of emotional response and quick recognition of logical judgment and even, at times, critical judgment. Following hemorrhage this emotional state changed entirely into an actual loss with those accompanying behavioristic traits which so characterize the personality of organic brain disease; deterioration in feeling, instinct, conduct, etc. Then, too, such organic functions as intelligence, judgment, insight, etc., which in her primary psychosis were only interfered with to the extent of thought disorder, too many thoughts coming at once were practically completely destroyed in her second psychosis.

The initial physical disorder was limited to hypertension and albumin in the urine. The second physical disorder was considered as a symptom-complex related to the ventricles. The third physical complex was a syndrome indicating cerebral compression. Pathologically the brain (which was exhibited) showed bilateral mid-frontal hemorrhage with organization, secondary necrosis and softening of the brain tissue itself.

These facts were offered for consideration, especially so to those whose interest lay in the field of psychopathology with special reference to personality and psychosis, and in addition, to the histopathologist to whom interest would be manifest in the fact that the lesion was bilateral and the vascular sclerosis localized in the cerebral vessel system.

DISCUSSION

DR. SMITH ELY JELLIFFE asked if Dr. Farnell might have something to say about the hypertension states with increased blood pressure and the relationship of their emotional causes to cerebral hemorrhage. In one of the discussions on psychoanalysis held before the Neurological Society recently, the speaker presented the situation of a case of autonomic responses to unconscious emotional stimuli, and spoke of the tendency of these cases to develop these cerebral hemorrhages. He said that the psychotherapeutic mode of approach could be very successfully pushed with the hope of reducing the hypertensive state by getting at the emotional causes for it. He had taken occasion at that time to discuss rather briefly what some of the problems were and related the partial history of a patient who had a blood pressure of 235 systolic, with almost *petit mal* lapses, who was correctly diagnosed by an internist as a nephritic and given six months to live. What it was that lay behind the clinical picture was not discovered nor even sought for by the internist who made this diagnosis, the dynamic reasons for the hypertension nephritis. When the dreams were investigated the cause for the distress of the patient was quite apparent; the unconscious was engaged in a sadistic attempt to destroy everything about her and the result was that she was destroying herself. If it had kept up, she might have died, if not of nephritis, of a cerebral hemorrhage as had Dr. Farnell's patient. The psychoanalytic mode of approach offered a dynamic pathology which was not in the usual ken of the internist and proved its value in these nephritides with their disturbed emotional undercurrent as the real dynamics of the situation.

DR. I. ABRAHAMSON said he would like to know more about the behavior of the reflexes. That all reflexes were absent after the bilateral hemorrhage in both ventricles he knew, but it was not clear to him whether they returned after the condition cleared up and, if so, the order of their return.

DR. CLARENCE O. CHENEY questioned whether the hemorrhage was of the intraventricular type, for the specimen did not seem to show evidence of a breaking of the ventricular wall; it looked rather as if the ventricles had been compressed by the hemorrhage. The absence of blood in the ventricles would have accounted for the absence of blood in the spinal fluid. He recalled one case necropsied several years ago which showed intraventricular hemorrhage causing sudden death and believed that if a hemorrhage of the size demonstrated in Dr. Farnell's specimen had entered the ventricles immediate death would have resulted. The distribution of the hemorrhage suggested that it had originated from one of the anterior cerebral arteries.

DR. FARNELL, in answering the discussion, replied to Dr. Jelliffe's question regarding the hypertension that, although the patient had a blood pressure of 210 systolic with albumin in the urine on admission to the hospital, the albumin soon disappeared. The hypertension continued until after the hemorrhage, and from that time until death the blood pressure was below 160 most of the time. With reference to the emotional factor and its responsibility for hypertension and nephritis, it was impossible to do an analysis of the patient, for even when she settled into the hypomanic condition she was beyond reach of questions and psychic control. Answering Dr. Abrahamson's question as to the reflexes, they returned and became exaggerated, that is, all deep reflexes became exaggerated. The superficial reflexes returned and even when she was up and about she had exaggeration of reflexes, double ankle clonus and double dorsal extension of the great toes. Ten days before death she was

again minus all reflexes. She was in a deep stupor with signs of cerebral pressure. Muscular flaccidity with abolition of reflexes was again marked, and the condition then and at the time of the hemorrhage was noted by all the men who examined her. The physiology could not be explained beyond its being a question of first hemorrhage and pressure, and second organization and pressure. The clinical diagnosis made at the time she had the hemorrhage was bilateral ventricular hemorrhage, at least, the symptom-complex suggested that, though there was no blood in the cerebrospinal fluid. That might seem impossible, but for two years the speaker had been examining the spinal fluid of cases of cerebrospinal meningitis, and it was not uncommon for this syndrome to give intraventricular symptoms from accumulation in the ventricles of fluid or obstruction to the flow.

THE TONUS OF AUTONOMIC SEGMENTS AS THE CAUSE OF ABNORMAL BEHAVIOR. Presented by DR. EDWARD J. KEMPF of St. Elizabeth's Hospital, Washington, D. C.

DR. KEMPF (by invitation) delivered this address in which he traced the causes of abnormal behavior to physiologic facts. The evolution of man from the lower biologic types was sufficient reason for giving the primitive autonomic apparatus the greatest emphasis in formulating a conception of the personality. The lowest biologic organisms have a relatively highly developed autonomic apparatus, but a poorly projicient apparatus as the instrument by which the autonomic apparatus masters its environment. The old assumption that "the brain is the organ of the mind" is entirely unsatisfactory for localizing or explaining the dynamic forces that make up the personality.

The autonomic apparatus, as herein conceived, is constituted of the digestive, circulatory, respiratory and urinary system, the glands of internal and external secretion and their ganglionic nervous systems; that is, the ganglionic nervous systems lying outside of the brain and spinal cord and those ganglionic types of centers embedded in the brain stem and spinal cord. It is obvious that this is the apparatus that regulates the accumulation and assimilation of energetic products from the environment, regulates their transformation, distribution and use, and the elimination of the waste products. It might be said that these processes constitute about all the fundamental functions of living, and that the striped muscle apparatus and its cerebrospinal nervous system had been developed in order to obtain the necessary means from the environment.

The physiologic researches of Cannon and Carlson on the peripheral origin, in the stomach, of the craving for food, as a typical acquisitive-assimilative compulsion, and Mosso's and Pellacani's experiments on the postural tonus of the bladder, show that when the grip of the bladder wall on the inert contents raises the pressure to over 18 c.c. a type of localized itching is aroused which constitutes the desire or craving to urinate, and which, as it becomes vigorous, compels the organism to behave so as to relieve the hypertension of this segment. This may be considered to be a very typical emissive-avertive type of compulsion. All compulsions to act are either acquisitive or avertive in relation to the environment.

Freud's suggestion, that all emotions and sentiments are really cravings, is further borne out by the studies of Cannon and others on the physiologic changes that occur when the individual feels "fear" or is said to be "afraid." Since certain types of gastric contractions cause the intragastric itching felt

as hunger, it is consistent to consider that other changes in the gastric functions, such as diminution of peristaltic functions and the maintenance of spastic tensions, when the individual is exposed to some type of actually injurious or potentially injurious stimulus, arouse an afferent stream that is more or less painful and disagreeable—that is to say, fearful. It is obvious that only those primeval animals or rather autonomic systems that felt distressing, fearful tensions, sought to protect themselves and so, by surviving in the struggle for life, have transmitted this fundamental attribute or function to man.

Wertheimer's experiments on the unconscious anesthetized dog, in which he injured the sciatic nerve in a manner that would surely cause pain in a conscious animal, shows that gastric changes occur which are very similar to the fear producing tensions, without the faculty of perception, to arouse the emotion, being present. This shows that at least certain cerebral integrative activities which enable peripheral activities to coalesce into perceptual images (or thoughts) are not necessary to cause many of those definite, important, autonomic tensions which, if the animal were conscious, would certainly cause it to be aware of very disagreeable (fearful) visceral feelings.

Like *fear* the other primary affective cravings, such as *anger*, *love*, *shame*, *disgust* and *sorrow* have their origin in characteristic peripheral disturbances in various visceral segments, and these peripheral disturbances are constituted of changes in the muscular activities, particularly the tensions of the viscera, stimulating the local sense organs. This means that it is of the utmost importance to recognize that our affections are symptoms of autonomic tensions and activities and we must practice visualizing these activities behind the symptoms that we see or hear complained of.

These autonomic-affective tensions set up afferent streams of nerve impulses which, as the autonomic component (Langelaan), contribute greatly to regulating and sustaining the postural tension of the striped muscle apparatus, and the tension of the striped muscles in turn stimulate the proprioceptors embedded in the muscles and tendons and about the joints, setting up converging kinaesthetic streams which coalesce into images and concepts, that is, the mental pictures constituting most of the content of consciousness. In a sense we think with our muscles.

The present controversy between Langelaan, de Boer, von Rinjberk and J. G. Duesser de Barenne as to the exact manner and through what channels this influence is exerted is not so important for psychology and psychiatry as the fact that it does occur in some *quick*, *intimate* manner and follows the law of the autonomic-affective apparatus striving to maintain a state of comfortable tension with the greatest economy of extent and duration of effort. This law may be formulated as follows:

As the autonomic-affective apparatus is forced into a state of unrest, either through metabolism or endogenous or exogenous stimuli, it compels the proficient apparatus to adjust the receptors in the environment so as to acquire stimuli that have the capacity to produce comfortable postural readjustments in the autonomic apparatus. For example, when the autonomic apparatus of a child assumes fearful tensions because of the barking of a dog the affect from these tensions compels the child to run to its mother who, as a soothing stimulus, readjusts the tensions. So too, the business man takes out insurance as the soothing stimulus, the fearful sinner goes to church, the savage and the modern speculator wear charms and fetiches, in order to counteract the fearful stimulus existing in his expectation of a disastrous fire, storm or coincidence.

Von Bechterew has shown that various autonomic segments and even the simple striped muscle reflexes become conditioned by experience to react to certain stimuli. This occurs by the reflex being aroused by the primary stimulus while it is associated concomitantly with other stimuli which ordinarily have no effect, but which, after repeated simultaneous association with the primary stimulus, come to have the same influence on the reflex that the primary stimulus had. For example, when a child going barefooted for the first time in the grass, steps on a bee which stings its foot, the child, for some time after this experience, has strong autonomic fear reactions which prevent it from walking on the grass while barefoot. Here then the grass, formerly a pleasant stimulus to the bare feet, by being associated with the bee sting comes to have the capacity to arouse strong autonomic fear reactions. It becomes a painful stimulus, while to other children it is a pleasant stimulus. We can readily see how, by experience, the individual segments of the autonomic apparatus of an individual becomes conditioned to react to stimuli that have little or no effect on other people and determines most of our eccentric or individualistic preferences and prejudices, our "taste," hobbies, phobias, obsessions, compulsions, vocational pursuits, etc. No doubt all our selections and aversions for simple things and for complicated things, that are immediately present or that may arise in the future, are greatly determined by your autonomic-affective cravings having been conditioned by previous painful or pleasant experiences to seek or avoid the future possibility.

Since all the autonomic segments must obtain their stimuli through the proper exposure of the favorite receptors, for which they have become conditioned, there is an incessant convergence on and striving for control of the final common motor paths, and our complicated stream of thought and overt behavior must be seen as the resultant of these converging forces. When any particular autonomic segment becomes hyperactive and tends to dominate the autonomic union and obtain control of the striped muscle apparatus the individual becomes conscious of a definite stream of thought which is symptomatic of the activity (as gastric itching—hunger—thoughts and acts about when, where and how to get food; cystic itching—craving to urinate; reversed gastric and esophageal peristalsis and feelings of nausea with avertive compulsions for a particular odor, vision, taste, person, or suggestion).

It follows logically that if one autonomic segment becomes thoroughly conditioned to react in a distressing manner to certain stimuli, and other autonomic segments become thoroughly conditioned to react in a pleasant manner to certain stimuli, whenever the individual happens to meet those two groups of stimuli associated together in a situation, he will feel a confusion of tensions with compulsions to seek the advantages of the situation as well as compulsions to avoid it. For example, a young married man complained that although he was fond of his wife and desired to be loyal and faithful to her, that "such asinine things" as the hair on her legs caused him to lose his sexual excitement (depression of the tonus of an autonomic segment) which irritated him exceedingly. Many of the attributes of his wife, such as her wit, sense of humor, facial expression and coyness, as stimuli had a decidedly invigorating effect, but when he made further approaches he met with a stimulus that had quite the opposite effect. He finally compelled his wife to shave her legs in order to remove the distressing stimulus. We see here how the autonomic apparatus—looking at it in a biologic sense—compels the love object to remove or avoid stimuli that jeopardizes its potency as well as seek stimuli that tone up the autonomic segment.

At birth we have a perfectly organized but unconditioned autonomic apparatus with a very poorly coordinated projicient apparatus. The autonomic apparatus begins immediately to organize the projicient apparatus to suit its cravings in their struggle with the environment, and we see this process continuing throughout life as the individual develops his education, vocation or profession. For a considerable period after birth the infant indulges *heedlessly* in its segmental pleasures, such as nursing, urinating, defecating, cooing and screaming, without regard to the interests of other people. But these indulgences soon become an imposition on many of the autonomic interests of its parents and its social group, and they in turn are compelled to exert an incessant pressure on the infant which eventually conditions and more or less conventionalizes its methods for acquiring gratification for its segmental pleasures. Thus the infant gradually becomes conditioned to avoid the loss of favor and esteem of its parents and playmates because, when in disfavor, it is subject to many distresses, such as physical punishment, humiliation, lack of petting, feeding, etc. On the other hand, by behaving in a manner that wins favor and esteem from its associates, many of its segmental cravings are more easily gratified, such as cravings to be petted, played with, fed, given preferences. Gradually we see the infant changing from heedlessly enjoying its segmental pleasures to secretly doing so, such as nocturnal bed wetting. Then as the *ego* develops, the coordinations to control them entirely, in order to prevent the loss of esteem, become apparent. That is, the segments of the autonomic apparatus which are similarly conditioned gradually become integrated into a unity to prevent any hyperactive segments from jeopardizing them. This process of integrating into a unity is a *compensatory* reaction to prevent getting into the *fear, shame, sorrow* or *anger* state; autonomic compensation being one of the most fundamental attributes of living tissue.

The development of the *ego* begins as soon as the infant begins to fear to lose the favor and esteem of its comforters and protectors by becoming inferior (organically or functionally) to a competitor, or by self-indulgently yielding to oral, anal, urethral, etc., pleasures, by sucking, defecating, urinating, screaming, stealing, lying, etc., without regard for the feelings of others.

Any form of fear or pain no matter how mild or indirect the cause, initiates more or less of an autonomic compensatory reaction; hence, the individual's incessant compensatory striving to learn to help and improve itself is really *the autonomic apparatus striving to avoid getting into the malnutritional fear, shame, or sorrow state*. In due time this incessant striving, to avoid the stream of incessant interrelated fear-causes that confront the child during the day, becomes knitted or integrated into a complicated unity that eventually comes to regard itself as "I," or the *ego* and its various segments (teeth, eyes, stomach, etc.) as "mine." Now the perversely conditioned segments that jeopardize the *ego* become outlawed as "not mine," or sinful, evil, the devil, "hypnotic influences," "secret forces," etc.

Serious and fatal interautonomic conflicts occur when most of the apparatus is conditioned to strive for biologically and socially estimable things and one or more vigorous segments becomes intolerably or *perversely* conditioned. This is the foundation of the anxiety neuroses, the benign and pernicious psychoses and many forms of criminal or asocial adjustments. This constitutes the conflict between the *ego* and the *not-ego*, that is, the struggle between the autonomic apparatus, coordinated into an egoistic unity or personality, striving to win social esteem, and the self-indulgent segmental crav-

ings that only crave for the counter stimulation that neutralizes or gratifies their tensions; as in masturbation, sex perversions, envy, gluttony, slothfulness, etc.

The *ego* can only control the jeopardizing segment by preventing it, more or less, from using the final-common-motor-path or striped muscle apparatus to acquire what it needs. When the jeopardizing craving is permitted to cause the *ego* to be conscious of its needs but is not allowed to act, it is *suppressed*, and when it is also prevented from causing consciousness of its needs, it is *repressed*. The suppressed and repressed hypertense segments, like compressed springs, exert an incessant, severe pressure to break through the resistance and obtain gratifying stimuli. This is shown in sudden changes of purpose, selections, obsessive thoughts, errors, accidents, misinterpretations, dreams, delusions, hallucinations, mannerisms, old memories, deliria, etc. By a *summation* of the repressed cravings, or the fatigue or weakening of the repressing *ego*, a dissociation of the autonomic apparatus or personality occurs and the *ego* is forced to struggle with all sorts of compulsions, delusions, hallucinations, etc.

Here then lies the psychopathic struggle. The fear of the loss of social esteem initiates the compensatory striving, which, because of the vigor of the fear of the influence of the repressed, tense, autonomic segment, becomes progressively eccentric, finally causing the loss of the confidence and esteem of the social group. Now a vicious affective circle is established which tends to eventually destroy the socializing capacities of the personality. Gradually as the *ego* becomes more and more asocial the erotic segment obtains complete control of the personality.

A photograph of the perpetual motion machine of a paranoid negro was shown to illustrate how fear of the loss of sexual potency and of becoming an oral erotic homosexual initiated the eccentric, compensatory, divine inspiration (a truly biologic compensation) to build a "perpetual motion machine" which would make him a great prophet, allow him to found a faith, have many wives, etc. This perpetual motion machine is called the "first church" . . . "where the blood of the world is mixed," and is a simple copulation fetish.

Photographs of so-called hebephrenic dementia praecox cases showed the women squatting like apes and the incessant attention and frequency with which their hands counterirritated the urethral, anal and vaginal zones showed how, as biologic types, the anal and genital autonomic segments had destroyed the *ego* and dominated the autonomic apparatus.

Another photograph was shown of a soldier who carried his foot over his anus. He had passed through an anal erotic homosexual panic in which his delusions and hallucinations of being assaulted were caused by the anal erotic cravings (like gastric cravings and thoughts of food) seeking appropriate stimuli and his defense against the compulsion was a violent functional distortion compelled by the autonomic apparatus, as a compensation, in order to protect itself from going into the fearful state. He anxiously protested that he would go "mad" if the leg was straightened out.

DISCUSSION

DR. SMITH ELY JELLIFFE said that the point of view presented by Dr. Kempf struck a responsive chord in his own thoughts, and he had certainly performed a signal service in that he had bridged successfully two parallel lines of interpretation which were found throughout the medical community.

There were those who held that mental causes and somatic causes ought to be considered as separate types of activity. Not only through this presentation, but through Dr. Kempf's work on "The Autonomic Factors in Personality," these two parallel trends had been made to merge and a synthesis was presented whereby one could understand the individual working as a unit. What Dr. Jelliffe had to say he would confine to a few points, one of which interested him a great deal because it so frequently came up as a point of issue between these apparently parallel types—the question of infections, auto-intoxications and focal infections. Perhaps some of those present would recall an illustration of this, a patient who having suffered from a severe compulsion of washing the hands came for treatment at the age of 52, the compulsion having existed since she was 18 or 19 years of age. In the early days of the compulsion the washing of the hands was associated with certain prayers for purity, cleanliness and holiness, and she got along very well, the personality adjusting itself. At the age of 23, however, she had an attack of influenza and immediately the depressing effect of the influenza toxin broke down the adjustment of the hand washing and the prayers and she developed two new symptoms—diarrhea and auditory hallucinations in which obscene voices made vulgar references to defecation. If one conceived of an individual having 65 per cent. efficiency and a loss of 35 per cent. in a range of 100, the handwashing and prayers took up the 35 per cent. of the loss under ordinary circumstances, but when the influenza toxin came along, 10 per cent. more load was drawn on the autonomic segment adjustment, the diarrhea representing 5 per cent. and the hallucinatory projection representing 5 per cent. As a result of the strain she made a suicidal attempt. Ten years later another attack of influenza produced a similar result with diarrhea and hallucinatory voices which took on a more erotic form. Later, at the age of 52, a partial analysis enabled the patient to partially understand the compulsions as anal-erotic components in the personality. In an attack of influenza following the analysis she developed a diarrhea, but did not hear the voices and made no more attempts at suicide. At 52, she was much better able to handle her autonomic segment maladjustment thrown out of gear by reason of the toxin of influenza.

It was not influenza toxins, nor poisons from the intestines, nor infected tonsils that produced these situations in so many, but they should be considered as partly accessory in the breaking down of the combination. The real difficulty was the personality difficulty and the infection or toxemia was an additional factor to that difficulty. Furthermore, Dr. Jelliffe said that he thought that the original personality difficulty, if it could be analyzed out into its original roots, would afford a clue as to reasons why the infection or the toxemia could localize its effects in certain autonomic segments. Such autonomic segment neural pathways were under constant tonal maladjustment; they were overactive in the attempt to effect healthy functioning in the segment in spite of the instinct distortions, due to the conditioned segment stimulus to early emotional stimuli. After many years of such faulty strain in the reciprocal activity of the two components in the vegetative arc, the resistance of the tissues under the neural innervation in this arc were so seriously undermined as to permit of localization of an infecting or toxic agent in that arc. This was a local anaphylactic sensitization. Thus the localization of the disease in the badly functioned autonomic segment.

Dr. Jelliffe spoke of the influence of faulty anal neurotic stimuli, under constant repression, and the possible determination of rectal crises in tabes, localizing themselves as rectal rather than other types of crises because of

this autonomic struggle. An illustration was cited in which a partial uncovering of a passive pederastic unconscious repression in a tabetic with rectal crises possibly precipitated an intense delirium with fecal content. The speaker said he was simply following the clue which Potzl, Adler and others had offered in their attempt to answer important questions concerning why one or another organ or special parts of an organ were involved in a diseased process.

DR. ADOLPH STERN considered Dr. Kempf's presentation especially interesting from the point of view that, as suggested by Dr. Jelliffe, it served to bridge over two apparently conflicting conceptions of mental (emotional) processes, namely, the physical and psychologic, by giving the physiology of the emotions. This conception of Dr. Kempf, explained in concrete form, gave the physical basis for various (neurotic and psychotic) symptoms, which were in a measure, understood by psycho-analysts and explained by them as physical manifestations of thought processes. These now had a physiologic explanation as well.

It was also very instructive to find that the laboratory experiments on animals by Cannon, Crile, Sherrington, and others served to establish on a firm foundation the concept of the unconscious or autonomic system as presented by Dr. Kempf. Cannon especially has demonstrated the bodily changes that accompany the strong emotions and the instinctive cravings. Judging from the sensations as described by patients suffering from neurotic symptoms in the form of bodily sensations, that is, various paresthesias, etc., it was now known that such sensations were not at all "imaginary," but that they had a definite physical, physiologic basis consisting in a change, in the region in which the sensations were felt, from the normal tonus maintained by the autonomic system, the change being one determined by the emotions present at the moment.

Referring to the "condition reflex" and its bearing on psycho-analysis, a certain patient bore for many years a more or less conscious hatred for his father. He was always very irritable and easily incensed at any attempt to give him an order, even though he complied readily enough. He was very ambitious, the ambition being in a great measure a desire to be superior to his associates. Failure in any ambition was always accompanied by anger at the successful individual, whose ability he depreciated. This patient was aware of a general sense of tension of all muscles of the body, especially the arms and face. He frequently, without any conscious cause, doubled his fist and smote the palm of his other hand. On analysis he disclosed that the peculiarities noted were determined (conditioned) by the unconscious attitude he bore toward his father to whom he attributed motives present in his own mind. Qualities present in people recalling to the patient those he saw in his own father determined the attitude of the patient toward these people. This state of affairs extended over many years and the emotional state was of similar duration. Applying to this what Dr. Kempf taught, this patient's autonomic system would seem to be "conditioned" by attributes he saw in people suggesting unconsciously those possessed by his father, causing a change in the normal muscle tonus sufficient to bring about muscular discharge, that is, striking of palm with fist. This change of tension was the "feeling," in the present instance, of anger felt by the patient as a disagreeable sensation, the origin of which was unconscious to him. This gave a physiologic explanation for that which Freud empirically designated as an "unconscious wish." To him it was a psychologic phenomenon, and it was

gratifying to substantiate his clinical findings by means of physiologic data. In the case just cited, the more or less unconscious hatred for his father, his pathologically motivated ambition, his rebellion to authority, all were accompanied by an unconscious wish to remove a rival, that is, the irritating stimulus. This was the unconscious wish.

DR. FOSTER KENNEDY thought that it might be of interest to some of the members of the Neurological Society in this connection to hear of two soldiers who were under his care last year and who exhibited in a very astonishing manner a cooperation of endocrinologic disturbance and emotional disturbance. These men were admitted to the hospital with complete emotional collapse after having been blown up without physical injury. They were in identical conditions, almost mute, almost inaccessible; it was difficult to make them eat and emotionally they were given over entirely to the phenomenon of fear. In both cases the hair was standing erect on their heads and remained so for nine days. The hair of both these men was long and stood on end like that of a Zulu. After a few days rest in bed they recovered their usual mental and emotional balance and were able to state in each instance that their hair previously was normally tractable and flat.

DR. BERNARD GLUECK thought that every one should become familiar with Dr. Kempf's monograph on the "Autonomic System in Its Relation to Personality" because of the very helpful synthesis he had accomplished of the various physiologic and psychologic researches into human conduct. He had occasion recently in teaching psychopathology to his students at the School for Social Service to use this monograph very effectively, and found it very helpful in approaching this subject from the physiologic standpoint as outlined therein. It made very much more acceptable to the average mind the central theme in the freudian theory of conduct—namely, the wish. Dr. Kempf's discussion of the place for the craving of social esteem in human conduct was particularly illuminating, as it frequently was found to be the most prominent factor in problems of social maladjustments.

DR. S. ROTHENBERG thought that every one present was indebted to Dr. Kempf for his splendid presentation and he personally appreciated it, particularly because of having done some work in attempting to interpret the so-called mismatching complex from a psychosexual point of view. This work was done at the National Desertion Bureau in New York. He found there were decided and peculiar condition reflexes in many of these people who could not adjust themselves to the marriage state, which would explain the underlying difficulties better than in any other way. Many interesting instances of that kind had been noted.

DR. KEMPF, in closing the discussion, expressed his gratitude for the kind appreciation given him. He thought that the hallucinations in Dr. Jelliffe's case could be interpreted as an auditory hallucination caused by the anal segment, which had become dissociated, trying to obtain the necessary stimulus for gratification. He had been forced to the conclusion that one could not get a psychosis from an organic or toxic cause in which the primary autonomic affective cravings had not been previously repressed. The study of paretics, deliria and arteriosclerotics showed that strong autonomic compulsions, which had been repressed or were perversely conditioned, had become dissociated and caused the hallucinations, etc.

Dr. Jelliffe's point about the localization of disease processes in repressed segments might be explained by the fact that an autonomic segment which

was more or less anemic or hyperemic, due to the vasoconstriction or vasodilation in this segment which existed because of its repression, disease, or over-tension, became a more fertile soil for bacteria.

As far as therapeutic principles were concerned, there were two schools; one believed in building up the health, confidence, self-control and integrity of the ego, and the other in getting a *transfer* from the ego so that it would no longer be afraid of allowing the repressed craving to cause awareness of its efforts. With the transfer, the patient became conscious of what his personality craved and by learning to analyze and know himself, he became able to make much more comfortable practical adjustments, without becoming fascinated by bizarre, asocial, or perverse stimuli.

CHICAGO NEUROLOGICAL SOCIETY

Regular Meeting, March 20, 1919

HUGH T. PATRICK, M.D., *President*

EXPERIENCES WITH THE AMERICAN RED CROSS IN ITALY.
DR. RALPH C. HAMILL addressed the Society on this subject.

TWO OPERATED CASES OF EXTRADURAL TUMOR COMPRESSING THORACIC PORTION OF CORD. Presented by Drs. CARL B. DAVIS and PETER BASSOE.

CASE 1.—Summary.—Paraplegia of two years' standing; loss of all sensation below the level of the fifth thoracic segment; visible and palpable subcutaneous tumor corresponding level of back. Operation: Removal of hour-glass shaped lymphosarcoma, partly intraspinal, connected with external tumor through two intervertebral foramina.

History.—A woman, aged 49, was seen by Dr. Bassoe on Jan. 24, 1919. In January, 1916, she began to complain of pain in the scapular region radiating around to the chest. The pain gradually grew worse. Unsteadiness of gait was noticed in June, 1916. Later the legs grew weak and after February, 1917, she could walk only with crutches, and early in 1918 became bedridden. Numbness in the toes began in January, 1918, and ascended. Control of the sphincters was lost at the time she became bedridden. A soft tumor of the back was accidentally discovered in June, 1918, located between the scapulae at the point where the pain was first noticed.

Examination.—Total paralysis of lower extremities and of abdominal and lower thoracic muscles. Marked knee and ankle clonus and positive Babinski sign. Legs extremely rigid and involuntary movements are caused by the lightest touch. Upper extremities and cranial nerves normal. Loss of all sensation below the level of fifth rib. A palpable tumor in back muscles, 1 cm. to the left of the fourth and fifth thoracic spines. Spinal fluid under low pressure, clear; cell count, 10; Nonne-Apelt globulin test, weakly positive; Lange test, weakly positive (0112211000). Examination of viscera negative. No glands palpable. Rectal and vaginal examination negative, except for a slight rectocele. Appearance of patient suggestive of anemia, but blood examination showed hemoglobin, 81 per cent.; red blood cells, 4,540,000; white blood cells, 9,100; blood pressure, systolic, 120, diastolic, 80. Roentgen-ray examination of the spine negative.