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In view of the great importance of the contributions of eminent specialists in psychology which have been published in *The Journal of Abnormal Psychology*, and the increasing demand for the same, the publisher has been encouraged to re-issue the numbers which are in print in this two-volume set, in order that this valuable material may be more accessible to the general reader. The first series contains the articles published in the issues of the magazine from April, 1910, to March, 1911, inclusive, and the second series those published from April, 1911, to March, 1912, inclusive.

Many of the earlier numbers of the magazine are already out of print, so that no collected volumes can easily be made to cover their contents.

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THE JOURNAL OF ABNORMAL PSYCHOLOGY

APRIL — MAY, 1910

PSYCHOGENETIC CONVULSIONS

BY CHARLES D. FOX, M.D., PHILADELPHIA, PA.

IN common with other diseases whose nature has been but illy understood and which have served as resources of diagnostic convenience, if not ignorance, epilepsy is being diagnosed less frequently as our knowledge of this disease progresses, but more particularly so as the result of our recognition of the fact that epileptiform manifestations may occur in diseases other than epilepsy, and especially is this true of the functional neuroses. On the other hand, hysteria and psychasthenia are the two diseases the diagnosis of which has increased most in frequency at the expense of that of epilepsy. "Acquired neurasthenia," writes Spiller, "probably never causes these convulsions." (1)

The failure of the Salpêtrière school, during Charcot's time, to accede the contentions of Bernheim, to the effect that suggestion plays a most important role in the genesis of symptoms of hysteria, resulted in the artificial development, by them, of a type of convulsion which was much less frequently encountered by other observers, and which is rarely seen at present, unless produced in a similar manner, or unless accidentally and spontaneously generated. Because of the vast amount of research concerning hysteria, which was carried out by Charcot and his followers, and because of the persistent manner in which their classic descriptions of a single variety of hysteric convulsion have been, and are being, incorporated in all text-books of nervous diseases, it is quite generally thought that this particular kind of attack is the only one which may be caused by hysteria.

Unfortunately, then, our conception of hysteric crises

is apt to be confused by these ubiquitous text-book descriptions of manifestations which were purely the result of unconscious suggestion and psychic contagion, and which occurred in a comparatively small group of patients in one hospital. Indeed the majority of the text-book considerations of the disease do not show that there has been any progress in our knowledge of this disease since the time of Charcot. This affects more particularly those who do not specialize in neurology, and who are dependent, therefore, upon text-books. Consequently, these practitioners are led to infer that hysterics are capable of presenting only one kind of attack — hystéro-epilepsy, grande hystérie, hysteria major — and, as the effect of their inference, other varieties are most apt to be looked upon as being epileptic in origin.

It is conceded now that the psycho-neuroses very closely can mimic the different kinds of epileptiform attacks. Indeed, not a few cases of convulsions of psychopathic origin have been regarded as typical examples of major epilepsy, and mistakes are even more frequent in the diagnosis of petit mal and psychic epilepsy. George M. Parker (2) is radical enough in this respect to state that "what is often regarded as epilepsy does not really belong there,—that many a 'typical' epilepsy may on a closer study turn out to be a *functional psychosis*. This is especially true of the so-called 'psychic epilepsies,' which, as the psychopathological researches of our laboratory on many other different cases incontestably demonstrate, are all pure functional psychoses, subconscious dissociated states, having the tendency to recur, periodically or not, with all the energy characteristic of a fully dissociated system, reproducing the original psychomotor conditions during the accident, and often closely mimicking the psychomotor manifestations of epilepsy." In speaking of the term psychic epilepsy, Boris Sidis (3) writes: "This term, though ambiguous, may be accepted, if understood, not in the sense of epileptic origin, or, as it is put, 'psychic equivalent' of epilepsy, but as epileptoid disturbances of a purely mental character due to dissociative states of functional neuropsychosis; in the same way as, for instance, psychic anæsthesias of functional

diseases are not equivalents of organic neuron degenerations." "*The phenomena of 'psychic' epilepsy are of the nature of post-hypnotic automatisms.*"

It is safe to say that there is no type of seizure which is characteristic either of hysteria or of psychasthenia, and that because of the psychic mode of genesis of manifestations of these diseases any kind of attack is possible. However, in these psycho-neuroses it is probable that, with the exception of simple emotional crises, major epileptiform convulsions occur more frequently than any other variety of seizure. This incidence is capable of being explained by reason of the knowledge which many psychopathic individuals have acquired of epileptiform convulsions. It is quite common for normal persons to have witnessed, or to have read descriptions of an epileptic crisis, and it is to be deplored that cases of psycho-neurosis have far greater opportunity of acquiring information concerning the features of such attacks owing to the reprehensible fact that these unfortunates usually are treated in the same wards with epileptics.

Since it has been recognized, in the last few years, that, in addition to hysteria, psychasthenia also may occasion epileptiform seizures, the differential diagnosis has become even more difficult. It cannot too strongly be emphasized that the diagnosis epilepsy is justifiable only when all other diseases which are capable of inducing epileptiform attacks, particularly hysteria and psychasthenia, either positively can be excluded or recognized as associated conditions. For it is quite common to encounter patients in whom hysteria or psychasthenia have been superimposed upon an epileptic foundation, just as multiple sclerosis usually is complicated by hysteria.

Because an attack *per se* may possess all the features of one due to epilepsy is no reason why the patient should be considered as epileptic. It is granted now that hysterics and psychasthenics not only may have auræ which may be similar to those of epilepsy, but that during crises they not infrequently injure themselves in falling, have involuntary evacuations of the bladder and rectum, and bite their tongues. The presence or absence, therefore, of these acci-

dents no longer can be regarded as differential characteristics. "It is becoming recognized," observes Ernest Jones, "that in a grand mal attack there may be absolutely nothing in the nature of the attack itself to indicate its source." (4)

For the reason that the prognosis and treatment of the psychoneuroses necessarily is so dissimilar from that of epilepsy, a correct diagnosis is most essential. Another cogent reason for diagnostic precision is afforded by the incalculable amount of harm which may result from the psychic stress that is provoked by informing a hysteric or psychasthenic that he is afflicted with epilepsy,—a disease which is looked upon with so much horror by the laity, and which is believed by them to be incurable and stigmatic. In view of these facts, then, it is incumbent upon us constantly to exercise the greatest care in order to prevent mistaking hysteria or psychasthenia for epilepsy, or vice versa. Indeed, some cases may require several weeks or months of careful study by an expert psycho-pathologist before a definite diagnosis can be made.

As the psycho-neuroses are only closely interrelated clinical syndromes, which very frequently are indistinguishable from one another, it is always difficult, and often impossible, to differentiate the attacks which may occur as symptoms of these conditions. For this reason it is often convenient to include the psycho-genetic crises either of hysteria or of psychasthenia under the designation psychoplepsy.

Formerly the French writers applied the term *hystéro-epilepsy* to hysteria, when this disease occasioned what might be called the Salpêtrière type of convulsion — *grande hystérie*. Unfortunately, the significance of this name has been degraded by the indiscriminate manner in which it is used at present. Beside its original connotation, it is used by various writers to signify the co-existence of hysteria and epilepsy, and some have attempted even to distinguish a new disease, to which they apply this name, which is neither hysteria nor epilepsy. As the term no longer is distinctive it should be discarded from modern neurologic nomenclature. The designations *hysteric convulsions* and *psychasthenic convulsions* are ones which cannot be con-

founded with epilepsy, or otherwise misinterpreted, while the term Briquet attack is useful to signify the many atypical and less completely developed forms of hysteric and psychasthenic emotional crises.

Disaggregation of personality, with its apparently independent ideation, is the underlying cause of psycholepsy as well as the other manifestations of the psychoneuroses. This disintegration, occurring usually in hereditary neuropaths, is the result of some psychic trauma.

As the normal reaction to any severe mental stress, general tremors, convulsive movements, dilated pupils, and flushing, or pallor, develop with their associated emotional states of fear, anger, etc., according to the nature of the exciting cause, and according to the individual. If the emotional disturbance be sufficiently pronounced, then syncope may be a terminal phenomenon. Now these normal reactions, when occurring in psychopaths, may become elaborated subconsciously, by reason of the diminution of cerebral inhibition which is characteristic of these cases, and they may then occur, in this elaborated manner, without being consequent upon what normally would be an adequate external exciting cause; recurrence being effected by pathologic association of ideas. These anomalous, or perverted and elaborated reactions then constitute psycholeptic attacks.

According to this manner of genesis, convulsions, if present, are merely the result of elaboration of the motor agitation which is a constituent of a normal emotional reaction and the accompanying loss of consciousness is a temporarily massive dissociation which is evolved from the syncope. The memory of the original experience being painful to an exaggerated degree, is voluntarily suppressed or dissociated from consciousness, and thereby becomes a dormant or submerged complex which is capable of reproducing the pathologic reaction whenever provoked by chance association of ideas.

Through the agency of submerged complexes, the crisis may be produced by association of ideas, without, however, there being evoked conscious recollection of the original painful experience. This form of mediate association of

ideas in itself is not abnormal. It becomes so only when its results are pathologic. Normally one idea may suggest another by means of a third, to which both are associated, without necessitating the raising of this third idea above the level of consciousness. In other words, the association of the two ideas takes place through the subconscious instrumentality of one which is common to both. Though almost invariably cases of psycho-neuroses present manifestations which are the result of mediate association of ideas, this form of ideation is said to be uncommon in normal life.

To illustrate: Only last week a neurasthenic patient related that a certain shade of blue, for some unknown reason, always caused her to feel nauseated. Having acquired knowledge of mediate association of ideas and its effects in the psycho-neuroses, the patient suddenly remembered that in her childhood she had become nauseated and very ill after having chewed some paper that was colored with the same shade of blue as that which subsequently affected her.

Very often psycholeptics experience auræ which may be identical with those of epilepsy. Their origin can be discovered only by means of the most careful researches into the patient's subconsciousness, and then, no matter how bizarre and inexplicable they may have appeared, an adequate and perfectly reasonable cause will be found.

The perception of any sensory stimulus which was experienced by the patient immediately preceding the pathogenic emotional casualty, or its consequent first attack, may become a constituent of the memory complexes which have to deal with these occurrences. The more intense the stimulus, and the more closely associated it was with the original experience, the more apt is its memory to become incorporated with the resultant complexes. Now, as psycholeptic crises are stable — tend to recur without variation — therefore, before each attack which is caused by a subsequent direct stimulus, the patient should experience as an aura the sensory impression, or impressions, which preceded the first attack. Or, as the seizure may be the effect of indirect association of ideas — mediate association of ideas —

any accidental occurrence which recalls the memory of the precedent sensory perception tends to cause repetition of the attack which originally followed this perception.

A good example of the genesis of auræ is afforded by the case of the author Gustave Flaubert. The following account is that of Maxime Du Camp, as quoted by Joseph Grasset:

"All at once, without any apparent reason, Gustave would throw up his head and become very pale. He had felt the aura. His look was full of anguish. He would say, 'I have a flame in my left eye'; then a few seconds later, 'I have a flame in my right eye; everything seems to me to be the color of gold.' This singular condition would sometimes persist for several minutes. Then his visage would grow pale again and take on a desperate expression; he would walk about rapidly; then he would fairly run to his bed and stretch himself out on it dull and sinister as if he were lying alive in a coffin. Then he would cry out: 'I have hold of the reins! Here is the carrier! I hear the bells! Ah! I see the lantern of the inn!' Then he would utter a cry, whose piercing accent still vibrates in my ears, and a convulsion would then come on. This paroxysm, in which his entire body trembled, was followed by a deep sleep and profound exhaustion which lasted for several days.' Now the cause of these various hallucinatory antecedents of a convulsion plainly is made evident by the fact that the first attack occurred 'in the neighborhood of Bourg-Achard, at the moment when a post-carrier was passing to the left of the cabriolet, and when on the right the lights of a lonely inn were perceptible in the distance.'" (5)

Parker (2) writes of a case of psycho-motor epilepsy in which the convulsions and minor attacks were preceded by a foul taste and a fetid odor. This aura, one which is not uncommon in *epilepsia vera*, was found, by means of hypnosis, to be due to the fact that just prior to his first seizure the patient had partaken of meat which, by reason of its offensive nature, had caused these perceptions. This case, like many others which might be quoted, shows that the study of auræ, because of their connection with the emotional first cause, is prolific of results, both in etiologic research and in therapeutic indications.

As the consciousness of the patient is in partial or complete abeyance during all seizures, each psycholeptic attack, of hysteric origin at least, is a more or less complete somnambulistic state in which the patient experiences subconsciously the recurrence of some former emotional episode, usually the exciting cause of the disease, and presents a repetition of the original reactions which, however, are modified by the pathologic elaboration to which they have been subjected and often contaminated by reason of admixture with abnormal reactions of other and similar experiences. Indeed, the character of the crisis, whether convulsive or delirious, depends almost entirely upon the nature of the hallucinations, or of the delusions of the patient at the time, the objective symptoms being indicative, therefore, of the mental state of the patient. Being somnambulistic states these attacks, in well-developed cases, either of psychasthenia or of hysteria, are succeeded by amnesia for the period of their duration.

Psycholeptic seizures are induced, as already intimated, either by conscious or by subconscious association of ideas with the conscious or with the submerged memories of the original painful emotional experience, or with those of any antecedent sensory impression which united with the others to form complexes of the primary experience. If, as an exciting cause of a psycho-neurosis, an individual who is predisposed by psychopathic heredity is subjected to a relatively severe emotional shock, any subsequent psychic stimulus which, by association of ideas, recalls this experience thereby will tend to cause recurrence of its original reactions or motor expression in an elaborated and pathologic manner.

In hysteria the whole mechanism is more or less subconscious, the patient usually being absolutely ignorant, as far as consciousness is concerned, of any reason for the onset of each attack. This fact has been explained biologically by assuming that, as a reaction of defense, there occurs voluntary suppression from consciousness of the memories of the primary experience. Modern psychopathologic researches incontestably have shown that what appears to be absolute loss of memory of the causes and

events of each attack is, in reality, always functional amnesia; one which is due to dissociation or splitting off from consciousness of the system of memories which comprised the original stress and each subsequent crisis, and that these dissociated or submerged complexes are preserved in sub-consciousness, from which they can be tapped by means of association experiments, hypnoidization, hypnotization, automatic writing, analysis of reveries and dreams, etc.

Though the whole mechanism of hysteric accidents is subconscious, it appears that in psychasthenia the patient usually is superficially aware of the causes of his symptoms. In other words, hysteric manifestations are caused by subconscious association of ideas, while those of psychasthenia usually are caused by conscious association of ideas. Furthermore, it is by reason of fear and expectant attention that the crises of psychasthenia commonly are induced. It is important to remember, however, that the conscious fear and the conscious expectancy are purely obsessions which are originated by dissociated components of normal consciousness.

To illustrate: A male, æt. 19, was knocked from a box and fell, striking his head in the occipital region. The injury resulted in immediate unconsciousness which lasted for only two or three minutes. Following this accident he was perfectly well, except that he had a moderate headache for several hours. At this time his father, for whom he cared to an extent which was considered unusual, was acutely ill for ten days and then died, after having had a convulsion. When the patient learned of his father's death he was seized with severe pain in the head, fell unconscious, and presented the typical manifestations of a major epileptiform convulsion similar to the one which had occurred in his father. Subsequently, and at intervals of about a month, the seizures recurred, each being preceded by pain in the head. The later attacks, beside being characteristic otherwise of those of epilepsy, became contaminated with symptoms of hysteria. Being questioned, he professed absolute ignorance of the cause of these attacks. While in the hypnotic state, however, it was demonstrated that he was perfectly cognizant of what was going on about him during his

seizures and he acknowledged that each followed allusions to his father or to death, although he had been unaware of this sequence when in his usual state of consciousness. During convulsions thoughts of his father occupied his mind and he felt that he must go to him. Each crisis, therefore, was a somnambulistic state resulting from chance occurrences which, by unconscious association of ideas, provoked the elaborated reproduction of his emotional reactions to the shock produced by learning of his father's death. The aura of his attacks — pain in the head — is capable of being interpreted as a hallucinatory recurrence of the headache resulting from the fall which was so closely associated in time with his father's fatal illness.

The following case is in decided and typical contrast to the one just summarized. A psychasthenic male who had just had an attack which very closely simulated petit mal stated that prior to its onset he was not thinking of himself or of any of his symptoms until a friend began to discuss a relative's death from heart disease. At once he was impelled to think of his own cardiac attacks, and after a short period of fear and expectant attention, symptoms appeared which were characteristic of one of his own seizures. This patient always was aware of the association of ideas which preceded his attacks, and he appreciated, in a self-condemnatory manner, the genetic influence of his fear and expectancy.

An intelligent psychasthenic often will admit voluntarily that his attacks are due to the provocation of fear and expectancy by association of ideas, and even the dispensary patient generally realizes, after a few words of explanation, that his seizures are caused in this manner. It appears, nevertheless, that the greater part of the mechanism of genesis of individual seizures may be subconscious in a few cases of psychasthenia. Another notable differentiating feature between the psycholepsy of hysteria and that of psychasthenia is the curious fact that a hysteric rarely is inconvenienced or distressed by the occurrence of attacks, no matter how severe or incongruous they may be, while to the psychasthenic each one is characterized by the greatest anguish.

Now it is only by careful consideration of the results of some psychoanalytic method which reveals the subconscious activities of the patient that we can differentiate, in almost a positive manner, the most highly developed types of hysteric and psychasthenic attacks from those due to epilepsy. In a few cases the diagnosis psycholepsy can be made positively only when the patient has been "cured" in a short time by some therapeutic measure which is effective only in that condition.

For the reason that epilepsy appears to be incapable of causing any symptom which cannot be duplicated by psycholepsy, the basis of differential diagnosis may be considered from the point of view of psycholepsy. In those not infrequently encountered cases of psycho-genetic attacks in which the seizure *per se* cannot be distinguished from those of like nature which are manifestations of epilepsy, the differentiating features are as follows:

1. Attacks are due either to conscious or to subconscious association of ideas.
2. The attacks in a given case are always of a like nature unless variation occurs as the result of plurality of primary stresses.
3. Prevention of attacks by means of hypnosis.*
4. Susceptibility of the patient to suggestion during the height of an attack.
5. Bromide treatment does not favorably influence the seizures and usually aggravates the other symptoms.
6. In those cases in which the crises have persisted for many years, intelligence and memory do not deteriorate progressively. Amnesia, if present, is purely functional in character and events which apparently have been forgotten are capable of being recovered by means of hypnosis and certain other well-known procedures.
7. The discovery, through some psycho-analytic method, of a wealth of pathogenic and dissociated or subconscious ideation.

8. Conservation in subconsciousness of the memories of events which occurred during seizures. Demonstration

*It seems more than improbable that a case of true epilepsy ever has been cured by means of hypnotism.

of this conservation of memories by causing their reproduction through the agency of methods which already have been mentioned.

It is to be hoped that some competent investigators who possess the requisite opportunities will interest themselves in researches having as their end the corroboration of what theoretically has been assumed, and to a certain extent demonstrated; that in epileptics it is impossible by any known means to recover memories of events which happened during the height of a convulsion. The recovery of such memories may be accepted, however, as unimpeachable evidence of the psychogenic nature of a convulsion, no matter how typical otherwise of epilepsy it may have seemed. This statement may appear to be too conclusive, but in all the literature at my command I have been unable to discover any case of undoubted epilepsy in which memories of events which occurred during attacks successfully were reproduced, and, on the other hand, investigators who have succeeded in reproducing such memories in supposed cases of epilepsy unite in saying that the cases always have turned out to be ones of psycholepsy.

Inasmuch as the existence either of epilepsy or of psychoneuroses in the progenitors may cause the development in the offspring of any of the conditions under discussion, the discovery of neuropathic heredity is not of great importance in the differential diagnosis of epilepsy, hysteria, and psychasthenia.

The knowledge possessed by epileptics that they are afflicted with an incurable organic nervous disease, the severity of the symptoms of this disease, and the unexpected manner in which old symptoms may recur or new ones suddenly may appear, together with the state of fear and expectant attention which thereby ultimately is provoked, often leads to the development of a superimposed psychoneurosis. Consequently, the fact that a patient presents the hysteric or psychasthenic type of temperament, in addition to the discovery of "stigmata" of either of these conditions, necessarily does not eliminate the possibility of the coexistence of epilepsy. It is not unusual, in fact, for epileptic and psycholeptic seizures to alternate.

As to the prognosis of psycholepsy: When the attacks occur in cases of hysteria the results of treatment are excellent and a cure is to be expected in all cases. If, however, the attacks are symptomatic of psychasthenia the results, though good, are not so favorable as those obtained in hysteria. The difference in the prognosis of these two diseases readily is comprehended by taking into consideration the difference in the mental states characteristic of the two conditions. Cases of hysteria are eminently suitable for the application of psychotherapy because the proper suggestions are accepted without any resistance. Unfortunately, in psychasthenia the hypnotic state usually is secured with difficulty because of the inability of the patient to concentrate his attention by reason of the distracting influence of fear and of extraneous ideas. More or less unconscious and antagonistic auto-suggestion also interferes greatly in these cases, both with the production of the hypnotic state and with the acceptance of therapeutic suggestions after this state is secured. In response to each suggestion of the physician the patient seems impelled to expect the contrary to occur.

The manner in which psycholepsy should be treated is rendered evident by possessing knowledge of the psychic mechanism of the conditions which may cause this clinical phenomenon. If, for example, a certain stimulus, or a certain kind of stimuli, is found to cause recurrence of the aura, either by conscious or by subconscious association of ideas, and thereby precipitate an attack, then one of the first principles of treatment is to abolish this tendency. The same applies to the reproduction of seizures by either form of association of ideas with any other component of the dormant complex. To do this in a scientific, effective and lasting manner requires synthesis with the patient's personality, of the dissociated and pathogenic complexes. Naturally this procedure necessitates discovery, by means of some psycho-analytic agent, of the submerged complexes and then their reintegration with consciousness by means of inducing the patient consciously to remember the original painful experience and its emotional consequences.

Even though at first it may seem highly improbable that

a patient may be cured of certain nervous manifestations by causing him to recall some painful episode in his life, it is, nevertheless, a fact that is quite generally known. In writing of this peculiarity, as it occurs in hysteria, Freud (6) remarks: "*We found, at first to our greatest surprise, that the individual hysterical symptoms immediately disappeared without returning if we succeeded in thoroughly awakening the memories of the causal process with its accompanying affect, and if the patient circumstantially discussed the process giving free play to the affect.*"

The use of suggestion, preferably during the deepest stages of hypnosis, is of decided value in assisting in the removal of the various manifestations. The hypnotic state is of great value, too, by reason of the assistance it affords us in the attempt to discover the emotional cause of the condition.

In addition to these measures psychic re-education must be employed in order that the patient may be enabled to regain the ability psychically to react in a normal manner to any stimulus, and by acquiring emotional stability, to lessen the chances of recurrence of the former condition or of development of new and similar symptoms.

Naturally, organic disturbances should not be overlooked, and when present attempts should be made to ameliorate or to correct them. It cannot too strongly be emphasized, however, that unnecessary drugging and imparting of information of abnormal conditions of any part of the patient's body are to the highest degree detrimental to successful treatment of the neurosis, or more properly, psychosis. Informing such patients of any abnormalities which are not of a serious nature, and discussing with them the condition of their various organs, tends not only greatly to alarm these patients, but also to create a number of new syndromes, such as "cardiac and gastric neuroses." It should not be forgotten that, as secondary manifestations of the psychic abnormality, hysteric and psychasthenic patients very frequently present symptoms of functional disturbance of the various organs, and as the psychosis improves, these disturbances disappear spontaneously. When having to deal with these physical expressions or concomitants of

abnormal mental states, judicious neglect often is desirable, and local treatment, besides of necessity being ineffectual, has a decidedly pernicious mental effect upon the patient.

Exercise in the open air, social intercourse, interesting occupations, and many other measures are of great value. These owe their efficiency almost entirely to their tendency to interest the patient and thereby to withdraw his attention from morbid introspection. Particularly is this true of social intercourse and of work. The "work cure" has the additional advantage of promoting actual and normal physical fatigue with its tendency to insure more profound and more prolonged sleep at night.

A form of treatment upon which reliance can be placed, even in the most intractable cases of psychasthenia, is a course of private instruction in tumbling and general gymnastic work under a physical director who is especially fitted for the handling of neurotic patients. Such a man is one who treats his pupil in the same manner as an officer would treat a private soldier; one who not only will not listen to remonstrances from the patient, but who will not allow such to be made; who by the very strenuousness of his methods forces the patient to concentrate his attention upon a diversity of exercises and tumbling which he is expected to do immediately upon command and without protest. In this manner not only does the patient receive the direct benefit of physical exercise, but he learns how to ignore his obsessions, acquires self-confidence, and his ego-centricity becomes diminished through subjecting himself to the will of another.

One of the worst cases of psychasthenia I have seen is deriving more benefit from a special course under such a director than from any other form of treatment I have been able to devise.

Case 1. Elizabeth M., a mill girl, æt. 22, never had experienced any seizures until July 29, 1907, when suddenly and without afterwards being consciously aware of any apparent cause, she screamed, ran a few steps, and then fell unconscious. General tonic and clonic spasms appeared, of which the movements of her jaw caused a laceration of the tongue. After a post-convulsive stuporous state, which lasted three hours, she regained consciousness,

but felt exhausted. Upon the advice of her physician, she remained in bed for three days. During two nocturnal major convulsions, evacuation of the bladder occurred. Besides this type of attack, she had numerous emotional ones which were preceded by a peculiar sensation, originating in the epigastric region and which caused her to feel faint. The subjective sensations of the attack itself consisted of palpitation, dyspnoea, and exhaustion. The patient was unaware of the causes of any of her manifestations. She knew, however, without appreciating its genetic significance, that each diurnal attack was preceded by fear and expectant attention. Often she would say to her mother: "I know that I am going to have an attack to-night." Frequently she had nocturnal seizures which were succeeded by localized amnesia and which were characterized by calling for her parents, irrational talk, and apparent fear.

The statements of the mother and the results of interrogation of the patient before and during hypnosis indicate that the mechanism of genesis of her symptoms was as follows:

Until she was fifteen years of age, never had she exhibited any manifestations of nervousness, always having been socially inclined and full of fun. Her menses did not appear until her twentieth year, and following their establishment she menstruated only every three months. Because her menstrual function was not like that of other girls she worried excessively about her health. Indeed, she had thought that she had an abdominal tumor and that surely she would die soon. The girls with whom she associated encouraged her belief in the serious import, at first of her failure to menstruate, and later of the abnormal periodicity of this function.

Now, six months before her first seizure, and in her presence, a friend was seized with a convulsion. The shock of this incident was increased and rendered more personal by the fact that this friend subsequently told her that she was subject to convulsions because of menstrual irregularities, and furthermore, that these abnormalities were the same as Elizabeth's, therefore Elizabeth surely would develop convulsions. Following this accident and the suggestive

explanation of its cause, Elizabeth worried much about the possibility of the same condition developing in herself. Frequently she asserted that she would become an epileptic, and her mother stated that constantly she talked about this disease. Finally the inevitable took place; she began to have convulsions which at first were exactly like the one she had witnessed.

In September, 1908, she became engaged to a man, who four months after having impregnated her, jilted her, following a quarrel. Having taken the matter to court, and thus secured unenviable newspaper notoriety, she was ostracised by her friends. Naturally these unfortunate occurrences greatly aggravated her nervous condition, and she became obsessed with the idea of killing her violator, regardless of the consequences. The type of attack which simulated *petit mal* developed only after the quarrel. Each of these crises was caused either by thinking about these troubles, by worrying over the fact that she was pregnant, or, subsequently, by reproaching herself for having provoked an abortion by means of drugs. The nocturnal attacks were caused by thinking of her lover before retiring, or by erotic dreams of which he was the object.

A number of psychasthenic obsessions with which she was afflicted were traced in the same manner to the nervous shocks which she had sustained.

These results of analysis, though apparently so simple and so easily ascertained, could have been obtained only by means of some psycho-analytic method — hypnotism in this case — for the reason not only that she was not consciously aware of the causal relations between her various manifestations and the psychic stresses, but that some of these had been entirely forgotten or suppressed. Without such painstaking research she would have been considered an epileptic and treated unavailingly as such.

The diagnosis, psychasthenic convulsions, was suggested by the presence of other indubitable evidences of psychasthenia. It was justified by the discovery of an adequate and direct emotional cause; by the successful reproduction, through the agency of hypnotism, of memories of events which occurred during attacks, and by the

reproduction of memories of a subconscious cause for individual seizures.

During a period of two months the patient was treated nine times with hypnotic suggestion. After the second treatment, her obsessions disappeared and major convulsions no longer recurred. Attacks of pavor nocturnus much less frequently continued to occur as the consequence of dreaming about her former lover, and each dream was found to have been preceded during the day by conversations about this man. Unfortunately, the patient discontinued treatment before further improvement could be obtained. As she had responded so well to psychotherapy, probably all of her neurotic manifestations could have been caused to disappear had she continued the treatment a little longer. A most detrimental factor in the case was the fact of her constantly being reminded of her troubles,—her father and many of her friends refusing to speak to her on account of her fall from virtue,—and because the lawsuit had not been terminated.

The next case is mentioned only in order to contrast the psychasthenic mental state with that characteristic of the but rarely encountered uncomplicated hysteria.

Case 2. With the exception of some symptoms due to retroversion of the uterus, Mrs. D., æt. 33, felt well until three weeks before having been referred to me by Dr. John E. James, Jr. Her neurologic manifestations developed after a prolonged medical examination during which hemi-anæsthesia either had been found or was created by the tests to which she had been subjected. Following this examination she had thirty syncopal attacks in three weeks. These crises were preceded by sudden loss of vision, immediately followed by a cry and loss of consciousness. Upon regaining consciousness, several hours later, she felt exhausted.

The examination, which was as devoid of suggestion as possible, demonstrated the existence of absolute hemi-anæsthesia, hemi-analgesia, and hemi-thermoanæsthesia of the right side of her body. The special senses of the same side also were involved. Vision with the right eye was 4/200. Conscious perception by aerial and by bone

conduction was absent on the right side. When various substances, including tincture of nux vomica, were applied to the right side of her tongue, she asserted that she did not taste anything. Inhalation of odorous substances, even ammonia, did not arouse any conscious perception when the left nostril was occluded. Muscular force of the right side was diminished; the grips being R. 12 and L. 25. None of the symptoms could be influenced in any way by means of suggestion and various deceptive tests. Further examination was not permitted because, she stated, she wasn't sick and it was all nonsense. Not being inconvenienced by her symptoms she refused treatment. Afterwards Dr. James, Jr., mentioned the fact that internal manipulation of the right side of her pelvis did not occasion any pain. Having had some experience with the patient Dr. Warren Mercer stated that often she had called on him to treat conditions which were found not to exist, and that her statements concerning her bodily condition could not be depended upon.

The diagnosis hysteria was justified by the absence of any signs of organic disease, and by the anatomic and physiologic inconsistency of the symptoms or of their qualities.

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HYSTERICAL ANÆSTHESIA

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HYSTERICAL anæsthesia, erroneously regarded as pathognomonic, is, of all the manifestations of hysteria, the least understood, and has not as yet received a satisfactory explanation. Janet has attempted a psychological analysis of this most baffling hysterical phenomenon. His masterly exposition is so convincing that there is great danger lest it be accepted as the final word on the subject, and thus check further efforts of analysis.

I may therefore be permitted to call attention to the difficulties involved in Janet's analysis, and to propose a tentative hypothesis less open to objections.

Following Charcot's classification, Janet separates the manifestations of hysteria into two distinct classes. On the one hand we have those symptoms which are permanent, such as the anæsthesias, limitation of field of vision, etc., and on the other we have the so-called hysterical attacks which are accidental and transient. Under the influence of Magnan these two varieties of manifestations have given rise to the highly artificial distinction of "stigmata" and "accidents." The so-called stigmata are regarded as the fundamental conditions indicating weakness, instability, degeneration. They have nothing to do with the immediate cause, but furnish the fertile soil wherein the accidental attack takes root. Whatever the cause which produces the hysterical attack may be it has no relation to the permanent manifestations, the stigmata. Stigmata are regarded as fundamental signs of degeneracy, upon which the attacks are superadded as accidents. Of these stigmata anæsthesia is the most typical, and is supposed to exist, in one of its various forms, in all cases of hysteria.

Such a classification necessitates the assumption that the psychic mechanism of hysterical anæsthesia is of an entirely different nature from that of the more transient and accidental symptoms. The latter are directly related to the initial trauma, and are to be analyzed from this standpoint. The stigmata, however, since they are regarded as having no

relation to the initial trauma, must have a different psychological basis.

Let us briefly summarize Janet's interpretation of hysterical anæsthesia: The hysterical is weakminded, he cannot attend to many impressions at the same time. While attending to one sensation he cannot perceive another. The unperceived sensation, it is true, enters consciousness, but it is not synthesized; it remains outside of the field of personal consciousness. The patient soon learns to economize his limited personal consciousness. He ignores those sensations which are of the least importance for his adaptation to his environment. He reserves the limited field of attention for what he considers, rightly or wrongly, the more important visual and auditory sensations, and ignores the tactile and muscular sensations.

In the beginning, by directing his attention, the patient may perceive these sensations. In the course of time, however, due to the constant ignoring of these sensory stimuli, a bad mental habit is formed, the sensory states so long neglected can no longer be perceived, even if the attention of the patient is directed to them. Hysterical anæsthesia is then fully formed. To quote Janet, "Anæsthesia is an extended and chronic absentmindedness which prevents those subject to it from connecting certain sensations with their personality; it is a contraction of the field of consciousness."

This interpretation of Janet is, at first sight, quite satisfactory. The germs of hysterical anæsthesia are already shown to exist in the anæsthesia of absentmindedness of normal life. In the latter the phenomena are fleeting, unstable, and disappear with the change of attention; in the former they are permanent and fixed, and are not altered by direction of the attention. The difference between these two states, however, is a purely quantitative one. In disease we have but a distortion of the proportion; an exaggeration of some of the elements of healthy mental life. This view, pointing as it does, to a unity and continuity of mental life, allowing no gaps, no sudden transitions, is one that strongly appeals to the psychologist.

A closer consideration, however, reveals a number of objections which make this interpretation impossible. What we

have, according to Janet, is the gradual, more or less voluntary formation of a bad mental habit brought about by the necessity of economizing the limited attention. It is thus to be regarded as a biological adaptation of the narrow field of consciousness to the complex environment. Such an adaptation being necessitated by the inherent mental weakness of the hysterical.

That the hysterical is mentally affected no one will deny, but this affection of mind is the result of the disease, and is not to be regarded as primary, as a necessary condition for the development of hysteria. It is the state of mental dissociation from which the hysterical is suffering that produces this mental affection.

Janet's observations are confined in a large measure to the patients in the Salpêtrière hospital, a class of patients of limited intelligence. From such observations Janet generalizes for all cases of hysteria. Diametrically opposed to this view is the opinion of many observers, notably of Breuer and Freud, in Germany. According to these observers, many of their hysterical patients were persons possessed with strong character, with extraordinary will power, and unusually clear and critical minds. Hystericals, according to them, are among "the flowers of humanity." In the intervals of the attacks hysterical patients may be capable of the highest mental activity, and be most rational and critical in their judgment. One patient of Breuer and Freud was very fond of chess, and her main diversion between the attacks was to play chess, preferably two games at a time. Surely this does not indicate a weak state of attention or a faulty mental synthesis.

Whatever may be the factors that predispose to mental dissociation the conclusion seems to be inevitable that mental weakness of the kind described by Janet, a limitation of the field of consciousness, an inability to synthesize more than few impressions at a time, is not a prerequisite of hysteria. Hysteria is a disease to be found in all classes, and is by no means confined to, nor is it more common, among the feeble-minded.

Such being the case, the conception of stigmata indicative of mental weakness, of degeneracy, ceases to have any

meaning. These so-called stigmata can no longer be regarded as the result of faulty synthesis, but they must find their explanation together with all the other symptoms of hysteria. There is no essential difference between the accidental attack and the more lasting symptoms, both have the same psychological explanation.

Aside from this fundamental misconception as to the nature of the stigmata, Janet's interpretation fails to explain all the facts involved. The anæsthesia, as we have seen, is regarded as a teleological adaptation of a narrow field of consciousness to a complex environment. Like other biological adaptations, it is one of slow formation. The habit of neglecting these sensory stimuli is gradually formed. At first the patient may perceive these tactile stimuli by directing his attention to them; after a time the "bad psychological habit" is fully formed and the anæsthesia is complete. Such a conception of a slow evolution of hysterical anæsthesia does not allow any room for the most frequent form of hysterical anæsthesia, that of traumatic hysteria. The greatest number of anæsthesias are to be found in these cases of hysterias. The onset in these cases is quite sudden and the formation of a habit of neglecting the tactile stimuli is out of the question, for the patient has not had time to train himself into this bad habit. Janet would hardly maintain that in all cases of traumatic neuroses, the anæsthesia existed before the accident, but remained unknown until an examination revealed it. Janet's interpretation thus fails to take account of the largest number of hysterical anæsthesias.

Moreover, from the standpoint of teleological adaptation, it becomes very difficult to understand the curious cases where small patches of anæsthesia are distributed in various portions of the body. Such cases, it is true, are rare, but they have been observed, and if thorough search were made for them in all cases of hysteria, the frequency of such anæsthesias would probably be found greater than is generally supposed. It is hardly possible to explain an anæsthetic spot of which the patient is not aware and which plays no rôle in his adaptation on the theory that the subject to economize his limited field of attention has trained himself to neglect

the tactile stimuli coming from that particular portion of the body.

Furthermore, the psychic mechanism of hysterical anæsthesia, we are told, is the mechanism of habit. It is in virtue of neglecting continuously a certain group of sensations that the patient is finally unable to perceive them, even if his attention is directed to them. But we have sufficient evidence in our normal life that continuous neglect of groups of sensations does not produce an inability to experience them when attention is directed to them. At every moment of our waking life we are assailed with numerous sensations which we persistently and continuously ignore. Under ordinary conditions, for instance, we do not experience the tactile sensations produced by our clothing; we likewise ignore the host of visual impressions which come to us from the periphery of the visual field. These sensations are not consciously perceived by us, they are not synthetized into personal consciousness. The purpose of such neglect is of course quite apparent; it is a great economizing factor in our psychic life. It allows a full concentration of our attention to our requisite activity without the distraction which attention to these stimuli would involve. The teleology is precisely the same which Janet considers to be in hysterical anæsthesia. And yet in spite of continuous neglect we do not develop cutaneous anæsthesia, or narrowed visual fields. A slight shifting of my attention is sufficient to bring within the field of my personal consciousness the tactile sensations from my clothing or sensations from the periphery of my visual field which a little while before were not perceived. Continuous neglect of sensory stimuli does not produce anæsthesia, in fact it does not in the least dull sensibility.

This fact becomes still more striking when we turn to our visceral processes. Here we have numerous processes going on of which we are entirely unconscious. The beat of the heart, the expansion and collapse of the lungs, the gastric and intestinal peristalsis, all these are processes which under normal conditions do not enter consciousness, certainly do not cross the threshold of self-consciousness. These vital reactions and adjustments have in the process of

evolution been relegated entirely to an automatic arrangement of the organism, and do not require any aid on the part of consciousness. If anywhere at all, we would expect the effect of long-neglected sensations to become manifest in this case; we would expect to find complete visceral anæsthesia. But such is not the case. Let the slightest interference in the normal mechanism take place and we immediately become conscious of these visceral processes. Continuous inattention to sensory stimuli is thus not sufficient to produce anæsthesia.

Janet again reduces hysterical anæsthesia to a disease of the attention. There is a state of degeneration of the attention making it impossible for the subject to attend to many impressions at the same time. There results a selective activity, the limited attention being reserved for those states which are of importance to the subject in his adaptations. But we must ask ourselves whether a degenerative process of the attention is likely to be of such a nature. In its degeneration and decay, attention, we would expect, would revert to its lower forms, from which it has evolved. The process would be a retrogressive one. Let us see if such is the case.

The highest forms of attention found only in the highest types of mental life is that of active, voluntary attention. In this form of attention the subject can, by a voluntary effort, direct his attention solely to the particular line of thought or activity in which he happens to be engaged without being distracted by incoming stimuli. The latter are ignored and are not synthesized in personal consciousness. By a voluntary effort, a state of relative monoideism can be produced. Of course such a concentration of the attention is relative, for no matter how thorough one's mind is centered on his work, an incoming stimulus, if strong enough, unless under very unusual condition, as states of ecstasy, will always distract the attention.

Attention finds its highest development among people who are engaged in intellectual work. These succeed in becoming absorbed in their thoughts to the exclusion of everything else. Such people are usually designated as absentminded, which is of course a misnomer. This

designation calls attention to the negative aspect of the situation. The absentmindedness in such a case means the presence, the attention of the mind to one thing to the exclusion of all others. This is the highest form of attention.

In lower forms of mental life attention does not consist in voluntary selection, in the concentration of the mind on one group of mental states to the exclusion of all others. Quite the contrary is true. Instead of this relative degree of monoideism a condition of extreme polyideism exists. Attention continuously fluctuates. Active, voluntary attention is reduced to a minimum, while passive, spontaneous attention holds the field. Such we find to be the case in animals and even in young children.

In diseases of attention what we would expect would be a progressive diminution of voluntary attention and an increase of spontaneous attention, the patient would find it difficult to concentrate his mind on any one mental state, the least thing would disturb him and cause distraction. Such a condition we actually find in some cases of psychasthenia and neurasthenia. These patients are in a perpetual state of distraction, they are unable to concentrate their minds on anything. Such we would expect to be the case in hysteria, if it were a disease of attention.

The mechanism which Janet assumes exists in hysteria is not one of degeneration, but is a higher evolution of attention, a state not as yet attained. The hysterical, according to Janet, is enabled to relegate to instinctive, automatic activity what otherwise requires the intervention of consciousness. For we must note that the adaptations of the hysterical do not suffer on account of anæsthesia. The adaptations are made subconsciously. In fact, the patient is frequently unaware of his anæsthesia, and hardly ever presents himself to us with bruises or burns, as does, for instance, the one suffering from syringomyelia, who, as a result of his insensibility to pain and temperature is exposed to severe burns and bruises. Not so with the hysterical. His adaptations, in spite of his anæsthesia, in spite of the limitation of his visual field, are perfect.

Such a state of consciousness, when we could relegate to instinctive activity a considerable portion of our ex-

perience which at present demands our conscious attention, without at the same time interfering with perfect adaptation, is not a degenerative process, but is a decided advance in the development of attention. Such a state has not as yet been attained by the highest forms of attention. In the great complexity of conditions of modern life, such an economy of nervous energy would mean the possession of a greater amount of energy to deal with complex conditions as they present themselves, and would be a decided advantage in the struggle for existence. Such cannot be the condition in hysteria, which is a condition of mental disintegration.

Hysterical anæsthesia must find its explanation together with the other manifestations of hysteria. The pathogenesis of the more lasting symptoms—the stigmata—is the same as of the attack. All the manifestations of hysteria have the same psychic mechanism.

Much work has been done by Janet, Freud, Sidis, Prince, and others in demonstrating the pathology of hysteria. The hysterical state has been shown to consist of a state of dissociation, a break in the unity of the mind. A certain group of experiences, a moment consciousness (Sidis) remains, due to trauma, dissociated; it does not enter into personal consciousness. This dissociated moment is still capable of functioning, and when aroused to activity gives rise to the manifestations which constitute the hysterical phenomena. The hysterical attack is a more or less exact reproduction of the initial moment. It reproduces the sensory-motor and ideational elements which constitute the original moment. Both the ideational content and its emotional tone may remain subconscious, manifesting the sensory-motor phenomena in form of convulsions, tics, anæsthesias, contractions, etc., or the emotional tone may be dissociated from the content, the former coming to the surface in the form of ill-defined fears, while the contents remain subconscious.

Every hysterical symptom must have its explanation in the initial moment or moments. To be able to explain fully every manifestation of the disease it is necessary to know in detail the exact conditions of the trauma, and also the exact mental condition of the patient at the time of the traumatic event. The mental states of the patient at the time, although

having nothing to do with the original trauma, have become associated with it by their co-existence in time. These associated states represent the traumatic experience which become disease symptoms (Freud). Thus, for instance, one of Freud's patients has an olfactory hallucination of burned flour, which on analysis proved to have been an actual experience when she suffered from an emotional trauma. A similar instance is a case reported by Parker, of epileptiform attacks which on analysis proved to be of a functional character. These attacks had as an aura a foul taste in the mouth, accompanied by a fetid odor. Later this was shown to have been the actual experience of the patient before the first attack due to bad meat eaten by the patient. We thus see that on a close analysis of the case, symptoms otherwise unintelligible find their explanation and meaning. We cannot study too closely or in too great detail the initial trauma or traumas.

The meaning of hysterical anæsthesia must be looked for in the initial moment. A careful analysis of that moment must reveal to us the meaning of this curious sensory dissociation and the reason of its presence in some and absence in other severe hysterias.

Hysterical anæsthesia will be found to exist in all cases of hysteria where the sensory dissociation existed during the initial trauma. Such sensory dissociation will occur in all emotional traumas which are at the same time accompanied by physical injury. The physical trauma need not necessarily be a severe one. It is sufficient that there co-exists a sensory, painful, or even merely a tactual stimulus which under normal conditions would have attracted the attention of the patient, but which, owing to the distracting influence of the emotional state, remains unperceived.

That a concentration of attention or an intense emotional state may produce a distraction, so that sensory stimuli even of great intensity are not perceived is a matter of experience of normal life. When our attention is taken up we neglect stimuli which would otherwise have made themselves felt. In states of intense emotion even very painful stimuli remain unperceived. In the heat of the battle the soldier does not perceive the bullet wound, and it is quite

probable that in his state of ecstasy the martyr does not feel the flames of the stake.

It is only, then, when sensory dissociation has taken place in the original attack that anæsthesia is present. If, on the other hand, the trauma is purely emotional, and is not accompanied by any appreciable sensory trauma, there will be no anæsthesia. The hysterical is anæsthetic, because at the time of the original accident he did not feel certain sensory impressions which, under normal conditions, he would have felt.

The moment consciousness, the group of ideo-motor-sensory experiences which constitutes the trauma, and which remains dissociated, not synthesized with the rest of mental life, is in itself not complete. It has a dissociation within itself, the tactual sensations having become dissociated from the other elements constituting that moment consciousness.

Such a view will help us to understand a good many of the phenomena which from any other standpoint remain inexplicable.

In the M. case which I had the privilege of studying with Sidis and Prince, a question has been raised which can only be satisfactorily answered from this point of view. The subject was suffering from periodical motor attacks accompanied by hemianæsthesia. Analysis of the case showed that the attacks were due to a fright and fall which the patient had some years before. The motor attack was the manifestation of the dissociated moment, the initial fright and fall. The hemianæsthesia was on the same side as the fall. In hypnosis the subject could be taken back to the period when the accident occurred, and he would then live through the event again. During the hypnotic attack the anæsthesia still persisted. Granted that the anæsthesia is due to a dissociation, why does not the anæsthesia disappear when the sub-conscious dissociated system has come to the surface as is the case in the hypnotic attack? From our point of view, this condition should be expected. The anæsthesia exists because it is a part of the original accident. The patient in the distraction of fear did not feel the physical injury of the fall. The tactual stimuli are dissociated from this moment consciousness. When the patient is living through, in the hypnotic

state, the original attack, the reproduction is complete, *he is anæsthetic because at the time of the accident he did not feel the sensory stimuli to that side*, the side which was struck when he fell. *The original moment consciousness recurs.*

Our view will also make intelligible those cases where patches of anæsthesia are found which, we have pointed out, are inexplicable on Janet's theory. These patches of anæsthesia, if a thorough search were made for them in all cases of hysteria, would perhaps be found to be more frequent than is generally supposed. A patch of anæsthesia, according to our interpretation, would mean that at the time of the trauma there was a definite sensory stimulus to that spot which would have been felt under normal conditions, but which remained unperceived, due to the state of emotion.

The limitation of the visual field may also be subsumed under the same point of view. The field of vision of the hysterical is narrow because *at the time of the trauma* objects in the field of vision are not perceived. It is a common experience of normal life to become blind to one's surroundings in cases of intense emotion.

We are now in a position to understand why anæsthesia exists in some cases, while it is absent in other cases, although quite severe. Anæsthesia is present when together with the emotional state of grief, fright, etc., there is present at the time of the accident some appreciable injury. Hence, the frequency of anæsthesia of the so-called traumatic neuroses.

In his statistics for admission to hospitals, P. Marie finds that the proportion of hysterical anæsthesia is greater among men than among women. This is a fact of great significance, and is thoroughly in harmony with our point of view. Men are more subject to physical injury. The emotional states producing dissociation are more apt to be accompanied by physical trauma among men than among women. Examination of all cases of hysterical anæsthesia from our point of view would be of great value.

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ABSTRACTS

THE PROCESSES NEEDED TO REORGANIZE THE MENTAL SYNTHESIS IN TREATING THE NEUROSES. By Dr. Bezzola of Ermatingen, Switzerland; *Rev. de Psychiatrie, Paris*, 1908. June, No. 6, Vol. 12.

BELIEVING that what he calls the "névrose de frayeur," or "névrose accidentelle," is less simple than, if not of a different order from, hysteria in the strict sense, Bezzola attempts to depart from the cathartic and psycho-analytic methods of Freud, for reasons which he does not particularize except as to their difficulty, and that he dislikes to follow the "astonishing psychological theories entailed."

Although the author expressly appeals to clinical tests as explaining his own method, he nevertheless invokes the psychological theory of Janet; for in his treatment he reproduces the causal event by suggestion, perhaps in a dream, believing that the disease is due to nothing more than the "fixing of the cerebral reactions, while in the state of becoming" (*a l'état naissant*), and that "if the act of *mental synthesis* can by any means be accomplished," the cure is effected.

It is to be noted that he *suggests* the symptoms, but it is not noted whether he suggests their alleviation; for he seems to be taken up by explaining the synthetizing action of the psychological automatism in dreams. He does, however, remark that the time required should be "used to fortify the patient's will and reasoning power, and that work is the best restorer of the personality."

The five cases reported are so only incompletely; but in that of No. 3, the suggestibility of the patient was clearly manifested by an oculist, who while "changing the visual fields," transferred the patient's lameness also to the other side. Again, the sudden flashing of a lamp at his left produced a syncopal crisis with a vision of his accident. The influence of the partisans of the association psychology is shown by the author's citation of the patient's confusion between the words "piltz and blitz," in recounting that in dreaming he went to look for mushrooms, when he really had been subjected to a lightning stroke.

In another case, where previous hypnotizations had been without effect, the development in vision of the image of her dead husband eventuated in a cure.

The author concludes that one must not suppress nervous symptoms either by narcotics or suggestions. The tendency of patients to speak of their symptoms is an instinctive effort towards cure; and without any psycho-analytical interpretations, the author cures by their synthesis the sexual traumatism of childhood which, though subconscious, he suspects by the nature of the patient's periodical dreams. He now has added Freud's method of chain associations; in this, he sets the patient to utter everything which comes into his head. In this way, he often finds out what the patient is trying to conceal. He believes that dreams are nature's spontaneous mental synthesis.

It is unfortunate that we cannot estimate from his description the role played by the author's suggestions; for, as given, neither the cases nor the reasoning convince one that the psychological theory invoked is well founded; while in view of Babinski's attitude towards hysteria, to which the *névrose accidentelle* is believed to belong, it is essential to eliminate the unconscious suggestions of the operator before one is justified in adopting the very fascinating dissociation and synthesis hypothesis regarding the psycho-neuroses.

TOM A. WILLIAMS.

THE THEORY OF THE "COMPLEX." By William A. White, M.D., of Washington, D. C. *Interstate Medical Journal*, St. Louis, April, 1909.

THIS clear and valuable article, written by a psychiatrist in a general medical journal, should do much to clarify the subject of psychopathology and prevent misconceptions about scientific psychotherapy, besides enabling physicians to explain to the laity exactly what is being really accomplished by Christian Science and other healing cults.

The author applies the term only to pathological complexes, and, to explain its meaning, discusses mind as an adaptive mechanism, quoting from art to illustrate. He discusses by the genesis of fears the relation of body to mind, adopting a monistic interpretation.

He then illustrates by cases the defense mechanism of forgetfulness of painful emotions which constitutes the dormancy of a complex, which he compares to the incapsulation of an abscess, the pain aroused by touching the vicinity of which corresponds to the painful

emotion aroused when the complex is touched by any associated idea. The pain warns the patient against irritating the complex. Forgetting is one of the modes of defense.

Another mode is compensation by the distraction of absorbing interests which drown the complex. The aspirations of religion constitute a defense reaction of this type, as Nietzsche has pointed out regarding Christianity. Another common means is the wish-fulfilling dream or delirium, the world of fancy to compensate for a dull lot. Again, persistent moods are often defense reactions against an unpleasant complex. The funny man is often at bottom a sad fellow; the acerbity and scandal mongery of the old maid translates the repression of her sexuality.

Any side chain may arouse the complex; thus the bark of a dog would bring on emotional seizures in a lady in whom the only association remaining after an esteemed friend's death had been a dog which two years afterwards died also. Later, the words love, happiness, etc., brought on the painful emotion. Agitation of the voluntary muscles, too, may replace the emotion of a defense reaction.

The author then discusses a dynamogenic theory of the complex and alludes to sensory and symbolic manifestations, citing cases of his own and one from Jung, believing that though they appear far fetched, they may be explained by the law of transference, such as the affection of the childless woman for cats.

The unravelling of complicated trains of thought by the methods of Jung and Freud in dementia precox shows that even diseased mental reactions are not fortuitions; and psychiatrists should no longer be satisfied with such terms as "strange," "incoherent," in describing mental states, and moreover, mental reactions should only be judged along with their context. It would be manifestly unfair to call a man emotionally unbalanced because of flying into a passion and using forceful language to an employee, who merely lays a paper before him on his desk without considering the fact that the clerk has been instructed over and over again to avoid doing that very thing.

The grouping of impressions into ideas and of these into systems is comparable to the grouping of stones into houses and these into a city. An earthquake changes the form and blocks the avenues of approach, but familiarity with the town permits a recognition of the elements of the ruin. Sanity or insanity are not deficiencies of kind,

the irrationality of the alienated finds its counterpart not only among the obsessed, but in the conventionalities to which we all conform. Their origins are buried in history; they are automatic and cannot be changed by rational appeal, e.g. no reason determines the bipolar variety of modesty which constitutes the shame reaction of the modern society woman in the ballroom or on the seashore respectively. This is no more rational than is the wearing of a veil over the mouth by the male Tuaregs. To change such customs is only possible by removing the whole constellation of ideas and emotions to which they respectively belong. To do this in the case of individual perversions demands the time and skill of the student of mental pathology who has ascertained the genesis of the morbid trends which disadapt his patients to their environment.

TOM A. WILLIAMS.

REVIEWS

A TEXTBOOK OF PSYCHOLOGY. By Edward Bradford Titchener. Pp. xvi, 311. The MacMillan Co., New York, 1909.

"THE present work has been written," says Professor Titchener in his preface, "to take the place of my 'Outline of Psychology.'" This present volume is the first part only of the new work; the second part is promised to appear in 1910. "The textbook aims, within its limits and upon the elementary level, at systematic completeness," continues the author, and "is not a digest or redaction of a larger work," but "a textbook written expressly for the class room." The small amount of space devoted to nervous physiology is explained, in the preface, on the ground that it is "a sheer waste of time" to discuss with beginners physiological conditions of mental life, since such statements are at best, in the present status of our knowledge, largely hypothetical.

The book is divided in the main by four topic heads: *Subject-matter, method, and problem of psychology; Sensation; Affection; Attention*. Sensation is further divided into ten subtopics, which, together with the other three main headings, form the thirteen "chapters" of the book. Each "chapter" (the word is not used) contains sections, these being the unit divisions of the book. A list of references for further reading is given at the end of every "chapter." In general the arrangement of material is logical; black type section headings, and the putting of subordinated remarks into small type, make for clarity. Indices of names and of subjects are appended to the book.

Mind, in his introduction, is defined by the author, "as the sum total of human experience considered as dependent upon the experiencing person," that is, "upon a nervous system"; or, more concisely, "mind is the sum total of processes"; further, "we shall take mind and consciousness to mean the same thing."

In lieu of a systematic psychology the author adopts psycho-physical parallelism as his *Grundlage*: mind and body "are simply two aspects of the same world of experience; they cannot influence each other because they are not separate and independent things." When, for instance, a physical stimulus sets up a physical change in the body, causing the secretion of tears, lo! we find that at the same

time "consciousness has been invaded by grief or remorse." The introduction is concluded by discussions of the method, scope, and problem of psychology, indicating that, while still embryonic, psychology follows in the sure footsteps of a true science.

To *sensation* are allotted fifty-eight of the eighty-four sections of the book. After three general sections discussing the elements, attributes, and the classification of sensations, there follow sections upon: *The quality of sensation* (Sec. 14-61), the larger portion of the work numerically. Here is treated: Vision; Audition; Smell; Taste; Cutaneous Senses; Kinesthetic Senses; Other Organic Sensations; Synesthesia. *The intensity of sensation* (Sec. 62-67).

Under *Vision* the three aspects of hue, tint, and chroma in their relations to the color pyramid are excellently treated; but their physical explanation, the Purkinje phenomenon, and the discussion of the laws of color mixture, adaptation, and contrast, will be found severe reading by the average student. The chapter is a well-detailed summary of experimental results as affecting color theories, but it will prove its value primarily for the advanced worker.

The next succeeding "chapters," *Audition*, *Smell*, and *Taste*, are concise and clear. Irrelevant matter is refreshingly absent. The last section of each, as in *Vision*, deals with the theory of the particular sensation. These sections are typical of the book in general; no fact is warped to fit a theory; deductions from experimental data are followed by impartial discussion. Indeed, one might almost express the novel wish that, for textbook purposes, the author were more dogmatic!

In the discussion of the cutaneous senses — temperature, pressure, muscular, tendinous, etc. Pain is treated largely physiologically. The stimulation of the "specific organ of pain" is referred to, and the occurrence of pain spots over the whole extent of the skin proper, but the discussion of pain as a "common sensation," of the earlier "*Outline*," is here absent. Pain is accredited with three stages of development: (a) "as a bright, itchy sensation;" (b) "as prick or wiry thrill;" (c) "as punctiform (?) pain."

Under *Kinesthetic Senses* are grouped, first the muscular, tendinous, and articular sense, with a discussion of the alleged sensation of innervation (here well refuted), and second, the kinesthetic organs of the internal ear, the ampullar sense and the vestibular sense. The organic sensations of the abdominal organs and their systems — digestive, urinary, etc., follow in a brief "chapter." In these sections

the thought is not infrequently tripped by a technical term or an unexplained topic-word. It is doubtful, e.g. whether the average student after reading sections 52-55 could tell in a word what the "ampullar sense" is; what the "vestibular sense" is; and how they are related and contrasted. It may be similarly doubted whether the possible explanation of hunger as a "tension of the stomach, caused by the engorgement of the mucosa with the digestive granules developed in the cells is quite clear." Section 57 will throw new light on the question for the undergraduate mind. Such words (to choose at random) as: nares, parosmia, flexor, atonic, myel, palpation, dyspnoëic, tumescence, analepsis, delimit, alveoli, — should scarcely be left undefined in explanatory passages.

Synæsthesia (the definition of the term, by the way, is implied, but nowhere stated), has a little "chapter" to itself, ending with a discussion of "The Image," and its relation to sensation. The sections upon *The Intensity of Sensation*, which treat of Weber's Law, will be found slow reading. Simplification and condensation would probably better subserve the interests of a textbook at this point.

The last two chapters, *Affection* and *Attention*, are the best contributions of the book. More widely developed, these topics will be found in the recently published, "Elementary Psychology of Feeling and Attention" (MacM., 1909), by the same author. Affection is analogous to sensation in possessing quality, intensity, and duration as attributes; it is distinguished from sensation in not possessing the fourth attribute, clearness. In section 74 the author propounds his tentative thesis that affections are, if not embryo sensations, at least "mental processes that might, in more favorable circumstances, have developed into sensations," and further, "that the peripheral organs of affection are the free afferent nerve endings . . . (representing) a lower level of organic development than the specialized receptive organs." This theory of arrested development explains the lack of clearness in affections and proves, if "simply a guess," to offer a fair explanation of the other phenomena of the affective processes. Wundt's tri-dimensional theory of feeling is, it would seem, sufficiently whipped out of court for all time.

The remaining ten sections of the book are devoted to attention. Attention appears in the human mind at three stages of development: as primary, secondary, and derived primary attention. The attentive consciousness is thus at first simple, then complex, and finally,

when the opposition has been overcome, again simple. The best results of laboratory study are here indicated and excellently illustrated, though simply. In explanation we have not yet gone far enough to hope to be final. Neurology, however, suggests by way of explanation the reinforcement in some cases of one nerve current by another, and similarly, in other cases, an inhibition; whereupon the author suggests: "The attentive consciousness is . . . conditioned upon the interplay of cortical facilitation and cortical inhibition."

In conclusion, be it said, that this textbook stands alone, in much the same splendid way that its predecessor did: it is not a recapitulation, but rather a fresh, clearly defined piece of ground work. That lack of sharp definition, choice of Latin terms and a sometimes diffuse style, here and there delays the grasp of the thought, cannot be denied. And the severest criticism remains still to be said. In his preface the author writes: "I am inclined to believe that, from the student's point of view, a text written expressly for the classroom is more satisfactory than the simplified version of a book written primarily for psychologists." Alas! he appears to have hit one of the very stones he would have dodged. Certainly, for a first year student the book will have at best a tedious excellence (save as a reference book). On the other hand, for the advanced student; as an introduction, by way of theory and general application, to laboratory work, and for the general psychologist, the book will find a wide and warm reception.

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A MIND THAT FOUND ITSELF. An Autobiography. By C. W. Beers. Longmans, Green & Co., 1908. Pp. 362.

THIS interesting book is already so well known that in this JOURNAL a few critical comments on it will be more in place than a detailed description of its contents. It purports to be the description, written after recovery, of an attack of insanity, and is published mainly to call general attention to various asylum abuses of the kind from which the author himself suffered. It is supported by a vigorous preface by William James, and by several appendixes written by various well-known psychiatrists. For these reasons, and because the agitation has already aroused considerable popular interest, it becomes desirable carefully to inquire into the author's

contentions and proposals. In doing this, it is convenient to distinguish three questions: First, how far can the author's personal evidence be accepted; secondly, to what extent are the abuses prevalent of which he speaks; and thirdly, are his suggestions for remedying them the best that can be made?

With regard to the first question, the following considerations have to be borne in mind. From the full account given of the illness there is every reason to suppose that this was an attack of manic-depressive insanity, in which there were three fairly well-defined stages,—melancholia, a mixed state, and mania, respectively. It is known nowadays that recovery from such an attack is rarely quite so complete as the earlier views of the Kraepelin school maintained, and I fully concur with the opinion expressed by Farrar in his admirable review of the present book (*American Journal of Insanity*. Vol. lxxv, p. 215), that it was both conceived and written in a state of pathological excitement. Of the numerous pieces of evidence quoted by Farrar in support of this conclusion, we need here cite only one: On the first page the author speaks of his recovery as a "marvellous escape from death, and a miraculous return to health after an apparently fatal illness." This, let it be borne in mind, from a very ordinary and common psychotic attack, of a kind that regularly ends in recovery. Throughout the book, indeed, there is every evidence given of impaired insight into the morbid manifestations from which the writer had recovered. Although, therefore, one must accept the truth of the patient's story as a whole, and notably the facts that he was the victim of unsympathetic misunderstandings and even physical abuse, still it is certain that his judgment on the various events he relates cannot be taken literally, and that to base broad conclusions solely on the account given here, without taking into consideration evidence drawn from elsewhere, would be both unfair to the present administrators of insane institutions and misleading for purposes of future reform.

Impugnment of the reliability of a pleader for reform is one of the commonest modes of defence adopted by the prejudice of conservatism. So far from that is my attitude, however, that although the main weakness of Beers's argument has just been put in the foreground, I nevertheless concede the whole of his case. No one who knows the facts can honestly deny that at present there exist even gross abuses in many of our insane institutions. In forming a just estimate of these, it is desirable separately to answer the questions

as to how far they may be termed abuses when weighed in the light of our general ethical conduct, and how far they constitute abuses only when weighed in the light of ideals not elsewhere attained. Naturally the former of these cry more urgently for remedying than the latter. These are large questions which this is not the place adequately to discuss, but it must be admitted that abuses of both kinds nowadays exist. The causes of them Beers has clearly, and on the whole accurately, expounded. Most of them can fairly be summed up in one word, ignorance, and this criticism applies almost as fully to doctors as to nurses. The remedy for ignorance must be different in these two classes, for the causes of it are rather different. The ignorance or lack of understanding on the part of nurses and attendants arises partly from insufficient training, but mainly from the fact that they are drawn from a wrong class of the community. This must necessarily be so as long as the poor prospects of nurses are not compensated by adequate payment, and at present only too often both prospects and payment do not rival those of a domestic servant. For state-provided asylums the remedy is a direct one, — educate the people in general, and particularly those in authority, to demand a higher scale of pay for such nurses with the aim of securing a more educated class. In the case of privately controlled asylums this pressure is harder to apply. Beers clearly sees this and bitterly inveighs against the fact that often private institutions are maintained exclusively with the object of earning money and with a cynical callousness for the needs of the patient. This of necessity leads to false economy, inefficiency, carelessness, and neglect, except on the one subject of making the institution pay. I can contribute a striking example from my own experience of the disastrous results that follow inadequate attendance; it happened in one of the most expensive of private institutions, where the lowest charge was a hundred dollars a week.

Being in consultation on the case I had advised that the patient, who was suffering from acute melancholia, be ceaselessly watched, as there was reason to fear an attempt at suicide. A few days later she was left alone in a room for some time while the nurse went about other duties. The patient pitched herself, head foremost, into the open fire, and burnt herself so badly that she soon succumbed. Now this is the kind of thing that the public has a right to cry out on, and Beers's book may do good service by throwing light on the evils that must necessarily arise if the care of patients is subordinated

to the thirst for gain. Our ideal here should be state control and maintenance for both rich and poor, though not, of course, alike. The medical officer of health is commissioned to prevent disease of both rich and poor, and the psychiatrist should be endowed with similarly broad aims.

The insufficient training of doctors who have charge of the insane has an equally obvious remedy, namely educate them. Yet it is singular to how few educative bodies this proposal is obvious. It is nothing less than appalling to realize the ignorance of the general medical profession on psychiatric subjects, but as only one side of the matter is strictly cognate to the present discussion, it alone will be considered. The loss to the community at large that results from the almost complete lack of training of the medical profession in clinical psychology is enormous when one thinks of how largely psychological problems enter into the work of every practitioner, but we are here concerned only with the alienist. It should be evident that what is urgently needed is a double training in clinical psychology and allied problems, one for every medical practitioner before graduating, the other more specialized one for the alienist. Neither the will nor the opportunity exists for giving either of these under existing circumstances, and there is only one method of making it possible to do so, namely, the adoption of the German system of having a psychiatric clinic attached to every medical school in the country.

The problems opened up by this book, involving as they do such questions as the attitude of the community to the insane, medical education, etc., are too large to be properly dealt with in a review; but before concluding, one should make some comment on the relation to the public of the agitation thus raised. That a public campaign of an informative and educative nature is desirable cannot be denied, but one may gravely question whether this particular book is of the kind that is best destined for that end. To alienists, however, and to all those concerned in asylum administration, the book is warmly recommended; its lucid style and high earnestness of purpose will not fail to arouse their interest and sympathy for the objects that the author has at heart. It is to be hoped that it will not result in a sensationalistic and blindly anti-scientific agitation, of the anti-vaccination stamp, such as is at present raging in Germany. There the anti-alienist agitation has fallen into evil hands, which spread the wildest untruths and exaggerations about

asylum abuses, often of a quite fanciful nature. It is voiced by a special society and journal (*Die Volkstümliche Zeitschrift des Bundes für Irrenrechts—Reform und Irrenfürsorge*), which has evoked animated responses on the part of various alienists (Lomer. *Die Wahrheit über die Irrenanstalten*. Bergmann, Wiesbaden, 1909. Lomer. *Der Fall Lubecki*. *Psychiatr.-Neurol. Woch. Jahrg.* 1908, No. 37. See also the same journal 1909, N. 21, 31, 42, 45). America has now a great opportunity to repudiate the "yellow press" methods of asylum reform indulged in by German agitators, and to show the world how a sober but enthusiastic campaign against avoidable evils should be carried on.

ERNEST JONES.

NERVOUS ANXIOUS STATES AND THEIR TREATMENT. *By Dr. Wilhelm Steckel.* Urban & Schwarzenberg, Berlin, 1908.

WILHELM STECKEL, one of the foremost pupils of Freud, is the author of this book, "Nervous Anxious States and Their Treatment." It is written in a clear and lucid style, and his thesis is presented forcibly, thus forming an admirable outline of Freud's teachings in psychopathology. It is worth while to emphasize the five important elements which stand out prominently in the teachings of the Freud school: (1) psychical manifestations, be they normal or abnormal, are determined by definite causes; (2) recognition of individual psychology; (3) thorough and exhaustive analysis of neurotic and psychical symptoms; (4) clinical facts are substituted for subtle hypothetical theories; (5) psycho-analysis directed towards the removal of the cause of the malady. These principles are represented in Steckel's work. "This book"—as the author declares, "is written from practice and for practice." It contains three parts: (1) anxiety neurosis; (2) anxiety hysteria; (3) general considerations. One hundred cases are cited; in some of them the analysis is complete and in others the results thereof are only mentioned. The entire technique and complex process of dream analysis is also omitted and only conclusions are given.

Since 1895 Freud has maintained that the symptom complex of anxiety neurosis should be separated from neurasthenia. The main feature of this clinical picture is *anxiety* around which other symptoms are grouped. This disease is not always clearly defined and the diagnosis is often difficult to make. The symptomatic

picture can be described according to Freud in the following manner: General irritability, a cardinal symptom, which is manifested in the abnormal reaction towards stimuli which may originate internally or externally. This peculiar irritability may be expressed in various sense organs, especially in the auditory sphere — auditory hyperesthesia, which is a common cause for insomnia. The anxious anticipation in the sense of impending danger or the expectation of some unpleasant occurrence is another important symptom. Trifling and harmless happenings are anxiously exaggerated by the patient. For instance, a noise in the house suggests murder, pain in some part of the body means a grave disease, etc.

Lowenfield recognizes the following forms of anxiety tendencies: (a) anxiety relating to his own health — hypochondriacal anxiety; (b) moral anxiety, religious scruples, conduct, etc.; (c) abnormal anxiety about the health of the nearest relative; (d) morbid anxiety about his own ability or professional capacity.

The characteristic symptom of anxiety neurosis is the attack of anxiety which may be sudden or gradual in development. The patient has the feeling that his life has come to an end, that he is to suffer an apopleptic stroke, that he is to become insane, that his heart ceases to beat, etc. Such patients become pale, lose their equilibrium, and must lie down. They experience peculiar sensations in the throat; perspiration covers the entire body; the hair may stand out erect; they feel a cold sensation in the dorsal region. Soon strangury gives rise to involuntary voidance of urine. A painful urgency of relieving the bowels may express itself in tenesmus, abdominal spasm, and diarrhoea. Involuntary evacuation of stools may occur. Not infrequently fainting spells, migraine, dizziness, and attacks of tachycardia of great intensity may develop. All these manifestations may occur in mild and severe grades, in isolated or manifold combinations and variations.

It must be remembered that anxiety may express itself in various forms and Freud names the following equivalents: (a) disturbance of cardiac action — such as arrhythmia, tachycardia, pseudo angina pectoris, etc.; (b) disturbance of respiration — nervous dyspnoea, asthmatic attacks, etc.; (c) attacks of perspiration often nocturnal; (d) attacks of tremor and chattering; (e) attacks of hunger frequently associated with vertigo; (f) attacks of diarrhoea; (g) attacks of dizziness; (h) attacks of so-called congestion; (i) attacks of paraesthesia; (j) nightmares in adults; (k) tenesmus;

(*l*) muscular spasm; (*m*) sudden deep yawning; (*n*) feeling of fatigue which may culminate in fainting; (6) vomiting; (7) sudden benumbing of a finger, the whole hand or an arm; (*q*) migraine.

Anxiety neurosis originates from some actual detrimental form of sexual life. Its mechanism is explained according to Freud by the fact that there is a separation of the somatic sexual excitement from the psychical; therefore an abnormal application of the excitement expresses itself in the form of anxiety. The symptomatic display represents to some extent a substitute for the subdued specific action of sexual excitement. "The attack imitates" — states Steckel — "the picture of coitus. The patients complain of cardiac palpitation, begin to gasp and make all kinds of restless movements. They become pale; the pulse is small; rapid, and often arrhythmic; muscular spasm, paraesthesia, etc., may occur."

Anxiety neurosis is often met in children, and it assumes the form of pavor nocturnus, insomnia, fainting spells, enuresis, nervous diarrhoea, vomiting, marked modesty, and urticaria. Such conditions are usually of sexual genesis. Several interesting cases are appended to this chapter and the prophylaxis is fully outlined.

In the second part of the book the author considers anxiety neurosis in combination with hysteria and differentiates it from conversion hysteria. In the former, sexual wishes manifest themselves in anxiety and in the latter in somatic phenomena. Likewise various forms of phobias belong to anxiety hysteria. Several cases with exhaustive analyses are quoted.

Hypochondria is a form of anxiety hysteria; hypochondriacal imagination partakes of the nature of compulsions and is equivalent to the suppressed sexual experience or phantasy. The hypochondriacal zone is always an erogenic zone. The fear of death in the hypochondriac transforms itself in anxiety at the sexual act.

A brief discourse relative to the limitations between neurosis and psychosis, with a complete analysis of two cases of melancholia, is given.

In the third chapter of the book the author discusses in full psycho-analysis and Jung's association test. It must be fully emphasized that Freud's psycho-analytic method should not be confounded with hypnotism, Sidis's hypnoidization, Dubois's re-education, or Weir Mitchell's rest cure. *The psycho-analytic method deals with the examination of neurotic and psychical symptoms during the patient's waking state.* It has been conclusively shown that in

many of our dreams suppressed wishes come to realization. Therefore dream analysis is important, inasmuch as we are enabled by it to demonstrate submerged complexes and longings.

Steckel's book is rich in interesting psychopathological material containing much of definite clinical value, and one who follows the author carefully cannot help being convinced of the truth of his thesis. Indeed, it is a splendid contribution to psychopathology!

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NURSING THE INSANE. By Clara Barus, M.D. *Woman Assistant Physician in the Middletown State Homœopathic Hospital, Middletown, New York.* The Macmillan Company, 1908. Pp. x + 409.

THIS is a most complete treatise on the large subject of nursing the insane. Instruction is given with conscientious detail for the various types of mental disorder. It includes as well, brief directions in special subjects of general nursing, surgical, medical, and gynæcological, which are needful in the insane hospital. There are also chapters in psychology, psychic treatment, mental hygiene, as well as the symptoms of insanity and the forms of mental disease.

We find a useful and practical chapter devoted to the conveyance of patients to hospitals, the approach of death, religious offices, preparation for autopsies, the care of clothing and belongings of patients after death.

A broad and humane spirit is evident throughout the book. The welfare of the patient is kept uppermost, and the book appears to do all that could be expected of a treatise to supplement the experience of daily drill in ward duty. While written by a physician, there is a wise appreciation of the nurse's capacity and of her often very trying position. Nor does the writer neglect the relation of the nurses to each other and to their superior officers.

While the book appears to be written primarily for those employed in the New York State hospitals, it will be useful in any hospital where the insane are treated.

It is a very valuable guide to a physician who may be preparing lectures for a training school in an insane hospital.

If our nurses who care for the insane could catch the spirit of Dr. Barus's sympathetic words, much of the friction in our hospital management would be eliminated.

While the volume is a compilation of several lectures given to different bodies on various occasions, and therefore contains some reiteration, this does not prove objectionable.

There is a very full index, which makes it serviceable as a book of reference.

EDWARD B. LANE.

THE JOURNAL OF ABNORMAL PSYCHOLOGY

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THE RELATIVE VALUE OF THE AFFECTIVE AND THE INTELLECTUAL PROCESSES IN THE GENESIS OF THE PSYCHOSIS CALLED TRAUMATIC NEURASTHENIA*

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I.—Common belief that emotional shock causes permanent nervous disturbance. Psychological views regarding emotion.

The prevalent belief that emotional shock is the preponderant factor in chronic perturbations of the nervous system is receiving less and less the acceptance of neurologists; and even psychiatrists are now departing from what was once a firm conviction (1). It would be a pity, for this reason, to go to the other extreme and ignore the role of emotion in psychological and even somatic perturbations; for every psychologist must know what a rich, almost virgin, field is furnished by the quantitative study of affective reactions. In a short paper I must necessarily leave out of account the epistemological difficulties with which the subject bristles (2). We are not yet even decided whether pleasantness and unpleasantness are really sensations or differ from these in kind. There is much difference of opinion as to whether other feelings, e.g. surprise, anguish, etc., should be considered elemental equally with these. Even the co-relations of each of these are undetermined, some believing with Lagerborg (3) that pleasantness is not

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only a cognate of, but intrinsically is, of sexual character, and some believing that unpleasantness is merely an attenuated form of pain.

Nor is there agreement as to the qualitative relationship of feelings, affectivity, emotion, and passion. French neurologists of the positivistic school regard them all as "sentiments" (4) and physiologically as functions of cenesthesia, while other schools (5) place emotion in a category different from feelings on account of its relative complexity.

II.—*Emotional Shocks are Evanescent.*

The inefficacy of emotional shock to perturb for long, unless maintained by an ideational attitude, has a familiar illustration in the sudden start which all of us give at one time or another when surprised by an unexpected violent sensation. The circulatory and visceral commotion of such a stimulus has been felt by us all. It takes different forms, facial pallor, bodily perturbation, sense of contraction in the throat, sinking feeling in the abdomen, respiratory spasm, horripilation, motor asthenia, etc. But the effect of these perturbations, however violent, is evanescent, the subject in a moment resuming his occupation as if nothing had happened. It is well that it is so; for if it were not, we should still have been a race of skulking savages, shivering at each breath of wind, and incapable of that confidence needed to achieve continuous and concerted action. (See Putnam: *The Treatment of Psychasthenia from the Standpoint of Social Consciousness*, Am. Jour. Med. Soc., Jan., 1908.)

III.—*Unless Reinforced by Ideas.*

But very different is the result when an elementary emotional disturbance of this kind receives reinforcement from an intellectually acquired belief in its import. Every one who has observed young children can illustrate this by countless instances where an instant of alarm is so protracted by the unwise solicitude of ignorant elders that a state of terror ensues.

In the country of the negro mammy I need not prolong

the argument with examples of fear complexes (6) thus originated, which ineradicably intertwine themselves with and poison the existence of many an individual.

IV.—*Examples of Induced Affects.*

But more than this, the affective element of a fear neurosis need not even be primitive; it may be itself induced. The mechanism can be studied again most simply in the young child; and again in the Southland, no examples need be cited to make clear my meaning. The tale of voodoo, if it failed to provoke horror, would no longer appeal to the narrator. Though perhaps not so designed, yet it survives because of its power to induce emotion. This it does, partly intellectually through the ideas it conveys by speech, and partly through the lower order of intelligence appealed to by gesture, tone of voice, and perhaps too by the direct cognizance by the recipient of the emotional condition which the narrator himself experiences. From this contagion even animals are not exempt, and I believe that a psychological study of induced emotion in animals would afford data useful to the psychiatrist.

Emotion by suggestion (7) has a mechanism of this kind, and it is to a failure to appreciate this process that must be attributed much of the confusion regarding the alleged emotionalism of hysterical people. Now, hysteria is not an affective psychosis, but an idiogenetic one (8). This assertion is readily proved by experiments, which show the ease with which ideas can be planted in the minds of hysterical patients and made to exhibit themselves kinetically at the will of the operator (9). The only affective element essential in the development of a hysterical symptom is that inherent in the intellectual attitude of belief, i.e. a feeling of acquiescence; and as this sentiment is common to all conviction, it affords no differentium.

V.—*The Affectivity in Psychasthenia.*

This leads me to say a few words about a psychosis which is largely affective and of which one of the elements is the lack of this feeling of belief; I refer to the psychasthenia of Janet (10). Now, although Janet himself inclines

towards an intellectual explanation of his patient's state, many, with Regis (11), regard emotion as the primitive phenomenon in the obsessive psychosis; and some remarkably searching introspections by patients of my own inclines me towards this view. One patient states: "I do not feel it is any use reasoning away this obsession; there is something inside me, and when one is driven away another comes." Another patient, after he had described and I had disposed of one of his intellectual difficulties, declared, "That's not it; it is this *awful* feeling; shall I ever be able to feel right again? Nothing feels the same; I enjoy nothing." These and many other examples which might be cited seem to indicate that the mental mania or obsession is merely engrafted upon a state of feeling, and is more an explanation unconsciously applied by the patient to account for his state than by an essential part of the disorder. This argument is strengthened by a study of the multiple phobias. In these fear may manifest itself *a propos* of anything or nothing.

Instances might easily be cited, but constant association complicates nearly all such chronic fears with circumstantial elements of perceptual and ideational kind, and the condition in its purity can only be seen during an acute psychosis. I quote from such a case: "I see an awful horror hanging over me. I do not want it to happen, because if it did I could never help myself (crying). . . . I have terrors inside me. I feel to be doing underhand things all the time. I feel an awful guilt and terror of being found out. They have made everything false and untrue. . . . The terror came with vomiting attacks, and a 'still feeling,' a burning and yet just a waiting feeling for something. . . . I feel a great weight sitting here (epigastrium); it's *awful*, as if my heart was still, a crushing or squeezing, a sudden jolt to the heart with a general feeling of fright."

Moreover, both obsessions and phobias may be secondary to idea systems artificially induced (12); thus falling into the category of the suggestion-psychosis, hysteria, just described. It is the confounding of these cases with the true psychasthenics which has led to so much disagreement regarding the genesis of the morbid fears and obsessive

states. The distinction is fundamental to a clear understanding of the psychoneuroses (13), and hence, is one as important to the practicing physician as it is to the physiological psychologist.

VI.—*The Induction of Suggestion Psychoses. The Emotional Consequences. Cases and Discussion.*

The subject need not be conscious of these idea systems; for they may be merely intellectual potencies implicit in the psychic constitution derived from his environment. In the gross, these are most clearly manifest in what our attitude of detachment easily enables us to label the superstitions of alien peoples. Thus, the sufferings induced by the "gnawing fox" of the Japanese are made possible only by a deeply rooted belief in its existence. For example, a woman after (14) labor declared she felt the "fox coming," this was her interpretation of the after-pains she felt. The great parade by the neighbors in attempting to prevent the fox's attack only reinforced the patient's apprehension; and soon a horrible convulsion signaled her seizure by the fox. Terror and convulsions held her until the exorciser was called. He declared that the fox would leave her at four o'clock the next day, provided certain offerings were placed on a certain tomb for it to eat. This simple suggestion caused her to dismiss her terror suddenly at the hour designated.

The crudeness of the mechanism in the case of this ignorant peasant need not make us smile; for our western case is very little better, as the following illustration shows:

It is the familiar case of an incapacitated railroad employee to whom I was called to determine whether or not there was organic disease of the nervous system. The fact that there was not is shown elsewhere (14a) in the full report of the case. The psychogenesis of the man's condition was evident in his fixed idea, due to the common belief of railroad employees that serious nervous disease may slowly ensue upon an accident. This common belief was strengthened by the injudicious sympathy and inquiries of his friends, and the doubtful prognosis of some medical men he had

consulted. He "answered a thousand questions a day," he "did not know what to think about his health," and worried about his condition and circumstances: he was "too much preoccupied with his health even to miss his wife"; he had lost weight and appetite, had a sore throat, and wept much; and finally his attitude was strengthened by the lawyers who sought redress for him. He was cured within a month as a result of one interview, during which he was instructed in the role of ideas over bodily activity and the effects of worry and anxiety upon nutrition. In the certificate it was stated "there is and has been no disease of the spinal cord or peripheral nerves at play in the induction of any of the symptoms which I find. The erroneous belief that there has been such an injury powerfully contributes to the anxiety which maintains his present state."

The role of the idea of spinal commotion in perturbing this man's emotional life is strictly comparable with that of the gnawing fox of the Japanese folklore. In both cases too there was the period of reflection and incubation of the morbid notion, a familiar feature of such cases, which has been insisted upon by Souques (15). It is rare that the symptoms ensue until after a time of meditation, during which the complex is systematized.

The cure was not so simple as that of the Japanese exorcist. But it was a definite one, for the railroad breakman was taught (16) to understand the mechanism of his affection and thus to overcome any future harm from the credulity in which he had grown up. The Japanese woman, on the other hand, remained liable to another attack, as her belief in the fox was only reinforced by the manner of its removal.

A contrasting case where therapeutics failed will further push the lesson home. A government employee was injured by a falling case and remained hardly able to walk and handle himself even after his bruises of head and shoulder had healed. Called in consultation, I explained the mechanism of his present incapacity, and directed how to remove it. His family physician's acquiescence to my directions was only formal, as his bent was not psychologic enough to grasp the principles at work. The fearful solici-

tude of the man's wife, too, constantly reinforced his timidity, so that in spite of a considerable temporary improvement he did not progress to full recovery, but remained lacrymose, depressed, and relatively incapable on account of the persistence of his false belief about his health and powers.

VII.—*The False Neurasthenics.*

Even more familiar examples of suggestion-psychosis, supposedly emotional, but in reality contributed to by the wrong outlook of relatives and associates, afford a large proportion of the cases for whom rest-cure is prescribed. These false neurasthenics (17) are cured, not by the rest, but by the re-education of their point of view, which their isolation permits the physician to impose, willy nilly, and free from the interference of dear ones who are, to say the least, injudicious.

The phenomenon of the "rétour à l'enfance," although not belonging to this category, is also indicative of a foolishly protected childhood in which all development of initiative, reflection, and spontaneous action is frustrated by a mother who allows her instinct of helpfulness to destroy the morale of her child.

The emotional attacks of these hysterical females are nearly always secondary to a *notion*, which itself is a product of their false view of social relationships, expressed popularly by the word "wrongheadedness." In this regard it is very instructive to cite what one of his correspondents wrote to Dr. John K. Mitchell (18). The writer is an experienced invalid of twenty years' standing, still full of courage; she states, "It ought to be strongly said that if women were more truthful, there would be less nervous breakdowns." In other words, neuroticism often depends upon the hypocrisy which is the fruit of an unwillingness to face the truth when it appears unpleasant; it is intellectual dishonesty.

VIII.—*The Prevention of Traumatic Neurosis.*

To the traumatic psychosis the same criteria apply, and its prophylaxis depends upon the same considerations

as psychoprophylaxis in general. Upon these I need not enlarge, as I have so recently discussed the subject at length (19) showing the facility with which trends of thought can be determined in early childhood to obtund and finally to efface emotions injurious to self or others, and how paramount is the need for the genetic element in order to build up the affective-ideational-dynamic complex which constitutes the effective altruistic character.

IX.—*Diagnostic Considerations.*

It remains to indicate shortly the differentia of the condition we are considering from (1) physical neurasthenia, (2) the psychasthenic states and (3) the mental alienations, in all of which occur phenomena easily confused by the uncritical with the true suggestion-psychoses (20).

(1) In neurasthenia, the physical misery which is its cause and which arises from an intoxication of the whole organism, intrains psychic wretchedness also, and depressive emotion is a feature. This is not at all psychogenetic, although it may be temporarily modified by psychic means more or less. Even the psychological criteria may permit of a diagnosis; but it is to the physical factors that we physicians mainly look to detect the condition.

(2) Constitutional or acquired psychasthenia is differentiable (21) by (a) the failure of suggestive therapy to modify the symptoms as well as by (b) the history of the genesis, in which suggestion plays no part. Moreover, (c) the idea complexes of hystericals are evoked by well-defined and not numerous associations (d) their arousal in a psychasthenic often appears irrelevant. (e) Conduct in the psychasthenic is hardly affected except negatively through doubt and aboulia, whereas the conduct of the hysterical patient depends largely upon the pathological notions by which he is governed and which determines most definite acts. Finally, upon the angoussé emotion of psychasthenia, psychotherapy is of no avail, whereas the crisis of hysteria is most easily arrested by psychic means, the emotion vanishing as by a miracle as soon as the causative idea is dispelled by command, suggestion, distraction, or

persuasion. Again, (g) while re-education can teach a psychasthenic only to learn how to bear the sufferings incident to his unfortunate condition, it can from the hysteric entirely remove the tendency to perturbing induced-emotion and the social discomfort it brings.

(3) The curtailment of power of association in *general paralysis* often leads to an increased suggestibility, which in turn leads to morbid adaptations to environment like that outlined in the traumatic psychosis. The clinical importance of this is greater than its theoretical bearing, for physical traumata are often the occasion for the symptomatic outbreak caused by the meningo-encephalitic process which had been up to then latent. The physical condition and psychometrical data (21) will usually enable a distinction to be made between the incidental suggestion-psychosis of the paretic (which is soon, so to speak, swallowed up by progressive dementia) and the functional psychosis we are discussing.

From the *dementing psychosis of adolescence*, the theoretical differences are on the surface sometimes not very clear; but practically the diagnosis is rarely difficult, on account of the efflorescence of somatic and psychic perturbations which usually accompany the exalted suggestibility of the precocious dement.

The trigger-like response to suggestion which characterizes the *maniacal* phase of the *cyclothymic* individual is distinguishable by its mutability; and the same remark applies to the facility of the *chronic alcoholic*, in whom, moreover, the emotional reactions are often markedly exalted independently of ideation. But these considerations do not abolish the susceptibility of the victims of alcohol to the induced emotion of suggestion-psychosis, whether traumatic or not.

The diagnosis in all of these conditions is determined by the fact that only a few of the phenomena, and those unessential, are influenced by the mechanism of suggestion, which we have found to be the essential and indeed sole determinant of the psychosis known as traumatic neurasthenia.

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THE ANXIETY NEUROSES*

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FREUD divides the neuroses into psycho and actual neuroses. The psychoneuroses comprise hysteria and compulsion neurosis (doubts, obsessions, and phobias), while the actual neuroses include neurasthenia and anxiety neurosis. The sexual life plays an important part in the determination of both classes. But whereas hysteria and compulsion neurosis are altogether of a psychogenetic origin, neurasthenia and anxiety neurosis are due to somatic sexual injuries. Without entering into the psychoneuroses which I have discussed elsewhere (1), I will confine myself to the anxiety neuroses.

That anxiety plays a part in the neuroses was fully recognized by almost all writers on this subject; but its isolation into a separate entity, and its reference to a special sexual etiology was first established by Freud in his dissertation, "On the Right to Separate from Neurasthenia a Definite Symptom Complex as Anxiety Neurosis" (2).

Before going into the etiology of anxiety neurosis I will first enumerate the clinical symptoms which are as follows:

1. General irritability. This frequent symptom especially expresses itself in auditory hyperesthesia, and is a frequent cause of insomnia.

2. Anxious expectation which manifests itself in an uneasiness and a tendency to pessimistic conception of things, or in a tendency to "make mountains out of mole hills." Persons showing this symptom evince a frequent tendency to pangs of conscience, scrupulosity, and pedantry. Anxious expectation is the most essential symptom of the neurosis.

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There seems to be a quantum of freely floating anxiety which is forever ready to unite itself with any suitable ideation.

3. Anxiousness can also suddenly break into consciousness without being aroused by the issue of an idea. Such attacks consist either of the anxious feeling alone without any associated idea, or of the nearest interpretation of the termination of life, such as ideas of sudden death or threatening insanity, or the anxious feeling may be combined with a disturbance of one or many somatic functions, such as respiration, cardiac activity, the vasomotor innervation, and the glandular activity. The patient may complain of "heart spasm," "heavy breathing," inordinate appetite, profuse perspiration, etc.

The amount of admixture of these elements varies extraordinarily, and any accompanying symptom may alone constitute the attack. Accordingly there are rudimentary attacks of anxiety, and equivalents for the attack of anxiety. The following equivalents may be mentioned:

- § (a.) Attacks of disturbance of heart action, such as palpitation, transitory arrhythmia, with longer continued tachycardia;
- (b.) Attacks of respiratory disturbances, many forms of nervous dyspnoea and asthma-like attacks;
- (c.) Attacks of profuse perspiration, often nocturnal;
- (d.) Attacks of trembling and shaking which may be readily mistaken for hysterical attacks;
- (e.) Attacks of inordinate appetite, often combined with dizziness;
- (f.) Attacks of diarrhoea;
- (g.) Attacks of locomotor dizziness;
- (h.) Attacks of congestion embracing also the so-called vasomotor neurasthenia;
- (i.) Attacks of paresthesias. (These are seldom without anxiety or a similar discomfort);
- (j.) Sudden terrified awakening;
- (k.) Frequency of micturition; and,
- (l.) Cramplike muscular attacks.

All these symptoms may appear alone or in combination, and on examination it is always found that the patient

suffers besides from the cardinal symptoms, such as irritability, anxious expectation, etc.

According to Freud and his followers, the etiology of anxiety neurosis is to be found in a series of sexual injuries and other influences from the sexual life. A consideration of the various kinds of sexual injuries and influences which act as etiological determinants is beyond the scope of this paper. In the case here reported the particular determinant of the anxiety symptom-complex could be traced to a mental conflict between sexual impulses on the one hand and repressive ideas on the other. It fully sustains, therefore, the Freud doctrine.

The symptom complex thus described is separated from neurasthenia, which, according to Forel, is nothing but a "big garbage can," into which everything is thrown. As the typical symptoms of neurasthenia, Freud designates headaches, spinal irritation, dyspepsia with flatulence and constipation. Neurasthenia always originates whenever the adequate (action) unburdening is replaced by a less adequate one (3). Viewed in this narrow sense neurasthenia becomes rather rare, and can be readily differentiated from the different pseudo-neurasthenias, such as the organically determined nasal reflex neurosis, the neurotic disturbances of cachexias and arterio-sclerosis, the early stages of paresis, and of some psychoses.

Hence we see that the actual neuroses, neurasthenia, and anxiety neurosis, differ materially from the psychoneuroses, compulsion neurosis and hysteria. The latter group are due to purely psychogenetic factors, while the first are due to somatic sexual injuries.

In my paper on the psychoneuroses (4), I have pointed out that the characteristic moment of hysteria, according to Freud, is the ability to convert the psychic into the physical. That is whenever we find the classical symptoms of hysteria, such as paralyses, contractures, aphonias, convulsions, astasia abasia, etc., we deal with a conversion hysteria. In contradistinction to this the symptoms due to somatic sexual injuries belong to anxiety neurosis.

It was found, however, that no definite lines could be drawn; that besides the somatic sexual injuries the anxiety

neuroses also showed a psychic mechanism. This psychic mechanism is the same as in hysteria, but instead of conversion into physical symptoms, there is anxiety. "The anxiety is, as it were, the only symptom into which the psychic excitement is converted." The etiology, the role of repression, and the psychic processes are the same as in hysteria. For this new class of cases Freud suggested the term "anxiety-hysteria," and the whole group was first described by Stekel in his interesting and instructive book (5).

My own experience based on forty-three cases of anxiety neurosis and anxiety hysteria points to the fact that there is a psychic element in almost all cases of anxiety. I could demonstrate it in nearly all my cases. The short time at my disposal does not allow me to cite many cases, so I will briefly describe the psychanalysis of a case of anxiety hysteria.

Mrs. L., thirty-eight years old, Austrian, married, having four healthy children, was seen by me in the department of psychiatry in the Vanderbilt Clinic, in October, 1908. She complained of nervousness, depression, anxiety, and insomnia, from which she suffered for about two weeks. On questioning her I found that this was her sixth attack, that the first attack came on six years ago, and repeated itself annually, usually lasting about two months. Like the doctor who saw her before me, I thought of manic depressive insanity, but on closer examination I changed my diagnosis to anxiety hysteria. Her family history was negative. She herself claimed that she was never sick before her present illness. Anthropologically and otherwise she corresponded to her type — Austrian Jewess. Physically there was nothing worthy to note.

When I asked her to tell me her chief complaint, she said that it was the depression and anxiety. She stated that her attacks were not all alike. Thus, her first attack began very suddenly, and was characterized by marked anxiety, depression, apprehension, and insomnia. The second, third, and fourth attacks were considerably milder, the depression being the main symptom, while the fifth again showed the anxiety and insomnia. Her symptoms did not in any way incapacitate her, she attended to her housework

as usual, and there was absolutely no psycho-motor retardation. She maintained, however, that she felt miserably, that she was afraid that something would happen to her, and that she often cried without knowing why. There were no distinct phobias, but in all her attacks she showed the characteristic *folie du doute*. Thus, during her attacks she often got out of bed, "at least a dozen times," to ascertain whether the door was properly locked, or whether the gas was turned off. Besides the symptoms enumerated she also showed the aforecited cardinal symptoms of anxiety neurosis. What influenced me in diagnosing anxiety hysteria was the typical sexual etiology. The first attack came on two years after her husband left for the United States, during which time she lived a virtuous life. For the following three years, while with her husband, she gave birth to two children, and thus her emotional needs were fully satisfied. After the fourth child was born she wanted no more children, and her husband practiced coitus interruptus. That seemed to account for the difference in the symptoms of the various attacks. For lack of gratification is a very frequent cause of insomnia, particularly in people showing nothing else to account for it. But of course we have not accounted for the depression which was present in every attack.

As soon as I decided on the diagnosis, I proceeded with the psychanalysis. I usually begin by asking the patient to give me a full account of the origin of the disease. She knew that the first attack came on about six years ago, just before she came to the United States. Her husband left her in Austria with two children, and after having been away for about two years he sent for her to join him in New York. It was while she was getting ready for her journey that the first attack came on, and continued for about two months. She was quite certain that it had no connection with her leaving Austria; on the contrary, she was more than glad to join her husband. The subsequent attacks came on periodically every fall. She also recalled that her attacks came together with the Jewish fall holidays. More than this she did not know. I attempted an association experiment, but either she refused her co-operation, or she was unable to grasp the meaning of the procedure. As I attri-

buted her depression and anxiety to the repression of painful or disagreeable reminiscences, and as the dream is the *via regia* to the unconscious or the repression, I asked her to tell me some of her dreams, but she insisted that she had not dreamed for years. She finally recalled, however, having had a dream before or at the beginning of her first attack. This was the dream:

"I walked on the street, and a horse harnessed to a wagon was running towards me. I could not get out of its way; the horse was almost on me. I put out my arm to push it away, when it caught my hand in its mouth and bit me. Screaming, I awoke terrified."

These were the "manifest" thoughts of the dream, and to those acquainted with Freud's theories they are quite significant. In analyzing dreams we simply translate the manifest into the latent thoughts. The manifest thoughts have apparently no meaning, but the latent thoughts are senseful and always show the hidden fulfilment of a repressed wish. As the dream occurred before or at the onset of the attack, I assumed that it had some relation to it, as dreams are always based on experiences or thoughts of the day preceding the dream. Also, the fear in the dream pointed to its being of a sexual nature (6), and I suspected that the horse was simply a sexual symbol.

With the brief time at my disposal I am unable to give you a full exposition on the mechanism and technique of the analysis of dreams; those who are interested in the subject should study Freud's *Traumdeutung* (7). On asking the patient to tell something about the horse, she stated that it was a bay horse and very spirited. That was all she knew. When I urged her to tell me all the thoughts that occurred to her in this connection, she impatiently remarked, "I don't know what to tell you; I could talk about horses for hours. I know quite a bit about horses, as I lived next door to a government horse-breeding station." She then displayed considerable emotivity, but on being urged to tell whatever was in her mind she stated that she witnessed the practical details of horse breeding at a very early age. Indeed, she was certain that this was her first conscious sexual impression. "Of course," she added, "I was too young to know the

real meaning of things. I imagined that the horses were fighting." This sadistic conception is very common in children, and as Freud shows in his paper, "Concerning Infantile Sexual Theories," children always interpret the sexual act in that sense (8). There was a sudden blocking, and when asked to continue she suddenly recalled something which had no connection with horses. The evening before the dream, while sitting in the room with some neighbors, some animal, perhaps a mouse or rat, ran out of the brick stove into the bed. Unlike her sex she was ordinarily not afraid of mice or rats, but this time she was terribly frightened and continued to be so for hours. She rummaged through the bed and found nothing; still she was afraid to sleep in this bed. This recalled that this attack of fright happened a few hours after an unsuccessful attempt to sell her feather beds. She again became silent, and claimed that her stream of thoughts was exhausted. Suspecting that her attack of fear was the manifestation of a mental conflict in a sexual abstainer, I asked her why she was so terrified at the sight of what she imagined was a mouse or rat, if she was ordinarily not afraid of these animals. Her ready response was that she was never afraid of the real mouse or rat, but that at that time she imagined that they were only apparitions, and that some one tried to exert some evil influence over her by magic. She laughingly added that she no longer believed in such nonsense. Then I asked her who she thought tried to exert an evil influence over her, and why that was attempted, she at first refused to answer, remarking that the whole thing was not worth talking about; but after considerable urging she said that she then believed that it was a man who offered to buy her feather beds. With great emotivity and hesitation she described this man, whom we will call X., as a very disagreeable and impudent fellow. He wished to buy her feather beds, but for some reason she could not come to any terms with him. He, however, persisted in calling on her until she became so tired of seeing him that she hid herself whenever she saw him coming. She suddenly broke off her narrative, and when I urged her to continue she became very indignant, she saw no reason for the revival of all this foolishness, she was very sure that

this questioning had nothing to do with her disease, etc., etc. Such outbursts are very frequent in the course of psychanalysis, and always occur when we strike the main complex (9).

As soon as I knew the circumstances of the case, and after hearing the dream, I thought of *cherchez l'homme*, and after witnessing her emotional outburst I was sure that I had my man. As I said above, the dream showed a mental conflict of a sexual nature, and the attack of fear, too, as I will show later, symbolically represented a sexual attack. Indeed the whole setting was such that there was no doubt in my mind that she had some sexual experience with X., and that her periodic attacks of depression merely represented the former libido changed into depression by the repression.

After calming her I frankly told her that I was convinced that she was concealing something, that I believed that she had had some affair with Mr. X., and that unless she told me everything I could do nothing for her. She emphatically denied my assumptions, but would not explain why she had to hide when she saw Mr. X., and why she thought he tried to exert evil influences over her. She became very indignant when I was equally assertive in my statements, and left me rather abruptly. I made no attempt to restrain her or remonstrate with her because my experience taught me that it is of no avail, and that it is well to give the patient a chance to fully discharge her repressed emotions.

Two days later she returned, but this time she looked quite dejected and penitent. A few kind remarks from me helped her to disburden herself. Weeping, she made the following confession: "Since I left you I was very miserable. I have cried most of the time; the whole thing came back to me, and I could not banish it from my mind, so I decided to come and tell you all." She then assured me that for the two years that she was separated from her husband she lived a virtuous life. She was hardly ever bothered by erotic thoughts, and had no difficulty in suppressing them when they came. While getting ready to join her husband in America she sold her household effects, and X. wanted to buy her feather beds. While she showed him the feather beds he joked with her about her coming journey to America, and alluded to her future happiness with her husband. This

aroused some erotic thoughts, and when X. accompanied his talk by touching her suggestively, she was surprised not to have resented it. In brief, she met him a number of times, always on the pretense of selling the feather beds, and was afterwards surprised at her own weakness. She, however, assured me that she had not broken her marriage vows. "That is the only thing I have not done." It was after she suddenly awoke to the gravity of the situation that she refused to see him and feared him. She was really afraid of herself; she did not trust herself. These experiences which gave rise to a number of erotic thoughts and fancies were then changed into displeasure. It was then that she was afraid to sleep alone with her children, and had to ask a neighbor to sleep with her, and it was about the same time that the rat incident occurred which made her think of magic. This was due to the fact that even after she stopped seeing X. she continued to have sexual thoughts and fancies. The more she tried to banish them the more they came. By association of ideas they recalled to her all her sexual experiences, such as early masturbation, etc., which in view of their persistence against her own will she could attribute only to some external power—magic. Of course it must be remembered that there was a time in her life when she actually believed in magical influence, and owing to the mental upset the repressed complex simply came to the surface. Similar mechanisms are at the basis of hallucinations and delusions (10).

The other mechanisms of the case are quite simple. As I said above the nature of the dream shows that it deals with sexual emotions. We also showed that horse was intimately connected with her first sexual impressions. She also stated that when she masturbated later in life, the horse often served to arouse her sexual fancies. In the dream when "the horse was almost on her," i.e., when she almost yielded to temptation, her moral self gained the upper hand, and she "put out her arm to push it away." She, however, sustained a scar, her hand was bitten. That part of the dream is constellated by the following facts. She was actually bitten by a horse at the age of six; and her early observations of horse breeding had often excited her passions

and induced repetition of her habit. The same effect had been produced in her by the visits of X. The horse in the dream therefore may be taken in this sense as symbolizing X. who recalls her early impressions of sexuality. The dream often makes use of such symbolization. The coarse sexual is always under repression, and hence we see instead its inrooted associations. It is merely a metonymy based on cause and effect. Horses, bulls, dogs, cats, and chickens are often sexual symbols in dreams, because it is with these animals that children are apt first to see the sexual procedures (11). Our patient conceives sexual relations in the sadistic sense, they were first impressed upon her in childhood by the breeding operation above referred to. Indeed, her dream merely symbolizes these relations as shown by the cited association and the expression, "the horse was almost on me." The biting, too, she vividly recalled seeing while watching the horses. The dream therefore represents the hidden fulfilment of a repressed wish, while the fear is the libido changed by repression into pain.

It still remains to explain why the depressions continued to recur annually. The incidents enumerated above occurred before the Jewish Day of Atonement, and it was on this day, which is the most solemn day for the orthodox Jew, that her actions appeared to her in the most lurid colors. This is the day on which all true believers are inscribed in the "Book of Life" or "Book of Death." It is a day of fasting and confession, and she certainly had a lot to confess. She could not consider her sins forgiven, and dreaded some impending evil, perhaps an accident at sea. She came to the United States about five weeks later, and was still in a state of depression, but it soon wore off. But every year with the approach of this solemn day the depression returned. She merely celebrated the anniversary of her painful experience. She never recalled the original episode, because it was of a disagreeable and painful nature; the accompanying emotions, however, came to the surface and constituted the depression. Such depressions are very common, and are often mistaken for manic depressive insanity. I myself have seen three cases of similar depressions within the last two years.

After the analysis was completed the patient felt much

relieved and grateful. I saw her a week later and there was not a trace of her former depression, she was cheerful and happy, and expressed her surprise at the sudden disappearance of her symptoms. She attributed it all to the mixture of rhubarb and soda which I gave her. She has had no attack of depression since then.

This short analysis teaches a number of things. First. There is a group of cases of periodic depression which do not belong to manic depressive insanity. They are anxiety hysterias based on somatic and psychosexual traumata. I am convinced that many cases that I have seen during my hospital service which were classified as manic depressive insanity and as "depressions not sufficiently distinguished," belong to this category. Second. Freud's psychoanalysis is, in my opinion, the only rational therapy for such cases, as we not only unravel the hidden mechanisms, but also remove the somatic sexual traumas by correcting the abnormal sexual life. Third. The importance of dream analysis need hardly be emphasized. It is the *sine qua non* of the treatment.

A few words about the importance of examining the patient's psychosexual life. This, of course, presupposes a number of prerequisites. Not only must the physician himself be able to approach the subject without prudishness and lewdness, but he must perforce know something about psychosexuality. Unfortunately there are very few men in this country who take the subject seriously. Most physicians either ridicule or scorn those who have the courage to cope with sexual problems. For reasons known to themselves, but which we sometimes find in our psychoanalytic work, the word sexuality suffices to arouse their righteous indignation, and to cause them to condemn everything connected with it. They seem to forget that there are other sexual maladies besides the venereal diseases requiring scientific treatment. Whatever is has a reason, and it is the duty of every scientific man to view the cold facts honestly and fearlessly. Much unhappiness and misery would be eradicated if we would not leave these poor sexually distressed victims to the charlatans and quacks, who not only rob them financially, but add to their misery, and often drive them to suicide.

I have successfully treated by Freud's psychoanalytic method cases of homosexuality, psychic impotence, and sexual anæsthesia in women, and many other so-called perversions, and my patients and I feel that distinct good has been done. To those who condemn us for recognizing the sexual life, I can quote no fitter words than those of St. Augustine: "If what I have written scandalizes any prudish persons, let them rather accuse the turpitude of their own thoughts than the words I have been obliged to use."

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THE NATURE AND CAUSE OF THE GALVANIC PHENOMENON *

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THE Russian physiologist Tarchanov is regarded as the discoverer of the interesting fact that psychic states, sensory, affective, emotional, volitional, and even intellectual processes, such as calculation, solutions of mathematical problems bring about galvanic deflections. As a result of his investigation, which is but a preliminary communication, he conjectures that the deflections may be due to secretory changes going on in the epidermis.

According to Féré, the galvanometric deflections are due to lowering of bodily resistance under the influence of emotional states. The assumptions of skin secretions and the lowering of bodily resistance have been accepted uncritically by almost all investigators of the subject. It is assumed that the galvanic deflections are due to lowering of electrical resistance of the body through the agency of skin secretions produced by psychic states or by psychophysiological processes. Some investigators also implicate the sympathetic and the central nervous system.

In a study of galvanometric deflections, due to psychophysiological processes, published in the *Psychological Review* for September, 1908, and January, 1909,† we demonstrated by a series of experiments that the galvanic phenomenon is not due to a change of resistance of the body, but to an electromotive force generated in the organism. We come to the following conclusion: "Active psycho-physiological processes, sensory, and emotional processes, with the exception of purely ideational ones, initiated in a living organism bring about electro-motive forces with consequent galvanometric deflections." In a new series of experiments performed on animals such as frogs, rabbits, and cats we further confirm the nature of the galvanic phenomenon

*Read before the American Psychological Association, Harvard University, Dec. 28, 1909.

†Abstract in next number.

and demonstrate its causation. This last study is to appear in the *Psychological Review*, March, 1910. I can give here but a bare outline of it.

All investigators of the subject use cells in their circuit. In our experiments cells were excluded from the circuit. We worked with non-polarizable subcutaneous electrodes. The galvanometer was of D'Arsonval type, sensitivity, 225 megohms. The deflections of the ray were in centimeters and millimeters. Later on a special mechanism was devised for photographing the deflections. Let me give an example of a couple of experiments: Hypodermic electrodes inserted in forelegs of rabbit

Zero reading, when circuit open	24 cms.
Zero reading, when circuit closed	24 cms.
Stimulus, prick	rose to 25 cms.
Galvanometer, returned to	24 cms.
Fresh rabbit hypodermic electrodes inside of thigh:	
Zero reading circuit open	24 cms.
Galvanometric reading, circuit closed	24 cms.

Stimulus, snap on nose, galvanometric deflection rose to 20.50 returned 24 centimeters.

Anæsthetics such as chloroform and ether abolished the galvanic phenomenon which reappeared when the effect of the anæsthetic passed off. It was also observed that violent peristalsis, struggles, twitchings, and convulsions produced under the influence of various drugs, such as aloin, oleum ricini, oleum tigllii, apomorphine, strychnine, and others, in short all forms of motor activity, produced marked galvanometric deflections.

In the first part of our work on animals we were led by our experiments to the following conclusions:

(1) Every sensory stimulation of an affective or emotional value is accompanied by galvanic deflection.

(2) Motor reactions intensify the galvanic phenomenon, giving rise to more extensive deflections.

(3) Motor activity by itself is sufficient to give rise to large galvanometric deflections.

(5) The subcutaneous electrodes excluding the epidermis prove that the galvanic perturbations produced by stimulations are not due to skin effects.

On opening and closing the circuit the galvanometric zero reading remains unchanged, that is, there is no current flowing in the circuit. If now with circuit closed and galvanometer at zero reading, we prick, pinch, burn, or stimulate the animal in various ways, we get galvanometric deflections. It is clear that we deal here not with a change of resistance, whether of skin or of body, but with generation of an electromotive force. Our experiments therefore prove conclusively that the galvanic phenomenon is not due to changes of resistance, but to *electromotive forces* induced in the organism by the psychophysiological processes under the influence of external stimulations.

An examination of the results under anæsthesia showed large galvanometric perturbations when the anæsthetic was administered, and again when the animal was passing from under the influence of the drug. Stimulations produced marked deflections during the period preceding and following the state of deep narcosis. We could not help, however, noticing that movements and struggles on the part of the animal were uniformly accompanied by large galvanometric deflections. When the motor activity diminished the observed galvanometric deflections decreased correspondingly, and when the animal was completely motionless the galvanic perturbations entirely disappeared. The same relation was observed in the case of various drugs inducing peristalsis. Peristalsis accompanied by motor activity, by struggles, twitchings, shiverings, convulsions, and generally by muscular contractions, produced galvanometric deflections proportionate to the extent of muscular activity. Where all motor activity was absent, although the action of the drug continued, no galvanometric changes could be detected. Thus in the case of peristalsis, accompanied by large contractions of the intestinal tract and by general condition of straining of abdominal muscles there were large deflections. During the intermediate period of peristalsis when the animal was quiet no deflections were present. This also holds true even of such cathartic drugs as aloin and croton oil. The effect of apomorphine is especially interesting from this standpoint. The injection of apomorphine into the rabbit does not produce vomiting, but causes continuous shivering and twitch-

ings of almost all the muscles. The result is a corresponding ceaseless fluctuation of the mirror-galvanometer. Not less instructive is the injection of strychnine, which gives rise to twitchings and convulsions, with corresponding deflections of the mirror galvanometer.

The same relation holds true, even in the case of the galvanometric deflections due to various stimulations. Where the stimulation was accompanied with motor reaction there the deflection was manifest; where such reaction was absent the galvanic deflection did not appear. All these facts point to the conclusion that the concomitant motor activity plays an important and possibly a predominant role in the causation of the galvanic phenomenon.

If such relation between motor activity and the galvanic phenomenon exists, it should be demonstrated, after all other possible factors are rigidly excluded, by some crucial experiments.

The first crucial experiment that naturally suggests itself is the restriction of the muscular activity of the animal and the observation of galvanic deflections when the animal is stimulated by pinches, pricks, snaps, and various other painful agencies. If muscular contractions are concerned in the causation of the galvanic phenomenon, we should find that with their diminution and total suppression the galvanic phenomenon should be correspondingly decreased and even totally abolished. With this end in view we performed the following experiments:

The hind legs of a rabbit were firmly bound, so that they could not move. With the platinum electrode inserted well into the muscles of the motionless thighs the circuit was closed. Under such conditions no stimulations however painful could call forth galvanometric deflections. In other words, with the suppression of muscular action the galvanic reaction disappears.

With the platinum electrodes in the same position one of the legs was left free to move. When the rabbit was now stimulated, the free leg, of course, contracted, and the galvanic deflections were evident in response to each stimulation. In other words, with the reinstatement of muscular action the galvanic phenomenon once more reappeared. The ex-

periment is crucial, inasmuch as it excludes all other possible factors, such as secretion, whether of skin or of other glands; it excludes circulation, whether of lymphatics or of blood vessels, and rules out the action of the sympathetic and of the central nervous system. For if any of these physiological processes give rise to the galvanic phenomenon the latter should persist in our experiments, since all these processes are not arrested with the restriction of the movements of the leg.

In our previous experiments we have excluded circulation as the cause of the galvanic phenomenon. This was accomplished by means of Esmarch bandages. In our present experiments with animals we excluded circulation by ligations of the arteries supplying the limb. Under such conditions the galvanic phenomenon still persisted.

The skin effects have practically been excluded by the whole course of our experiments, inasmuch as we worked exclusively with hypodermic electrodes, and were still obtaining the galvanic phenomenon.

The skin effects can also be ruled out by the following experiment: The animal is securely immobilized and the electrodes are inserted into the skin. The galvanic phenomenon is absent with the immobilization of the limbs.

If, on the other hand, the skin is stripped clean from the hind legs of a frog (the skin comes off smoothly and easily), and the electrodes are inserted into the striped muscles, the galvanic phenomenon persists and is quite marked.

We can now account for the significant fact that struggles, twitchings, and convulsions are followed by large galvanometric deflections. All our experiments tend to prove that *the galvanic phenomenon is essentially a muscular phenomenon*. In other words, the observed galvanometric deflections under the influence of affective states are due to electromotive forces liberated by muscular activity brought about by sensory, emotional, and affective processes.

That the galvanic reaction is entirely muscular in origin can be still further demonstrated by the following experiments:

The motor nerves of the muscles of the legs of a frog were cut so that the legs were paralyzed. The platinum

electrodes were inserted into the paralyzed muscles. Under such conditions the galvanic phenomenon was completely absent. No stimulations, however intense and painful, could call forth the vanished galvanic reflex.

The experiment of section of the motor nerves of the legs is a crucial one, inasmuch as the galvanic phenomenon disappears on the paralysis of muscular activity, although all other conditions — skin secretions, circulation, and sensation—remain unchanged. Moreover, the galvanic phenomenon can be reinstated, even under conditions of paralysis of motility by bringing about passive contractions of the muscles of the leg.

Another crucial experiment is that of injection of curare. It is a well-known fact that curare paralyzes only striped or voluntary muscles, all other functions remaining unaffected. Now when the frog or the rabbit is injected with curare and kept alive by artificial respiration, the galvanic phenomenon disappears. In other words, the paralysis of muscular activity causes the disappearance of the galvanic phenomenon.

Thus all our experiments prove incontestably that *the galvanic phenomenon is due to an electromotive force which is muscular in origin.*

■

ABSTRACTS

NEW POINTS OF VIEW IN THE QUESTION OF CEREBRAL LOCALIZATION.* (*"Neue Gesichtspunkte in der Frage nach der Lokalisation im Grosshirn."*) By Prof. C. v. Monakow. *Correspondenzblatt für Schweizer Aerzte*, 1909, No. 12.

In this article Professor Monakow summarizes in succinct fashion his views underlying the principles of cerebral localization as expressed for many years past in his theory of diaschisis.

Recognizing the general acceptance of the theory of localization and its great practical importance to the physician in diagnosis, v. Monakow has drawn attention to the fact that much yet remains to be explained in the modern localization theory and that even in relation to many elementary matters there are still noteworthy contradictions. As an example is the not infrequent experience that lesions of certain areas of the cortex, whether within or without the sense areas, may lead to no symptoms; or, on the other hand, that localized cortical symptoms may occur without adequate anatomical post-mortem explanation. Furthermore, it is recognized that with apparently similar pathological processes clinical symptoms may vary widely in different cases, a condition also for which often there is no adequate post-mortem explanation. In general, therefore, our experience is such that we at least in man are not able to say with definiteness what the minimal local conditions may be, which must be produced by a lesion localized in a definite cortical area. Such uncertainty exists in aphasia, apraxia, agnosia, as well as in many coarse unilateral disturbances of innervation, as, for example, hemianopsia, hemiataxia, or hemianesthesia.

It not infrequently happens that on the one hand the localization of a defined cortical lesion may be accurately determined from the symptoms, and on the other that great difficulty may arise in determining a diagnosis, even in the presence of extensive lesions of the cerebral cortex. Such contradictory experiences led Goltz, Loeb, Brown-Séquard, and others to combat, if not the theory of localization itself, at least the localization of function in the cerebral cortex. Although to-day the opponents of localization are no longer active,

*See also, Ueber den gegenwärtigen Stand der Frage nach der Localization im Grosshirn, *Erg. d. Physiologie*, 1902, 1904, 1907.

the fact remains that many contradictions must still be met, especially since more stringent demands are being made as to the principles underlying the general theory.

Admitting that the clinical attitude at present toward localization demands a readjustment, it becomes necessary to determine, if possible, where the mistake lies in the understanding of the general question. The first positive observations on cerebral localization led to a maplike division of the cortex into somewhat definite centers, whence arose the popular idea that sharply circumscribed areas were responsible for various more or less definite physiological results. As an example of this method of considering the subject may be mentioned the insistence upon circumscribed centers for ideas of movement, centers for hearing, speech, and finally in the last few years for intellect as advocated by Flechsig. This sharp localization is forthwith met by the difficulty that at times the complicated reactions demanded, for example, by the recognition of objects, the higher attributes of speech, etc., may be preserved even when the associated centers, together with their conducting paths, are injured or destroyed. On the other hand, it may be argued against the opponents of sharp localization that very frequently entirely characteristic local irritative or paralytic effects may be observed in definite superficial lesions, which permit an accurate diagnosis of the position of the disturbance. Such experiences, for example, as Jacksonian spasm, monoplegias from lesions in the anterior central convolution, cortical hemianopsia from lesions in the calcarine region, are striking in their positive testimony. In general, no one versed in the subject will deny the local diagnostic significance of the well-known cortical symptoms. The point of importance merely is that now as formerly the negative and positive testimony stands opposed, and again a discussion of the theory is demanded, particularly in relation to a possible explanation of the apparent contradictions.

Adherents of a strict localization have explained that in those cases where the expected symptoms do not follow a circumscribed cortex lesion a reason is to be sought, either in the fact that a portion of the center has not been destroyed and remains functionally competent, or that a function may, in certain individuals, be about equally represented in both hemispheres, whereby the corresponding center in the sound hemisphere forthwith completely assumes the function of the damaged center. A further explanation, when function gradually returns, after a focal lesion, and a retrogression of the pathologi-

cal process may be excluded, is that other portions of the brain take on a vicarious function. This hypothesis of vicarious function has, no doubt, been made to explain too much, and its adherents perhaps do not fully realize that instead of being a support to the theory of sharp localization, its tendency rather is to deny the specificity of the different cortical areas, and therewith the fundamental basis of the theory. A more rational interpretation is that most of the cerebral functions are represented in sharply defined cortical areas by a few components, the main representation with wide individual differences being in the entire cortex. Particularly difficult to explain by the hypothesis of vicarious function are the higher mental processes, as, for example, those represented by speech. It is difficult to conceive that the experiences of speech gained through a lifetime may be quickly regained, for example, after a total destruction of Broca's convolution, an experience which has been more than once described, as in a case reported by Bramwell.

The results of experimental investigation have been of great value in distinguishing between temporary initial symptoms and residual or focal symptoms. Residual symptoms, as yet imperfectly understood in man, are, among others, hemiataxic disturbances after lesion of the ventral and stereognosis in lesion of the dorsal central convolution, hemianopsia, after destruction of the visual area, etc. Permanent residual symptoms are in general relatively coarse disturbances of movements of orientation, which may be produced, not only by cortical lesions, but also by a break in the subcortical conduction. In general, temporary localized symptoms are those of "higher dignity," as, for example, those proceeding from the various organs of special sense, higher spatial orientation, aphasic disturbances, and in addition certain coarse symptoms like flaccid hemiplegia or total hemianesthesia. For the present purpose the temporary symptoms are of greater significance, namely, those which quickly disappear, or which entirely fail after focal cortical lesions. In order to approach this question it is necessary to emancipate ourselves entirely from the identification of the localization of the symptoms of disease with a localization of function. The localization of the so-called focal symptoms is essentially a complicated reaction on the part of the uninjured portions of the central nervous system on the focal, cortical lesion. The localization of a function, on the other hand, is the distribution of the physiologically analyzed elements of the function among the mechanisms in the entire central nervous

system entrusted with that function. One may therefore consider every reaction of the nervous system as due to an anatomical loss of fibres produced by the lesion, a loss not only of anatomical centers, but also of points of recognition for the realization of definite mechanisms, or again the reactions of the nervous system may be considered to be caused by elements which stand in relation with the nature and the methods of action of the pathological process. It happens not infrequently that the pathological conditions themselves do not suffice to explain the diversity of clinical symptoms and their varied associations, nor their appearance and disappearance, since at times very severe local symptoms may appear and remain fixed for a long period in the absence of a pathological condition. It therefore becomes necessary to resort by way of explanation, not to a coarse anatomical lesion, but rather to dynamic factors.

On the basis of his experiments in the removal of the cerebral hemispheres in dogs, Goltz arrived at a theory of active inhibition induced by irritative processes resulting from destroyed cortex. von Monakow's acceptance of the Goltz teaching is modified to the degree that he regards the irritative inhibition as a condition allied with shock; not as an active abnormal irritative phenomenon, but rather as a passive disturbance, a paralytic phenomenon. From the inhibitory effects as distinguished from anatomical, circulatory, and other pathological conditions is derived the theory of diaschisis. By this term is meant an inhibition of function, shocklike in character, for the most part produced by an acute focal lesion in a primarily not-injured portion of the brain lying at a distance from the lesion, but anatomically associated with it. Through the break in the conduction fibers proceeding from the focal lesion, it happens that numerous eccentric lying portions of the brain are robbed of their natural sources of stimulation and in part isolated; depending somewhat upon the position and size of the original lesion, commissural, association, and corticospinal projection fibres may be involved, leading to effects often in distant parts of the brain. It also follows that inasmuch as certain areas are directly isolated from functional connection with other areas portions of the brain through neighboring neurone complexes may be affected functionally, although no anatomical changes can be observed. As a result of a nerve cell group directly injured, that group is reduced to a condition of more or less permanent inactivity; secondary degeneration results on the anatomical side leading to more distant disturbances in related cells.

This constitutes the basis of so-called residual symptoms. Indirectly those neurones associated functionally in any way with the primary lesion suffer more superficially after the manner of shock. This constitutes the basis of the so-called temporary symptoms. The anatomical element plays in diaschisis an indirect but a determining role as marking the point of origin of various subsequent disturbances, permanent and temporary. The character of the symptoms depends naturally upon the extent of the lesion, upon its position, and upon the dignity of the various tracts involved. The gradual return of many functions is explained by the overcoming or natural retrogression of the diaschisis under the influence of the restoration of those tracts which have remained normal throughout the entire central nervous system and especially at those points immediately connected with the primary focal injury.

Two matters need further explanation,—first, how are those cases to be explained in which, following a definite local cortical lesion, the classic symptoms are established and remain stationary for years or up to the death of the patient, and in the second place, why do not symptoms of diaschisis develop regularly in every case of cortical lesion? The answer to the first question is not difficult. The continuance of temporary accompanying symptoms should, under no circumstances, be confused with actual residual symptoms. Such temporary symptoms, even should they become chronic, are to be regarded merely as a protracted diaschisis action. According to this conception most of the cases of permanent aphasia, agnosia, soul blindness, etc., belong in this category. In these cases it must be assumed that the diaschisis, in its nature temporary, cannot be overcome for various reasons through the restoration of those fiber tracts which remain normal. The situation is caused usually through vascular disturbances, through congenital lack of resistance, through a progressive character of the lesion, by the influence of unfavorable psychic conditions, and similar causes. It remains for the future to determine the exact relation of these various factors in postponing a return of function. It is, in other words, essential for our future knowledge to determine exactly what the residual symptoms are and their physiological significance. Through a careful study of the doctrine of diaschisis it may become possible not only to determine the anatomical condition necessary for the loss of a given function, but also to interpret the dynamic relations and to estimate the upbuilding of individual functions out of their different

components. The objection that this theory reduces the significance of the anatomical element is not pertinent. A sharp fundamental division of clinical symptoms into those which are an essential consequence of anatomical defects, and those which are caused only by dynamic conditions, is to be regarded as a distinct step in progress. The anatomical side of the question gains rather than loses in importance, inasmuch as very much greater attention must be given to anatomical details, if we are to determine more definitely the various possibilities of diaschisis. The study of secondary degeneration in the hemispheres, particularly through serial sections of the entire brain, histological examination of cells and physiological methods must be used in the elucidation of the problem. By this means it is conceivable that a rational localization of clinical symptoms in the brain may be secured. When this task has been in a measure accomplished the far greater difficulty of localizing function will present itself. This must ultimately be accomplished by a reconsideration of the components entering into a function. In regard to this difficult problem it may be said that we cannot explain cortical localization under any single principle. A careful determination of the physiological elements of most of the functions and more accurate definition as to what can be localized, and what not is essential. At present there is considerable ground for a belief in so-called focal localization in relation to the muscular system. Very much less certain is the localization in the cortex for those elements which provide the anatomical basis of the rhythmic activity of the foci. Of the representation of memory and its allied elements of spatial orientation we know only that it lies in most varied portions of the cortex, and under no circumstances may be regarded as sharply localized. In spite of Flechsig's theory of intellectual centers nothing definite is to be said of the localization of the higher psychic functions. Before such investigations are undertaken it is necessary to busy ourselves with psychological study in order that we may learn more clearly what the physiological-anatomical arrangement of the cell groups is in relation to their capacity to store up stimuli. In answer to the second question it may be said that diaschisis presumably always takes place, but is at times quickly removed.

The general conclusions of v. Monakow's work are as follows: The symptoms of defect following a cerebral lesion are not to be regarded alone as the consequence of the anatomical destruction of nerve elements, or of accompanying pathological processes in

definite cortical areas, but also as results of concomitant dynamic influences which take origin from such cortical and subcortical gray areas, often widely separated from the original lesion, as are connected with the lesion through fiber tracts, and which in elective fashion spread in the neighborhood of the destroyed neurones. This dynamic action is in principle temporary, but leads to a widespread diaschisis as its immediate consequence. In general we have previously endeavored to localize developed functions in the cortex before having determined what in principle can be localized and what not. v. Monakow's conception is that only elementary components of a function may be localized in the cortex, and only those that serve spatial orientation, together with the most closely associated motor response of a given stimulus. All other conditions proceeding from the sense areas, as, for example, the finer differentiation of stimuli, memory components, feelings, above all psychic factors, in which the time element plays the main role,—all of these cannot be localized sharply in the cortex. If this statement is in general true, it follows that between the anatomical lesion and the clinical picture of disease a certain "something" lies that we do not yet understand, certain varying, co-ordinating, regulating factors, or to speak more precisely, certain dynamic modes of action, having only an indirect connection with the anatomical lesion, which are temporary, but under certain circumstances may also remain stable. In this factor lies the argument for the principle of diaschisis.

E. W. TAYLOR.

HALLUCINATORY MEMORIES (UEBER HALLUZINATORISCHE ERINNERUNGEN). By Prof. W. v. Bechterew. *Zentralblatt für Nervenheilkunde und Psychiatrie*. 1909, Heft. 12, S. 421.

IN the following article Bechterew discusses a peculiar condition in which the patient reproduces early events, visual or auditory perceptions as hallucinations. One patient, an old spinster, living in a cloister, after influenza had a necrosis of both ear drums and became deaf. In the cloister she had charge of the teaching of a number of girls, and after her illness developed illusions and hallucinations. She heard words and sentences and often while at work heard the nuns calling her by name. She also heard a conversation which had taken place a year before between her and the manageress of an institution where she had been an instructor in handiwork. A

pupil had become awkward in her work and the patient had put her in a lower class. The manageress, the other pupils, and the pupil herself had begged her to again receive the girl in her class, and she had done so. The whole event came back to her as vividly as the original event. On another occasion she heard the voice of an old acquaintance who related to her his whole life history, all of which she knew very well.

Another patient, an alcoholic, with an alcoholic hallucinosis described his hallucinations as follows: one morning as he went to his work an old woman asked him for alms, but as he had no money with him he gave her nothing. After she was far away from him he heard very plainly behind him a voice saying, "Student, help me." During the day while at work he often heard the same voice.

Analogous hallucinatory memories also occur in the form of optical pictures. One patient saw distinctly a restaurant where he had dined with some friends a few days previously. This man had other visual hallucinations in which past events were accurately reproduced.

In epilepsy the author finds that hallucinations which reproduce some real perception often announce an approaching attack. In one case the last word which the patient heard was reproduced as an hallucination, and he heard this word repeated until he lost consciousness.

One woman, aged forty-two, without a history of epilepsy, had two attacks of fainting. She saw strange people before her, was very much frightened, and then awakened and remembered it all as a dream. On one occasion she heard a voice calling to her and she recalled other memories as hallucinations. The author considers the dreams which are reproduced as hallucinations before an epileptic attack to be in the same class.

In another case a young man who had suffered for some time with headache finally developed neurasthenic symptoms, dreamt a great deal, but on awakening was not able to recall the dreams until one day he had a headache and hallucinations in which the dream pictures were reproduced. Another patient suffering from a luetic brain disease complained of headache at the vertex and on the left side of the head. The patient said that after a bath in a hot room he fell into a stuporous condition and saw what he had dreamed some time before. In the vision he recognized all that had happened in the dream, but remembered the details poorly.

In the following case the phenomenon is quite striking. A woman, aged thirty-eight, after the birth of her fifth child had a right-sided paresis. This woman from her earliest childhood had the peculiarity of living over again in her dreams the things which had interested her during the day. Her sleep, usually normal, was somewhat disturbed when she was dreaming. On awakening she could recall every detail of the dream clearly. This case is an example of extraordinary clear reproduction of real happenings in dreams, but cases of this sort less marked are not rare.

In epilepsy the hallucinatory reproductions occur as *auræ* and at the beginning of the attacks. In hysteria, also, the content of the hallucinations is frequently some past experience.

These hallucinatory memories of past occurrences have a significance in the pathogenesis of hallucinations and the phenomenon is worthy of study on that account.

CHARLES RICKSHER.

THE HYSTERIA PROBLEM (ZUR FRAGE DER HYSTERIE. HYSTERIE UND SPONDYLITIS, HYSTERISCHE ISCHURIE, SIMULATION.)
von Priv.-Doz. Dr. Milt. Oeconomakis. *Neurologisches Centralblatt*.
August 1, 1909. S. 790. ¶

THE author describes a case of hysteria which is very instructive from a diagnostic standpoint, and which bears on Babinski's theory of the reality and clinical definition of the disease. The history is as follows: The patient is a girl aged twenty-five years, single. Her father was an alcoholic, and her mother was a very nervous woman. When she was eighteen years of age she had a dry pleurisy. Since infancy she was nervous and rather irritable. Puberty occurred at fourteen, and since then she has suffered a great deal from severe headaches. Independently of the headaches she had nervous attacks with vertigo, tremor of the head and extremities, which gradually increased, until she had general convulsions with disturbance of consciousness, but no *auræ* or *globus*.

Four years before admission she was greatly frightened when a young man who lived in the house threatened his mother with a knife. This caused the patient to have a severe headache, and after several days an oliguria and dysuria, and soon afterwards she had a complete retention of urine. After several doses of methylene blue, by which the urine was colored green, she voluntarily micturated twice. Since then she has been catheterized twice daily. Accompanying

the retention was an obstinate constipation which persisted. Three years before admission she had pain in the region of both kidneys and went to the Greek hospital in Smyrna, where she remained three months but did not improve.

After her return home a year later following an attack of headache she suffered a paralysis of the lower, with equilateral flexor and adductor contracture of the upper extremities, and at the same time had severe pain in the lumbar region. This was called an organic disease by the physicians, but after a startling dream a month and a half later all the paralysis and contracture suddenly disappeared. Three months before admission she was again in Smyrna, and while being catheterized the catheter broke and a piece remained in the bladder. After three days there was an urethral and bladder inflammation, with clouding of the urine and a swelling in the right inguinal region. This swelling was hard, painful, but showed no cutaneous reddening, and lasted about a month. Her physician examined her with a cystoscope and diagnosed a possible kidney lesion. After this examination she had a nervous attack, in which the swollen half of the abdomen twitched in a rhythmical fashion and the swelling gradually lessened in size parallel with the clearing of the urine. Six weeks before admission she had severe pain in the lumbar region, which extended to the side and front and surrounded the lower abdomen as a girdle. Two days later she had a complete paralysis of the lower limbs, which, with the pain in the back and the retention of urine, persisted until admission, August 5, 1908. Physicians in Athens had diagnosed caries of the lumbar vertebræ and had advised her to go to another hospital as incurable.

On admission she showed a flaccid paralysis of the legs, with hypotonus. The patellar reflexes were normal, there was no Babinski, and no change in the electrical reactions. The lower extremities showed a loss of all cutaneous sensations up to a point five centimeters above the umbilicus and surrounding the body. Above this was a strip ten centimeters in breadth in which the senses were normal. Above this involving the head and arms they are diminished and below the elbows they are quite absent. The patient complained of pain in the kidney region on both sides, but when her attention was distracted sharp pressure elicited no pain.

From the findings the diagnosis of hysteria was made and a course of treatment outlined, but her relatives removed her after seventeen days. A month later she was returned to the clinic with a

complete paralysis of all her extremities. At this time the skin showed normal sensibility in two small areas, the anterior one being four centimeters above and below the umbilicus, and the posterior one occupying a similar position on the back. On passive movement of the upper and lower extremities there was slight contraction of the muscle masses. The patient complained of pain in the lumbar region, and raising the skin over the lumbar vertebræ increases it. She remained in the clinic about three months, the paralysis and loss of sensibility improving considerably, and was again removed by her sister.

In this case on a superficial examination one found pain in the lumbar region, with a slight scoliosis, a paraplegia of the lower extremities, and a marked rectal and bladder disturbance, all of which pointed to a tubercular process in the lumbar vertebræ. In addition she gave a positive reaction to von Pirquet's tuberculin test, and there were some physical signs of tuberculosis in the right apex. On these symptoms several physicians based their diagnosis of spondylitis tuberculosa.

On a more careful examination it was found that the lumbar pain was not limited to the lumbar vertebræ, but extended to the neighboring vertebræ. The bladder trouble was a simple retention, and not an incontinence, and was favorably influenced by the suggestive action of methylene blue. The paralysis was complete, but the patellar reflexes were normal, and there was no atrophy or change in the electrical reaction. In addition there was narrowing of the visual fields, defects in the cutaneous sensibility, the symptoms appeared in an abnormal sequence, and relapses occurred after a remarkable dream, following which the lameness was increased. Suggestive treatment in the clinic caused a marked amelioration in the symptoms.

Conversation with the patient disclosed the fact that the oliguria and ischuria were caused by pure suggestion. Before her illness she had heard two women speaking of these troubles; one had retention following the use of some drug, and the other had suffered for many years with bladder trouble, following spinal cord disease. After this the patient had an affect-shock, in which her normal hypersuggestibility was very much increased and the use of some antineuralgic remedy, possibly antipyrine, caused some unpleasant renal action which brought before her the picture of an incontinence, and since then she has not been able to voluntarily empty her bladder. Later, in the hospital in Smyrna, she observed patients who suffered from

paralysis of the extremities either with or without bladder disturbance.

While hysterical ischuria is not frequent, the long duration of this condition, a year or more, is rather rare. Various authors speak of it lasting from a week to one and one half years, but in this case it persisted for four years.

The entire history of this case shows that as one symptom began to disappear, others appeared, and the author believes that one is justified in agreeing with Babinski that there was an "action contre-psychotherapique," which hindered the therapeutic action, but he is uncertain whether this new action was simulated or not. At any rate, Babinski, he thinks, is correct when he says that the phenomena of suggestion and simulation have the same basis.

CHARLES RICKSHER.

REVIEWS

AN INTRODUCTION TO SOCIAL PSYCHOLOGY. By *Wm. McDougall*,
Boston. LUCE & Co. \$1.50 net.

PROFESSOR MCDUGALL'S valuable contributions to the development of our conceptions of neural activity, and later to psychophysical and psychological theory, have long since led neurologists and psychologists alike to turn with interest to all work from his pen. All students of the first order are found eager to turn from their special fields to studies that appeal strongly to other thinkers of their time, with the hope that the modes of thought to which theoretical considerations have led them may prove helpful in the elucidation of the problems raised by these studies beyond their own fields. And Dr. McDougall is no exception to this rule, for we find him in the book before us reflecting the influence of modern sociological discussions, and presenting new evidence of that versatility of mind which he has already shown in other directions.

This is an era in which sociological questions arouse universal interest. But as our author contends, they have all too often been approached without adequate study of the psychological data upon which, as he justly holds, they must be based if advance towards their solution is to be made.

No one can deny that there has been, as he says, too general an assumption "that men normally and in the vast majority of cases act reasonably." But such a presupposition is surely unwarranted, and Dr. McDougall rightly contends that men are really "moved

by a variety of impulses, whose nature has been determined through long ages of the evolutionary process without reference to the life of men in civilized societies."

Human "springs of action" thus appear to be in the main instinctive, and not primarily intelligent, as is too often taken for granted. But this has been so often overlooked by those dealing with sociological questions that our author renders a service in calling our attention to the fact that we cannot expect to reach the solution of the social problems of our day until we have undertaken a more thorough study of our impulsive life than we have thus far made.

Starting with the emphasis of the important point that our emotions are the psychic counterparts of the instinctive actions which determine our impulses, he aims in this work to make firm, in part at least, the foundations upon which a valid sociology may be based, by an examination of the nature of our most notable emotions and emotional attitudes.

It would do Dr. McDougall an injustice were we to attempt here to present even a summary of the course of his argument, or of the conclusions he reaches as the result of his study; the book must be read if one is to appreciate the strength of his contentions and the keen analysis of obscure phases of our emotional life with which its pages are replete.

He follows Shand in holding that emotional dispositions organize themselves into systems which, under different conditions, yield different emotional reactions in relation to the same object. These emotional systems, he, with Shand, calls "sentiments," and his aim is to discover what may be the primitive emotions by the combination of which the emotional life, as we experience it, is evolved.

His analysis leads him to hold that these sentiments may all be traced back to a limited number of simple emotions, which are the coincidents of clearly defined instinctive activities. He reaches the conclusion that our impulsive life is in the main statable in terms of the following instincts, and their corresponding emotions: (1) the instinct of flight, — the emotion of fear; (2) the instinct of repulsion, — the emotion of disgust; (3) the instinct of curiosity, — the emotion of wonder; (4) the instinct of pugnacity, — the emotion of anger; (5) the instincts of self-abasement and of self-assertion, — the emotions of subjection and of elation; (6) the parental instinct, — the tender emotion; and (7) the instinct of reproduction; (8)

the gregarious instinct; (9) the instinct of acquisition, and (10) the instinct of construction; the emotional states corresponding with these last four being insufficiently definite to acquire specific names.

That the instincts thus called primary are of fundamental importance is certainly true; and the effective discussions of our author in regard to them are in the main convincing. He would probably, however, be the first to acknowledge that certain revisions of his scheme will result from a fuller study and a rigid criticism; and it must be confessed that his positions seem somewhat weakened by his acknowledgment that the last four of the important instincts referred to above do not correspond with clearly defined and separable emotional attitudes. It would appear probable that these four instincts at least may after all not be primary, but rather systematized compounds of instincts of a still more fundamental nature.

In fact, it is questionable whether any of the instincts mentioned can be claimed to be really primary if our author's method of inquiry is pressed to its logical conclusion. For, as he himself says, in the passage quoted above, the nature of our human impulses "has been determined through long ages of the evolutionary process;" and if this is true, it would appear that the most elementary of human emotions, as we appreciate them, must really be compounds of still more fundamental ones, similar to such as must have been experienced by the simpler organisms from which man has developed.

The writer of this review has in his *Instinct and Reason* made an attempt to classify our emotions on the assumption that even those of them into which, as Dr. McDougall contends, the sentiments are resolvable, must be looked upon as developments of very much simpler emotions, if we may call them such, which have appeared in the experience of our far-off animal ancestors. Certain of these hypothetical emotions, which, under such a view, may really be called primary, must, in all probability, have come down to us with much less complex modification than others; and these may therefore be held to be nearer the original stock, so to speak, and therefore of special significance in a hierarchical classification.

However unsatisfactory the outcome of the particular attempt here referred to may have appeared, the principle involved would seem to be not unworthy of development. And if upon examination the results of this development seem promising, it may be found that, for service in the establishment of a well-grounded social

science, a classification of our impulses may best be made on the genetic lines thus suggested. At all events a searching inquiry might well be made, to discover evidence favorable to such a conception, by observation of abnormal psychic phenomena in our fellows; and not without hope of fruitful result. For it is, of course, impossible to determine the nature of such hypothetical primary emotions by the study of the emotional life of the animals themselves; of their psychic life we can gain no knowledge other than that given by reading into their minds experiences corresponding to their observable instinctive reactions, and these must of course be based upon an interpretation of our own mental life. There is good ground, however, for the belief that such light may be thrown upon this obscure field by the study of the mental life of those unfortunate members of our race who seem to have drifted backward toward those animal forms from which we are all descended, and to the amelioration of whose lot the readers of this JOURNAL are devoted. It is in this connection especially that this work of Dr. McDougall's strongly commends itself to the attention of those dealing with abnormal psychology. That the book is of equal significance to students of normal psychology, of sociology, of political theory, and of pedagogical method, need not be dwelt upon in these pages.

HENRY RUTGERS MARSHALL.

JAHRBUCH FÜR PSYCHO-ANALYTISCHE UND FÜR PSYCHO-PATHOLOGISCHE FORSCHUNGEN. *Herausgegeben von Professoren Bleuler und Freud, Redigiert von Dr. Jung.* Bd. I. 1^e Hälfte (Deuticke, Wien.).

THE striking increase in the output of literature on the subject of Freud's psycho-analytic researches, and the inordinate space demanded for the adequate treatment of the questions raised and description of the cases thus investigated, has made it indispensable to found a special journal devoted to it. It will appear twice a year, and if the promise inspired by the first volume is maintained the appearance of each number will be eventful in the history of the development of this science. Owing to the amount and originality of the contents (there are three hundred and eighteen pages in the first number), it is impossible here to do more than indicate the nature of them. The style of the articles naturally presupposes a knowledge of the previous work of Freud and his school, and is therefore not

suited to those who are beginning the study of the subject. To those familiar with that work it need only be said that the *Jahrbuch* contains a fund of material of the greatest interest and value. To those not familiar with it one can only say that the sooner they become so the better, if they wish to learn the power of modern psychology, as well as of psychopathology, and to follow it in its future evolution.

1. Freud. Analysis of the phobia of a five year old boy. In this detailed study Freud gives from direct observation an excellent confirmation of the conclusions concerning infantile sexual life previously maintained from his psycho-analytic study of the adult, and expounded in his *Drei Abhandlungen zur Sexualtheorie*, and in a later article on the subject (reviewed by Brill in the *Journal of Nervous and Mental Diseases*, August, 1909, p. 503). We have here the first glimpse into that side of childhood psychology which is of such fundamental importance for the development of future traits.

2. Abraham. The position of consanguineous marriages in the psychology of the neuroses. Abraham here very ingeniously shows how certain phenomena previously ascribed to heredity are to be explained by factors of early development.

3. Maeder. Sexuality and Epilepsy. This is a detailed study of the sexual life and characteristics of epileptics, which will be continued in a later number of the *Jahrbuch*. Maeder attempts to define the sexual traits peculiar to this disease, as Freud has done for the psycho-neuroses and Jung for dementia præcox.

4. Jung. The significance of the father for the fate of the individual. In this very suggestive and original work Jung, illustrating his theses with apt examples, traces the various ways in which the character of the father stamps itself, by interaction and reaction, on the children, and gives many penetrating sidelights into the intimate relations of family life.

5. Ludwig Binswanger. Attempt at an analysis of a case of hysteria. This fine analysis, only the first half of which is here printed, is extrinsically interesting in that it was carried out at the Jena clinic by request of Professor Binswanger, the accepted German authority on hysteria.

ERNEST JONES.

PROCEEDINGS OF THE AMERICAN PSYCHOPATHOLOGICAL ASSOCIATION

THE first annual meeting of the American Psychopathological Association was held at the New Willard Hotel, Washington, D.C., May 2, 1910, at 10.30 A.M., with Dr. Morton Prince in the chair as president pro tem. At this meeting the association was formally organized.

Dr. Prince was elected president for the ensuing year, and Dr. G. A. Waterman was elected secretary and treasurer.

It was decided to leave the drawing up of a constitution and by-laws to an executive committee consisting of five members and that this body, with the president and secretary, should act as a temporary committee on elections to membership for the ensuing year, and should also decide upon the time and place of the next meeting. Dr. A. R. Allen (Philadelphia), Dr. J. J. Putnam (Boston), Dr. Adolf Meyer (Baltimore), Dr. August Hoch (New York), and Dr. Ernest Jones (Toronto), were elected as members of this committee.

It was decided that the official name of the society should be the American Psychopathological Association, and that THE JOURNAL OF ABNORMAL PSYCHOLOGY should be made its official organ.

The following papers were then presented to the association: . (1) The Sex Symbolism in Dreams, Dr. J. J. Putnam; (2) The Action of Suggestion in Therapeutics, Dr. Ernest Jones; (3) The Anxiety Neuroses, Dr. A. A. Brill; (4) Dreams as a Cause of Symptoms, Dr. G. A. Waterman; (5) Mechanism of Dreams, Dr. Morton Prince.

Owing to the similarity of the subject matter of the papers presented it was deemed advisable to discuss them collectively after all had been read. For this same reason the publication of the discussion relative to the paper by Dr. A. A. Brill which appears in the present number of THE JOURNAL will be postponed until after the publication of the other papers.

ANNOUNCEMENT TO OUR SUBSCRIBERS

THE JOURNAL, in becoming the official organ of the American Psychopathological Association, enlarges the scope of its work, and we hope of its usefulness. The proceedings of this new association, which is the outcome of the modern movement in the study of abnormal psychology and the psychoneuroses, will contain many contributions which will deal with these latter as specific diseases.

The JOURNAL therefore hereafter will include amongst its articles those which may be characterized as distinctly medical in the sense of dealing with specific disease forms, though always from the point of view of pathological psychology. It will therefore perhaps more than heretofore appeal to practitioners of medicine. *It will not, however, limit in any respect the special field of psychopathology to which it has been devoted.* To the student of psychology the psychoneuroses offer data of the greatest importance in the study of the mechanism of the mind.

The JOURNAL therefore will necessarily publish amongst others, articles dealing with these affections from the point of view of what has come to be known as the Freud school of psychology. This school has gained in Europe and in this country so many adherents who are extraordinarily active and prolific in their work, that any up to date journal of psychology must present their contributions to present day psychological problems whether in normal or abnormal life. Dr. Brill's article in this issue, which was read at the first meeting of the new association, exemplifies this school.

Unfortunately for journals intended for the reading of the general public this school of psychology seeks to trace the etiological factor in many functional nervous diseases and other psychological phenomena to disturbances of the sexual life; consequently, for the proper presentation of the principles of this psychology, it is unavoidable that the physiological and psychological details of this side of the human organism should be laid bare.

A journal devoted to psychology, and particularly to abnormal psychology, therefore, cannot avoid, as perhaps it is not desirable that it should, the publication of articles which deal with such problems. To the medical practitioner, of course, such discussions are an essential part of his education, while the psychologist can no longer avoid them.

In what has just been said, we do not wish to over-emphasize the importance or number of the articles dealing with Freud's psychology, which may appear in these pages, but only to state in advance the extension of the scope of this JOURNAL as the organ of the new association.— THE EDITOR.

THE JOURNAL OF ABNORMAL PSYCHOLOGY

AUGUST—SEPTEMBER, 1910

THE PSYCHO-ANALYSIS OF A CASE OF SENSORY AUTOMATISM

BY ISADOR H. CORIAT, M.D., BOSTON, MASS.

IN this paper a study will be made of a case through psycho-analytical methods, in order to show how the visual hallucinations which formed a prominent feature could be traced out and verified as arising from subconscious antecedents and complexes. It is well known that subconscious experiences or ideas can give rise to various types of hallucinations, as can be demonstrated in complex types of multiple personality*, or in the subconscious perceptions in certain forms of hysterical anæsthesia. In this latter condition in particular, it has been possible to prove by means of experiment, that subconscious impressions can give rise to visual hallucinations.† Under these circumstances, the hallucinations were either visual representations of subconscious ideas or the ideas formed new combinations and became so intense that they assumed an hallucinatory character. We know that conserved experiences, whether subconscious or unconscious, can lead a very active existence, and influence the entire psychophysical life. These conditions are not without their parallel in literature. For instance, in Macbeth the vision of the dagger was merely a symbolized idea, which, on

*See particularly the hallucinations from the subconscious in the case of Miss Beauchamp. (The Dissociation of a Personality — Chap. XXXI).

†Prince and Sidis. A Contribution to the Pathology of Hysteria. *Boston Med. and Surgical Journal*, June 23, 1904.

account of its intensity became transformed into a visual hallucination. An attempt will be made to show in the following case that the visual hallucinations were not accidental occurrences, but a disturbing and a directing subconscious mechanism was at work and directed their formation, and furthermore that the condition did not have any occult significance, but was merely a scrappy record from the subconscious mental life. As stated by Dr. Prince in his analysis of a similar condition in Miss Beauchamp, "The researches of recent years in abnormal psychology enable us to understand the genesis of these sensory automatisms, even if we cannot yet explain their exact psychological mechanism. In the light of this knowledge it becomes clear that they are due to the autogenetic influence of the subject's own thoughts, conscious or subconscious."

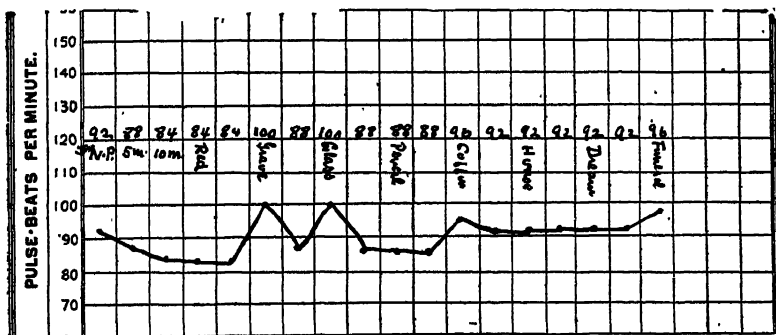
Mrs. L., age forty-six, who was referred to me by Dr. Prince, had been troubled for several years by peculiar visual hallucinations. She constantly saw coffins before her eyes: sometimes the coffins were lying near an open grave, sometimes one was open, and in it she would see a person whom she did not recognize. The visual hallucinations were localized fixedly within a certain space within the field of vision and remained in this area at all times, even following the turning of the eyeballs in various directions. It would seem from this alone that the hallucinations were of central origin. These hallucinations never left her unless her attention was strongly distracted, and then they vanished for only a few minutes at a time. They were beyond her control, she was unable to make them appear or disappear at will, except on some occasions, when they would vanish momentarily when she closed the eyes, after which they would appear again in their original intensity. The hallucinations thus seemed to be insistent and automatic. At times she had a feeling that her personality had changed. Sleep was disturbed by dreams of funerals and coffins, or of wild animals chasing her, particularly a bull. The latter dream was particularly insistent and recurrent. She was unable to explain the origin of these hallucinations or the dreams, or under what conditions they first appeared.

In this case we seem to be dealing with some form of

mental dissociation in which subconscious experiences of which the subject was not aware formed the hallucinations during the day and the dreams at night. The psycho-analysis of this case through the methods of experimental distraction, the analysis of the dream-life, the association tests, and the pulse reactions (psycho-cardiac reflex) gave most interesting results.

In experimental distraction, obtained by having the patient listen to a monotonous sound stimulus, the memory broadened, and fragments of submerged experiences were secured. In it she related a number of deaths which occurred in her family during her early childhood, and which at the time of their occurrence made a more or less prominent impression upon her. She also remembered that about four years previously, immediately before the first appearance of the hallucinations, that she was in a state of worry and exhaustion. At this time the sight of dirt disturbed her a great deal, and she was constantly cleansing things about the house. When she saw dirt, the word "grave" would flash into her mind, at first as a mere idea, then gradually becoming more and more intense until it became visualized into the object itself. Finally the word "graves" suggested the word "coffin," and this too in turn became visualized into the object.

The analysis by the pulse reaction tests gave most interesting results, as shown in the accompanying figure:



The increase in the pulse rate, as shown in the increase of the height of a curve when the test words "graves,"

"coffin," and "funeral" were used, is easily explained. The marked increase of rate at the word "glass" remained inexplicable, however, until its source was traced to the following dream. The account of this dream was obtained only through the artificial device of experimental distraction. About two years before coming under observation she dreamed that a man, dressed like a farmer, came to her front door leading two cows. These cows resembled the bulls of her other dreams. Suddenly both animals lowered their heads and struck the front door of her house, breaking the glass in the panels. This, however, was only a partial explanation of a dream which was preserved in the subconscious, and through association with one of its elements produced the change in the pulse rate. The dream of bulls had occurred a number of times in the dream life of the subject. What, then, was the origin of this particular recurrent and insistent dream? Through the method of experimental distraction the following dormant experiences were clearly obtained as probably forming their origin. Just previous to the occurrence of this particular dream she remembered having read an account in a local newspaper of a young boy who was gored to death by a young bull while he was leading the animal to pasture. At the time she read this story it had a most horrifying effect upon her, particularly since at the same time she was suffering from the visual hallucinations. The psycho-cardiac reflex had thus become a delicate index of stored ~~up~~ emotional complexes.* Attempts at automatic writing and the production of crystal visions gave negative results.

The association tests threw considerable light upon the complexes which were responsible for the hallucinations and dreams. A group of experiences had left their traces upon the nervous system and produced disturbances in the mechanism of association, either lengthened reaction time, automatic repetition of the test word, peculiar abnormal reactions to the test word, or the inhibition of thought was sometimes so marked that no reaction at all took place. The

*Isador H. Coriat. Certain Pulse Reactions as a Measure of the Emotions. *JOURNAL ABNORMAL PSYCHOLOGY*, Vol. IV, No. 4, 1909.

associations thus laid bare the hidden and dormant mental undercurrents, and showed how these undercurrents distorted the subject's thoughts and influenced her entire mental life.

Association Tests

No.	Test word	Reaction word	Reaction time	Reproduction
1.	White	Cloth	1.	Cloth (2.)
2.	Storm	Trouble	2.	Rain (2.2)
3.	Grave	Funeral-dirt	2.2	Cemetery (3.2)
4.	Sky	Blue	1.6	Pretty (2.4)
5.	Red	Plush	1.2	Book (15.)
6.	Glass	Window	2.4	Window (3.)
7.	Coffin	Trouble	3.2	Itself (5.4)
8.	Sleep	Rest	5.8	Rest (2.4)
9.	Car	Street	1.4	Steam (3.2)
10.	Sweet	Candy	2.	Candy (3.)
11.	Funeral	Sadness	2.2	Funeral (6.)
12.	Book	Bible	6.	No reaction (7.)
13.	Ring	Diamond	2.	(No reaction (2.))
14.	Dream	Unpleasantness	3.2	Unpleasantness (6.8)
15.	Gold	Watch	6.2	(No reaction (6.8))
16.	Lady	Friend	2.8	A number (5.2)
17.	River	Water	3.	
18.	Bull	Bull	4.4	Bull (4.8)
19.	Ink	Dark	2.2	Dark (1.2)
20.	Top	Spin	2.2	Top (4.2)
21.	Chair	Common	3.	(No reaction (4.2))
22.	Animal	Dog	2.6	Dog (8.4)

Analysis of the Associations

3. The association here is clear, and relates definitely to the hallucinations.

5. The association "red — plush" was short, but on the reproduction it took fifteen seconds before the word "book" was brought forth. This was explained by the fact that since the hallucinations first appeared, bright colors had become very distasteful to the subject. She preferred black.

6. The word "glass" brought forth merely a monotonous repetition of "window," without any lengthening of the reaction time. Here the complex was so deeply buried in the subconscious that it did not cause any mental inhibition in the association tests, and was only revealed by means of the artificial device of deep abstraction. The same test word, however, caused a marked physiological reaction, as shown by the psycho-cardiac reflex. This peculiarity, that test words caused no mental retardation when relating to conserved experiences of which the subject was not aware, but that these same test words could cause changes in the pulse rate, was also found to occur in the psycho-analysis of a case of hysteria.†

7. In the reproduction, the inhibition caused not only a monotonous repetition, but also a delayed reaction time.

8. The reaction word, "rest," in both cases is explained by the fact that the subject has been so troubled by the hallucinations that she had thought of suicide.

11. The association, the retardation, and the reproduction are clear.

12. The retardation, the lack of reaction in the reproduction and the reaction word, "Bible," are due to the reminiscence of the reproduction "book" in the association group 5; while the long reaction time in both cases is probably a carrying over of the inhibition from the association group 11.

14. The long reaction time and the monotonous repetition of the reaction word are clear.

15. The long reaction time in both cases and the lack of reaction word in the reproduction are inhibitions carried over from the previous association.

17. The subject had often thought of drowning herself in a nearby river.

†Isador H. Coriat. *ABNORMAL PSYCHOLOGY*, 1910, pp. 163-173

18. The monotonous repetitions of the test word are marked. This is due to the powerful disturbing emotional complex, relating to dreams.

As a result of these analyses, the origin of the hallucinations from the subconscious complexes now becomes clearer. At the time of their origin the subject was in a state of fatigue, and this induced a partial mental disintegration. Then a fear of dirt arose, and following this a certain abnormal association of ideas which gradually became more intense, until they changed into persistent hallucinations. Exactly how these ideas transformed themselves into the sensory automatisms it is impossible to state. The dreams were also of the nature of distorted subconscious memories. Neither the hallucinations nor the dreams were due to chance, but a disturbing mechanism was at work in the subject's subconscious mental life, that is, the autogenetic influence of the subject's own thoughts, previously referred to. Like crystal visions, which are really artificially reproduced hallucinations, the persistent visions of coffins were an evidence of a partial mental dissociation.

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REPORT OF A CASE OF HYSTERIA

LYSSOPHOBIA. FIRST CRISIS FOLLOWING A DOG BITE

BY HENRY W. MILLER, M. D.

Clinical Director, Government Hospital for the Insane, Washington, D. C.

THE following case of hysteria is presented not for the purpose of supporting or controverting any of the present theories regarding hysteria, but rather because the case presents certain unique features to which I wish to draw attention.

Synopsis.— R. M. W., male, eighteen years of age, is said to have developed normally, with the exception of a unilateral amaurosis (right) which was detected before the first hysterical crisis. At the age of twelve he was bitten on the right leg by a dog. The symptoms of hydrophobia were suggested in a previous experience by his neurotic mother's impolitic actions, and by the remarks of his playmates. Fourteen days after the injury, and while chafing under a reprimand from his school teacher, he had a very brief amnesia-like period, followed by a convulsive attack, and then again another period of amnesia, during which he manifested hydrophobia-like symptoms. For six years he has had, with considerable regularity (semi-annually, in January, and during the heated months—dog days) peculiar motor and psychic attacks similar to the first attack. During these periods he has had four times a right hemiplegia with hemi-anæsthesia and once a paraplegia with mutism. He has had many trance-like conditions and brief periods of amnesia, with and without convulsive movements. He was committed to the Government Hospital for the Insane during a dream-like state in a condition of excitement. In four days he came to himself, and showed only the stable mental stigmata. On the physical side were characteristic stigmata of hysteria. Suggestion and a readjustment of the patient and his mother's viewpoint have resulted in freedom from motor or psychic attacks for one year.

Family history.—In brief it is as follows: Father was drowned at the age of thirty-five; was not an alcoholic, was not regarded as in any way nervous, and always enjoyed good mental and physical health. Mother living, aged thirty-nine; looks prematurely aged. She is of a neurotic temperament, and a little given to spectacular religious emotionalism. Her peculiar temperament is further analyzed under the personal history of the patient. There is nothing further of importance in the family history.

Personal data.—Patient was born May 29, 1890; birth was normal; healthy as a child, and had no infectious diseases but measles. He attended school until he reached the age of twelve; advanced to the sixth grade, was bright and capable; was regarded by the mother as a typical boy, fond of play, associated normally with other children, and showed no nervous tendencies before the age of twelve. This latter observation, however, requires confirmation by an unprejudiced observer.

Development of Hysterical Symptoms.—On October 23, 1902, when the patient was twelve years of age, he was bitten on the calf of the right leg by a dog. He was taken to the Emergency Hospital in Washington, treated, and sent home. He apparently did not worry about the bite, and laughingly told his mother of the accident. The mother thinks the patient knew nothing about hydrophobia. She was very much worried about the bite, although it healed by first intention, and there were no unusual local manifestations except a possible slight swelling. The mother knew the dog showed no symptoms of hydrophobia, but she also knew that healthy dogs harbor rabies infection. She learned that the dog, a small terrier, belonged to a physician, and she made demands that it be exterminated. This was not done; she entered action in court against the physician, and being defeated appealed the case. There were further legal complications which the mother does not fully understand. At any rate the dog was not killed, and this fact seemed to accentuate her fears of rabies in her boy. She convinced herself that the dog did not develop hydrophobia within the ordinary period of incubation. However, she claims she has observed the acts of her son, has observed the hair grow

longer and thicker upon his legs, has seen his dog-like actions during his attacks, until she has become thoroughly convinced that the boy has been taking on an animal nature. This attitude of the mother is of interest as showing her peculiar makeup, and more particularly in consideration of the effect such an attitude would have upon an impressionable child.

On November 6, 1902, fourteen days following the bite, the patient had a convulsion. The day previous he had attended school and had been reprimanded by the teacher for some trivial misdemeanor. The teacher reported to the mother that he did not seem quite as well as usual. Upon going up the steps to the school he seemed dazed, did not apparently know what he was doing or where he was going, and wandered blindly into the girls' cloak room. When he returned from school his condition was not such as to attract his mother's attention, but that night she thought she had a forewarning, and decided to sit beside his bed. He slept until midnight, and then awoke making a peculiar noise. He finally developed convulsions, which were general. He frothed at the mouth, had violent twitchings of all the muscles. There was no involuntary passage of urine or feces; he had no preliminary vomiting. The mother thinks he was unconscious during part of the time, but is not certain. The physician who was called in in the night pronounced it hydrophobia, and gave him, according to the mother, a powerful hypodermic. From subsequent developments she was convinced that the hypodermic had driven the poison of the rabies throughout the boy's system. The next day he was weak and dazed, and the mother, to see if it actually was hydrophobia, tried him with bringing water to him. Each time she brought the water before him he would become rigid, draw back, and have a look of horror on his face. He did not, however, lose consciousness. Every time he saw water that day he had these attacks, associated with rigidity and an expression of horror. The second day he had three convulsions, and the mother says the following day he was wild, running about on his hands and feet, crawling under the bed, and looking at her in a peculiar dog-like fashion, but not attempting to bite her. Since that time the mother

believes he has not been natural, and presented evidences which confirm her suspicions that he was becoming like an animal. He has had convulsions about every six months since that time, with occasional mild attacks in the interim. The idea of the periodicity of the convulsions had been conceived by the mother, evidently, on account of a popular conception that in hydrophobia the attacks occur with certain definite regularity. She always looked for them in January and July or August, and they nearly always appeared at that time.

It is interesting to note, whereas the mother stoutly maintains that she concealed her anxiety from her boy, she cites an occasion when she had two medical students examining the boy's saliva; and that, while doing so one of the students said in an impressive way, before the patient, "This boy must have been bitten by a dog." She, to impress upon the physician her ingenuity, says she replied, "Yes, I presume he has been bitten by a mosquito."

It is hard to ascertain the exact number of convulsions the patient has had. He has had paralysis following upon convulsions four times; three times a right-sided hemiplegia, and once a paraplegia. His paraplegic attack came on following convulsions in August, 1908. During that time he was unable to move, could not speak, seemed at times able to roll his torso a little, but never attempted to move his extremities. The hemiplegia was always on the right side. He never had a loss of speech with the right-sided hemiplegia. A condition of stupor or confusion, with sometimes excitement, continued three or four days after these attacks. In many of the attacks he has been "wild at the sight of water," ran about on his hands and feet, and his mother claims he acted very much like a dog; but it was not always the sight of water which precipitated the attack, although it occasionally did so. In one of his attacks of hemiplegia his mother tested him by pricking his right hand, arm, and leg with a needle; he did not show the least sign that he felt it, while he reacted on the other side. At one time, when his arm was paralyzed, he burned his finger, but did not pay as much attention to it as he commonly would to a burn. He did not say it pained him.

His mother noticed nothing peculiar about the patient's eye previous to the first convulsion. The history given by

the school teacher would indicate that he had some trouble with the eye the day previous to the convulsion, and the statements made by the patient would confirm this. His right eye has not been normal since the first attack. During a convulsion in 1908 he was for two days blind in both eyes. He has frequently said, at the beginning of an attack, that his eye was jumping, and would put his hand over it. At the time the blindness was first noted in the eye it was also noted that he had an internal squint. From the history this seems to have been gradual. He was taken to a physician, who prescribed glasses, but without effect. He was later taken to another ophthalmologist, who examined the eye, and said he must have been blind in that eye from birth, but could find nothing wrong with the eye ground.

According to the mother's history, his memory is not always clear as to his motor attacks. When he comes to he always has difficulty in collecting himself, though he has spoken of some of the events which have occurred, and there seems to be no definite line of experiences obliterated from his memory during earlier attacks. His loss of memory is always associated with motor attacks. He has had no periods of prolonged sleep. He has frequently told his mother that he was afraid of the attacks coming on. Then he felt as if everything was becoming a blank to him. The condition following the convulsive attacks has, on the whole, been similar. Shortly before August, 1908, he was seen by a physician, who told him that his condition was the result of Menière's disease. The attack following this consultation was associated with earache, and prior to the convulsion he felt as if something had burst in his head, following intense pain in his ear. He was taken to the Emergency Hospital, and shortly afterwards was sent home. He returned to work and had another convulsion. For two weeks following this he was paralyzed in his right side. During this period he could not retain his food; vomited whenever food was given to him, and it was at this time that he lost the sight in both eyes.

Present attack.—The attack which led to his commitment to the Government Hospital for the Insane commenced on Tuesday, February 16, 1909. At the time he was working in a newspaper office in charge of the delivery boys. He felt badly that day, and the following day said he could not

work; claimed that he felt numb, and as if he were going to have an attack. That night he had a convulsion. For three days he was in a stupor, but was not, however, in a rigid position; he breathed heavily, had profuse perspiration, so that the sheets on his bed had to be changed three or four times a day. He did not lose control of bladder or bowels during this stupor, did not eat, did not speak. On the 19th of February he was sent to the General Hospital. At the time he was taken there he was crying bitterly; said he wanted to go home to God; became very much excited. He was given sedatives. On February 22d he became much disturbed, said he was in heaven and wanted to be with God; looked about in a wild, staring manner. Two days later he was admitted to the Government Hospital for the Insane.

The mother says she has consulted various physicians, Christian Scientists, faith healers, irregular psychotheraputists, and has had him in three of the general hospitals of the city; but claims that the physicians were always evasive in their diagnoses. She was given such opinions as "it was a very peculiar case," epilepsy, Menière's disease, nervous hydrophobia, etc. She was convinced throughout that it was dependent upon the hydrophobia, and read copiously of the literature on hydrophobia, particularly during the early part of her son's illness.

Physical examination outside of the nervous system is negative.

Neurological examination.—Motor symptoms: Co-ordination good; no swaying; co-ordination in hands and legs equally good; flexor and extensor strength good. General muscular strength excellent.

Attitude erect.

Gait normal, except that sometimes defective, owing to defective eyesight.

Paralysis: None at present; no paresis; facial musculature equally innervated. No contractures; no tremors.

Deep reflexes: *Both knee reflexes sharp*, the left more so than the right. No knee clonus. Tendo-achilles, both present, equally sharp. Triceps, both present, equal; wrist negative; no ankle clonus; no jaw jerk. Corneal anæsthesia; *pharyngeal reflexes diminished greatly*. *Cremasteric* present on right, *absent on left*. Epigastric reflex

and abdominal more marked on left. Plantar flexion on both sides on stimulation of sole of foot.

Dermatographia slight, fades rather quickly.

Pupils equal, regular in outline; slightly *dilated*. Come down quickly to light directly and consensually. No paralysis of accommodation; *internal strabismus of right eye*; occasionally internal strabismus in the left eye. *Right unilateral amaurosis*; *concentric limitation of both visual fields*; *partial dyschromatopsia* in right eye. No disturbance of other reflexes. No vertigo or pain.

Taste acute; smell normal; hearing, watch heard at normal distance; *tactile sense very acute without any well-defined hyperæsthetic areas*. Temperature sense, slight modifications of heat and cold quickly recognized at any part or surface of the body. Pain sense, normally acute on left side. *Moderate hypalgesia on back of thigh and calf of right leg*; no areas of complete anæsthesia. No paræsthesia in present state; no alloæsthesia. Muscle sense intact. Stereognostic sense not impaired. No suggestive speech disorder but he has a *lisp* which is scarcely noticeable.

Color fields: *Right*.—Above shows field for white. Blue almost central. Blindness for red. Red recognized as white each time. *Left*.—Above chart shows field for white. Field for red and blue almost central.

Hospital records.—I will describe but briefly his condition while in the hospital. For four days he remained in a dreamy state with periods of excitement, which condition was finally controlled by hypnosis. Upon admission his temperature was somewhat elevated, tongue coated, face flushed. This appeared to be due to the fact that he had not eaten for a week. During the excitement he was laughing and crying alternately, shouting that he was going to die, that he was dead, that he was the Lord Jesus Christ, and that he was the devil. This condition existed from the 16th of February until 28th. When he came to himself he spoke of being in a trance, recalled a few isolated occurrences, such as coming in the ambulance, the arrangement of the beds on the ward of the General Hospital, and he had a faint recollection of having seen the physician before. He related what he called a dream, as follows:

"I saw myself go up through the air, and then I was

going through water; then a pirate came along and gave me something to drink. I was going up like a star; the sun and the stars were shining, but darkness was all over the world. I thought every one was looking at me going up alive, and I seemed to be going through water and clouds and stars. Then the ambulance came after me. It seemed like I could see myself going. I could see myself in the center of a crowd; I had five people along, like five disciples, with me. Finally I heard the voice of the Lord say, 'Don't worry, I will pass you through all right. You need not worry.'"

His recollection of the whole period from the 16th of February to the 28th was as follows:

"I remember working on the 16th and leaving the office with the intention of going home. It strikes me that I had an attack of some kind on the street. I don't know what made me think that, whether it was a dream or imagination, but I got the idea somehow, and it seemed I was in a hospital, and I thought I was getting near the end of the world. It seemed to be in a little house at the end of a trolley line; they seemed to be pulling the overhead wires together, and it seemed as if the world was coming to an end, and everything was being squeezed into a small space. The house began to raise up, and all the world was coming together. I thought people were trying to reach me as I was up in the air. Then there was nothing but ice, and I could see large hills of ice, and I was in the air looking about. Two men who looked like villains were after me; seemed as if they wanted to kill me, but I was traveling through the air faster than they were. Then I saw a star; I thought it was the star of Bethlehem, and it seemed as if I could hear lightning strike. Then I went through the stars and saw the face of the Saviour. I had not quite gotten to the star when I was awakened, and I thought I was here in this ward. I went to sleep again, and when I awoke thought it was the Child's Hospital. It seemed as if the hospital was on the water, and that my father was going to murder my mother, and was trying to drag her into the water. I wanted all the people to go up to heaven with me, so I got them to sit with me on the bed, and the bed raised through the air."

He was questioned in detail as to happenings which had occurred, but he had only a faint recollection of the im-

portant happenings, and could not place anything in sequence. The most striking thing he remembered was being in an ambulance which brought him to this hospital.

After February 28th he remained clear. Under hypnosis he recalled many of his delirious experiences, but there were many discrepancies which I will not here attempt to analyze. It is interesting to compare the patient's version of the onset with the mother's statements.

He states that at the time he was bitten by the dog he was very much frightened and afraid that he was going to go mad, because it happened in dog days, and he had heard his mother and other people talking about dogs going mad in the fall. He had also seen two dogs shot that summer, and these things made quite an impression on him at the time. He doesn't recall any previous or similar fright, nor does he recall any emotional shock prior to that time. When he returned to school after having been treated at the hospital for dog bite, the boys teased him, and told him that he was going mad. Several times each day they made such remarks as, "Look out, he is going to bite you, he is going to go mad." In school, the day before the first convulsion, he missed ten words in spelling, which was something unusual for him; and the teacher told him that night that he would have to write each misspelled word one hundred times. This he claimed worried him.

March, 1910.—The patient has been discharged from the hospital for one year, and has been working and supporting himself and his wife. He has visited the writer at stated intervals, and only once during the past year has he had any trouble, which was a slight feeling of dizziness while standing on a ladder.

The supposition that the mother's viewpoint had been readjusted was rather dissipated by a newspaper clipping which was received from her, in which a similar case was described and designated as hydrophobia. The mother's comment was, "I told you there were such cases of hydrophobia." For the greater part of the past year the patient has not been in close contact with his mother, fortunately.

A PROPOS OF DR. MILLER'S CASE OF LYSSOPHOBIA

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THIS admirably reported case seems to me most demonstrative with regard to the ideas of Babinski on hysteria. In relation to the ideas of Freud, it seems to afford evidence of a negative character; although as will appear, its value in this respect may be unanswerably impugned on account of a failure to push the anamnetic analysis into infancy.

I. In the first place, the case illustrates the utter unreliability of the stories of relatives as to denial of occasions of suggestion. The mother insisted that prior to his accident, the boy knew nothing of rabies, and that the bite of the dog had caused no emotional perturbation nor apprehension of danger. Whereas Dr. Miller ascertained that in reality the fear of hydrophobia was already present at the time the boy was bitten, as he had already heard his mother and others discussing the danger of being bitten in the dog days, and had been much impressed by the shooting of two dogs that summer. It must be recollected that as a matter of fact there had been much discussion that year in the newspapers in the District of Columbia, about the imminent danger of an epidemic of rabies from stray dogs, and in consequence drastic police regulations had been formulated.

Thus was constituted a common first factor for producing a suggestion-psychosis,* i. e., the antecedent insemination of the ground work of a false belief. It is a significant fact that the first fit was not due to a direct suggestion, but was

*The word psychosis is here used in the physiological sense of a psychological syndrome, and not in the restricted artificial sense in which it is employed by psychiatrists to denote mental alienation, as against the eccentricities which they term neuroses. I use the latter term in the sense of a functional disturbance of lower neurones merely.

precipitated by the painfulness of a correction by his teacher.

II. On the occasion of the dog bite, the groundwork of that belief was built upon by the teasing of his companions; by his mother's anxiety as shown by her consulting books upon hydrophobia, by the fact that there had not occurred that "potent preventative," the killing of the biter; and finally upon the night of the fit, by what was tantamount to an explicit suggestion, i.e., his mother sitting by his bed for fear that something might happen. Afterwards, the induced nature of the psychosis was still further demonstrated, first, by the productibility of fits by the bringing of water; second, by the doctor's diagnosis of hydrophobia; third, by the character of the fits themselves, consisting as they did of crawling on all fours, growling and barking. An interesting sidelight upon the mother's rôle in the psychosis is shown by her arguing from the growth of the boy's hair (whether this was real or not), that he was acquiring an animal-like nature.

III. The further history shows the extreme suggestibility of the patient in the half-yearly periodicity of his attacks (responding to a popular belief), and their occasional arrest by holding him; the suggestion of the Menière's syndrome by an injudicious doctor; the production of various palsies, in all probability from the mother's suggestions after the reading of the medical books which she consulted daily during the boy's illness (she had even pricked him with a pin to search for anæsthesia). The examination of the saliva by the medical students and the mother's reply to a remark of which the facetiousness reminds one of Bob Sawyer rather than of the medical student of our days, are indications of the surroundings in which the patient's suggestions occurred, and in which suggestibility was too natural to cause astonishment.

It is unfortunate that the data do not permit of an explanation of the strabismus the patient's reports of the ophthalmological examination being most unsatisfactory, and Dr. Miller's report not mentioning whether heterophoria was present or not, nor whether the Flees box was used. The visual fields charted shortly after those given in the report showed a pattern considerably different from those

published, and my own observation, when the patient was shown before the Washington Society of Mental and Nervous Disease, made it certain that there was no marked restriction for the field for form as ascertained by the moving finger test. As this examination took place between the two occasions on which the restricted visual fields were plotted, the interpretation of these disparate observations I must leave to clinicians who are conversant with the precautions laid down by Babinski and Chaillous for the investigation of the visual field of hystericals.

IV. For a time the stuporous state of the boy made some of the asylum physicians believe that they had to do with a major psychosis, more especially as his emotional responses appeared to be enfeebled. In reality, however, it was the dominance of the fixed idea which caused the stupor, and the lack of emotional response was due to the centering of the boy's interests upon his illness and their abstraction from the events of ordinary life. So great was the concentration and the unhappiness caused by his state that substitutory mystical ideas were forming, as shown mainly in the boy's dreams. It is hard to say to what degree these were determined secondarily by want of food, sleep, and joy in his life. It is certain that a slight physical dyscrasia existed, as shown by the dermatographia, flushing of the face, fever, foul tongue, and unequal reflexes, though of course the last condition may be normal to this patient. Thus, the trance-like state was not purely psychogenetic. It might be formulated as an onirical delirium colored by a dominant fixed idea acquired by suggestion and accompanied by derivatives of the latter in the nature of defensive conversion phenomena of a consolatory kind. Amnesia by distraction is only to be expected in such conditions.

As time did not permit Dr. Miller either to push farther the analysis of the dreams nor to sound the depth of the amnesia it is profitless to discuss these factors of the case.

V. One fact, however, should not escape notice, and that is the degree in which the symptoms were at least fostered by either the rashness or the lack of precision and the evasiveness of the various physicians into whose hands the boy had fallen. Their unsatisfactory diagnoses, prognoses,

and treatment arose from ignorance of psycho-pathology and sometimes of clinical medicine, an ignorance so crass and so injurious to the patients who fall into their hands that it is high time for the reputation of the profession that it be put an end to.

Cases such as Dr. Miller's are sufficiently clear and simple to be understood even by doctors unaccustomed to psychological thought; but it is only by a tolerably full description that such cases are comprehensible to the uninitiated. Sketches do not suffice to give body to conceptions useful in practice. On the other hand, the prolixity and highly speculative inductions which emanate from researches after the method of Freud are hardly yet suitable except for use save by experts. But I must express my disagreement with those who contend that no one but a psychological expert is capable of comprehending any psychoneurotic disorder.

Dr. Miller's case shows quite clearly that restoration to health quite as effective as that possible by the most rigorous followers of Freud can be secured by means which are hardly more elaborate than those of a sound common-sense. It is true that neither method touches the springs of action, and attempts to re-educate the patient in other matters than the fixed idea at the root of the symptomatic outbreak. Into this deeper therapeusis, however, I do not propose here to enter; nor do I propose in this place to discuss the intimate psychological nature of suggestion;* but accepting the word as representing a definable and analyzable psychological process, I wish to conclude by reaffirming in the light of this case the practical therapeutic utility of the

*See Author, "The Differences Between Suggestion and Persuasion," *Alienist and Neurologist*, 1909.

The views illustrated by this case are fully discussed in author's article in *International Clinics*, autumn, 1908, and in *Boston Med. Jour.*, March 25, 1909, and also in *N. O. Med. Jour.*, and *Montreal Med. Jour.*, May, 1909. See also forthcoming communication to British Medical Association and his article upon Traumatic Neurosis communicated to Second International Congress upon Industrial Accidents at Rome, May, 1909, published in *Medical Record*, Oct., 1909. See also forthcoming discussion in JOURNAL OF ABNORMAL PSYCHOLOGY upon the mechanism of genesis of Traumatic Neurosis.

formula of Babinski that "a hysterical symptom is one capable of production by suggestion, and susceptible of removal by suggestion-persuasion."

To sum up, the case seems to show first, that the efficient and immediate cause of an undoubted hysteria was a series of suggestions distinctly traceable by judicious anamnesis to recent causes; second, that the effects of these causes were removable by rational persuasion; and thirdly, that it is not reasonable to suppose that if the lyssophobia were a mere epiphenomenon made possible by other submerged complexes, that these latter would have permitted the boy's rapid restoration to apparent psychic health without the least remedying of these; so that there seems no need to invoke in the causation of the symptoms any other psychical traumata, infantile or sexual. To the obvious objection that in such hypothetical traumata might be found the predisposing cause of the lyssophobic attack I can only reply by declaring the onus of proof to lie upon those who advance this view; for the criteria both of psychologic rationality and of therapeutics are not wanting in support of a view of the case in which only the lovers of the recondite for its own sake will confound simplicity with superficiality.

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ABSTRACTS

THE OEDIPUS-COMPLEX AS AN EXPLANATION OF HAMLET'S MYSTERY: A STUDY IN MOTIVE. By Ernest Jones, M.D., of Toronto, Canada. *Am. Jour. of Psychology*, January, 1910.

THIS admirable essay well illustrates the value and nature of the contribution with which the methods and doctrines of Sigmund Freud have enriched our analysis of human motives.

For those who have faithfully used these methods and have learned through them to discover and designate and define the origin of traits and tendencies that organize themselves in the minds of men without the aid of conscious purpose and often under the ban of social rules, new insights open into the obscure places of character and conduct. But though these insights in a clearly definable form may be new to science, the very fact that they are true makes it possible for men of genius to divine them and to describe the situations to which they relate in terms that are acceptable to every one.

The power that myths and legends have to engage our interest so strongly even when the events that they describe seem so remote from those of our own lives, lies in the fact that the traits and motives which they imply are our own traits and motives painted in bold outlines. But though we feel these likenesses we shrink from admitting them explicitly, and the reason for this is that there are certain main-springs of our characters that we are as yet unused to classifying under the categories where they really belong. We are but dimly aware or wholly unaware, as adults, of many of the formative tendencies that marked our infancy and childhood. And yet it is in this remote, period, thrilling with fanciful and often forbidden excitements, joys, and fears, that many strong traits are shaped which silently develop and gain great power over our lives. High up among these influences of early childhood is often a strong, a passionate affection toward one or the other of our parents, our first companions, our first deified models, the first and most natural objects on which our unrestrained and new emotions can readily expend themselves. This early and passionate love may fade later into a wholesome and natural affection or may pass, as an outcome of its very intensity, into an emotion of shrinking and dislike. Then no one remembers that it was ever present in its own form, or that it was accompanied with an intense sense of rivalry or childish hate toward those who seemed to interfere with its development. When it remains, however, and grows stronger instead of being repressed, the time may come when it has to be classified, psychologically, at least as incest, and this danger explains in part its early modification and repression.

Here lies in brief the explanation of the mystery of Hamlet; and let those who incline to regard it as far fetched pause to consider that this legend is only one of a considerable number that are of similar import and to compare with it the other inadequate accounts of Hamlet's character that have been offered hitherto.

It is agreed by some of the most recent critics that the difficulty in the way of Hamlet's consummation of his purpose lay in an internal resistance, not an external obstacle. This explanation indicates as the real nature of this resistance, that, without putting his sentiments into words, he found himself restrained from slaying his uncle because he himself had sipped, emotionally, of the same cup with him; had felt the strain of passion towards his mother, and of rivalry towards her husband — his childish rival. Doubtless, the fact that he was a man refined and educated above his times may have played its part in strengthening the intensity of this inward conflict. But for us as psychopathologists the main fact is probably as here stated.

Dr. Jones's essay develops this proposition at full length and reinforces it with arguments indicating a remarkably thorough study of all aspects of the subject. But it does also more than this. It develops as well the various psychological problems here involved, and thus helps materially towards a better comprehension of the whole trend of these investigations.

J. J. PUTNAM.

REMARKS ON THE PSYCHOLOGY OF OBSESSIONS AND OF MARRIAGE BETWEEN RELATIVES. (BEMERKUNGEN ZUR PSYCHOLOGIE DER ZWANGSVORSTELLUNGEN UND VERWANDTENEHE.) By Otto Juliusburger. *Zentrabl. f. Nervenheilk. u. Psychiatr. Jahrg. xxxii. N^o. 298, S. 830.*

THIS article contains some valuable thoughts, particularly on the subject of obsessions, developed in the light of the following interesting case. Juliusburger had previously described the case in 1901, when the patient was principally suffering from attacks of intense depression and a number of obsessions. He had the idea that he had committed some fault in his work for which he would be prosecuted or dismissed; this so distressed him that he had to give up his work. He could not tolerate the presence of his family, and especially the glances of his two children, in which he read unspoken reproaches. In the presence of a certain lady he became sexually excited, and after leaving her conceived the idea that on

shaking hands with her he might have conveyed to her some semen which might reach her uterus and bring about impregnation. For many months he suffered severely from the dread and self-reproach that accompanied this idea, and later occasions of meeting the lady were followed by an acute revival of the symptoms. Other more transitory obsessions need not here be related. He was several times under treatment, but obtained only temporary relief.

Very similar symptoms were present eight years later, and in addition the patient had developed an unreasonable jealousy about his wife. It is evident in such a case that to explain the symptoms by the use of such terms as "psychopathic constitution" explains nothing, and that in a psychological analysis of the origin of them lies the only hope of clarification. The author shows in detail that all the apparently absurd and disconnected symptoms arose from a common basis, and that their bizarreness and incongruity were the results of distortion of groups of ideas in themselves perfectly logical.

The lady in question, to whom the patient's obsessions first referred, was his brother's widow. He fell passionately in love with her, and remained so; she responded, and intimate relations developed between the two. On account of the difference in their ages she refused to marry him, and he thereupon became engaged to her daughter, i.e., his own niece, who closely resembled her mother in both appearance and temperament. The sister-in-law first objected to the marriage, which would make her her lover's mother-in-law, but finally consented; even during the engagement the guilty couple maintained their previous relations. The marriage meant to the patient that he would remain in close connection with his former mistress, and also offered to him an adequate substitute for her in the form of her daughter, his wife. It proved, however, to be only an imperfect success in this respect, and his attachment to his sister-in-law continued, now provoking a deep mental conflict. Remorse, shame, dread raged in his heart, and could be only partially suppressed.

We now see that in the light of this knowledge the symptoms began to show more meaning. The patient's dread that he might impregnate the lady was a fully justified one, for it was well in the bounds of possibility, though the actual *modus operandi* he feared, which was a distortion of the real cause of danger, sounded absurd. His resentment of and ill-temper towards his wife sprang from a buried dissatisfaction with his marriage; it is noteworthy that during the

obsessional accesses he over-compensated this dissatisfaction by being unusually kind and tender to her. The sight of his children was further a standing reproach to him, which he could not endure. His secret desire to be disloyal to his wife, and to renew the old relations with her mother, expressed itself, among other ways, by his jealousy of her. "Shared pain is half pain — shared guilt is half guilt." The patient unconsciously projected on to his wife his own thoughts, and ascribed to her his own guilty wishes; this is the commonest mechanism of unreasonable jealousy.

The author then expounds, along the lines laid down by Wernicke, Abraham, Gross, and especially by Freud, a number of theoretic aspects of psychical dissociation, transposition of psychical energy, etc., together with a differential analysis of fixed ideas (*Überwertigen Ideen*), obsessions, and autochthonous ideas. These three processes represent different grades of disaggregation, of separation between the intellectual and affective components of a complex (intra-psychical ataxy of Stransky, Disthymia of Juliusburger). The article deserves careful reading in the original.

ERNEST JONES

CONTRIBUTION TO THE PSYCHOPATHOLOGY OF HYSTERICAL TWILIGHT STATES AND AUTOMATISMS. (BEITRAG ZUR PSYCHOPATHOLOGIE DER HYSTERISCHEN DÄMMERZUSTÄNDE UND AUTOMATISMEN.) By B. Schwarzwald. *Journal of Psychol. u. Neur.* Dez., 1909. Bd. xv. Heft 3. S. 89.

SCHWARZWALD here reports an interesting case from the Lausanne psychiatric clinic. He begins with the remark that "the Freudian theory of the neuroses have made possible for us a deep insight into the genesis of the psycho-neuroses, and so given the key to the interpretation of numerous, hitherto inexplicable symptoms," and adds that the mechanism of hysterical twilight states and automatisms is a question that has perhaps been least considered in the light of this theory.

The patient was a man of the peasant class, aged thirty-six, who came under medico legal observation as a result of his setting fire to his own house. For some little time before this he had been under treatment for various nervous symptoms, such as apparently causeless attacks of excitement, refusal to take food unless his wife first tasted it, absent-mindedness, aggressive actions towards his wife (attempting to throttle her), and occasional attacks of general

stiffness followed by sudden outbursts of sweating and diarrhoea. The arson was carried out in an obviously automatic state, at the time everything "seemed black," and as soon as he had done it he threw himself on the bed and lost consciousness. There was no subsequent amnesia, but he could give no explanation for his deed.

Schwarzwald discusses the reason that led him to make the diagnosis of hysteria, and then gives a short account of some analytic observations, mostly made when the patient was in a state of hypnosis. The patient had at the age of twenty-eight married a widow ten years older than himself; the house, furniture, etc., belonged to her. As the years went by little misunderstandings arose between the couple, gradually getting worse, and she kept throwing up at him the fact that she was the mistress and owner of the house; when she died her possessions would return to her family and he would have to go back to farm work. At first the patient denied any idea of jealousy on either side, but gradually the story came out that the wife had made warm friends of two girls, had repeatedly invited them to the house, and had lately got so jealous about her husband that she had ordered him abruptly to break off relations with them, a proceeding that made him very foolish and contemptible in their eyes. He had then got suspicious of his wife's friendship to another man, one of his school friends, and had half thought that she might have thrown the girls in his way so as to provoke a cause for divorce, and so join the other man. His protestations of the innocence of his relations with the girls gradually weakened, and he ultimately admitted that various intimacies had passed between him and the younger of these (Aline). He had fought hard, and on the whole successfully against the temptation, had suffered very greatly from remorse at having even thought of disloyalty to his wife, and had gradually repressed the sexual cravings. At this time various symptoms had broken out, evidently an anxiety neurosis, the result of a divorce between physical excitation and psychical repression.

Ideas of jealousy about his wife and of being poisoned by her unconsciously developed, being, as the author well explains, the result of projection of the patient's own thoughts and wishes on to another person (his wife). The attacks, first on his wife's person, and then on her possessions, were produced by irruptions from his own repressed and unconscious wishes. An interesting side-point was that the patient himself attributed his illness to having got violently excited over a scene in which he refused to support a given election candidate. The reason for his refusal he could not give, but in hypnosis it was found to be the fact that the candidate in question had betrayed his wife, and so was unworthy of support for a public

office. This well shows that a statement made by a patient, e.g., as to the cause of his illness, may not be so accidental and foolish as it appears on the surface, though the true significance of it may be quite unknown to him, being repressed into the unconscious.

A few days before the arson the patient had dreamt the following dream, which he related to his wife: "Seven children left home after the death of their parents. The six eldest decided to get rid of the youngest, Wilhelm, and, after making a fire, left him in the night. He found his way to a house where he was hospitably received. On his way he heard a noise in the bushes, and, fearing a wild beast, threw himself in terror to the ground, face downward. It was only his favourite dog, whom the others had locked up at home, and who came and licked his hands. After some years the brothers returned poor, and were magnanimously forgiven by the youngest."

The dream is an evident parody on the well-known fairy tale, "Le Petit Poucet," with the following three differences. In this the parents are not dead, and it is they who on account of hunger leave the children in the forest. The relations between the children are amiable, and it is the youngest who saves the others. Wilhelm is the name not of the youngest child, but of the father. The patient had suffered much as a child from witnessing domestic scenes about the question of money circumstances, and had consoled himself with day dreams in which he played the part of Le Petit Poucet in earning wealth and saving his family. He read the tale later, at the age of sixteen, but it awoke such painful memories that he was very distressed and gave away the book.

Analysis of the dream brought out the following. The young boy Wilhelm bore the features of his wife's niece, Benjamine, who closely resembled his wife. The six brothers each bore one of his own features, one his eyes, another his nose, and so on: they were a "decomposed" portrait of himself, as so often occurs in dreams and in mythology. (See *American Journal of Psychology*, 1910, p. 105.) The wish of the dream was that the patient (the six brothers) could leave his wife (Wilhelm-Benjamine), seek happiness for some years in the world (with Aline), later return to where she had been hospitably cared for, and be forgiven by her. The dog stood for his faithful school friend, who only licked Wilhelm (his wife), as she lay face downward (in an asexual position), and did not attack her. In compensation for identifying his wife with a much younger person (Benjamine and Wilhelm) the youngest brother was given the name that in the original tale belongs to the father.

Scharzwald discusses the significance of the fire episode in the dream, and believes it was a prophecy of the later incendiarism in the

sense that, as Freud has pointed out, dream wishes are sometimes realized in later deeds. The dream and the rest of the case are here greatly abbreviated; the article is well worth reading in the original.

ENERST JONES.

A STUDY OF GALVANOMETRIC DEFLECTIONS DUE TO PSYCHO-PHYSIOLOGICAL PROCESSES. By Boris Sidis, Ph.D., M.D., and H. T. Kalmus, Ph.D., *Psych. Rev.*, November, 1908, December, 1909.

IN our study of galvanometric deflections due to psychophysiological processes we used the following arrangements: In a series with a battery we put a sensitive galvanometer and two electrodes across which the subject placed himself, thus closing the circuit. The battery was a single cell, giving a constant electromotive force of about one volt. The galvanometer was of the suspended coil, D'Arsonval type. The deflections were read by means of a beam of light deflected from a mirror to a telescope with a scale. A deflection of one centimeter on the scale corresponded to less than 10^{-9} amperes, through the instrument. When the sensitiveness was too great for our experiments a resistance was shunted around the galvanometer. The electrodes were glass vessels of about four liters capacity, nearly filled with a strong electrolyte, such as a concentrated solution of NaCl. Into these vessels copper electrodes of about five hundred centimeters area were placed. The circuit was completed by placing the hands, feet, etc., one into each electrode solution.

The possible sources of error at this point are twofold: (1) Due to the variation of the liquid level at the wrist, and (2) due to movements of the hand as a whole. To overcome these difficulties the following device was used: The wrist was covered with shellac for a length of several inches, so that the free liquid surface of the electrode was always in contact with shellac. The shellac was covered by a layer of paraffin. The hand was put in splints in such a manner that only a small fraction of the skin was covered and no appreciable muscular contraction of the phalanges could take place. If now a stimulus was given, a stimulus that aroused an emotion, a marked galvanometric deflection was observed.

As the result of a large series of experiments performed on more than half a dozen subjects we arrived at the conclusion that *pure, ideational processes, such as thinking, calculation, solving problems,*

representing pleasant or painful experiences have no effect, while sudden violent emotions and intense sensory stimulations of a painful and disagreeable character, such as burns, pricks, electric shocks, and fetid smells are followed by marked galvanometric deflections.

We find in our experiments that muscular activity of those parts of the body actually forming the circuit bring about galvanometric deflections, while activity of the more remote parts of the body are ineffective.

The absolute magnitude of the deflection varies according to the varying condition of the experiment. Different experiments performed with different concentration of electrode-solutions gave different deflections, in fact, the direction and magnitude were varied at will in this way. Also substituting lead electrodes for copper electrodes changed the deflections largely. *Different parts of the skin gave different original deflections.* However, superimposed upon this original steady deflection is a deflection due to various given stimulations, and to the induction of psychophysiological processes of an affective and emotional character.

The shellac and paraffin with which we covered the subject's wrists, as well as the splints put on the hands and forearms, made the skin area washed by the liquid electrodes constant. The galvanometric deflections observed under conditions of stimulation could not therefore be referred to variations in skin contact. If resistance be the factor, then the observed galvanometric deflections may be either due to changes of resistance of the constant area of the skin, or of the body through which the current passes. Skin resistance was eliminated by the following procedure: Hypodermic electrodes were inserted well under the skin until blood flowed. After a few minutes the deflection with the needle electrodes did not differ from those without the needle electrodes. This clearly eliminates the factor of skin resistance.

That the skin has nothing to do with the phenomena under investigation can be proved by the following procedure: The skin was covered with shellac and paraffin, leaving only the finger nails exposed. Under such conditions definite galvanometric deflections were obtained, deflections induced by emotional states and physiological activities.

Having excluded skin effects in general and skin resistance in particular, we may consider next the resistance of the body as a possible factor of the so-called galvanic phenomenon. Since electrical

resistance of a body depends on temperature and concentration of body fluids, we have to consider the two factors. Now electrolytes have a positive temperature-coefficient of about two percent per degree. Our experiments with hot and cold applications gave but slight variations insufficient to account for the galvanometric deflections observed under the influence of emotional states. The variations due to raising the temperature did not differ from those due to lowering the temperature. Furthermore, after a minute or two of continuous cooling or heating of the arms the galvanometric reading was the same as that before the temperature-change. The cold and hot application act, therefore, as do other sensory stimulations. The temperature factor cannot be a cause of the galvanic phenomenon.

That changes in the concentration of the body fluids or changes of circulation have no effect can be proven by the following simple procedure: The circulation was effectually cut off by Esmarch bandages. The pulse was gone and the hand assumed a cadaverous hue, still the same galvanometric deflections were easily obtained under the same psychophysiological conditions.

Our experiments go to prove that the causation of the galvanic phenomenon cannot be referred to skin resistance, nor can it be referred to variations of temperature, nor to circulatory changes with possible changes in the concentration of the body fluids. *Since as we have pointed out the electrical resistance of a given body depends on two factors — temperature and concentration — the elimination of both factors excludes body resistance as the cause of galvanic phenomenon. Resistance being excluded the galvanometric deflections can only be due to variations in the electromotive forces of the body.*

The heart beat should be taken into consideration as one of the possible causes of galvanometric deflections, due to psycho-physiological processes. Experimenting with the capillary electrometer, Waller came to the conclusion that "a marked electrical variation is manifested at each pulsation of the heart." We repeated Waller's experiments, but we could not confirm his results with our galvanometer. We found, however, that a reversal of the position of the hands — putting the right in place of the left hand — made a difference in the magnitude of the deflection and occasionally in its direction. We find here an additional proof that we deal in the galvanic phenomenon, not with variations of resistance, but with electromotive forces. Our experiments prove that a stimulus causes a deflection superimposed upon the original deflection which is not always in

the same direction. *The superimposed deflections, due to stimulations, change in direction with the reversal of the hands. We deal, therefore, here with a factor that has direction. Since the factor of resistance has no direction and the only factor that has direction is electromotive force, we come to the conclusion that the galvanic phenomenon is not of the nature of a resistance, but is essentially of the nature of an electromotive force. Our experiments thus clearly show that active physiological processes, sensory, and emotional processes, with the exception of purely ideational ones, initiated in a living organism, bring about electromotive forces with consequent galvanometric deflections.*

AUTHOR'S ABSTRACT.

EXPERIMENTAL STUDIES IN THE INNERVATION OF THE SKIN*
Journal of Physiology. Vol. 38; Nos. 2 and 3. 1909. Wilfred Trotter and H. Morriston Davies.

THIS paper is divided into four parts.

PART I. *Methods of experimentation.*—(Material and technique of observation.) It was obvious that in undertaking investigations based on the experimental division of sensory nerves in the human subject much of the earlier part of the time and material would have to be devoted to the discovery and selection of suitable methods and also to the training of the observer in the recognition and interpretation of sensations, many of which would be new to him. It was recognised further that with the experience gained much of the earlier work would have to be revised, and that no conclusions could be based on the results yielded by the division of a single nerve. It was felt that the great disadvantage of Head's work lay in the fact that the observations were made on only one nerve area and in only one subject, and that regeneration must have begun before all the desired work could be accomplished on the uninnervated skin. Moreover, it was quite impossible to be sure what the earliest phenomena of this change would be, and it was felt that they might easily pass unobserved if the research were limited to the division of a single nerve.

For these reasons the authors divided a series of nerves in each other so that each observer should have the advantage of experiencing the difficulties that the subject in such an experiment has to contend with, and should have the experience with more than one nerve.

EDITOR'S NOTE.—As no full account of this important work has appeared in the American literature, we have asked the authors, who kindly acceded to our request, to furnish a personal abstract of it.

The following nerves were divided: The internal saphenous; the great auricular; three branches of the internal cutaneous of the forearm; a branch of the middle cutaneous of the thigh in one subject, and the similar branch in the thigh of the other subject. The exact position of the nerve was ascertained beforehand by the application of a faradic current through a finely pointed electrode, which when placed exactly over the nerve produced a characteristic fluttering sensation in the periphery of the area of distribution of that nerve. About a quarter of an inch of the nerve was resected in each case and the ends sutured together. Eucaïne and adrenalin were used to anæsthetise the parts.

One of the great difficulties in testing the sensibility of an area is that the subject has to deal with the recognition of forms of stimuli to which he is unaccustomed, so that as might be supposed even the delicate hair æsthesiometer of von Frey is incapable of revealing the finest shades of sensibility. The authors, however, found that by the use of "stroking touches,"* applied by either the experimenter, or the subject himself, and utilising for comparison the sensations similarly obtained from obviously normal skin an area, the sensibility of which was obviously affected, and the size of which was considerably greater than that obtained by any other method, could be outlined.

Sensibility to touch was tested by three methods. Qualitatively by the "stroking touch,"* and quantitatively by cotton wool or the camel's hair brush — minimal pressure methods; and by von Frey's æsthesiometer, graduated pressure method.

For the determination of sensibility to pain an algometer was devised in which the strength of the stimulus could be regulated by the resistance to bending of a von Frey hair.

Solid copper cylinders terminating in a short process one millimeter in diameter were used for investigating change in thermo-sensibility. While with experience it was found to be quite easy to distinguish cold from cool, hot from warm, and cool from "indifference," it was quite impossible to recognise constantly between warm and "indifference"; further sensations introspectively indistinguishable from true warmth were frequently experienced by the subject when spots far within the true thermo-anæsthesia line were being tested; so that the outer limit of a thermo-anæsthetic zone could be ascertained only by testing it with cold. Discrimination tests were found to be of little use except in distinguishing between true and "hallucinatory" warmth, and as an aid in determining thermo-anæsthesia.

*An account of this method was published in the *Review of Neurology and Psychiatry*, 1908.

PART 2. *Results of Nerve Section.*—Subdivided into sensory and motor. If the part be examined by the stroking touch method after division of a nerve an area of considerable numbness can be outlined which corresponds very closely with the camel's hair outline. This is surrounded by a larger marginal zone, and touches on this give rise to abnormal tactile sensations having the characters of undue smoothness or sharpness and absence of any tickle.

Now all sensations are distributed in small spots, and those of touch are intimately connected with the hair follicles. The most satisfactory method of quantitatively examining the area is by von Frey's *æsthesiometer*. It is then found that in the outer part of the marginal zone no change is discoverable—area of minimal hypo-*æsthesia*; in the centre again no sensation of touch can be elicited—area of maximal hypo-*æsthesia*, but concentrated about the outline of camel's hair an-*æsthesia* is the transitional area in which, when travelling towards the centre, rapidly increasing strengths of von Frey hairs are needed to elicit the sensation touch.

Touch can be distinguished from pressure in that the sensation touch consists of a light superficial pat whether it needs a hair of strength seventy milligrams or three thousand milligrams to produce it; it occurs only at the moments of making or breaking the contact, is momentary and elusive, and follows close on the stimulus.

With temperature and pain the resulting losses were much the same in character and area, i.e., a central an-*æsthesia* separated from the normal by a hypo-*æsthesia*.

One very interesting phenomenon was noticed. On about the tenth to twelfth day, after section hyperalgesia appeared in the upper parts of the an-*æsthetic* areas, and lasted for some three to four weeks. This hyperalgesia was specially marked in the region of the larger veins and was elicited more readily by a very light touch, heavy pressure producing no pain whatever. The authors suggest that this is due to a phlebitis set up by the products of nerve degeneration.

Weber's test. No specific loss of the capacity to discriminate two points was found; that is to say that whenever the compass could be felt some power of appreciating the distinctness of the two contacts remained.

A central area of paralysis surrounded by a zone of paresis was seen also in connection with the vaso-motor, pilo-motor, and sudo-motor phenomena. Whilst the pilo-motor and sudo-motor recovered approximately in conjunction with the sensory functions, the vaso-motor change had disappeared in three weeks. The pilo-motor reaction was, however, never lost for local stimulation or the injection of adrenalin.

PART 3. *Phenomena of recovery.*— Recovery begins some ten to fourteen weeks after section and reunion, at the proximal end of the area, and extends along the line of the nerve, in the form of a wedge, to the periphery. The first indication of the return of sensibility is the appearance of *peripheral reference*. If at this stage the proximal part of the anæsthesia is touched a clear trickling sensation will be experienced at the periphery. As recovery proceeds it will be found that touch sensations are felt at the spot stimulated, at the periphery or in both localities. Peripheral reference is obtained also with cold and pain. The point of reference is at that extreme part of the area where the fluttering sensation was felt when the undivided nerve was electrically stimulated. The spot can be accurately named, but on attempting to indicate it with the finger the localisation seems to vanish. Further repetition of the stimulus produces a desire to rub, not the part stimulated but the spot to which the stimulus is referred.

Both the local and peripheral sensation of cold in a regenerating area are of great intensity, amounting, when a large area is stimulated, to pain, even with a temperature as high as twenty degrees C. The local and referred sensations of pain are also intense, peculiarly unpleasant, and produce an intense desire to rub the part where the sensation is felt. The referred sensations of cold and pain are both abnormally persistent.

During the later stages of regeneration proximal reference obtains; whilst in the great auricular area a condition which could be called diametric reference was present.

Heat itself is never referred as heat, only as pain and the reappearance of the sensation hot is much later than of the other three.

Regeneration of touch is also quantitatively progressive.

PART 4. *General Considerations.*

(a) *The relation of the work of the authors with that of Head.**
There is considerable resemblance between the observations on the results of nerve sections made by the authors and those of Head; but the authors failed to find corroborative evidence for the hypothesis of Head that the skin is supplied by two systems of

*This criticism deals only with the first two papers written by Head.
a. Head, Henry, in conjunction with Rivers, W. H. R. and Sherren, J. Brain 28. 1905. b. Head, H. and Sherren, J. Brain 28. 1905.

The article on "A Human Experiment in Nerve Division," by W. H. R. Rivers and Henry Head was published in December, 1908, in Brain, while the author's paper was in the press. In this last article of Head's there are considerable differences in the presentation of the hypothesis of the epicritic and protopathic system of fibres.

nerve fibres (protopathic and epicritic). According to this hypothesis there is between the central zone of analgesia (the zone of total anæsthesia), and the outer border of cotton wool anæsthesia an intermediate area over which there is a perception of a pain of a peculiar unpleasantness and of thermal stimuli of extreme degrees. Now while the cotton wool or camel's hair outline of anæsthesia does denote a very fairly abrupt increase in the intensity of the hypoæsthesia, yet when it is realised that touch is a specific sensation and can be accurately distinguished from pressure, graduated stimuli with von Frey hairs can be substituted for the minimal pressure methods (cotton wool, etc.), and it is then revealed that the true anæsthetic boundary corresponds extremely closely to that of analgesia. In a similar way a graduated improvement in the sensibility to touch will be found when traveling outwards from the outline of camel's hair anæsthesia. That is to say, there is no true intermediate area sensitive to pain and not to touch.

Of sensibility to temperature Head says that the intermediate zone is sensitive to extremes of temperature. With this the authors agree unless it be meant that the sensibility to these is of normal acuteness. In the intermediate zone there is, outside the area of thermal anæsthesia, an area of thermal hypoæsthesia in which the extreme degrees of temperature are recognised not as hot and cold, but as warm and cool. Now if an area has its sensibility to temperature sensations reduced in this way there must be a corresponding increase in the range through which temperatures are felt as indifferent (normal skin temperatures just above or below the temperature of the skin are felt as indifferent); this is shown schematically in the subjoined table and illustrates the condition of thermal sensibility in the intermediate area.

Series of sensations obtainable from normal skin		Series of sensations obtainable from hypoæsthetic skin		Approximate thermometric relations	
<i>Position in series</i>	<i>Sensation</i>	<i>Sensation</i>	<i>Position in series</i>		
Supermaximal	Pain	Pain	Supermaximal	140°F.	60°C.
Maximal	Hot	Warm	Maximal	120°F.	50°C.
	Warm	Indif. warm	Minimal	100°F.	38°C.
Minimal	Indif. warm	Indifferent	Intermediate	95°F.	35°C.
Intermediate			anæsthesia		
	anæsthesia Indifferent	Indifferent	" "	90°F.	32°C.
" "	Indifferent	Indifferent	" "	85°F.	30°C.
Minimal	Indiff' cool	Indifferent	" "	80°F.	27°C.
	Cool	Indif. cool	Minimal	70°F.	21°C.
Maximal	Cold	Cool	Maximal	60°F.	15°C.

It is in connection with sensibility to pain, however, that the author's observations and those of Head are most at variance. According to the latter hyperalgesia is present in the intermediate zone from directly after nerve section, and when regeneration occurs this hyperalgesia extends throughout the formerly analgesic zone. The author's, on the other hand, found that after the pain associated with the operation had passed away there was no hyperalgesia till the tenth or twelfth day, that then patches of hyperalgesia occurred along the nerve trunks *in the upper part of the central and otherwise analgesic and anæsthetic area*, that this gradually subsided during the next four to six weeks, and that from that time until the commencement of regeneration there was *no hyperalgesia anywhere in the area of distribution of the divided nerve*. With, however, the onset of regeneration sensibility to pain returned gradually throughout the area and the pain was during this time, and until the completion of recovery, of a peculiarly unpleasant character and associated with the reference phenomenon. Further, the return of sensibility to pain occurred *pari passu with the return of sensibility to cold and to touch*, in a hypæsthetic form, of course. That is to say, as regards the sensibility to pain and touch there was no evidence of a regeneration first of a system of "protopathic" fibres and later when that was complete of a system of "epicritic" fibres. Further, in conjunction with the return of power to appreciate touch there was power of discrimination of two points. With Head the power of discriminating the two points of a compass was the last to return.

According to Head's hypothesis dissociation of sensation, when present, should take one of two forms. Either the loss of those sensations subserved by the epicritic fibres (light touch, intermediate temperatures, etc.), or of those subserved by the protopathic fibres (pain and extremes of temperature). Now after division of two branches of the internal cutaneous of the forearm the authors found there were three islets of skin the sensibility to touch of which was of almost normal intensity; they were, however, completely insensible to both the extremes and means of temperature and to pain.

(b.) *On the peripheral mechanisms of sensation.*— This section deals with certain hypotheses tentatively put forward by the authors. Any attempt at abbreviation would render them dogmatic.

(c.) *On the constitution and distribution of the cutaneous nerves.*— Each cutaneous nerve divided contained fibres connected with seven different functions, four being concerned with afferent impulses — touch, cold, heat, pain, and three with efferent impulses — vaso-motor, sudo-motor, pilo-motor. Of six of these it was made out definitely that there was a central area of complete loss surrounded by a

zone of incomplete loss. The vaso-motor changes although apparently of the same nature were too transient and too difficult to be observed with certainty to be included categorically. The objective evidence of the central complete and surrounding partial loss of pilo-motor and sudo-motor functions confirms in a most striking manner the view, which of necessity has to a great extent to be based on subjective evidence, that the other functions are similarly distributed.

By quantitative methods, passing outwards from the center of an anæsthetic zone where the sensation of touch cannot be appreciated, there is a gradual increase in the sensibility of the part to this form of stimulation, until the threshold of the sensibility to touch is the same as that of normal skin, but outside this again there is a further zone where quantitative changes are definitely present. The existence of this graduated hypæsthesia indicates overlapping of nerve distribution.

(d.) *On the sensory peculiarities of recovering areas.*— In this section certain hypotheses are discussed relative to the intensity of regenerating cold; the apparent delay in the regeneration of sensibility to heat, and the phenomenon of peripheral reference.

AUTHOR'S ABSTRACT

PSYCHO-NEUROTIC SEQUELAE IN THE SURVIVORS OF THE COURRIERES CATASTROPHE (UBER PSYCHO-NEUROPATHISCHE FOLGE ZUSTANDE BEI DEN UBERCEBENDEN DER KATASTROPHE VON COURRIERES AM 10, März, 1906.) Stierlin. *Monatsschr. f. Psychiatr. u. Neur.* Bd. xxv, Ergänzungsheft, S. 185.

FOLLOWING on the numerous articles in the Italian journals on the psychical sequelae of the Messina earthquake comes this study of extraordinary interest by Stierlin. It is a contribution of capital importance to the question of the relation of trauma to the psycho-neuroses. In an article one hundred and thirty-eight pages long the author carefully describes twenty-one cases that were observed from the day of their rescue for a period of two and a half years. In formulating his conclusions he is aided by having made on the spot similar studies immediately after the catastrophies of Messina and Valparaiso, and he relates in addition his experiences of these. The psychical trauma, after the Courrières catastrophe, was complicated by the presence of physical factors, such as coal gas poisoning, starvation, etc. In fact, one of the most valuable parts of the article is an excellent description of the carbon monoxide psychosis. It is

impossible here to resume such a mass of original observations, and most of the conclusions are mingled in such a detailed way with the case descriptions as to make it difficult to extract them. The article should certainly be read in the original by all those interested in the subject. Of the twenty-one cases only three showed signs of hysteria, the two signs being reduction of the visual field and an increased pulse rate. After Messina the most striking and uniformly made observation was the remarkable rarity of hysteria. Bianchi, the well-known psychiatrist, saw not a single case among the five hundred patients under his care. Stierlin saw two cases, both in old hysterics. The next most remarkable fact was the rarity of depression and of psychical symptoms in general amongst most of the Messina survivors; resignation was the characteristic feature present. Exceptional was the occurrence of a group of symptoms (expectation anxiety, palpitation, insomnia, etc.), which Stierlin correctly places under Freud's Angst-neurosis. He concludes by quoting with approval Babinski's statement that "l'émotion, même la plus vive, ne crée pas l'hystérie."

ERNEST JONES

PSYCHO-ANALYSIS IN A CASE OF MELANCHOLIC DEPRESSION. (PSYCHANALYSE BEI EINER MELANCHOLISCHEN DEPRESSION). By A. Maeder. *Zentralbl. f. Nervenheilk. u. Psychiatr. Jahrg. xxxiii.* Nr. 302, S. 50.

THIS is an interesting, though brief, psycho-analysis of a case of manic-depressive insanity, the second one in this malady to be published.* The patient, a farmer, aged forty-two, came to the polyclinic with the following complaints: For about a year he had been very depressed, he complained the whole day about his loss of strength and energy, his whole body felt limp, he could no longer carry on his business or care for his children, and he feared that he was becoming insane. His appetite was capricious, his sleep broken. He had recently sold his farm, but shortly afterwards bought it back at a slight loss (\$160). He continually worried over this loss, although he knew it was quite negligible in comparison with his means, and thought that the neighbours despised him for having made

*See "Psycho-analytic Notes on a Case of Hypomania." *Amer. Jour. of Insanity.* October, 1909.

such a fool of himself. During the relation of this the whole bearing and appearance of the patient clearly expressed his mental depression, as did the frequent sighs he uttered. He said that he was quite happy and contented in his married life, and was quite unable to give any cause for his condition.

Association tests revealed mainly three groups of "complexes." The first two related to his present anxiety about his health and to the money affair, about both of which he had previously spoken. The first one he had not only concealed, but had misled the physician about; it was to be expected, therefore, that this complex had a greater pathogenic significance than the others. It referred to his wife, and was brought out by the test words, "finger-ring," "cook," and "stupid." Investigation of this disclosed the fact that he was very discontented with his wife, on account of her stupidity, lack of interest in sexual matters, want of energy and initiative, etc. For a number of years conjugal relations between them had ceased, on account of his increasing impotence, a matter that lay at the centre of his want of confidence in himself, depression, and other symptoms.

The anamnesis showed the following points: Both the patient's parents had been stern, sharp, and energetic. His eldest brother had been very tyrannical in his treatment of him, had discouraged him at school by exposing him to the mockery of the other boys, and so on. The patient had always been of an evidently feminine temperament, had often been told it was a pity he had not been born a woman, and had always enjoyed the company of men much more than that of women. He had married more from obedience to custom than from any other motive, and lived in his father-in-law's house during his married life. The father-in-law, who was of a tyrannical disposition, was admitted to an asylum for senile dementia in the end of 1900, an event directly related to the outbreak of the patient's malady, and to his fear of becoming insane (identification). The patient's dreams were either directly homosexual, or were clothed in a symbolism of the kind characteristic of women.

During the analysis, which lasted only a few days, the patient's condition strikingly changed for the better, and has remained excellent ever since (six months). It was explained to him that his judgment of his wife had been unfairly harsh, and largely determined by his own temperamental peculiarities. He was advised to expand his interests by seeking the company of congenial friends (sublimation), and was discharged after a stay of three weeks.

ERNEST JONES

HERZ'S PHRENOCARDIA (IST DIE HERZSCHE PHRENOKARDIE EINE WOHL ABGEGRENZTE BESONDERE FORM DER HERTZNEUROSEN?). *Erb. xxxiv Wanderversammlung der südwestdeutschen Neurologen und rrenarzte. Monatsschr. f. Psychiatr. u. Neur. Aug., 1909. Bd. XXVI. S. 170.*

In a brochure recently published (*Die sexuelle psychogene Herzneurose Phrenokardie, 1909*) Herz described a condition which he would mark off from the other cardiac neuroses. It is characterized by three main symptoms, and other less essential ones; those are: a muscle pain situate to the left of the cardiac apex, and evidently induced by movements of the diaphragm, inhibition of respiration, especially of expiration, with the frequent occurrence of deep sighing inspirations, and thirdly subjective palpitation. Herz sees as the cause of the malady psychogenetic disturbances of the sexual impulse. As Dr. A. A. Brill pointed out in giving a review of the book (*JOURNAL OF ABNORMAL PSYCHOLOGY, Oct.-Nov., 1909, p. 284*), the syndrome is merely a well-recognised form of the anxiety neurosis, described by Freud fifteen years ago.

In the present paper Erb discusses both the clinical and pathological features of the malady. He agrees with Herz that the condition is really one to be met with in a pure form, though it is often combined with other nervous manifestations; further, that the physical state of the heart is throughout normal. He has observed twenty-five cases (nineteen in women, six in men). The question of the sexual ætiology could be investigated in only sixteen of them. Of these sixteen such an ætiology could be demonstrated in ten cases, and there were indications of it in the other six. It need hardly be said that Erb is in no sense influenced by Freud's views, to which indeed he is antipathetic. He is in general an opponent of all who attach importance to disturbances of the sexual impulse as a factor in the causation of neuroses (his strong views as to the harmlessness of sexual abstinence, for instance, are well known), and is very disinclined to investigate such questions if they can possibly be avoided. The facts mentioned above, which were so evident that even Erb could not overlook them, are all the more significant.

ERNEST JONES

DREAMLIKE AND RELATED STATES. ("ÜBER TRAUMARTIGE UND VERWANDETE ZUSTÄNDE.") *By Dr. L. Löwenfeld, Zentralblatt für Nervenheilkunde und Psychiatric. NO. 291 AND 292.*

IN the above papers Dr. Löwenfeld reports and analyzes a series of twelve cases characterized by states of altered perception

of the external world. The patients report that at times, for periods lasting from a few minutes to a day or longer, there is a strangeness in their perception of their environments, in some instances including the patients' own personality; familiar objects look strange and unfamiliar, or they look changed and bizarre; in some cases the whole environment gives the impression of unreality, of a vision, and the patient feels as if he were only half awake, as if in a dream, in a hypnotic or somnambulistic state, as if his personality is altered, and as if his actions were not those of a conscious personality, but of an automaton. During these periods, however, the patients react to their environment in a normal way and show nothing unusual; they are conscious that they are in an abnormal condition, and they retain a clear memory of what transpires during these states. These last characteristics serve to differentiate these states from the twilight states of hysteria and epilepsy.

An analogy to these states, which are not rare, and which occur in various forms of neuroses and psychoses, is to be found in normal life. To an individual whose attention is absorbed by mental states which have a high emotional tone, the external world and events do not present themselves with that degree of intensity and clearness which they usually have. Inadequate attention to the external world diminishes the consciousness of its reality. The mental disturbances bringing about the states in question therefore lie, to use Wundt's terminology in the processes of apperception and in the sense of activity (Höfding) which accompanies all such processes. When the disturbance is in relation to perception then external objects no longer give the impression of their reality. On the other hand, if this sense of activity is inhibited in relation to ideational or volitional processes we have the feeling of the unreality of the self.

An analysis of the cases shows that the disturbances may be of two kinds; objects may appear unfamiliar or they may appear changed and bizarre, the form of the disturbance is determined by the factors which make up the sense of familiarity. These factors are: 1. Clearness of perception. 2. Reproduction of perceptions. If we have a disturbance in the clearness of perception and the power of reproduction is intact, then the patient experiences the incongruity between the objects as he perceives them, and the memory images, and consequently the objects look to him altered and bizarre. If, on the other hand, objects are perceived clearly, and the disturbance

lies in the reproductive process, then the objects will look new and unfamiliar.

An examination of the cases presented shows that in the majority of them these dream-like states were associated with fear states. It needs no discussion to show that fear can have a disturbing influence on the apperceptive activity, and unquestionably plays an important role in the etiology of these abnormal mental states.

Subconscious emotional complexes may likewise, as Jung has pointed out, produce similar mental disturbances. One case reported by the author is unusual, as the subject was perfectly well in every way except that occasionally, under certain conditions, her environment would look displaced as if it were pushed away, the streets would at times look to her as if they had changed in direction. There were no associated fear states, obsessions, or any other mental disturbances. The author considers the probability that in this case there was some subconscious complex which under certain condition had a disturbing influence on the apperceptive processes.

H. LINENTHAL

REVIEWS

NEURASTHENIA AND NEUROSES (NEURASTHÉNIE ET NÉVROSES).
LEUR GUÉRISON DÉFINITIVE EN CURE LIBRE. Paris, Alcan, 1909.
By P. E. Levy.

DISCUSSION ON THE PATHOGENESIS OF NEURASTHENIC STATES
(DISCUSSION SUR LA PATHOGENIE DES ETATS NEURASTHÉNIQUE). By
P. E. Levy.

USELESSNESS OF ISOLATION IN NEURASTHENIA AND NEUROSES.
(INUTILITE DE L'ISOLEMENT DANS LA NEURASTHÉNIE ET LES NÉVROSES.
SUPERIORITÉ DE LA CURE LIBRE.) KUNDIG, GENEVA, 1909.
By P. E. Levy.

If the contentions which Levy expounds in these works can be corroborated, they mark a stage in the development of therapeutic power over the psychoneuroses.

His ideas are founded upon the biological unity of the organism, a point of view very different to the pseudo-monism of Dubois, which is in reality animistic. Upon what he calls a "unicist" conception. Levy founds a psychotherapeusis which dispenses with the disadvantages of isolation, prolonged rest, and superalimentation.

To illustrate the unicism of the organism, he instances spermatorrhœa, which he believes to be always due to an erotic dream. His reasoning, however, is largely *a priori*. There is a striking resemblance in all this to the association-neurosis which has been so much more clearly and concretely described by Donley, following Morton Prince.

Upon this notion he founds his therapeusis, which at bottom does not differ from that of the sound commonsense employed by the classical physicians, except that Levy explains to the patient the psychological effect of the medicines prescribed.

The success of his treatment is a further proof that no special validity need be attached to the more formal methods of psychotherapeusis, such as hypnotism, hypnoidization, distraction, conversion, substitution, etc. Even the psycho-analysis preliminary to successful treatment can be performed with the patient fully conscious, by the stimulus of urging, which its foremost exponent, Freud, now himself adopts. Levy rightly insists upon the auto-therapeusis needed for permanent cure.

As preventive of recurrences, he lays much stress upon the periodic depressions due to prolonged psychic exaltation. To prevent these, as well as to treat actual neurotic symptoms, he relies largely upon re-educating the patients into healthy habits.

He believes that the sensibility is the bond between the somatic and the psychic; and that it is impossible to abstract the sensation of pain from its accompaniments of apprehension, of fear, and of psychic discomfort, which he regards as part of the pain. He supports this opinion by the description of the cure of two cases of neuralgia. To the reviewer these are susceptible of a different interpretation; but they at least show the possibilities of persuasion into effort apart from hypnosis, distraction, or other artifice in developing disregardfulness of annoying symptoms even though non-psychogenic. It is to be doubted if Lévy's intervention had much to do with the recovery of these patients' disease itself, although it abrogated its inconvenient effects. In judicious hands, the method has its place; but its application by the ignorant is daily illustrated in the annals of Christian Science and other lay practice.

Lévy is absolutely opposed to isolation, for he finds that solitude simply intensifies most neurotic states. The real kernel of truth in the method of isolation has been lost by most practitioners. Isolation should not be a physical removal from environment, but should be interpreted as a moral subtraction of fears, preoccupations, obsession, morbid ideas. Even separation from one's usual surroundings is rather a hindrance than an advantage for a real cure in a great majority of cases. Doctors who believe the contrary are imposed upon by the deceptive "seriousness" of the psycho-neuroses. As to the friends, a firm diplomacy will enable the physician in a few days to convert them from hindrances to valuable helps for up-building the *morale* of the patient. It is to the neglect of this *psychothérapie de l'entourage* that Lévy attributes the failure of others in the home treatment of psycho-neuroses. Forewarned is forearmed.

The reviewer is sceptical as to the applicability of this method in the United States, 'at least among the class of people who form the major part of the patients for whom in the past a "rest cure" has been imposed. Amenability to sound medical psychology may be characteristic of the female relatives of Parisian patients; but in this land of popular psychology I do not think that many of us can count much upon the co-operation of the patient's friends, who are usually the greatest obstacle to successful treatment.

Lévy contends that even the opportunity for persuasion, which to many has been the main justification of isolation, since physicians realized the perniciousness of solitude itself to most neurotics, is

fallacious, and that persuasion and reasoning are of little avail to the patient unless he is given a chance to apply the conclusions he reaches.

The intimidation which is often used during the patient's removal from her usual surroundings is most harmful, except in a few special cases.

But the main argument he brings against isolation is that any re-education conducted then is a mere hothouse growth, which fades and withers as soon as the patient has to face the acts of life. Re-education worth the name must be training in the acts of life by development of the patient's own will. Submission to the will of a physician, however wise, only perpetuates the aboulia of the neurotic. One might as well learn to swim on a couch. The patient must learn to do what his life requires; and he can only so do by doing.

Hence, Levy contends that the true therapy of the mal-adjustments of psychoneurotics is a readjustment, which can only be performed while they are at liberty so that they can practice the readjustments in which they are instructed and encouraged by the psychotherapist, whose sole function is to regulate the stresses in accordance with the patient's capability to resist and will. It is a moral gymnastic, the appliances for which are best found in the conditions of life as it is.

Levy is most insistent upon a complete enlightenment of the patient as to his exact bodily and mental status; it is only in this way that he can accommodate his powers and husband them for the tasks which face him. The modern method of enlightening a tubercular is strictly comparable. He is most careful to avoid the over-enthusiasm of moral uplift which would push a patient to efforts certain to cause physical breakdown. If this requires insistence in France, how much more must it be emphasized in this country of rampant laic assumption of the therapeutics of the mind?

He calls Weir Mitchell's method "isolation with negative moral treatment." (We wonder what Dr. Mitchell would say to this!) Dubois's method he calls "isolation with positive moral treatment." His own method he calls a "cure by adaptation to the environment." It might be compared to the orthopædics of flatfoot by gymnastics, of metabolic lethargy by athletic tasks, of asthenic adiposity by graduated exercises, of pulmonary phthisis by the stimulus of graded work, a progressive hardening. It is a treatment of courage, as against one of cowardice.

Besides, a doctor cannot even duly appreciate the patient's weaknesses while she is isolated from a chance to show them.

Levy does not lay down before his patients a rigid line of conduct, as has been the fashion. He places no stress upon details. The principles are made thoroughly clear to the patient, who then learns to apply them with his own intelligence and will, discussing and rectifying them with the doctor. He really learns to treat himself, which is the only guarantee of a permanent cure; for his mistakes are a better source of knowledge than the didactics of the wisest of friends.

The patient then learns that his own power to resist is more important than the symptoms of his disease, and learns to judge these latter at their true value. The cure is effected.

TOM A. WILLIAMS

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THE JOURNAL OF ABNORMAL PSYCHOLOGY

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THE MECHANISM AND INTERPRETATION OF DREAMS*

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1. METHODS OF INVESTIGATION.
2. THE MATERIAL OF DREAMS.
3. THE MOTIVE AND MEANING OF THE DREAM.
4. THE SUBCONSCIOUS PROCESS AND MECHANISM.
5. THE PERSISTENCE OF DREAM SYMBOLISM AS
HYSTERICAL STIGMATA.

1. METHODS OF INVESTIGATION

THE problem of the mechanism and interpretation of dreams involves the question whether dreams are to be regarded as mere fantastic imagery without law and order, or whether all the phenomena of the mind can be reduced to an orderly and intelligible sequence of events, as is the case in the physical universe. If the latter be true then every mental event ought to be related to and determined by an antecedent event. The difficulty of the problem lies principally in the complexity of psychical

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phenomena; the difficulty of ascertaining all the antecedent events or data; the necessity of depending upon memory to reproduce past mental experiences which contain the data, and the possible fallacies of the final logical interpretation.

Notwithstanding these difficulties, recent investigations under the leadership of Freud have shown that often dreams can be so related to antecedent psychical events that they can be recognized to be not haphazard vagaries, but orderly determined phenomena capable of logical interpretation. If a dream is causally related to antecedent mental experiences, the solution of the problem of dreams requires the determination of: (1) Those experiences which were the motivating cause of the dream, and those which were the source of the psychological material out of which the content of the dream was fabricated. (2) The nature and mechanism of the motivating process which determined the dream, both as to its occurrence and form. (3) The logical meaning, if any, of the dream itself; all this will become clearer as we go on.

It goes without saying that the data upon which we must depend for the determination of the mechanism and interpretation of dreams are, as I have said, the memories of subjects upon whom the observations are made. These memories are: first, those of the dream itself; and second, those of psychologically related past experiences of the subject. This second class of experiences includes: (a) a large number of past acts of the individual, of his perceptions of, and his relations to the environment; of his waking thoughts of which he was at one time aware and of the feelings (affects) which accompanied any given mental process; (b) mental experiences of which the individual was not conscious or was only dimly aware, if such there were (subconscious thoughts); (c) sensory stimuli which may have been physiologically active during the sleeping state. The problem is to determine the relation, if any, between the dream and such antecedent mental and physiological experiences and co-active sensory stimuli.

It is evident that to determine such relations it is necessary to obtain all the data, i.e., memories of all the events

that enter into the relation. At the outset we are met with certain difficulties in obtaining the data.

In the first place, as to the dream factor, it is well known that some people do not remember their dreams at all; others remember them very imperfectly. A very serious doubt arises whether any one remembers his dreams completely from end to end in all their details. (I am of course speaking of memories in the normal waking state.) Even when apparently remembered the dream often very quickly vanishes, in its details at least, before we can tell it. That the dream was much fuller than the memory of it can often be shown by restoring the memory by artificial devices (abstraction, hypnotism, automatic writing, crystal vision, etc.). We then obtain records of a dream much fuller than we supposed had occurred. This is in agreement with what we know of allied phenomena. A dream may be defined clinically as an hallucinatory delirium occurring in a state of dissociation. A dreamer is āwake or, if you prefer, partially āwake, in the sense that although not aware of his surroundings he has a stream of consciousness, but his consciousness is a delirium. We find the same inability to remember other kinds of deliria and the mental content of other dissociated states after return to the normal condition—such states, I mean, as abstraction, pre-sleeping states, hysterical crises, trances, psycholeptic attacks, hypnosis, suggested post-hypnotic phenomena, etc.* The amnesia for a dream conforms, therefore, to these other types of amnesia. ~~In~~ other words, in the normal waking state there is a difficulty in synthesizing the dissociated mental processes with those of the waking personality. Besides, we never can recall the sensory stimulations that are active during sleep.

In the second place, we all know that at any given moment (e.g., that of the observation) it is not always, and probably never possible to synthesize, i.e., recall all our past experiences, and therefore we may not be able to recall

*The forgetting of a dream is only a particular example of amnesia for dissociated states. Any sufficient explanation of this amnesia must not disregard other types, but must be in harmony with them. The failure of Freud's explanation of this amnesia to satisfy other types is, to my mind, a fatal objection to his theory.

those related to the dream. Our waking memories therefore are inadequate to solve the problem of dreams.

To overcome the difficulty of remembering our past mental and physiological experiences an ingenious method has been devised by Freud of putting the individual under investigation in a state of concentration of attention or abstraction. Then, under certain precautions, which include the surrender of all critical reflection, there flood into the mind memories of past experiences which cannot be recalled under ordinary conditions. When the attention is concentrated on a particular element of the dream, these memories are those which have associative relations to this element; then the problem is to interpret the causal relation. For example, the dream may be interpreted as the imaginary fulfillment of a wish contained in the revived memories (Freud).

This method I made use of in these observations, but it was extended to conditions which gave far richer results than were obtained in the normal waking state. That is to say, in addition to the latter method it was combined with certain hypnotic procedures to be presently described. Furthermore it was supplemented by another method of voluntary recollection in combination with these same procedures. The reason for the employment of these methods was to obtain all possible data which had associative relations to the dreams. Every one knows, or ought to know, that if, instead of stimulating memory in the normal state, we make use of various artificial states, we can recover memories in each which are not recovered in the others. In other words, all possible memories cannot be recovered in any given state whether waking or artificial. Of our large storehouse of conserved experiences some can be stimulated into memory in one state and others in another. Suppose a person remembers, apparently, a dream and relates it. If we put that person into a given state of hypnosis we may find that his memory of the dream is fuller, and he recalls a larger number of details; we put him into another state and he recalls a still larger number; in the third state a larger number still, perhaps so many that there are no lacunæ that can be detected. Or we may use automatic

writing and crystal visions with the same results. Likewise, and more important for the results, in each of these different states memories of past experiences may be recovered which cannot possibly be recovered in the others or in the waking state, even though in the last the technic of abstraction and concentration of the attention is employed.

Furthermore, besides these memories of simply forgotten mental experiences, experiments have shown that in some one or other of these artificial states memories can be obtained of (a) ideas which were once merely co-conscious in the mind, i.e., of which the subject was never aware; (b) of ideas which streamed through the mind, like a phantasmagoria, just before going to sleep, twixt sleeping and waking; (c) of ideas occurring during intense absent-mindedness, and (d) of ideas, including repressed ideas, which have been so completely forgotten as to be beyond voluntary recall. Many of these memories cannot be recovered in the waking state whatever technic be employed. A study of these memories, thus recovered, will show a close and inferentially causal relation between many of them and the subsequent dream.

We must conclude from such observations that memories induced in the waking state alone cannot be relied upon to give us all the required data to determine the mechanism, material, and interpretation of dreams, and therefore that the method in many cases at least is inadequate.

For the purpose of the observations which were the basis of this study, a subject was made use of who could be dissociated into several hypnotic states, *a*, *b*, *c*, etc. In each state the memories differed from those of the others as well as from those of the waking personality *C*. The combination of all the memories therefore gives us a much larger mass of data than could be obtained from the subject in her normal waking condition. When awake the subject could not remember her dreams at all, or only very imperfectly. They could be recovered only in hypnosis in the state *b*. Then the subject remembered them in remarkable detail and with great vividness.

For the purpose of the analysis of the dreams several

or all of the following states were made use of according to the requirements of the analysis:

1. The normal personality C.
2. Hypnotic state *c*.
3. Hypnotic state *b*.
4. Dissociated group Alpha (by automatic writing).

The methods employed were the following two:

First, such memories as could be recalled by ordinary volitional effort of the subject in each of the first four states were obtained. By this method, in the secondary states, particularly three and four, *memories were recovered which failed to develop by the second method (Freud's) in the normal waking condition C.*

Second, the subject in each of the first three states was put into the condition of abstraction* and the free associated memories obtained by the Freud method. (This was not applicable to the fourth state in which automatic writing was required.) By this method associative memories would arise that failed to develop by the "voluntary" method whether in the hypnotic or waking state.

By each method the memories obtained in the first, second, third, and (so far as applicable) fourth states, noticeably differed according to the state in which they were invoked. For instance, the memories in abstraction associated with *climbing a hill* in one dream were in:

normal state C: of a childhood experience of climbing a hill; of climbing a hill in the White Mountains during married life, etc.

*I use this term for lack of a better one. It is a passive state in which the attention is concentrated on the content of the inflowing ideas with surrender of critical reflection upon these ideas. I believe that this state of mind is identical, as it was intended to be, with that used by Freud, although I do not think he defines it as "abstraction." I see no reason to differentiate it from abstraction. I have been in the habit for many years of using this form of abstraction (but without surrender of critical reflection) for the purpose of resurrecting dissociated memories. When a person is in hypnosis the abstraction reaches a higher degree than when he is waking, easily passes into a "hypnoid" condition, and memories are resurrected which are not obtained in the waking state. It was particularly when this method was applied to *b* that the rich flow of memories of events directly preceding the dream occurred. Without abstraction *b* could recall, for example, but few of the pre-sleeping thoughts.

hypnosis *c*; of scene in an observatory; of scene in the country; on top of a hill, etc.

hypnosis *b*; of the dream itself and associated thoughts; of the thoughts of the pre-sleeping state, etc.

It should be kept in mind that the waking personality *C* and the hypnotic state *c* do not remember the dreams, or only imperfectly, and therefore the accounts of the dream were always obtained from the hypnotic state *b*, who remembers them with extraordinary precision and vividness, and in great detail.

After the dream was recovered in state *b*, it was read to the subject when awake and alert (*C*). This sufficed, of course, to give the information to the hypnotic state *c*. (Alpha had its own source of knowledge.) Then the associative memories were recovered in each state by the two methods described. As will be seen, the absence of true memory in the waking state for the dream did not prevent the inflow of associations in any state.

I will not take the time to consider the possible objections to these methods. Obviously the chief are that few persons can be hypnotized to the extent of this subject, that the observations were confined to a single person, and the possible fabrication by hypnotized subjects. The last objection ought to be confined to those who have a theoretical or only specialized rather than wide knowledge of hypnotism. The first would equally apply to the study of a rare disease. It only limits the material for investigation. The second has its advantages as well as its disadvantages, for it enables us by the examination of a large number of dreams in the same person to search the whole field of the unconscious, and by comparison of all the dreams to discover certain persistent conserved ideas which run through and influence the psychical life of the individual.

Owing to the extremely private nature of dreams I am obviously limited in my selection for publication, and therefore am unable to make use of some which psychologically are the most instructive and thoroughgoing illustrations of the conclusions arrived at. The six I shall make use of, however, will, I believe, prove to be sufficient. The fifth

dream is selected from some in which the abstraction method was not used. It is instructive in showing the value of the hypnotic voluntary memories alone, without the use of the Freud Method, in revealing the underlying motivating idea and meaning of the dream. In other dreams also I have found these memories sufficient.

2. THE MATERIAL OF DREAMS

A study of the analyses of quite a large number of dreams shows that a very large part of the psychological material out of which the dreams were fashioned was furnished by the previous waking thoughts of the dreamer, particularly those disconnected ideas which coursed in a passive, fleeting way through the mind *just before going to sleep*. This pre-sleeping state has certain marked characteristics which distinguish it from the alert state of waking life. We cannot go into this here, although it is worthy of study in itself. It resembles, if it is not identical, with what Sidis calls the hypnoidal state. Suffice it to say that ideas course through the mind in what appears to be a disconnected fashion, although probably determined by associations. Memories of the preceding day, and of past thoughts which express the interests, desires, fears, anxieties of the psychological life and attitudes of mind of the individual, float in a stream through the mind like a phantasmagoria. The state passes gradually and insidiously into sleep. One marked peculiarity of this state is that amnesia for its thoughts rapidly develops. Not only after waking is there little or no memory for the content of the pre-sleeping consciousness, but if the subject arouses himself, or is aroused while in this state, he cannot recall his previous thoughts or does so imperfectly and with difficulty. At least I find that this is the case with myself. After waking few persons can recall their pre-sleeping thoughts. Yet it was found that in certain hypnotic and dissociated states of the person whose dreams form the subject of this study these thoughts were recalled with precision and vividness although she could not recall them in the normal waking state C.

Now I have found in studying these dreams that whenever pains were taken to recover the pre-sleeping thoughts *certain elements of these pre-sleeping ideas invariably appeared in the content of the dream.* These ideas furnished the material out of which to a large extent the dream was formed. Just as a patchwork quilt is put together out of pieces of cloth cut from various garments, so the dream was fashioned from the elements of other thoughts, and particularly the pre-sleeping thoughts. The dream* was a mosaic of which the pieces were culled from various preceding mental experiences. Let us take, for example, the following actual dream:

DREAM I

"C was somewhere and saw an old woman who appeared to be a *Jewess*. She was holding a *bottle* and a *glass*, and seemed to be drinking *whiskey*; then this woman changed into her own *mother* who had the bottle and glass, and appeared likewise to be drinking whiskey; then the door opened and her *father* appeared. He had on her *husband's dressing gown*, and he was holding *two sticks of wood* in his hand."

Recovering by the above-described technical methods the associated memories of the preceding day, particularly those of the pre-sleeping period, we find that on the morning of that day she had visited as a social worker a *Jewess*. Later, after retiring to bed, feeling somewhat faint, she took a teaspoonful of *whiskey*. This reminded her of her *mother*, who had been an invalid, and who used to have beside her bed a *glass of whiskey* and water which she sometimes took at night. This made her think how one day her (the subject's) husband had sent her mother a *bottle of whiskey*, and how on that day she had telephoned to her mother, but the mother did not come to the telephone. Instead her sister came, and she, C, asked why the mother did not come, and said, "Is mamma tipsy?" The sister did not at once understand, and she had to repeat this question several times, and they laughed heartily over it. It became a family joke. Then it also came to her mind that she had rung the

*Freud's manifest dream-content.

bell for some *wood* in the course of the day, but that it had not been sent up to her apartment; she felt annoyed in consequence. Then again her thoughts were occupied with going abroad (as she was planning to do), and she thought of her *father*, how she used to read with him a good deal about going abroad, and how he used to tell her about Europe, and she also thought that her son would need a new *dressing gown* before they started abroad because his was too thick and heavy; and that reminded her of her *husband's dressing gown* which had been a nuisance in traveling because it was so hard to pack on account of being too heavy.

All these thoughts floated through her mind just before going to sleep. Analyzing the memories of them and of the day, it is clear that we have practically all of the elements out of which the dream scene was constructed: *Jewess, mother, father, bottle of whiskey, glass, husband's dressing gown, two sticks of wood*. A Jewess had occupied several hours of her time and a great deal of thought during the day.

In other dreams again before falling asleep the subject thinks of the riding school, and a beautiful horse there, and a beautiful horse appears in the dream; that she "is like a child crying for the moon," and in the dream she rides to the moon on the horse; that it is so much trouble to get clothes made by the dressmaker that she would rather go without clothes, and in a dream she is naked; she thinks of the beautifully decorated ballroom in the Pension Building at Washington, at the time of the President's inauguration, and in her dream she is in a beautiful ballroom; of going to the theater, for which she has a longing, and in her dream she is there; and so on *ad infinitum*. Of course the various elements of a given dream originally appeared respectively in the content of separate and different thoughts, out of which they are selected for the dream. None, or few, of these pre-sleeping thoughts can be recalled awake, but only in hypnosis.

Another source of these dream elements, although I found it a less rich one, was, as Freud has pointed out as a result of his studies, the thoughts of the preceding day, and even earlier mental experiences. The same may be said of *ideas and feelings which have dominated the psychological*

life of the subject through a long period of time. These latter exhibited certain special peculiarities in the dream. They were apt to be *symbolized*, and for the purpose made use of the material from the two sources just mentioned. Thus her previous and dominating idea of life was and is that it is a hard and difficult path to follow, and this idea appears in the dreams as a particular "steep, rocky path" she is climbing; the subject feels herself singularly alone in life (which is the case), and in her dreams she is always alone, either really by herself, or, if in a crowd or accompanied by others, she feels she is not of them, but off by herself and socially isolated; she has been in the habit of looking upon life as wild, and she is threatened by wildmen in her dream, and so on. She has certain apprehensions and anxieties, and these symbolize themselves in one way or another. She has a horror of cats, a regular phobia, and cats constantly appear in her dreams, when the horror of the future looms before her.

An analysis of a large number of dreams reveals the fact that these persisting and dominating ideas, those that may be said to be the symbolized personal expression of her own individuality or of her relations to her environment, or of her view of life run through a large number of dreams, often in a stereotyped form.

This stereotyping of dream imagery is well worth noting in studying both the material and its symbolization in the dream content. It would escape notice if a large number of dreams were not recorded in the same individual. Thus the rocky path, always the same identical path, occurs over and over again. Likewise climbing a mountain, near the top of which she meets an old man, and the sudden appearance or changing of dream objects into cats. Stones, gloomy forests, dark places, etc., also recur frequently.

It would seem that certain dream experiences (images), having been strongly conserved as a complex in the unconscious as brain residua or neurograms, were stimulated from time to time, after the manner of an obsession, by the recurring dominating ideas which they symbolize to the subject in the waking state as well as in the dream state.

Still another class of mental experiences which I was

able to recognize as the source of the material for dreams was certain subconscious ideas of which the subject *had not been aware*, at least this was the case if we are to trust the memories of the hypnotic state. These ideas had their origin in the personal consciousness, but having been repressed, had gone into the subconscious (or unconscious) and there flowered. For example:

The influence of somatic stimuli (sensory impressions) in determining the content, though it could be recognized, was of minor importance.

Thus far I have spoken only of the material out of which the dreams were constructed.

3. THE MOTIVE AND MEANING OF THE DREAM

Equally important for the understanding of dreams is the motive of the dream and its meaning as a whole. Though the dream may be a patchwork made out of the material furnished by the thoughts of the immediate or remote past, does the dream have a meaning, or is it a senseless thing, as until recently has been supposed?

Did, for example, the picture of the Jewess holding a bottle and glass, and appearing to be drinking, and did the father, in an old dressing gown, carrying two sticks of wood, have any logical meaning, or were they simply hallucinatory fantasies?

It was a brilliant stroke of genius that led Freud to the discovery that dreams are not the meaningless vagaries that they were previously supposed to be, but when interpreted through the method of psychoanalysis may be found to have a logical and intelligible meaning. This meaning, however, is generally hidden in a mass of symbolism which can only be unraveled by a searching investigation into the previous mental experiences of the dreamer. Such an investigation requires, as I have already pointed out, the resurrection of all the associated memories pertaining to the elements of the dream.

When this is done the conclusion is forced upon us, I believe, that even the most fantastic dream may express some intelligent idea, though that idea may be hidden in

symbolism. My own observations confirm those of Freud, so far as to show that running through each dream there is an intelligent *motive*; so that the dream can be interpreted as expressing some idea or ideas which the dreamer previously has entertained. At least all the dreams I have subjected to analysis justify this interpretation. I would say here, however, that I do not wish to be understood as extending this conclusion beyond the dreams actually studied (some dozen or more in number), although I have no doubt that this conclusion will be found to be a fairly general truth. I am all the more cautious in generalizations because I am unable to confirm that of Freud, that every dream can be interpreted as "the imaginary fulfillment of a wish," which is the motive of the dream. That sometimes a dream can be recognized as the fulfillment of a wish there can be no question, but that every dream, or that the majority of dreams are such, I have been unable to verify, even after subjecting the individual to the most exhaustive analysis. On the contrary I find, if my interpretations are correct, that some dreams are rather the expression of the non-fulfillment of a wish; some seem to be that of the fulfillment of a fear or anxiety; some that of emotional aspirations; some that of the dreamer's previous dominating attitude of mind, etc. Nor when the dream has been the expression of a wish has it been, excepting occasionally, of a "repressed wish" (Freud), but rather an avowed and justified wish. It also seems to me that the methods Freud employs are inadequate to justify the wide generalizations that he draws. Nor do his data in my opinion justify his interpretation of the mechanism of the process underlying the dream, and, in many cases, of its meaning. Such interpretations, when all is said and done, are after all questions of inductive logic.

Let me speak more specifically about the dream motive and meaning. I can illustrate the principle better, perhaps, by an analogy.

In the Corcoran Gallery, at Washington, there is a picture by Watts, known as *Love and Life*, a photograph of which I have before me. In this picture *Life* is represented by a female figure treading a narrow, rocky path along

the edge of a precipice. This figure, limp and weary, is guided by another figure personifying Love, who holds her by the hand and helps her over the obstacles of the path, and prevents her from falling over the precipice. In this picture the artist symbolizes in a pictorial representation with paint and canvas a conception of life, which we may suppose has been constructed out of the ideas and feelings which had been previously deposited by the general mental experiences of his life. The picture is therefore a condensed visual representation of ideas which had been previously elaborated and experienced in his consciousness.

Now, let us suppose that instead of representing these ideas on canvas the artist had dreamed such a visual representation of these ideas. On waking from the dream he might or he might not have remembered his antecedent ideas of which the dream was a visual representation. Suppose he had not remembered them? He would have been at a loss to understand the meaning of his dream. If the dream had consisted of only the narrow rocky path on the edge of a precipice, without the figure of Love, or without both figures, in all probability he would not have recognized any relation between the image and his previous ideas of life.

Now, if by any technical method we could recall to his mind his previous ideas, and if he should find among them the idea of a narrow, rocky path associated with an idea of the path of life which we must all tread, if he recalled that he had once conceived of life as that sort of a path, it is clear that he would recognize the dream as the symbolized expression of his previous conception of life. He would justly conclude that this conception in some way underlay and directly determined the dream, just as in fact such ideas had expressed themselves symbolically through the intention of the artist in the painted picture.

In an analogous way, if we take any given dream from actual life and subject it to analysis by resurrecting all the memories associated with the elements of the dream, we find as a fact amongst the memories certain ones which can be so closely related to the dream that the latter can be interpreted logically as a condensed symbolical expression of

them. In principle there would seem to be very little difference whether the ideas of the individual are expressed symbolically in the visual images of paint and canvas, or in the visual images of a dream.

Now let us take the actual dream of the *Jewess*, who appeared to be drinking, and the father entering the room with two sticks of wood, and see if any similar meaning can be found in the dream dressed up in the symbols of the dream contents. When I first examined this dream I thought it was only a simple fantasy, and was surprised, when all the associative memories connected with each component element of the dream were obtained, to find that it might well be the symbolic representation of very specific previous thoughts of the dreamer. Instead of being a simple affair it was found to be very complicated.

I can only give an abstract of the analysis, as a full report of all the data would cover about seventeen pages of typewritten manuscript. The reproduction of these memories in the different states by the methods I have already described occupied several hours.

In the first place the dream may be divided into two parts or scenes: First, that of the drinking scene; and second, that beginning with the door opening, and the father bringing two sticks of wood.

We have seen how the elements of the content of this dream were found almost entirely in the material of the pre-sleeping thoughts.

As to the first scene a rich collection of memories was obtained. It appeared that on the previous morning the subject had walked with a *poor Jewess* through the slums, and had passed by some men who had been *drinking*. This led her to think at the time of the lives of these poor people; of the *temptations* to which they were exposed; of how little we know of this side of life and of its *temptations*. She wondered what the effect of such surroundings, particularly of seeing people *drinking*, would have upon the child of the *Jewess*. She wondered if such people ought to be condemned if they yielded to drink and other temptations. She thought that she herself would not blame such people if they yielded, and that we ought not to

condemn them. Then in the psychoanalysis there came memories of her mother, whose character she admired, and *who never condemned* any one. She remembered how her mother, who was an invalid, always had a glass of *whiskey* and water on her table at night, and how the family used to joke her about it. Then came memories again of her husband sending *bottles of whiskey* to her mother; of the latter *drinking* it at night; of the men whom she had seen, who had been *drinking*. These, very briefly, were the experiences accompanied by strong feeling tones which were called up as associative memories of this scene of the dream. With these in mind, it is not difficult to construct a logical though symbolic meaning of it. In the dream a Jewess (not *the* Jewess, but a type) is in the act of drinking whiskey—in other words, the poor, whom the Jewess represents, yield to the temptation which the dreamer had thought of with considerable intensity of feeling during the day. The dreamer's own judgment, after considerable cogitation, had been that such people were not to be condemned. Was she right? The dream answers the question, for the Jewess changes in the dream to her mother, for whose judgment she had the utmost respect. Her mother now drinks the whiskey as she had actually done in life, a logical justification (in view of her mother's fine character and liberal opinion) of her own belief, which was somewhat intensely expressed in her thoughts of that morning, a belief in not condemning poor people who yield to such temptations. *The dream scene is therefore the symbolical representation and justification of her own belief* and answers the doubts and scruples that beset her mind.*

The second scene is capable of a simpler interpretation. It is the fulfillment of a wish. It will be remembered that the subject wished for and had ordered some *firewood* to be sent to her room on that day. In the pre-sleeping state the recollection of the fact, and the feeling of annoyance had recurred. In the dream the *wish had been fulfilled*, the wood was brought, but it was her *father* who brought it,

*The symbolic expression of beliefs and symbolic answers to doubts and scruples is quite common in another type of symbolisms, viz. visions. Religious and political history is replete with examples.

two sticks, this number, probably, because she was in the habit of putting two sticks on the fire, and the number, therefore, that she wished at the moment. Very possibly her father, in her husband's dressing gown, can be interpreted as an example of what Freud calls "condensation," the fusion in this case of two persons in one with a common trait. Both her father and husband would naturally have been inclined to gratify her wishes. On the principle of "condensation," the former dressed in the latter's dressing gown would symbolize this trait. Her father and this dressing gown had their origin, as we have seen, in the pre-sleeping states, and were made use of by the dream process to do what the hotel management had neglected and thus to perform the imaginary fulfillment of a wish.

I might have done better perhaps to have taken for my first example in interpretation a dream of which the meaning was more obvious and perhaps more convincing, but I selected this dream chiefly because it beautifully illustrates the source of its material in the pre-sleeping thoughts.

I would like here, before going further, to make clear that I am only concerned at this point with the interpretation of the meaning of the dreams. The mechanism is another matter. By mechanism I mean the nature and working of the process by which the motivating process or thoughts, whether a wish or a fear, or a belief previously entertained, fashions the dream out of the material furnished by other previous thoughts and expresses itself. This mechanism, as we shall see, is a complicated process and deals with the continuance of these motivating thoughts as a subconscious process of some kind, whether co-conscious or unconscious. We shall also see that this mechanism introduces us to the mechanism of some of the phenomena of hysteria and of other psycho-neuroses.

How far the conclusions arrived at in this study both as to interpretation of the motive and the mechanism are in agreement and disagreement with those of Freud and his school will appear as we proceed.

DREAM 2

"A hill — she was toiling up the hill; could hardly get up; had the sensation of some one, or thing, following her. She said, '*I must not show that I am frightened, or this thing will catch me.*' Then she came where it was lighter, and she could see two clouds or *shadows*, one black and one red, and she said, 'My God, it is *A and B!* If I don't have help I am lost.' (She meant that she would change again.*)" She began to call "Dr. Prince! Dr. Prince!" and you were there and you laughed, and said, 'Well, you will have to fight the damned thing yourself.' Then she woke up *paralyzed* with fright."

PSYCHOANALYSIS

Pre-sleeping thoughts obtained through memories of state b in abstraction.

She thought during the days before the dream that life was a *struggle*; that she must not be *afraid of changing*; she was so depressed she was afraid she would change to A. She thought she *must not be afraid*; then she thought it was hard work not to be afraid. She thought perhaps it would be a good thing if she could be B, and be happy. She felt so discouraged she did not care much; she thought it was such a *struggle*, that if Dr. P. *did not help her* she would surely change; she thought he was tired of her; she did not blame him; she thought the future looked as black as night; these were not thoughts; I mean these disconnected ideas just floated through her mind — she was almost asleep.

Associative memories of the dream. For purposes of condensation I will give merely a résumé of the results in the different states of the analysis of this and the other dreams obtained, noting only those memories which seem to have a relation to the dream.

Climbing or toiling up a hill has been a frequently recurring episode in distressing dreams. The recurrence of this particular action suggests that it expresses a strongly

*i.e. relapse into dissociated personalities.

organized idea. The act of toiling up a hill in her mind symbolizes a mental attitude towards life that is so deeply rooted that it has almost the characteristic of an insistent idea. Symbolically it is her conception of life. She looks upon life on its moral side as a constant *struggle and toil* against difficulties; she seems to be always baffling with the practical problems of life. The idea that "life was a struggle," was indeed one of the pre-sleeping thoughts. The same idea is symbolized in other dreams by the rocky path she is treading. In everyday life it comes out in many directions. This idea is temperamental rather than justified by the actual conditions of life (aside from illness), but nevertheless exists. She belongs to the type that "takes life hard."

The *material* out of which this symbolism was fabricated may have been furnished by any one of a number of actual experiences in climbing hills, the memories of which recurred in association with the dream in one or other of the states examined. The most probable material was an experience of which the memory is conserved of climbing a hill in the White Mountains several years previously. The climbing of this hill had very strong emotional accompaniments, and therefore was likely to present mental recurrences. These accompaniments, moreover, had a very intimate relation to those experiences of her past life, which are the basis of her present attitude of mind towards life, and constituted a veritable trauma.

The *sensation that some one or thing was following her* may be traced to two ideas which had been frequently in her mind in the past, and during the days preceding the dream. It may be therefore interpreted as having a double meaning. To appreciate this it will be necessary to explain the situation. During the previous few weeks she had been going through a period of stress and strain resulting in much mental perturbation. She had thought that if she did not get hold of herself she might disintegrate again into the personalities A and B. She had been free from this disintegration, that is, completely synthesized into the normal personality for a year and a half. The idea of disintegrating therefore became a terror to her, and

loomed up as a dreadful possibility. This possibility even expressed itself as a feeling at times that A and B were near or about. In the earlier days when disintegration actually occurred, she often had the thought that *she must not be afraid of relapsing*, because fear might bring about a relapse, the dreaded result, and during the days preceding the dream this thought, that she must not be afraid of changing, often occupied her thoughts. We have seen that this idea was prominent in the pre-sleeping thoughts. She had a fear that fear would tend to disintegrate her; hence in the dream she said to herself, "I must not show that I am frightened or this thing will catch me." "This thing," interpreted through these associated memories, would mean the disintegration into A and B.

The second set of associative memories which may be symbolized by this part of the dream is the fear of suicide which is linked with illness. That is to say, in her mind the consequences of relapsing again into a condition of double personality are so terrifying that suicide has seemed to her preferable. It had loomed up as a possible solution of her psychological difficulties, and, at times, as a choice of evils, seemed preferable. At times she had felt "rather haunted" by the idea of suicide, and had "a subconscious feeling that suicide is dogging my steps." It may be fairly said then that disintegration and suicide are so closely linked that both were symbolized by the dream feeling "of some one or thing following her."

Next in the dream she sees two clouds or *shadows*, one was black and one red. Now as a fact in everyday life, whenever she thinks of herself as A or B she actually visualizes a cloud which she seems to see over her left shoulder. When she thinks of A the cloud is *black*, and when of B it is *red*. This is an example of colored thinking. Here then the waking fear persisting in the dream becomes fulfilled in the form of a symbol which has been furnished by the material of everyday life.

Recognizing the clouds she exclaims, "My God, it is A and B." This expression is a recurrent memory and almost the identical words she has used to herself in times past, when she came to herself and found that she had been

through a change to one or the other of the two personalities, "My God!" she would exclaim, "I have lost time again," meaning, "I have changed to A or B."

In the dream she continues, "If I don't have help I am lost" (the dream thought being "change" again), and she began to call for her physician. Shortly before the dream she had actually "thought that if she didn't have help she would be lost," and in the pre-sleeping state "that if Dr. P. did not help her she would surely change." During the period of alternations of personality she had often appealed to me as her physician for help, so that this dream expression was a simple recurrence of many previous experiences.

In the dream I appear and laugh, and answer her appeal by saying, "Well, you will have to fight the damned thing yourself." This again is in substance a recurring experience. I had often, as her associated memories showed, laughingly brushed aside her fears and treated them lightly. I had often lectured her upon the undesirability of her depending upon me to pull her out of her difficulties and exhorted her to *depend* more upon herself and to use her will power, etc. I must confess that I am responsible for the profanity which is also a recurrent experience, and is a veridical memory.

Interpreting the dream as a whole, with the record of the associated memories before me, by no effort of the imagination can I see in this dream any fulfillment of a wish. I cannot find that the principles of distortion or of substitution, or any other form of interpretation, helps us to a wish fulfillment. It would plainly seem to be in part the symbolical representation of a fear which had been oppressing her during the preceding days of stress and storm, and in part the imaginary *fulfillment of another fear* — that of being refused help.

DREAM 3

"She was in the rocky path of Watts's,* barefooted, stones hurt her feet, few clothes, cold, could hardly climb that path; she saw you there, and she called you to help

*See Fifth Dream.

her, and you said, 'I cannot help you, you must help yourself.' She said, 'I can't, I can't.' 'Well, you have got to. Let me see if I cannot hammer it into your head.' You picked up a stone and hammered her head, and with every blow you said, 'I can't be bothered, I can't be bothered.' And every blow sent a weight down into her heart so she felt heavy-hearted. She woke and saw you pounding with a stone; you looked cross."

The subject went on to recall that she had telephoned me in the morning asking for medical assistance. "You said, over the telephone, 'I cannot possibly come to see you to-day. I have engagements all the day and into the evening. I will send Dr. W., you must not depend on me. I didn't say anything about it, but it played ducks and drakes with me the other night,' etc. [that is when I neglected other engagements to make her a professional visit because of an attack of migraine from which she was suffering].

PSYCHOANALYSIS

The rocky path of Watts's picture (*Love and Life*) like "toiling up a hill" symbolizes, as we shall see more fully in another dream, her dominating idea of life, and, as in the picture, she was treading the stones barefooted; that she had few clothes and was cold may well be referred to the somatic peripheral impressions actually experienced at the time, for "she was cold while she was asleep."

The call for "help" has a special significance. It referred to "help" through certain psychological work which she had undertaken, and for which she depended upon my assistance. As work it meant more than the word would seem to signify because to her mind it meant the solution of one of the problems of her present life, and, as she thought, from a medical point of view, her salvation. She had been told that she must have an interest in life, and for this purpose had taken up this psychological work; she had been fitting herself for it for some time by study; now it seemed to her this new object of life had been taken from her. For it so happened that after patiently waiting for about a month for certain promised material which was necessary,

I had been unable to see her, even when she required medical assistance, and had advised her, both in response to the telephone message and on several other occasions, that it would be desirable, on account of the great demand on my time, that she should put herself in the hands of another physician. This, womanlike, she interpreted as being equivalent to losing the opportunity to carry on her work. The work meant her salvation, and yet she must get along alone without it; she had tried hard to forget herself, to lose herself in this work; to solve the problem of life in this way, and now the work was to be taken from her; she felt that it was unjust. These thoughts, the analysis showed, went through her mind over and over again. They were accompanied by an intense emotional tone of despair, because the loss had a double significance — that of inability to pursue her chosen calling, and that of the one thing which she thought would save her from relapsing into her former state of disintegration. All this emotion was accentuated by the fact that she was ill at the time from an attack of migraine, and also in a state of nervous instability.

So she makes the same appeal in her dream as she toils up the hill of life, and I tell her that she must help herself, just as over the telephone I had said, "You must not depend upon me." Although I had referred to medical assistance, in her mind, through the interpretation which she actually put upon it, my refusal was identified with the loss of work. She felt that going to another physician would be of no use, as it was this particular work alone that would help. Hence, in the dream she said, "I can't help myself." "Well, you have got to," I replied; "let me see if I can't *hammer* it into your head." "I can't be bothered." Here we have a recurrence of a pre-sleeping thought which was, "I must not *bother* him; I should think I would get that *into my head* after a while"; and then, "If my heart was not like a *stone* I should weep"; and so in her dream I hammer it into her head with a stone.

Furthermore, after telephoning, she thought, "I must not *botner* him, he can't be *bothered*"; and this thought, with the others, recurred again and again in her mind. It was one of the pre-sleeping thoughts, and so it recurs again

in the dream, for I said, "I can't be bothered, I can't be bothered." With every blow of the stone she became heavy-hearted, *as she did when the same thoughts dominated her mind while awake.*

All this that I have described comes out clearly in the memories which were reproduced in the psycho-analysis, particularly those of the pre-sleeping state.

The interpretation of the dream as a whole thus would seem to be clear. It is simply a dramatic symbolic reproduction of a dominating idea of life, of her wish and of her disappointment. It is an imaginary fulfillment, not of a wish, but of a loss or disappointment; indeed it might be regarded as the non-fulfillment of a wish.

DREAM 4

Shortly before the last dream the subject "dreamt that she was in a great *ballroom* where everything was very *beautiful*. She was walking about, and a man came up to her and asked, 'Where is your escort?' She replied, '*I am alone.*' He then said, 'You cannot stay here, we do not want any *lone women.*'

"In the next scene she was in a *theater* and was going to sit down, when some one came and said the same thing to her: 'You can't stay here, we do not want any *lone women here.*' Then she was in ever so many places, but wherever she went she had to leave because she was *alone*: they would not let her stay. Then she was in the street; there was a great crowd, and she saw her husband quite a little way ahead, and struggled to get to him through the crowd. When she got quite near she saw . . . [what we may interpret as a symbolical representation of happiness]. Then sickness and nausea came over her, and she thought there was no place for her there either."

PSYCHOANALYSIS

It appears that the subject had been confined to her apartment during the whole of the preceding week, completely

alone. The day preceding the dream she had missed her son (W.) very much, and had thought of him all day, and had wished that some one would come in to see her. She had thought of going to Washington to visit some friends, and had also thought of her visit there last year, and of the ballroom in the Pension Building where the presidential inaugural ball was held; of how *beautifully* it was decorated; she thought also of having gone to the *Opéra Comique* with her son, and that if he were only with her now they could go out together. She had felt very *lonely*.

This feeling of *loneliness* has often been a more or less persisting and dominating idea. While circumstances have forced upon her a life of seclusion, she nevertheless feels that she cannot be *alone* any more; that she must have some society; must have her friends and not continue in her lonely way of living. At times in the intensity of this feeling she walks the rooms feeling the situation keenly. She says to herself that she "*cannot be alone*," etc. This feeling results in depression and sadness. The subject has often remarked when remonstrated with that people did not want "*a lone woman*," meaning an odd woman, at social entertainments, and in consequence has often refused invitations.

On the day following the dream she kept thinking that there was no place for her in the world, though she did not remember the dream. This symbolized idea of loneliness has been found to run through a number of dreams. At one time she is walking alone along a steep, rocky road, parallel to another smooth, pleasant road filled with her friends, but where she is not allowed. At another, at an open-air concert in a garden where are many people, but she sits alone, and so on.

In light of these facts the action of this dream was nothing but the symbolical expression of a recurrent thought to which strong feeling was attached. As to the scene of the beautiful ballroom of the first part of the dream, the *material* is plainly to be found in the thoughts of the preceding day. Invited to visit Washington, she recalled the room in the Pension Building as she saw it last March decorated for the inaugural ball; she had thought it very beautiful.

The scene in the theater owes its origin to the fact that her mind had dwelt upon having gone to the theater with her son in Paris about six weeks previously. She now thought that if her son were with her they could go out together in the evening; that being alone she could not enjoy such pleasures.*

In the street scene "*she struggled to get through the crowd.*" From the associated memories this would seem to symbolize a thought which has run a great deal through her mental life; namely, that of her "great struggle to overcome herself, and get somewhere," that is, achieve the end in view. In the dream she struggles, but only to be disappointed in the end. The analysis of this scene would carry us too far into the intimacy of her life to justify our entering upon it.

INTERPRETATION

The analysis of this dream substantially carries with it its interpretation. The material out of which it is constituted, the ballroom, theater, feeling of loneliness, the undesirability of "lone women," all this may be found in the thoughts of the preceding day, and in a certain insistent idea which has run through her mental life. The dream is plainly a symbolical representation of this insistent idea or belief, and in its action the dream became a fulfillment of the truth of this belief in that she found no place for herself in the social world.

DREAM 5

"She dreamed that she was in a dark, gloomy, rocky place, and she was walking with difficulty, as she always does in her dreams, over this rocky path, and all at once the place was filled with cats. They were everywhere, under her feet and hanging on the trees, which were full of them. She turned in terror to go back, and there in her path was a frightful creature like a wild man of the woods. His hair was hanging down his face and neck;

*I had frequently advised her going to the theater in the evening, and she always replied that she could not go alone.

he had a sort of skin over him for covering; his legs and arms were bare, and he had a club. A wild figure. Behind him were hundreds of men like him — the whole place was filled with them, so that in front were cats and behind were wild men. This man said to her that she would have to go forward through those cats, and that if she made a sound they would all come down on her and smother her, but if she went through them without making a sound she would never again feel any regret about the past . . . (mentioning certain specific matters which included two particular systems of ideas known as the Z and Y complexes, all of which had troubled her. These will be referred to later). She realized that she must choose between death from the wild men, and the journey over the cats, so she started forward. Now, in her dream of course she had to step on the cats (the subject here shivers and shudders), and the horror of knowing that they would come on her if she screamed caused her to make such an effort to keep still that the muscles of her throat contracted in her dream (they actually did contract, I could feel them). She waded through the cats without making a sound, and then she saw her mother and tried to speak to her. She reached out her hands and tried to say, 'O mamma!' but she could not speak, and then she woke up feeling nauseated, frightened, and fatigued, and wet with perspiration. Later, after waking, when she tried to speak, she could only whisper."*

An analysis by the abstraction method was not made of this dream, and no attempt to recover the pre-sleeping thoughts. Therefore the source of the material out of which the pattern of the dream was formed was not wholly determined. The solution is accordingly not complete, so far as concerns the appearance of certain elements (e.g., the mother) out of which the dream was constructed. The data for the interpretation were obtained from the ordinary memories of the subject in the various states

*The subject woke with complete aphonia, which persisted until relieved by appropriate suggestion. This persistence of the physical effect of dream ideas is of considerable interest and was observed following other dreams.

(C, *c* and *b*). In these it is easy to find the motivating thoughts of which the dream is a symbolical representation. The analysis is, therefore, as I have explained at the beginning, additionally instructive in showing, as was the case in other dreams, the value of the ordinary hypnotic memories.

PSYCHOANALYSIS

When narrating the dream in hypnosis the subject said that the "rocky path of the dream was a literal *visual reproduction of the path** in *Watts's picture called Love and Life*." This picture she had recently seen during a visit to Washington where it hangs in the Corcoran Gallery. "Neither of the figures appear in the dream, but the figure of Life symbolizes a part of her feelings and attitude of mind towards life in general." The picture, as a whole, "minus the figure of Love, symbolizes what she has dreamed many times."

After waking from hypnosis, when catechised about the picture, the subject said that "the painting by Watts had interested her greatly, more than any picture she had ever seen, because the figure of Life in its look of helplessness typified her attitude of mind in some respects; if the figure of Love was removed the picture would represent the way life seems to her — cold, bare, bleak, and lonely."

In the dream, while under the emotional influence of this "dark, gloomy, rocky place," suddenly a swarm of cats appear before her. It appears that this subject has a horror of cats, a regular phobia, which can be traced to a fright which she received from a cat when she was five or six years of age. All her life she has dreamed of cats, and they constantly appear in her nightmares. It would seem to be a firmly organized and conserved complex which recurs over and over again in such dissociated states. As cats are associated with the affects of terror and apprehension, so anything that awakens this emotion in dreams is liable to excite the pictures of cats as symbols of fear. A study of a number of dreams in which cats appear seems to justify

*In addition to the path there were trees in the dream picture.

the interpretation that *apprehension* aroused by the difficulties which beset the path of life, and block the future, are symbolized in a stereotyped way by the awakening of this terror-producing cat complex. For example, she dreams she is in a rowboat, under distressing circumstances; she endeavors to row the boat which contains her husband, who is ill; a storm comes up, the boat is tossed about, the waves dash over it, and its passage is blocked, so to speak, by the storm. Then she is overwhelmed with terror as the waves turn to cats which almost smother her and swamp the boat. Again in another dream she is in a dark, gloomy, narrow cañon through which she makes her way, under the guidance of a friendly hand, out towards the light and open. Then the stones on the steep hillsides roll down upon her, and change to cats which block her way, and she awakes in terror. All these dreams are logically and consistently interpreted as the symbolic expression of certain struggles, anxieties, and apprehensions for the present and future.

Returning to our dream, *she turns to go back, and is confronted by the "wild men."*

For several years, because of trouble and illness, the subject has been in the habit of thinking of life as being "wild." She has often used the word "wild" to express this feeling. This idea would seem to be symbolized in the dream by the wild men, much as an artist might so express it in a picture.

As these men threaten her with death if she goes *back*, so she has felt strongly that she must not think of the *past*; that it is madness, it tears her to pieces; that no matter how distressing the present may be, no matter how impossible the future may seem, she must look forward, not back; she thinks of life with a feeling of terror as in her dream she thinks of the cats in front.

In the dream she is promised that if she goes forward without making a *sound* (i.e. speaking or complaining) she will never again have any regrets about the past, i.e. suffer because of what she has lost and other troubles. This is almost a literal reiteration of what she has said to herself.

She often thinks that she must keep things to herself; that she must be *uncomplaining* and self-reliant; she tells herself this every day, and she sometimes thinks that if she can only bear her troubles bravely, surely by and by she will be happier.

INTERPRETATION

In the analysis of these memories we have substantially the solution of the dream. In it are to be found nearly all the elements which go to make up the motive, and most of the material. The rocky path and the wild men preventing her from going back under penalty of death, would seem to be a symbolical representation of her idea of life; that the past is full of trouble, that she must not think of it, that it is madness to do so. But as she thinks of the future with equal terror, and of cats with terror, so her imperative journey forward over the cats would symbolize her feeling towards the future, which seems impossible. The reward promised in her dream if she will go forward without making a sound is typified by her real feeling, that if she will be brave without complaining she will sometime be rewarded by happiness, symbolized by her mother.

Although this dream can be interpreted in part as the fulfillment of a wish, for she passed over the terrifying obstacles which blocked her path and attained happiness, leaving the past with its regrets behind, yet the wish, as in the other dreams, was not a repressed wish, but an avowed wish. Moreover, this is not the whole meaning. The dream would rather seem to be principally a symbolical representation of her idea of life in general, and of the moral precepts with which she has endeavored to inspire herself, and which she has endeavored to live up to in order to obtain happiness.

There are three points to which I would direct attention; first, the character of the promised reward in this dream is of considerable significance, and gives a possible clue to the genetic factor in the production of the dream. The psychological equilibrium of the subject had been for a long time disturbed by a system of ideas which was known as

the Z complex, and more recently by an episode known as the Y complex. The latter was the motive of one of the dreams that was analyzed. Both were characterized by regrets. The Z complex represents what she believes she has been "cheated" out of in life, and might well be expressed by the lines,

"Of all sad words of tongue or pen,
The saddest are these — it might have been."

Both complexes had recurred with considerable force during the week, as well as the day preceding the dream. On grounds of *expediency only* she had recently repressed them — put them out of her mind again and again, and thought she had done so successfully, but, according to the hypnotic consciousness, they had gone into the co-conscious; she was not then aware of them, but they were still co-consciously present, and according to this testimony, caused at times depression. The thoughts of these complexes particularly colored her conception of life. The wild man referred specifically to these ideas when he told her she would "have no regrets for the past," etc. These repressed and subconscious thoughts may be, therefore, the fundamental and genetic factor in the production of the dream. On the one hand they are largely responsible for her present conception of and attitude towards life, and on the other, have stimulated the counter resolution to repress such thoughts, to go forward, not backward, without complaining, hoping thus to attain happiness. These thoughts, however, *were not unacceptable*. On the contrary she had constantly justified them. Nevertheless, of these thoughts the dream was almost a literal dramatic, if symbolic, representation.

The second point is the persistence of the physical effect of the dream — the aphonia. In the dream, and after waking, she had lost the use of her voice and could speak only in a whisper until relieved by therapeutic suggestion. To this phenomenon I shall return later.

The third point is the fact of only partial remembrance of the dream in the normal waking state, with slightly fuller memory in one hypnotic state, and complete memory in

another hypnotic state. In the waking state, C, the subject could only remember being in a lonely place, that there were a lot of cats there, a giant or witch, and of seeing her mother. In the *c* state she further recalled the rocky path of Watts's picture. In other words, there may be incomplete or no synthesis of memory for a dissociated process in one state and complete synthesis in another. That we may only incompletely or not at all remember our dreams is a trite fact, but the experimental evidence that the dream experience and the conservation of the same may far exceed our memory is worth bearing in mind. Amnesia for dreams is thus in harmony with a long series of analogous amnesias for dissociated states (hypnosis, trance, dissociated personality, deliria, etc.).

DREAM 6

"This dream occurred twice on succeeding nights. She dreamed she was in the same *rocky, dark path* she is always in,—Watts's path,—but with trees besides (there are always trees, or a hillside, or a cañon). The *wind* was blowing very hard, and she could hardly walk on account of something, as is always the case. 'Some one, a *figure*, came rushing past her with his hand over his (or her) eyes. This figure said, '*Don't look, you will be blinded.*' She was at the entrance of a great *cave*; suddenly it *flashed light* in the cave, like a flashlight picture, and there, down on the ground *you* were lying, and you were *bound round and round* with bonds of some kind, and your clothes were torn and dirty, and your face was covered with blood, and you looked terribly anguished; and all over you there were just hundreds of little gnomes or pigmies or brownies, and they were *torturing you*. Some of them had axes, and were chopping on your legs and arms, and some were sawing you. Hundreds of them had little things like joss-sticks, but shorter, which were red hot at the ends, and they were jabbing them into you. It was something like Gulliver and the little creatures running over him. You saw C, and you said, 'O Mrs. C., for heaven's sake get me out of this damned hole.'

(You always swear in C's dreams.) She was horrified, and said, 'O Dr. Prince, I am coming,' but she *could not move*, she was rooted to the spot; and then it all went away, everything became black, as if she was *blinded*, and then it would flash again and illuminate the cave, and she would see you again. This happened three or four times in the dream. She kept saying, 'I am coming,' and *struggled to move*, and she woke up saying it. In the same way *she could not move when she woke up, and she could not see.*"

INTERPRETATION

In order not to weary the reader with the details of the analysis of this dream, I shall résumé simply the results. The dream proved to be a symbolic representation of the subject's conception of life (the rocky path); of her dread of the future, which for years she has said she dared not face; of her feeling that the future was "*blind*" in that she could not "see anything ahead"; of the thought that she would be overwhelmed, "lost," "swept away," if she looked into and realized this future, and she *must not look*. And yet there are moments in life when she realizes vividly the future; and so in the dream one of these moments is when she looks into the cave (the future), and in the flash of light the realization comes,—she sees her son (metamorphosed through substitution of another person) tortured, as she has thought of him "tortured" and handicapped (bound) by the moral "pin pricks" of life. Then follows the symbolic representation (paralysis) of her utter "helplessness" to aid either him or any one else or alter the conditions of her own life. Finally follows the prophesied consequences of this realization. She is overcome by blindness, and to this extent the dream is a fulfillment of a fear.

Nearly every element of the motive and material of this dream could be found in the thoughts, either of the pre-sleeping state or of previous periods of her life. The elements of the dream and the determining factors can be placed in parallel columns.

<i>Dream Elements</i>	<i>Source and Symbolic Meaning</i>
Rocky path	Watts's pathway; symbolic conception of life
Wind	Old phobia for wind storms, of frequent occurrence in dreams in association with fear.
A figure (vague)	Her own thoughts personified.
"Don't look, you will be blinded."	Memories: "Did not dare look." "Did not dare face her troubles." Would be "lost," "swept away," "overwhelmed." "Life is all blind, I do not see anything ahead."
Cave into which she looked.	Future into which she dared not look.
Flashes of light.	Flashes of realization of the future, which she frequently had.
M. P. bound and tortured.	Son (by substitution) "tortured," as with "pinpricks," by being "bound" and hampered by the conditions of his life.†
Paralysis.	"Feeling of helplessness against everything." "Felt powerless to help," not only the actors in the dream, but the troubles which beset her in life.
Blinded.	Overwhelmed by glimpses of, or facing the future (word association and substitution); fulfillment of fear or prophesy.

*"She has often felt that she was following a blind path in life, that the future is blind. . . . Years ago she told some one that she felt as if she was walking on a narrow precipice and she did not dare to look down or she would be lost, swept away by her troubles and in the dream she kept her head turned away so as to keep her footing on the path."

†The source of this substitution and this helplessness is to be found in the pre-sleeping thoughts. Before going to sleep she wished she could do something to show her gratitude to M. P. for the medical care she received, but felt her utter helplessness; and then planning regarding her son's education at Harvard she imagined him, for reasons not necessary to go into here, tortured, etc., by certain necessary restrictions which would be imposed upon him, and of her helplessness to aid; so both persons were associated with the idea of her own helplessness and through the process of "condensation" (Freud) appear in the dream as one person.

In this dream, as in the others, we find no "unacceptable" and "repressed wish," no "conflict" with "censoring thoughts," no "compromise" no "resistance" and no "disguise" in the dream content to deceive the dreamer, —elements and processes fundamental in the Freud school of psychology. We do find a symbolism which is a perfectly clear and simple representation of previous openly avowed ideas (wishes, fears, etc.), which were not only entertained without restraint, but which dominated the mental life of the dreamer. The source of the dream material and of the motivating thoughts was found in the thoughts of the pre-sleeping state, and in those of the subject's everyday life. The relation of the motivating thoughts to the content of the dream, as a factor in its mechanism, will be discussed later.

The persistence of the paralysis and the partial blindness after waking should be noted in passing. Four or five times during the day she had a recurrence of the flashes of light when she seemed to look into a brilliantly lighted place and to see some horrible object. This was followed by momentary absolute blindness. Such phenomena are of great interest, as they throw light upon the psycho-physiological processes at work and give an insight into the pathology of certain hysterical phenomena. They will be considered later.

These six dreams which I have given are fairly illustrative and typical of all the dreams of this subject that were studied. I have been limited in my selection, as I have said, by the fact that some relate too intimately to private affairs to be published. Some of the best and of those most exhaustively analyzed were of this nature. Of a large number collected some were naturally, considering the time required for an analysis, more completely studied than others. I have not found, however, any psychological principle involved in the other dreams than is to be found in those here given which are therefore typical.

4. THE SUBCONSCIOUS PROCESS AND MECHANISM

More interesting than the interpretation of the dreams are, first, the mechanism by which the motive expresses

itself and makes use of the material; second, the evidence which this mechanism offers towards the elucidation of many allied phenomena in pathological conditions; and, third, the light which dreams throw upon the hidden habits and processes of thought which tend to disturb the mental equilibrium of the subject, and often to lead to the development of the psycho-neuroses.

1. Taking the last first it must be evident from a consideration of the dreams which have been analyzed above, that the fears, anxieties, and other disturbing thoughts, like regrets and remorse and longings, may express themselves in dreams. It is these thoughts which have a strong feeling tone and therefore are more likely to be conserved, and to manifest themselves in dissociated states, and also, as we know, to disrupt the psychopathic individual of unstable equilibrium. Amongst these thoughts may be some which the individual will not entertain, and seeks to repress. I have not found, however, in the dreams studied, that repressed thoughts appeared more frequently than those of equal feeling tone which were not repressed. Indeed, on the contrary, they were of insignificant frequency.* We know as a fact of clinical experience that the persistent recurrence of ideas of a distressing character tend to disrupt the mental life of persons of a certain temperament, and to lead to psycho-neurotic conditions. It is not always easy to extract from the patient a precise description of such ideas, whether because of reticence regarding his inner life or because of a real lack of appreciation or memory of their content. Through the analysis of the dreams of the subject of this study, her mental life was laid bare and a clue to the true psychogenetic factor of certain disturbances was obtained, and thereby an intelligent comprehension of the psycho-neurotic condition present.

2. As to the mechanism of the dream process and its identification with that underlying various other psycho-neurotic phenomena: We are here entering upon difficult ground, full of pitfalls, and requiring searching observations and great caution in interpretation.

*In only one of the six dreams here given, the fifth, were repressed thoughts in evidence, and these were not unacceptable to the subject but were justified in her mind, and the dream was not a fulfillment of them.

We may begin with one fundamental principle, namely, that of the conservation of mental experiences. We have seen that the dream *material* is to be found in the thoughts of the previous recent life of the dreamer, particularly those that occurred in the pre-sleeping state immediately before the dream, and during the preceding day. The *motive* of the dream was traced in every instance to strongly organized systems of ideas which were deeply rooted in the mind of the subject, and represented her mental attitude towards her environment or the problems of her daily life. According to the principle of conservation both sets of ideas were conserved as shown by the fact that they could be recovered by the methods of psycho-analysis employed. It is not necessary to go into the problem of conservation beyond recalling here to mind that we have reason to believe that mental experiences are stored up as some sort of brain dispositions. We must assume that every experience that is retained as a potential memory leaves a counterpart record in the neurones. This record is commonly spoken of as "brain residua," "brain dispositions," "vestigia," and "the unconscious." There are various theoretical objections to these terms, particularly to that of "the unconscious" because of its ambiguity resulting from differences in its connotation. I have suggested the word *neurogram* to define these hypothetical brain changes which are deposited by the experiences of life.

Now the material of the dream and the motive of the dream could be traced in every instance to neurograms so deposited. The dream always, although symbolically (as interpreted), expressed previous thoughts, while its content was made up of the elements of previous thoughts and contemporaneous sensory experiences. A neurogram is something which, *ex hypothesi*, when stimulated can function and reproduce the original experience, i.e. memory, and so far as the elements of a dream are recurrences of the elements of previous mental experiences, they are merely memories, and the dream itself a patchwork of memories. In some dreams recorded in the literature the recognition of a large part, at least, of a dream as pure memory is easy enough.

But dreams are something more than a patchwork of

memories. Taking as a whole the dreams here recorded, and others of my collection, their construction will be found to have certain characteristics which give the dream a logical and intelligent design.

These are first: A motive running through the content of many of the dreams, as in a story constructed by a dramatist. They sometimes have a sort of plot, as if an intelligence other than that of the consciousness of the dreamer had planned the development and had foreseen the outcome. The dreamer has a feeling of being followed by something,—she does not know what. It turns out to be two symbolical creatures, A and B. In another dream she sees something lying under a tree; she asks what it is, and not receiving the information, proceeds to investigate, and it turns out to be a certain person with a broken leg. Again she is told, like Blue Beard's wife, not to look into a certain place under warning of punishment. In her case the place is a cave in which the secrets of the future are to be seen. She looks and sees a sight which, symbolical of the future, fills her with terror, and she is punished for her curiosity. Such dreams have the appearance of having been planned by an intelligence which is distinct from the dream consciousness, and which from the beginning foresees the ending.

Second: While the motive and the component parts of the dream are reproductions of various thoughts which were previously experienced by the subject, in every instance the reproductions are not of their original form, but sensory hallucinations (visual and auditory) are substituted to a large extent for the original thoughts which are thus only symbolically reproduced or expressed. For instance, the thought that life is "wild" is expressed by the vision of a wild man who speaks (auditory hallucination) the ideas she has thought. The idea that she is alone in the world and that there is no place for "a lone woman" is reproduced by a visual scene of herself wandering alone in various places and of being turned out of them because alone, without an escort. The idea that life is a toil and struggle is represented by a hallucinatory image of a hill or a rocky path up which she is toiling, etc.

Now how did it come about that the neurograms which

were deposited by these ideas did not reproduce as memory the original thoughts in their original form but became distorted into symbolical hallucinatory representations of them, fabricated often into a story? That is not what commonly occurs in waking life under the ordinary conditions of every day life. I say "commonly" and "under the ordinary conditions" advisedly, for under certain conditions, as I will point out later, this symbolical reproduction does occur occasionally.

If this question of the Why cannot be completely answered with our present knowledge — and I doubt if it can — what sort of psychological process or processes is involved in dreams? And do dreams stand alone or are they only a particular type of psychological symbolism? If the last is true any complete theory of the process and of the mechanism must satisfy the conditions of other types.

According to the well-known Freud theory the mechanism is a very complicated process and involves the previous repression of a wish which thereby becomes dissociated and "unconscious." There results a conflict at the time of the dream between this dissociated idea (which is the true dream thought) and a repressing "censor" (censuring thoughts), and finally a compromise by which the true dream thought (the latent content) manifests itself in the distorted form of the dream (the manifest content) by which the underlying true dream is disguised so as not to be recognizable. The dream according to this theory is always, as maintained by Freud, the "imaginary fulfillment of a wish." The amnesia following the dream is interpreted as the work of the "censor."

It is not my intention here to enter into a criticism and discussion of this theory. Suffice it to say that I have not been able to verify it in the dreams which were the object of this study although the Freud method of analysis was conscientiously made use of. As I have already said, and as I believe any one can assure himself by a study of the six dreams embodied in this paper, I have been unable to find any evidence of repression, of previously dissociated ideas, of a "censor," or of a compromise. Nor have the dreams, as I have interpreted them, represented the "imag-

inary fulfillment of a wish" more than that of a fear or anxiety, or other attitudes of mind towards life. Nor can I accept the view that the amnesia following the dream differs in principle from that so commonly observed for dissociated states in general and that it is the hand work of a "censor."

On the other hand the results of this study justify the view that the conscious dream as remembered is not a fantasy, but a logical though symbolical representation of ideas which to a certain extent are distorted, i.e. so far as this is required by the conditions of symbolism. These ideas in every instance had been previously entertained by the dreamer and could be recovered as memories. Further the interpretation seems to be substantiated that they were the motive of the dream and therefore were continued during the dream as some kind of a *logical intelligent process* (coconscious or unconscious, psychological or physiological). This motivating process may be regarded correctly as the *true* dream (Freud's "latent content") which manifested itself in the symbolism of the remembered dream (Freud's "manifest content"). In these respects and so far, then, this study is confirmatory of Freud's interpretation.

What sort of a process the "true dream" is and by what mechanism it manifests itself in the distorted symbolism is another problem.

As to the *process*, if the interpretation is correct that the dream content is a symbolization of some other thought, this thought, or the process which stands for it, must be subconscious.* In other words it is inconceivable that the dream consciousness can be the whole of the process; it must be only a part of it and the other part can be only subconscious as it does not appear in the consciousness of the dreamer. The hypothesis which would answer all the requirements of the case is this; the dream process consists

*Coconscious or unconscious. For the purpose of the hypothesis it does not matter which. Those who hold to the psychological interpretation of such dream processes would hold that they were true subconscious "thoughts" (coconscious); those who hold to the physiological interpretation that they were brain processes, i.e. "unconscious." I am inclined to the latter view.

of two parts, one is the dream consciousness and the other is subconscious. The subconscious process is that which may be called the true dream and represents those previous thoughts which by analysis were found to furnish the motive of the dream — the motivating thoughts. This subconscious process manifests itself in consciousness not directly by its own previously correlated thoughts, but indirectly through symbolical pictures, verbal expressions, etc., which are apt to be incomprehensible in meaning until the “true dream thoughts” of the subconscious dream process are discovered and thereby interpreted. Expressing this in other words it may be said that the motivating “thoughts” of the subconscious process emerge into the consciousness of the dreamer in a symbolical form. This is substantially the conclusion which Freud reached, so far as concerns the process, as a result of his studies. In principle the process is similar to that concerned in the well-proven subconscious solving of problems. If, for example, it is a mathematical problem a number pops into the consciousness of the individual, or he sees a hallucinatory number as a visual symbol. He may have no idea what it may mean until it is discovered that it is the answer to a particular problem perhaps given to him in hypnosis. The calculation has been done by a subconscious process and the answer alone emerges into consciousness.

That part of the *mechanism* by which the subconscious calculation process on the one hand, and the subconscious dream process on the other, become converted into their corresponding results in consciousness is another problem still, and one to which I do not think we are at present able to offer a solution. The elaborate mechanism proposed by Freud (which is the cornerstone of his psychology) to account for the peculiar “distortion” of the “true dream thoughts” in the symbolism, I have not found, as I have already said, to be confirmed by the results of this study. I will pass over for the present this part of the mechanism and return to it later.

Assuming, for the moment, the subconscious dream process, it will help us to understand this process and its relation to the dream if we examine a little more closely

the facts as revealed by psychoanalysis. In all the dreams the symbolical representation of the motivating thoughts was a selection of those particular elements from the material furnished by past experiences which had an *associative relation* to the motivating thoughts. It will be remembered, for instance, that in the fifth dream, that of the wild men, the motive of the dream was the conception of life and certain precepts of conduct which the subject had laid down for herself for the attainment of future happiness. Both sets of ideas had recurred over and over again and were conserved as neurograms. They recurred again in the dream, not in their original form as thoughts, but in a symbolical representation, which was a fabricated scene in which a rocky path, wild men, cats, etc., appeared and took part in the action, which was really the acting out of her own previous thoughts. It was much as if these had constructed a charade, the action and scene of which were taken from associated thoughts of the dreamer.

Now according to the hypothesis these neurograms which pertained to the subject's conception of life and conduct (the motive of the dream) proceeded to function during a dissociated state ("sleep") but they functioned subconsciously; hence they did not appear in the dreamer's consciousness as conscious memory. What they did do was to stimulate certain elements of associative thoughts (neurograms. These were Watts's rocky path, wild men, cats, etc. All this material belonged to thoughts which had strong associations with the fundamental dream motive. The subconscious process appropriated by some kind of mechanism this material and wove it with some of the ideas which were correlated with its own neurograms into a dream consciousness the content of which was a dramatic scene. This scene, as I have said, was a symbolic representation of the ideas pertaining to the subconsciously functioning neurograms and consisted partly of sensory hallucinations and partly of thoughts. Thus according to this hypothesis one portion of the dream process is subconscious and one portion is the dream consciousness, and the elements of the latter stand in associative relation to the former.

The first question that proposes itself when weighing

the probability of the truth of such an hypothesis is, whether there are any analogous phenomena which can provide us with data which will support it. As we are dealing with dissociated mental life we would naturally expect to find such data, if they exist, amongst the phenomena of the dissociations, although we should also expect to find them exceptionally in special conditions in normal life.

More than this dreams, plainly, are only a particular type of the phenomena of hallucinatory symbolism; they do not stand alone and therefore it is amongst these other types that we must look for the data which will afford a basis for an hypothesis. Further, any explanation of dream symbolism must also be consistent with the facts of all other types of hallucinatory symbolism.

The question which we have put may at once be answered in the affirmative for, when we marshal the facts furnished by these other types, we do find many analogous phenomena which support the hypothesis of a subconscious process which manifests itself in consciousness through symbolical representation.

Symbolism as a hallucinatory phenomenon occurs in numerous and multiform conditions.

(a) Perhaps the simplest form of symbolism is the well-known hallucinatory phenomenon which can be experimentally produced by stimulation of the anesthetic skin of an hysterical. In a suitable subject if the anesthetic hand be *pricked* five times the subject sees as a *visual* hallucination the number five written perhaps on the back of an hallucinatory hand.*

Here the stimuli are not only perceived but they are apperceived. By some process or other of which the subject is not aware, the stimuli are counted, the specific ideas relating to their number and the part pinched are translated into another sense-process which symbolically represents the idea. This idea is not that of the implement used to stimulate the anesthetic skin, or any other relation of the subject to the environment, but only of the number of times the hand was pricked as if in answer to a question. The

*See "The Pathology of Hysteria." Sidis, Prince, and Linenthal. Boston Medical and Surgical Journal, June 23, 1904.

symbolical answer alone arises in consciousness—a visualized number written on a visualized hand. There plainly must be some process of which the subject is unaware (i.e. is subconscious) which performs the apperception and then thrusts into consciousness its symbolical representation. The phenomenon, therefore, instead of being simple as it might appear to be at first sight, is a highly complicated one and involves both subconscious and conscious elements.

(b) In artificial hallucinations representing past experiences we have the same but more elaborate symbolism. A given individual looks into a crystal and sees a scene enacted which may be a personally lived experience of his own life or the representation of something which was read in a book, or overheard in conversation, or previously entertained ideas and mental concepts. Here the visual hallucination not only reproduces as a visual memory the original sense impressions but symbolically represents the thought and actions pertaining to the original experience. For instance a subject sees enacted a murder scene which faithfully portrays in visual symbols a murder scene which had been read in a novel. Synchronously with the visual symbolism the thoughts with their emotional tone which were a part of the original experience may not only be symbolically expressed by the hallucinatory scene but may arise again in the mind of the visualizer, just as often occurs in dreams. I have made a large number of such observations.

The same but more elaborate symbolism may be recognized in spontaneous hallucinations. I have reported two very striking incidents of this kind.* One was of Miss B. who saw in my presence as a vision a certain person who, in hallucinatory words, reproached her for a certain action. Although the action was performed in a dissociated state and not therefore remembered, the hallucinatory symbolism represented the pricking of her conscience. Here it was not the original scene that was reproduced, but a censure of the scene. These censoring *thoughts* translated themselves into an appropriate symbolism similar to what we observe

*The Dissociation of a Personality. Second edition, pp. 508, 509; and JOURNAL OF ABNORMAL PSYCHOLOGY, Vol. III, p. 337.

in dreams. The symbolism had no meaning for her in lack of memory of the scene which I alone knew.

The other incident was a spontaneous hallucinatory experience by the subject B. C. A. While in a slightly dissociated state she heard certain consoling words addressed to her. These words came from her husband who was dead and whom she saw as an hallucination. The motive and material of this hallucination could be traced to previous mental experiences of the subject, as in the dreams already described.

Mrs. Verrall in her account of automatic writing records a spontaneous hallucination which symbolically represented what had once been described in spoken words to the percipient.

An excellent illustration of this type of hallucinatory symbolism is the historical vision of Archduke Francis Charles (the father of the present Emperor of Austria) who "was also greatly troubled in his mind as to his right to waive his claim to the crown in favor of his son. According to his own statement he only finally made up his mind when, while earnestly praying for guidance in his perplexity, he had a *vision of the spirit of his father, the late Emperor Francis, laying his hand on the head of his youthful grandson and thus putting all his own doubts to rest.*"* The remarkable likeness of this vision in its construction to that of the first scene of the first of the above-described dreams is worth noting. Not only both were visual hallucinations (the one while asleep and the other while awake), but both symbolized an abstract idea in the conventional dream form.

These phenomena introduce us to a still more complicated form of symbolism—the condensation, dramatization and elaboration of abstract ideas in visual and auditory symbols. This is well exemplified as the hallucinations which so frequently accompany sudden religious conversion. These hallucinatory symbolisms represent the ideas which from time to time in the past have consciously occupied the mind of the individual. The words heard by St. Paul, for instance, in the light of modern data, can well

*"Francis Joseph and His Times;" Sir Horace Rumbold. p. 151. (Italics mine.)

be interpreted as the expression of doubts and scruples which once entered his mind. All such hallucinatory symbolisms — whether artificial or spontaneous — can only be explained on the theory that besides the hallucination there is a sub-conscious motivating process which expresses itself symbolically in consciousness. The hallucination is not a pure memory, but something that is fabricated, and there must be some unconscious process that does the fabrication. We must assume that there are two parts to the process, one subconscious, due to the functioning of neurograms belonging to previous experiences, or, as James has so well expressed it, “to the subconscious incubation and maturing of motives deposited by the experiences of life”; and one in consciousness, the hallucination through which the subconscious process manifests itself symbolically. As in dreams, the motive of the hallucination is found in the previous motives of life, and the material through which the motive is symbolically expressed is found in the previous thoughts of the converted person, particularly those of recent date.

(c) Analogous phenomena we find in those most valuable of psychological phenomena for the investigation of the processes of the human mind — the so-called “post-hypnotic suggestions.” In calculation experiments of this kind I have found that coconscious pictures of numbers arise; although the subject is not aware of these coconscious pictures a memory of them can be recovered (in some subjects) in hypnosis. These visualized numbers pop up coconsciously from time to time and arrange themselves in certain positions, until finally the completed number which is the answer to the calculation appears. But plainly these numbers do not give the process by which they are presented, they give only the results. The very fact of their coming and going shows that there must be a deeper underlying “unconscious”* process. The appearance of the numbers reminds one of the appearance of the electrically flashed numbers in the transparency in the Boston Subway.

*I use the word “unconscious” here (in distinction from coconscious) in the sense of some process which has no psychical equivalent in the consciousness or coconsciousness of the subject who is, of course, unaware of it. I pass over for the present the nature of this “unconscious” process.

These numbers there flash into our consciousness the information of the order in which certain cars will arrive, but the mechanism which flashes the numbers — an employee stationed some distance away working an electrical apparatus — is hidden from our awareness.

In the performance of some post-hypnotic phenomena following suggestions, the coconscious pictures and the "unconscious" process are quite complicated. The motive in such phenomena is to be found "in the deposited experiences of life," i.e. the previous suggestion. The selection of numbers to express the motive is a necessary consequence of the experiment. In some experiments, on the other hand, the coconscious pictures were elaborate symbolisms of the motive, e.g. a ballet girl dressed in red with her feet on the table was a symbolism of the kind of person which the subject thought smoked cigarettes. The hypnotic suggestion — one objected to — was that the subject should smoke a cigarette after waking; the material for the coconscious symbolism was easily found in a previous mental experience of the subject; namely a picture of a ballet girl dressed in red which hung in the apartment of the subject and was the original of the coconscious picture.*

When we survey, then, the field of other types of hallucinatory symbolic phenomena we find underlying them all a subconscious process of which the content of the symbolism is a manifestation. The process is in principle the same in all types; there is nothing unique in the process of the dreams which were the object of this study, it is one which is met with in various analogous phenomena. Whether this principle is universally true of dreams can be determined only by extensive studies.

*I have collected a large number of observations of these extraordinarily interesting phenomena which I believe have not been noted, thus far, by other students. In the subconscious manifestation of certain subjects they play a very important part. I intend in due time to publish a study of them. I am happy to say that Dr. E. H. Waterman has confirmed my observations in one of my cases (the subject of this study) as will appear in the article by him in this number. For brief accounts which I have previously given to these phenomena see, "The Dissociation of a Personality," p. 350; *The Psychological Review*, March — May, 1905; and the *JOURNAL OF ABNORMAL PSYCHOLOGY*, Vol. I, p. 49.

I have emphasized the analogy between dreams and other types of hallucinatory symbolism. I would also emphasize the fact that in these other types evidence of repressed unacceptable ideas, of a "censor," of conflict with the repressing censoring thoughts, of a compromise and final disguise of the underlying subconscious "thoughts" is lacking. I do not mean by this that no part of this mechanism is ever present in any examples of such types. Such an assertion of course from the nature of the case would be incapable of substantiation, but in large numbers of examples it is inconceivable that this mechanism could be in play. With St. Paul, for example, it may have been true that he had refused to entertain and admit to himself the evidence of Christianity and had repressed such ideas; but it is preposterous logic to assume that the hallucinatory words, "Saul, Saul, why persecutest thou me?" were a disguise of the true thought and intended not to be understood by Saul. The same may be said of the hallucinatory words in the two examples I have given on page 183. Yet this interpretation would be required by this hypothetical mechanism of Freud.

On the whole, the dreams I have collected and studied in their various characteristics comport exceedingly closely in principle with these other types. If the mechanism of Freud is true of dreams it ought to be true of other types of hallucinatory symbolism. One very suggestive type of hallucinations is that of an artificial (crystal) vision which is an exact portrayal of a previous dream. The whole dream from beginning to end and in all its details unfolds itself in the crystal like one of the "moving pictures" of the biograph. The similarity between the two phenomena becomes more apparent in the case where the crystal gazer loses his apperception of his environment, which disappears, and he seems to himself to be within the scene of the crystal. It is a natural inference that the same mechanism that is at work in the one case must be at work in the other. This may be so, in which case we would not be justified in assuming a different mechanism for dreams than for visions. Yet another interpretation is possible. A vision of a dream scene, being a repetition of an experience, is open in large

part to explanation on the principle of memory, or the reproduction of a conserved experience (the dream), but this is not wholly the case, for the gazer often sees the figure of *himself and his relation to the dream environment*. These elements of the vision are plainly not a reproduction of an experience, for the dreamer does not see himself. In this detail the vision is plainly a translation of his own subconscious knowledge into the visual symbol. Similarly I have secured artificial visions of sleep-walking acts. In the vision unconscious acts (i.e. the unconscious dropping of a letter from the hand) were portrayed, while the outer facial expression of the figure in the crystal, indicative of mirth or sadness, revealed the inner thoughts of the somnambulist.

As to the *characteristics* of the symbolism of the dreams they were not fundamentally different from those which can be observed in certain other types, particularly in the visions of religious mystics. Of the four characteristics which Freud has insisted upon as fundamental to dreams and as the mechanism* by which the true dream thought becomes "distorted," three—"condensation," "dramatization," and "secondary elaboration"—can be easily recognized in many such visions† and they were prominent in the dreams of my subject. By "condensation," a symbol represents more than a single idea; as the national flag stands for a host of ideas, so climbing the hill of life (dream 2), or the rocky path of life (dreams 5 and 6), the red and black shadows (dream 2), "cats," etc., are symbolic condensations of complex ideas. So likewise dramatization and secondary elaboration of the true dream thoughts may be easily recognized in the dreams and in the necessarily condensed analyses I have given. But these characteristics are essential in a greater or less degree to all symbolism, particularly the pictorial variety, and there is nothing peculiar in this respect in dreams. In Margaret Mary's historical vision of the Sacred Heart‡ they are strikingly manifest. On the other

*Wrongly termed, I think.

† For example, compare Saint Margaret Mary's vision of the Sacred Heart and the hallucinatory experiences of one of Starbuck's cases, both quoted in James's "Varieties of Religious Experiences," p. 343 and p. 252.

‡loc. cit.

hand, Freud's fourth characteristic, the "displacement" of the emotion pertaining to the underlying true dream to an inconsequential element in the ("manifest") dream content, I have not noticed in the dreams I have collected, nor do I think it observable in other types of symbolism, though I have not made an extended search for this characteristic. In my collection the emotion appeared to be always associated with those elements of the "manifest" content which represented the emotional thoughts of the true dream. There was therefore no "disguise" of the latter.

As to that part of the *mechanism* by which the motivating thoughts (i.e. the subconscious process) fabricate the symbolism (out of the material furnished by the pre-sleeping thoughts and those of the preceding day), we have already seen that those elements of this material are selected which have an associative relation with the motive: The law of association may thus explain — so far as it explains anything — the selection of the different pieces of the dream content. But *why* does the subconscious content manifest itself through the particular action adopted in preference to some other? As the motivating thoughts were not unacceptable and repressed in any of the dreams I have collected it was not for the purpose of disguise.

In drawing conclusions I feel it wiser to confine myself entirely to the results of my own observations. The question does not permit of a satisfying answer. Until we can delve down beneath the threshold of consciousness and until we know more of what goes on in the subconscious process it will be impossible to answer the question of the "why" in any satisfactory manner. If the subconscious process is a thinking consciousness, and if we knew what it was thinking about during a dream, we could say probably why it manifested itself as it did; if it is only a brain process and we knew the laws of its functioning we could also answer the question. Considering the limitations of our knowledge in this respect any solution at present can only be conjectural. Take the first dream. The history shows with almost certainty that the pre-sleeping thoughts and those of the preceding day "suggested" or awakened the subconscious "thoughts" (process) of this dream and therefore were

responsible for the dream. The analysis justifies this inference. This being the case we should expect that the material of the dream would be taken by association from these causative forethoughts. Now let us suppose that the subconscious "thought" was, "Poor people like the Jewess are not to be condemned for drinking whiskey, for my mother who was beyond criticism would not have condemned them." And let us further suppose that it is a function of a subconscious process (in fact commonly manifested) to give rise to visual images in consciousness. In his case it is not difficult to understand that the subconscious thought might well induce (through associated memories brought out in the analysis) conscious pictures of the Jewess and her mother as in the scene and thus manifest itself symbolically in the dream scene.

That this is not a mere fanciful hypothesis, but has experimental support, I could show by citing from a large number of experiments and other observations I have made in which suggested or spontaneous subconscious processes were accompanied by coconscious pictures. Each step in the process was accompanied by its corresponding and illustrative picture. But this is a problem for another and independent study, and I prefer to leave it for the present where it is. Finally I would say that I would not be understood as affirming that the conclusions arrived at in this study can be extended *in toto* to the dreams of all individuals. It may be that in particular subjects dissociated subconscious processes more readily are formed and take on functional activity than in normally stable individuals. In the latter class it may be that dreams are determined by other processes, including those of normal thought. Further studies are required. On the other hand, we do not know as yet to what extent even everyday thought, which seems so free from other determining influences than those of the "personal consciousness" are in reality determined by subconscious processes. This is probably far more the case than we imagine. Though there may be grave doubts regarding the mechanism and other theories of Freud we are under obligations to him for emphasizing the importance of the subconscious in normal everyday life.

5. THE PERSISTENCE OF DREAM SYMBOLISM AS
HYSTERICAL STIGMATA

Another instructive class of facts in this connection are the persistence of certain of the dream phenomena after waking. For instance, in the fifth dream the subject tries to speak to her mother, but finds she has lost her voice. This followed the dream thought that she must not speak (make a sound) and an intense muscular effort not to cry out as she passed over the cats. (The dream analysis pointed to an actual spasm of the muscles of the throat during this effort.) Now on waking the *aphonia* persisted, she could not speak any more than in the dream.

Likewise in the sixth dream the subject was blinded or partially blinded; on waking this partial blindness persisted. In the dream the blindness followed a tremendously brilliant flash of light (as of a flashlight) which lighted up a cave and revealed a distressing picture. This flash was followed momentarily by absolute darkness (as if blinded). This phenomenon was repeated several times. Now after waking not only was there *persistent partial blindness*, but *flashes of light* followed by absolute darkness were repeated several times during the course of the day, and in each flash she saw, vaguely and obscurely, what she had seen in her dream — it was as if she “looked into a brilliantly lighted place (the cave) and saw there some terrible object but she [I] did not know what it was.” In other words, the symbolism of the dream was partially repeated as an hallucination when the subject was in her normal waking state.

Another phenomenon of the same type was the persisting *paralysis* after waking. In the sixth dream her helplessness was symbolized by inability to move, i.e. paralysis. “She could not move hand or foot for about five minutes.” Amongst the other dreams I have collected is one in which she was told by a certain person in the dream that she could not move and in the dream she could not; she became rigid. The next day from time to time coconscious “pictures” developed. When these “pictures” came she could not move a step even though she was at the time crossing the floor. This happened half a dozen times when she was up and about

and more often when she was lying down. At such times she would become rigid for a few seconds; then the picture of X would go out and the picture of Y would come and she could move.

Following other dreams after waking the subject had a *visual hallucination* of a person whom she vividly saw in her room. This phenomenon occurred on several occasions. The hallucinations were not always of the same person. On recovering the memory of the dream it was found that the visions were always that of a person who had been a conspicuous object in the dream. The dream process in other words persisted after waking.

On other occasions the subject had peculiar *sensori-motor phenomena*—sort of tics. During the course of the day she frequently had the feeling that she was going to step on something disagreeable and each time looked to see what she was stepping on — to see if there was something there. Each time she shrank from this possible something. It was found that correspondingly in the dream she imagined that she was picking her way over Watts's rocky path, which was covered with cats. She picked her way to avoid stepping on the cats as she placed each foot.

On numerous occasions in the dream a violent *headache, with nausea*, suddenly developed at the emotional crisis of the nightmare. After waking severe headache and nausea, simulating and previously diagnosed as migraine, persisted until relieved by simple suggestion (Dream 4). These headaches had resisted all therapeutic measures in the hands of numerous physicians until I discovered this pathology through the dreams.

Finally, I may say, although not completing the number of somatic phenomena, which were observed to follow the dreams, *depression and fatigue* have been common phenomena. These could be traced to the persistence of the same phenomena as elements of dreams.

Now the first things to be noted in these physiological phenomena — the aphonia, the blindness, the paralysis, the headache, the hallucinations, the tics, the depression and fatigue,— is that in the dream they were primarily due to *psychical* causes, certain ideas, and were elements in a pro-

cess of which the dream consciousness was also a part. Of this there can be no question considering that they were only elements of a dream and all were instantaneously relieved by suggestion. (I put aside for the moment the question of the relation of the dream phenomena to the second or larger "unconscious" process).

The second thing to be noted is that the persistence of the phenomena during the waking state shows that in that state a secondary process was still in activity and it is hardly questionable that this process was the same as that which induced the phenomena in the dream. There is no avoidance of the conclusion *that the phenomena were the persistence of the dream process—or part of it, in the waking state.* This dream process in the waking state was certainly subconscious (whether coconscious or unconscious) for the subject was unaware of it. It must have been through the continued activity of such a subconscious process that the vocal function in one case, the visual function and the general muscular innervation in another were inhibited. Through such continued activity the flashes of light, the visual hallucinations, the sensori-motor phenomena (tics), etc., all must have been produced.

But there was still other evidence of some subconscious process at work in the production of this symbolism. By the method of psycho-analysis it was brought out that, after waking *coconscious* pictures of the dream cave and its contents in one case, and of cats in the rocky path in the other began to come and go (of this, of course, the subject was not aware) and sometimes when these coconscious pictures came she would be aware of the flashes of light and of the feeling of stepping on cats. In other words the functioning of the unconscious dream process would produce part of the dream symbolism in the waking consciousness and part in the coconsciousness. The conscious elements of each complemented each other and substantially reproduced this part of the dream.

Here we have, it seems to me, evidence which forces the conclusion of an unconscious process which reveals itself through conscious and somatic phenomena. I have collected a large amount of similar evidence from the phenomena of post-hypnotic suggestions.

As the somatic phenomena (aphonia, blindness, paralysis, hallucinations, etc.,) were identical with those phenomena which clinically are known as hysterical, these observations clearly open the door to the interpretation of hysteria. Into this great subject, of course, I cannot go here.

There is one principle, however, which I would dwell upon for a moment. I have pointed out that the hysterical stigmata following the dreams were originally in the dream either symbolic representations or immediate representations of certain previously conceived ideas: aphonia, that she must not speak; the blindness, that if she looked into the future she would be metaphorically blinded or overwhelmed; the paralysis, that she was helpless, etc. We have seen that these subconscious activities were carried over into the waking state and underlay the persisting hysterical stigmata. It necessarily follows therefore that these hysterical stigmata must still be regarded as symbolical manifestations of the ideas which originally gave rise to them and which continued to function as a subconscious process. I would further point out that in the absence of any knowledge of the dream, it would have been impossible to have traced the true relationship between these stigmata and the ideas of which they were symbols, or, indeed, of the genesis of the stigmata at all.

These considerations suggest whether we may not logically consider all the conventional stigmata of hysteria from this point of view, and investigate them as possible symbolisms of hidden processes of thought. In such an investigation the direct connection between a stigma and the mental concept would rarely be obvious and could only be ascertained by the same method of searching psychoanalysis as is employed in the examination of dreams.

I will here simply illustrate the principle of symbolism which I have suggested (meaning thereby not so-called "conversion") by the following example of a hysterical symptom: We all know that contractures and paralysis are very common in hysteria. We also know that in hysteria these contractures can often be modified, removed and reinduced by suggestion. I have here the photograph of hysterical contractures which could be removed and induced again at will by the suggesting influence of a tuning fork,

as will be seen in the photograph. It is again well known that contractures can be induced in highly suggestible normal people by the same influence.

Now what is the process by which such contractures are brought about? They plainly are not voluntary motor innervations. The subject himself cannot voluntarily create or remove them. They must be due to some unconscious process, but one which can be directly influenced by an idea, whether suggested or autochthonous. Is it not quite possible that if the patient shown in the photograph had been subjected to psycho-analysis we should have resurrected memories of ideas previously entertained by the patient in some period of her life, which ideas resurrected and acting subconsciously, were symbolized by the contracture and the paralysis? The content of these ideas might be and probably would be very far removed from the specific conception of a contracture. In her dreams we might have found them symbolically expressed, as were the other stigmata in the subject upon whom the above observations were made. In the hysteric the contractures followed a slight accident. We might have been able to resurrect memories of fear of injuries and their possible consequences; memories of specific accidents occurring to people who had been maimed and paralyzed, fallacious ideas of disease, etc. Out of such ideas, subconsciously functioning, it is possible that the actual contractures developed as a symbolic representation, as was the case in the hysterical phenomena I have above described.

However that may be and whatever the exact mechanism it has become convincingly clear that an understanding of the psychoneuroses and of dreams can only be obtained through a study of the phenomena of the subconscious (coconscious and unconscious) in all their protean forms. As has been shown so often, a knowledge of the subconscious opens the door to an understanding not only of the great psychoneuroses, of which hysteria is the most wonderful example, but as well of the mental processes of normal everyday life, waking and sleeping. Our present knowledge of subconscious processes which do not enter our awareness, but probably take part in and determine

every process of thought, is but surface deep, and we know little of the mode of working of their complex mechanisms. Though we can recognize the manifestation of these mechanisms we are able as yet to determine only very imperfectly the how and the why of their production. It remains for future researches to solve these problems, but they can be solved only by the same methods of observation and experiment which in other departments of science have given reliable results and placed our knowledge on a sound basis.

DREAMS AS A CAUSE OF SYMPTOMS*

G. A. WATERMAN, M. D.

MUCH interest has been awakened during the past few years in the analysis of dreams and the psychology of the mechanism of dream formation. As is well known, Freud has been the pioneer in this field, and in his *Traumdeutung* has given his views to the world in a well-elaborated form. The principles of Freud's work have been too well illustrated in this country by Jones, Putnam, Brill, and Onuf to admit of any attempt on my part to describe them further.

The object of this paper is less to discuss the mechanism and interpretation of dream-making than to show how dreams (though often forgotten by the dreamer on awaking) may serve as a cause of symptoms which may persist for varying lengths of time. The former subject is included in the more comprehensive study of dreams by Dr. Prince in this number of the JOURNAL. Nevertheless, in presenting the following dreams as illustrative of how symptoms may develop from dreams, I shall avail myself of the opportunity to call attention to some of the points of mechanism and interpretation which the cases bring out.

It is by no means an unusual experience for many of us to wake in the morning feeling blue and depressed, and to have this mood persist until the demands of the day cause it to disappear. This morning depression may sometimes be at once recognized as due to the disturbing dreams of the night before.* If, however, on awaking one does not remember the bad dreams of the preceding night, it is not a proof that they have not occurred and are not still acting as the cause of the depression, for not only do dreams fade from the conscious memory with great rapidity, but in some

*Read at the first Annual Meeting of the American Psychopathological Association at Washington, May 2, 1910.

people on awaking there is a complete amnesia for the dreams they have had. I wish in the following pages to illustrate the fact that an exaggerated degree of the depression resulting from dreams may occur in some individuals, and that the troublesome symptoms arising in this way may persist for a considerable length of time.

In order better to comprehend how the apparently grotesque pictures occurring in the dream may give rise to sufficient emotional disturbance to cause the resulting symptoms I wish to refer to the fundamental principle laid down by Freud as to the relationship between the "latent content" and the "manifest content" of dreams. Freud maintains that the absurd and incongruous dream that one experiences, what he calls the "manifest content," is a distortion — taking place by means of a definite mechanism — of a repressed wish, which forms the true but subconscious dream thoughts. Each of the two patients whose dreams are here presented is quite aware that her mental attitude toward the point in question is one that she does not wish to accept. One tries to put the thoughts from her because, although she maintains that they are justifiable, they are not conducive to happiness. The other vainly attempts to deny to herself the fact that her mother's treatment of her has been most selfish and unfair.

Such thoughts and feelings as these underlying the dream, Prince has termed the "motive" of the dream. This motive plays the same role in the dream as the "latent content" of Freud, which he determines through psychoanalysis by free association.

The first three of the following dreams are those of a patient whom Dr. Prince has studied for some time and whom he has designated as B. C. A. The dreams of this subject form the basis of his paper published in this number of the JOURNAL. We have studied her dreams together and separately on many occasions, and have found that certain of her feelings are almost constantly expressed by the same symbols,

and consequently a recurrence of these symbols is found running through numerous dreams.

It is not without importance that my own observations on this subject are confirmatory of those of Dr. Prince. The same dream phenomena, the same symbolism, and the same relation of the dream content to previous dominating ideas of the subject have been observed independently by me and, so far as interpretation of the dream phenomena is concerned, we have arrived at practically similar conclusions.

This patient is a woman of refined temperament and keen intellect. Some years ago she suffered much from the loss of her husband, and since then has been more or less of a recluse. Her habitual attitude toward life has been that there is nothing more of pleasure or happiness for her, but that she must go on merely fulfilling her daily duties. Gradually this point of view has been modified, so that for considerable periods she has been stimulated to do things from which she derives a good deal of pleasure, and interests have been awakened which afford her absorbing occupation. The old mood still comes back, however, and is then the cause of considerable depression.

The attitude toward life which she held for so long a time will be seen to permeate the true dream thoughts of the two subsequent analyses; and the way in which physical symptoms may be caused by incidents in dream life is well illustrated in her case.

One morning last February the patient awoke with a severe headache and felt sick and nauseated. In spite of the fact that various remedies were used during the next few days the headache continued unabated and the patient remained at home, feeling too ill to go out and finding it difficult to eat. After this condition had persisted for a week it seemed best to see whether the origin of her headache might not be discovered in a dream, although she insisted that she had not had any dreams. Previous experience had shown, however, that symptoms had often arisen from distressing experiences occurring in a dream state, so an

attempt was made to see whether forgotten memories of some dream could not be recalled in hypnosis.

It so happened that just a few days previous to this the patient had received a letter saying that a friend of hers had killed herself through the inhalation of chloroform. This friend was a woman whose life had been filled with sorrow, and who had shown great courage and strength of character in meeting her troubles; consequently, the thoughts of the patient had dwelt a good deal upon her death, and it was upon the night previous to the beginning of her headache that the following dream occurred.

Before hypnosis was begun the patient was asked to look steadily at the surface of a glass of water and to describe what she saw. After gazing for a few moments, she exclaimed, "Oh this is horrible! I see a woman stretched out with a cloth over her face! It is a friend of mine. She is dead. I can't stand it!" (Rises from her chair.)

"Look again."

"It is Lucerne, beside the lake. I see myself sitting on the terrace and everything is gay about me. Quantities of people are around and the lake is covered with boats." (Pause, shudders.) "My friend, the woman who is dead, is standing beside me. She has something in her hand. It is a glass." (Rises.) "I can't look, it is horrible!" The patient was then hypnotized and described the following dream:

Dream 1.—She dreamed that she was sitting on the terrace on the shore of the lake at Lucerne. The water was covered with boats and the streets were filled with people hurrying toward the lake. Everybody about her was happy and joyous. As they appeared below her she recognized various friends who, in passing, waved or bowed to her, and said, "Why don't you go?" (No one said, "Why don't you come?") She felt forlorn and buried her face in her hands. Suddenly she felt a touch on her shoulder, and her friend who had recently died stood there dressed all in black. In her hand she held a glass filled with

a dark liquid, which she offered to the patient, and said, "Drink this and come with me." But the patient said, "My doctor says there *is* something in life for me; that there *is* joy and something to live for," to which the woman replied, "Did *I* find anything in life? Drink this."

At this moment the patient awoke feeling nauseated, filled with a sense of fear, and suffering from headache. All through the day and the following days (according to the testimony of the hypnotized subject) pictures,* of which the patient was not aware, representing flashes of the dream were appearing and disappearing in her coconscious mind. Although she was not conscious of these pictures, they made her feel wretched and caused her headache to continue. It is interesting to note here that the pictures which were coming and going in her coconsciousness were the same ones which flashed across the surface of the water as she gazed into the glass.

Here we have, then, a case where the emotional disturbance occurring in a dream gave rise to all the physical discomfort attendant on depression of spirits, with nausea and headache, which continued after waking, and persisted for a week, although the patient had no conscious memory of having dreamed at all.

Some weeks later this patient awoke feeling sick and nauseated and with a bitter taste in her mouth. This persisted for several days, when the following dream was elicited through hypnosis:

Dream 2.— She dreamed that she was in bed and awoke and thought that she must get up in order to be ready when Mr. X came. (The evening before the dream the patient had spent with one of her friends,

*The role which these pictures of the coconsciousness plays as a cause of various psychological phenomena, such as the carrying out of post-hypnotic suggestions and the production of hysterical hallucinations of sight, is a most interesting and important one. Dr. Prince was the first to discover and call attention to them and has described their action in his works.

Mr. X, who had promised to take a walk with her on the succeeding morning.) Then she dreamed that she was combing her hair, and that it flew out in all directions. She thought that Mr. X would not care for it that way, because he had not liked it the way it was dressed the night previous, when it really looked so much better. Then she and Mr. X were on the embankment leaning over the rail and watching the sunset. All at once it was dark, and the air over the river was filled with large balloons, iridescent like soap bubbles, and there were people on them. They watched them for a moment, and Mr. X said, "I must have one," and he caught one and was at once seated on it and floating off among the others. Then she tried to catch two or three, but each one burst as she touched it, and she thought, "There is nothing bright for me." Suddenly she was in a rocky path, dressed only in her nightgown. (Now it happens that the patient had at one time been strongly impressed with a picture by Watts, called "Love and Life," in which Life, a woman, appears forlorn and helpless, toiling up a rocky pathway, apparently sustained through the influence of Love, which is represented by the figure of an angel, who is supporting and leading her with every expression of protection and tenderness. It is the pathway of this picture that the patient recognized in the dream.)* She was cold and the wind was blowing hard. The river lay below her, with the bubbles and people on them, floating over it. Above the others was Mr. Z. (another friend, who is particularly successful in business and whom she always pictures as being on the crest of things). He was kicking his bubble to make it go, as one spurs a horse. He was higher than the others and seemed gleeful and happy.

Suddenly the dead woman of the previous dream appeared beside her and pressed close to her as she toiled wearily up the path, bowed forward, putting

*For associative memories of this symbol see paper by Dr. Prince.

one foot painfully before the other. The weight of the woman's body was against her and the wind was blowing strongly in her face. This woman offered her a glass filled with a dark liquid, holding it to her mouth, and saying, "Drink, for once dead you never shall return." And she (the dreamer) drew back and sat down on a rock and thought, "Why shouldn't I drink it? It is not true that there are bright things in the world for me. It is only a struggle." So she took the glass and put it to her lips. It was *bitter*, oh, so bitter, and hot, too. It puckered her mouth and she said, "Oh, I cannot drink it! Life is bitter enough, but this death is more bitter still." Then she threw the glass away from her and it rolled on the ground, changed into a bubble, and floated off among the others.

At this moment she awoke with a headache, feeling very cold and perspiring all over her chest. She felt sick and wretched and, as she got up for the hot water bottle, she thought, "*What makes my mouth so bitter?*" She brushed her teeth and went to bed again. The headache continued, however, during the succeeding days and disappeared only upon recalling the memories of the dream and explaining them.

Here, then, we see that the patient in her dream symbolizing death as "the bitter cup," drinks of the cup, and as a result the bitter taste persists as a physiological phenomenon on awaking, and she feels sick and miserable until the memories of the dream are recalled and explained.

I wish here, as well as in the subsequent dreams, to call attention to the fact that although the true dream thoughts are represented symbolically in the "manifest content," yet their real import is not disguised by this device. The patient has explained here, as she has in other similar experiences, that throughout the dream the emotional tone was that which would be naturally produced by the true dream thoughts existing in the "motive" of the dream and not that of the "manifest content." That is, the

bursting of the bubble, on her attempt to grasp it, carried with it all the disappointment and hopelessness of the feeling that happiness and joy were lost. It was not a mere superficial disappointment, such as would result from the failure to accomplish some such trivial purpose as the simple grasping of a bubble.

Throughout this dream we see the pessimistic feelings and state of depression of the patient pervading the "latent content," and forming the true dream thoughts which are symbolically expressed in the dramatic representation of the dream. The bright-colored bubbles represented the happy things of life which everybody was enjoying, and even the friend who was with her left her to participate in them. Her feeling that there is nothing in life for her was expressed by the bursting of these bubbles upon her attempt to grasp them. Her constant thoughts of death and suicide are symbolized by the return of her friend from the dead to offer her the bitter cup of death as she toils wearily along the path of life. The transformation of this glass into the bubble is symbolic of the happiness and joy which follows death.

The third dream, which gave rise to nausea and vomiting on awaking, illustrated well the manner in which the most recent of the patient's waking thoughts provide the material from which the manifest content of the dream is constructed.

The patient awoke at three o'clock in the morning feeling distressed, cold, nauseated, and wet with perspiration. She got up to get the hot water bottle, felt very ill, and vomited. She went back to bed and dozed for ten or fifteen minutes, then awoke, still feeling ill, and vomited again. She felt weak and nauseated during the day, and late in the afternoon investigation of the cause disclosed the following dream. Before hypnosis crystal gazing was tried and the patient saw the following pictures in the glass.

First Picture.—"Oh, I can see an evil-looking creature, some sort of monstrosity!" In succeeding pictures: "I can see a forest with trees and all sorts of

animals — elephants, tigers, squirrels, mice, and rabbits — all walking around, two of each kind together.” Then she sees herself running from the monstrosity. It has a long neck, with a big body close to the ground, and an immense head. Then, in quick succession, she sees the following pictures: a cave, with many passages running off from it; a lake of water; a hillside, with a path leading up to its top, and then water with herself in it, whirling round and round, and the water itself full of goldfish.

The dream recalled under hypnosis is as follows:

Dream III.— She dreamed that she was in a forest with all sorts of animals wandering about. There were elephants, rabbits, etc., as enumerated above — two of every kind — and she thought, “Well, here am I, the only one of my kind”; and then the monstrosity appeared. He had a long striped body, like a tiger. His legs were short, like an alligator’s legs, so that his body lay close to the ground; the feet had long claws; he had a long neck like a giraffe; the head was that of a man and yet seemed different, more as if it belonged to a statue of marble, a sort of Apollo. It was horrible and terrible. It said to her, “I am the only one of my kind and we shall have to go together.” She said, “Who are you?” and the animal replied, “I am Love.” She was frightened and ran away. Then she came to a lake and ran right into it. She was dressed in an evening gown that she had worn some six years before this, but which she had long since forgotten. As she entered the water she did not have the sensation of wet or cold, but just felt that the water was around her. It was full of eddies, and she would whirl around in these, going from one to the other and enjoying it immensely. All about her were bright-colored fishes. She felt joyful and happy.

Suddenly she entered an enormous eddy that seemed to her like a great vase, and she went down and down until she could look up through the water and see the fishes playing above her. Then she went through

the bottom and into a great cave. There all was dark, but she could discern passages running in every direction. She went through one of these and saw ahead of her a steep, rocky mountain, just outside the mouth of the cave. As she reached the foot of the mountain a voice, which she recognized as that of a friend, called to her from the top of the mountain, and said, "Come up here," and she said, "I can't." The voice replied, "Yes, you can, because up here is all that you desire." Then she felt that it would be nice to get there and started to toil up the hillside. It was very steep and hard. The stones rolled under her feet, and she slipped and crawled and struggled, catching with her hands at the rocks and bushes. She felt that she must keep on, because at the top she would find peace and happiness.

After a long struggle she reached the top and found that there was nothing there. She was overpowered by a feeling of deathly sickness and disappointment and awoke feeling *nauseated and sick*.

The patient says that the feeling of disappointment embodied in the moment when she reached the top was one of intense bitterness and hopelessness, anxiety and disappointment, as if everything in life had gone; and, at that moment, she awoke. Then, in succeeding naps that she had during the remainder of the night, fragments of this dream would recur and she would awaken with all the previous symptoms of illness. There were constantly passing through her coconscious mind those pictures seen in the crystal, i.e. the forest with the animals, the lake of water, herself toiling up the mountain, the cave, and herself at the top of the mountain; and each time this last picture appeared she would experience a fresh wave of nausea and sickness.

In seeking the origin of the material from which this dream was constructed, the following train of thoughts was found to have passed through her mind

in the few moments *previous to going to sleep*.^{*} She had wondered what she should do during the coming summer and thought that it would be nice to go into the Maine woods and camp for a while. She thought that her son would enjoy the hunting and fishing there. And then she thought of a dress that she was having made and which she had tried on that day. Then she thought of a statue in the Luxembourg and tried to recall it to her mind. This statue was the figure of a woman embracing a man. The woman's head was that of a Sphinx and her hands were terrible claws, which were tearing into the flesh of the man's shoulders as she embraced him. The man's face wore an expression of horror and great agony. The patient had also recently been discussing the figure of Love in the picture by Watts, mentioned in dream II, and had said, rather bitterly, that she would not portray Love as a gentle and protecting angel, but as a figure made up of the body of a lion, the claws of a tiger, and the head of an angel; because, while love attracts and lures one on, it always rends and tears one.

So it is apparent that the material for the "manifest content" of her dream was furnished by the most recent of her waking thoughts; while the "latent content" was but the expression of the feeling of loneliness and hopelessness which she had been so constantly attempting to repress throughout her daily life.

Dream IV.—This patient was a girl twenty-one years old, who when seen last November had been having attacks of severe pain in the right lower abdomen during the previous ten or twelve months. The pain came on suddenly, wherever she happened to be,

^{*}Although Freud has shown that the thoughts and experiences of the day preceding the dream serve to furnish the material from which the manifest content of the dream is constructed, Prince has demonstrated that the thoughts drifting through the mind in the moments immediately preceding sleep have this function. While it is natural that these pre-sleeping thoughts should tend to revert to the experiences of the day their recurrence just as consciousness is being lost makes their relationship to the dream a closer one.

and caused her to writhe and cry out. Ordinary sedatives were useless in controlling the paroxysms, so, after morphine had been used in considerable doses without effect, ether was resorted to as affording the only relief. She had had an operation for the removal of the appendix two months previous to the time when she was first seen, but this had not benefited her. Prolonged treatment in different hospitals had been useless.

In seeking for a cause the following history was obtained: She had been married three years. Three months after her marriage her husband had been killed in a railway accident. She remembers hearing the news of this accident, but has been amnesic for the events of the subsequent two days, except for a flash in which she can recall the nurse telling her to leave her husband's bedside in New York, just before his death. The next thing she remembers is finding herself, two days later, on an electric car in Cambridge, but she has no idea when she left New York or how she traveled.

Ten months after her marriage, and seven months after her husband's death, a baby was born, which, at the age of eleven months, died of pneumonia. During her pregnancy and in the earlier months of the child's life, her thoughts were always of its fatherless condition; and much of the time she felt a sense of suffocation, and heaviness about the heart.

Her first attack of pain occurred on Thanksgiving Day, and followed a dream which she vividly remembers in the waking state. She dreamed she was moving a piano, which rapidly grew heavier while she held it raised from the floor, until it caused a pain in her right arm, extending down through the body into the right leg. Suddenly the piano fell with a crash, bruising her arm, and she awoke to find her arm entwined in the iron rods of the head of the bed in such a way as to cause her a great deal of pain, which extended down through the right abdomen. The next morning she went to work as usual, as saleswoman in a variety store, but all that day there was continuous pain in her

right side from the breast to the hip, although she no longer felt it in the arm or leg, as in the dream.

During the next few months this pain came and went without apparent cause. The paroxysms gradually grew more severe and the pain in the abdomen became more sharply localized in the region of the appendix. At the time of the examination she said that for several months the paroxysms had occurred every few days, and that during the few previous weeks they had occurred daily. She seemed to lose control of herself in the attacks, and said she felt as if a vise were gripping things into a lump inside, and as if her right leg were being drawn up. She really felt that she was going to die. For that matter, many witnesses of the attacks felt the same, although her mother appeared unsympathetic and unruffled during them.

Physical examination was normal regarding reflexes and anesthesia, but there was a great deal of tenderness about the scar left by the abdominal operation.

After a number of conversations, the following relations with her family were brought to light, and were undoubtedly disturbing elements in the causation of her condition. The girl has always been well bred and well behaved, and has possessed the deepest respect for her parents; she has been particularly scrupulous about carrying out her mother's wishes. This, she says, is partly from love and partly, perhaps, due to the fact that her mother is strong and masterful and accustomed to having her way in all domestic affairs. In the June previous to the November of her illness, the railroad paid her a few hundred dollars for the death of her husband. This money she was not inclined to accept, but the mother took it from the lawyers of the road and told her to sign the papers of settlement, which she did. This money was kept by the mother and spent in foolish luxuries, in spite of protests from the girl, who was also turning over her weekly wages to her mother and going without many necessary things.

When this settlement money was nearly gone the mother sa'd, one day in the fall, that she thought it would be nice to buy a piano for a sister. To this the patient strenuously objected, but the piano was bought and concealed in the living room until Thanksgiving Day, when her sister was brought in with the family to be surprised with the gift. Instead, however, of expressing surprise, the sister took it very coolly and accepted it with scant thanks. Naturally the patient felt very indignant, but she repressed her emotions, and went early to bed. It was on the following night that the dream occurred, which was the origin of the attacks of abdominal pain.

There were many additional factors which for a long time had been serving to cause strife in the girl's mind.

The natural indignation and loss of faith in her mother, due to the latter's selfish attitude toward her, were only partially held in check by her filial love and regard. She was continually striving not to admit to herself the heartlessness and indifference of her mother's conduct, and, when it was impossible to do this, would wear herself out in attempting to repress any outward expression of her rebellious feeling at the injustice shown her. It was not only in regard to the misuse of the money which had been received in compensation for her husband's death, but in many other ways her mother had been unjust toward her.

For some months the patient had been engaged to marry a very promising and worthy man whom she loved, but her mother had objected to the match without reason, and had made many insulting and insinuating remarks about the fiancé.

So in the dream, the piano, which was symbolic of all the cumulative resentment and rebellion which she had so long attempted to repress, proved, like her feelings, too much for her to bear, and the pain brought on by the strain persisted after she awoke, as described.

It is difficult to say with certainty whether the

pain in the arm and side found its origin in the effort of raising the piano in the dream or in the physical discomfort arising from the entwining of the arm in the headpiece of the bedstead. In all probability the pain and discomfort from the cramped position of the arm became perpetuated through "conversion" from the emotional disturbance she had been experiencing so long and which was symbolically expressed by the piano in the dream. As a result of this process there arose the paroxysms of pain extending over months and not yielding to the analgesic effects of morphine or to ether inhalations, or to the suggestive influence of appendectomy. The disappearance of the attacks as a result of psychoanalysis and explanation was immediate and permanent.

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ABSTRACTS

FREUD'S THEORY OF DREAMS. By Ernest Jones. *American Journal of Psychology*. April, 1910, p. 283.

FREUD'S theory of dreams is so comprehensive that it is only possible here to mention its outstanding features. Dreams are generally thought to be a meaningless conglomeration of psychical processes evoked by chance somatic stimuli. Freud, on the contrary, finds that they are the disguised expression of highly significant underlying psychical processes. He contrasts the "manifest content," which is the dream as directly related, with the "latent content," which is the group of thoughts reached by psychoanalysis of the dream. In the young child the manifest and latent contents are identical, and the dream plainly represents the imaginary fulfilment of an ungratified wish; the egocentric nature of the wish is equally evident. Freud maintains that every dream represents the fulfilment of an egocentric wish, and that the chief difference between the dreams of adults and those of young children is that in the former case the wish is a repressed one, the presentation of which is disguised so as to make it unrecognizable until it has been submitted to psychoanalysis.

The mechanisms by means of which is brought about the distortion between the latent and the manifest content are quite precise. The thoughts of the latent content are unconscious, being repressed by the censor of consciousness. In the waking state they cannot penetrate to consciousness, but during sleep, when the activity of the censor is relaxed, they can do so, provided, however, that they are distorted so that their true meaning is not recognized. The formation of the dream, or "dream-making," is purely concerned with translating the latent thoughts into the distorted shape of the manifest content; it performs no intellectual work whatever. Apparently intellectual processes in dreams have been taken bodily from the latent content. The extent to which a given dream is incomprehensible, illogical, confused, and contradictory exactly depends on the degree of distortion that has taken place, and is proportional to the amount of resistance offered by the subject to disclosing the underlying thoughts.

The four mechanisms of the dream-making are: (1) Condensation. Every element in the manifest content represents the fusion of several in the latent thoughts, and vice versa. The latent is condensed to a tenth or a twentieth of its original extent. The condensation is shown in several ways. For instance, a figure in a dream may be constituted by the fusion of the memories of several different actual persons, either by fusing some traits of one with others of another, or by making prominent the traits common to different persons and neglecting the ones not common to them. The same process frequently affects names, so that neologisms may be formed exactly analogous to those found in the psychoses. (2) Displacement. The psychical intensity of a given element in the manifest content shows no correspondence with that of the associated elements in the latent content; an element that stands in the foreground of interest in the former may represent the least significant of the latent thoughts, and an apparently unessential feature in the dream may represent the very core of the dream thoughts. Further, the most prominent affect in the dream frequently accompanies elements that represent the least important of the latent thoughts, and vice versa. (3) Dramatization. The manifest content depicts a situation or action, a fact that exercises a selecting influence on the mental process to be presented. Logical relations between the latent thoughts are as such not represented, but they may be indicated by means of certain special devices. Thus similarity may be represented by identification, causal relationship by making the one representing group of elements follow on the other, as in the gradual transformation of one scene with another, opposition and contradiction by inverting the two corresponding elements of the already formed dream, and so on. The characteristic that most dreams show of presenting the manifest content predominantly in a visual form Freud terms Regression, and explains it by a very interesting theory in which he also discusses the production of hallucinations. (4) Secondary Elaboration. This differs from the other mechanisms in being the product of consciousness, and is brought about by the alteration undergone by the dream processes during the apprehension of them in consciousness. To it is due whatever degree of ordering and consistency there may be found in a dream. It particularly affects parts of the dream that have

been insufficiently distorted during the dream-making; its action continues after waking, so that the memory of a dream becomes more altered the greater is the period that has elapsed since it was experienced.

The affect in the manifest content is invariably less intense than that in the latent content; this inhibition is partly due to the tendency to psychical regression during sleep, and partly to the suppressing effect of the censor. The affect is, as was mentioned above, displaced in the manifest content, but the apparent incongruity in its occurrence and association is solely due to this displacement; in the dream thoughts it is quite congruous and logically justified. The affect itself undergoes no distortion in the dream-making, as does the conceptual content, so that it is of the same nature in the manifest as in the latent content. The forgetting of dreams is, like the distortion of the latent content, a manifestation of the activity of the censor. The most important part is first forgotten, and often is recalled only during the analysis.

The sources and material from which dreams are composed differ as regards the manifest and latent contents. In every dream appears some incident of the preceding day. Indifferent incidents, i.e., those of little interest to the subject, frequently appear. These may be of the preceding day, or of older date; in every case they have obtained psychical significance by becoming on the day of their occurrence associated with significant experiences or memories. Somatic stimuli, e.g., pain, may sometimes provide material. This, however, is treated like other psychical material, and is woven into the dream under the same conditions; under no circumstances can it alone give rise to a dream. Hyperamnesia for previously forgotten infantile events is sometimes seen in the manifest content, and much more frequently in the latent content. It is probable that the groundwork of every dream is of infantile origin. A recent or conscious wish is inadequate to cause a dream unless it is associated with a repressed, unconscious one; this latter is always the real cause, and the superficial one is merely the instigator. The latent thoughts are always of high personal significance to the subject, and are in direct continuity with the rest of his mental life. Dream analysis is the most valuable means at our disposal for penetrating into the unconscious.

The function of a dream is to protect sleep by stilling

the activity of unconscious mental processes that otherwise would disturb it. When, however, the activity of the endopsychic censor, which is diminished during sleep, is insufficient to keep from consciousness the latent thoughts, or to compel such distortion of them as to render them unrecognizable, recourse has to be had to the accession of energy that the censor can exert in the waking state, and the sleeper wakes, usually in terror.

The theses of the paper are illustrated by nine short examples.

AUTHOR'S ABSTRACT.

STUDIES IN PSYCHOPATHOLOGY. THE PSYCHOTHERAPEUTIC VALUE OF THE HYPNOIDAL STATE. By Boris Sidis, M.A., Ph.D., M.D. *The Boston Medical and Surgical Journal*. August 19, August 26, Sept. 2, Sept. 9, 1909.

THE purpose of Dr. Sidis's "Studies in Psychopathology" is to treat of the hypnoidal state and of the place of hypnoidization in psychopathology and psychotherapeutics. The hypnoidal state is a normal rest-state, a half-waking condition on the borderland of waking consciousness, the primitive rest state of animals out of which sleep and hypnosis have developed. It therefore contains manifestations of the latter states. There is relaxation, slow reaction to stimulation, low heart beat, diffused memory and suggestibility. Such a state is always passed through in going to and coming out of sleep and may be artificially induced by fixation of attention, limitation of voluntary movements, monotony, and distraction. Being highly unstable the hypnoidal state keeps on oscillating between the waking consciousness on the one hand and that of sleep and hypnosis on the other. The hypnoidal state is not an artificial state like hypnosis, and should by no means be confused with hypnosis or with hypnoid states, as some writers do who speak of hypnoidal state as light hypnosis,—the hypnoidal is a normal state, it is a primitive rest state, more fundamental than sleep. This generalization is based on an extensive series of experiments performed by Dr. Sidis on a number of animals of various species and also on human adults, children, and infants.

While hypnoidization is only one method of curing many nervous maladies, it is invaluable in the large majority of cases, especially where the patient is not suited to hypnotic treatment.

The hypnoidal state, laying bare the forgotten experiences of the individual, enables the physician to trace the history of the disease. Early experiences become active, and forming a series of associations, come clearly to consciousness. Important as is the hypnoidal state in tracing the etiology of nervous diseases, it is still more valuable for therapeutic purposes. By its means the physician makes use of reserve energy, and by suggestion in the hypnoidal state, together with other methods, forms associations effecting a cure.

Dr. Sidis presents a number of clinical cases, and goes on to give an account of psychopathological states and the psychophysiological mechanism by the aid of which a cure is effected in the hypnoidal state. In previous "Studies" Dr. Sidis shows that psychic maladies are due to dissociation, and that systems, dissociated from the mental aggregate comprising the personality of the individual, react with great and uncontrollable energy to external stimulation. Such reactions cause the numerous mental disturbances described by Dr. Sidis as recurrent psychomotor states. He also shows how each component of the aggregate possesses its own stimulus-threshold, that is, the stimulus causing a change must be of a certain duration and intensity. Association of parts is accompanied by a rise of thresholds, and it may here be noted that complexity of association, with its accompanying inhibition, is of great advantage to man. With greater complexity, man's functions widen, while owing to guidance, control, and raised thresholds, activities are economized, the economy resulting in a greater accumulation of stored energy. This stored energy lying fallow is the very foundation of psychopathology and psychotherapeutics. In this stored energy Dr. Sidis finds the possibilities of the human mind, the growth of man and the progress of civilization.

Natural selection has done its work in ever selecting those tending to a greater conservation of energy, it has endowed man with the capabilities of a Socrates, Plato, or Aristotle. The difference to-day between an educated man and one uneducated is that the former has a larger connected system of functioning parts under his control, and is ever accumulating reserve energy with which to meet the exigencies of life. According to Dr. Sidis we ascribe too much importance to heredity and too little significance to education.

Aside from the fact that, on account of defective education, most people do not exercise the capacities with which they are naturally endowed, we must also take into consideration the fact that the

natural course of life brings about, by means of individual and social training, a complexity of systems, with inhibitions often detrimental to the individual. In recurrent psychomotor states the inhibitions amount to dissociation. The personality is narrowed down, there is a decrease of control of the higher, guiding powers of reason and will, and there is a corresponding increase of automatism. The function of the dissociated system becomes reflex in character and works with the same uncontrollable energy as the rest of our reflexes. The lowered threshold of the dissociated system places it at the mercy of external stimulations. The action of such systems, together with the lack or loss of control, tends to upset the neural and mental equilibrium and throw the individual out of adjustment to his environment.

The loss of psychophysical equilibrium, due to dissociation, may be reinstated in the hypnoidal state and thus effect a cure. For, according to Dr. Sidis, the rigidity of associations requisite in the struggle for existence of waking life gives way in the hypnoidal state.

The hypnoidal state is characterized by a redistribution and fall of thresholds with a consequent possibility of reformation, recombination, and integration of systems into new aggregates, better adapted to the external environment. The over-acting dissociated systems with their automatic reflex reactions may form associations with other systems, and thus become inhibited as well as controlled in their functioning activity by what we describe as the voluntary activity of the individual as a whole, or what is otherwise termed the personal consciousness, while the inhibited systems with their raised thresholds and accumulated reserve energy may be set to function. By taking advantage of such possible reformation, or reassociation of the dissociated systems, the psychopathologist is enabled to bring about readjustments of psychophysiological reactions, and thus effect a cure of psychopathic affections, or of what is described as psychoneurosis, through the agency of the subconscious, subwaking, hypnoidal state.

M. S. MERRILL.

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THE ACTION OF SUGGESTION IN PSYCHOTHERAPY*

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*Le traitement moral n'existera qu'au moment ou sera
fondée une science morale qui donnera la raison de l'emploi
de tel ou tel procede, qui expliquera ses succès et ses insuccès.—
Janet.*

THE ultimate aim of all scientific therapeutics should be to establish the exact way in which any given form of treatment brings about its effect, and, with this knowledge as a basis, to define its scope and provide precise indications for its use. Close investigation of a therapeutic measure that has empirically been found to be effective frequently yields important information about the nature of the malady itself, and it will presently be shown that suggestion constitutes no exception to this rule.

The study of the action of suggestion in psychotherapy possesses considerable accessory interest, in that of late years suggestion has been invoked to explain a great many phenomena in sociology and pathology as well as in therapeutics; these, however, will not be considered in the present

*Read in abstract before the First Annual Meeting of the American Psychopathological Association, May 2, 1910.

†See some remarks on this subject in the JOURNAL OF ABNORMAL PSYCHOLOGY. Vol. IV. p. 140.

paper, which is concerned solely with the part suggestion plays in treatment. Of all therapeutic agents suggestion, applied consciously or unconsciously, is perhaps the most widely used, and in the case of the psycho-neuroses many writers sum up the discussion of treatment in the one word, "suggestion." There is no doubt that Freud is right in his remark that the eager readiness of the medical profession to employ the term "suggestion" is due, not so much to the propagandism of the Nancy school, as to the alleviating discovery that a great economy of thought could thereby be effected.* To be able to attribute a given occurrence to "suggestion" is with many a complete solution of the problem, and they do not find it necessary to pursue the matter further, or even to acquire any clear idea of what they actually mean by suggestion. Indeed, when one notes the remarkable extent to which the term is evoked to explain all sorts of different events, it is striking to find what little work has been done on the question of the nature of suggestion.†

The term suggestion has two principal connotations, which, though not fundamentally different from each other, are yet separate enough to make it important to distinguish between them. One of these is on the conceptual plane, the other on the affective. In the first place the term is used to denote the effective conveyance to a person's mind, usually to his consciousness, of any notion or idea; this is the sense intended by Bernheim when he defines suggestion as "l'acte par lequel une idée est introduite dans le cerveau et acceptée par lui."‡ This connotation may conveniently be described as "verbal suggestion," though it need hardly be said that the process may be brought about quite apart from the use of actual words. In the second place the term also denotes the acquirement by a person of a given affective

*Freud. *Jahrbuch für psychoanalytische und psychopathologische Forschungen*. 1909. Bd. I. S.77.

†The interesting work of Sidis, Stern, Lipmann, and others, on certain aspects of the conditions under which suggestion operates is, of course, another matter.

‡Bernheim. *Hypnotisme, Suggestion, Psychothérapie*. 2^e éd. 1903. p. 24.

state, such as when one person responds to the "personal influence" of another. In both cases the alteration in the mental condition may be effected by various means, in only some of which is the action of a second person necessary. The difference between the two connotations may be well illustrated by referring to a criticism that several writers, with no knowledge of the subject, have made concerning the successful results of psycho-analytic treatment, namely, that "the cures are due to suggestion." In this phrase at least two different criticisms are evidently confounded: it is at one time meant that the memories evoked during psychoanalysis are false, having been merely "suggested" to the patient, and at another time that, whether the recovered memories are true or false, the improvement of the patient's condition is brought about through the personal influence of the physician; sometimes the two are fused, as when it is alleged that the physician's influence compels the patient to accept the suggestion that evocation of memories will be followed by improvement. It is, I hope, unnecessary to take up the time of the members of this society with discussion of the first of these criticisms, which is even more preposterous than the second, but it will presently be found pertinent to the main theme of this paper briefly to consider the latter one. At this point I merely wish to call attention to the distinction between "verbal suggestion" on the one hand and the affective process in question on the other; it is here maintained that the latter of these, which may be termed "affective suggestion," is the more fundamental, and is the necessary basis for the former. This view accords with that held by most modern writers, and is contained in Bleuler's statement, "Die Suggestion ist ein affektiver Vorgang."* The condition of suggestibility, or increased readiness to accept verbal suggestion, is thus the secondary consequence of an induced affective state, and it is with the latter that we shall here be chiefly concerned. Even in the case of verbal suggestion it is not the mere acceptance of the idea that is significant, but, as Lipps has clearly pointed out,† the psychical effect of this.

*Bleuler. *Affektivität, Suggestibilität, Paranoia*. 1906. S.53.

†Theodore Lipps. *Zur Psychologie der Suggestion. Zeitschr. f. Hypnotismus*. 1897. Bd. VI. S.95, 96.

One of the most definite advances during the past twenty years in our knowledge of suggestion has been the gradual recognition of the fact that the chief work is performed, not, as used to be thought, by the operator, but by the subject. This is best illustrated by consideration of the most perfect form of suggestion, namely, hypnotism. Whereas previously hypnotism was thought to depend on a certain more or less mysterious power possessed by given persons, which enabled them to impregnate the subject with a magnetic fluid or a psychic influence,—a conception that still largely holds its ground, particularly with the lay public,—it is now known that the part played by the operator is a much more modest one, and that the process in its essence depends rather on the subject. The striking incongruity between the cause and the result should in itself make us strongly suspect this conclusion; the remarkable manifestations of hypnotism surely must depend on more powerful forces than the “suggestion” given by a “shining light” or by the bare word of a hypnotist. The occurrence of auto-hypnosis and of spontaneous ecstasy (e.g. religious), and the extraordinary variation of hypnotic manifestations in different persons, greatly strengthen this suspicion that the phenomenon has to do rather with some inherent faculty that varies with different subjects than with any positive action on the part of the hypnotist. We can no longer regard the subject as a helpless automaton in the hands of a strong-willed operator; it is nearer the truth to regard the operator as allowing himself to play a part, and by no means an indispensable one, in a drama constructed and acted in the depths of the subject’s mind. It is the forces at work in this drama that it now becomes necessary to investigate; they are the real agents in suggestion and hypnotism, and the external factors have only a subordinate claim on our interest.

Certain clinical considerations make this deduction practically inevitable. The psychologically essential characteristic of hypnosis and suggestion has been described by Bernheim,* Sidis,† and others, as a dissociation of con-

**Bernheim. Op. cit.*

†*Sidis. The Psychology of Suggestion. 1897.*

sciousness, and when one recalls the psychic anæsthesias, hyperamnesias, and other manifestations of hypnosis, this designation is evidently true. It has, however, too hastily been assumed that this dissociation is an artificial state brought about by the hypnotic procedure. Thanks mainly to Freud's investigations we know not only that psychical dissociation is a characteristic of every mind, but also that, even in the so-called normal, the dissociated mental trends constantly produce manifestations by means of the same psychological mechanisms as those underlying hysterical symptoms. The dissociation, therefore, is already present for the operator to make use of, and it is this dissociation that we must further investigate in order to elucidate the true nature of suggestion. More than this, there is, with certain exceptions, the explanation of which cannot here be discussed, a close correspondence between the nature and extent of psychical dissociation, and the readiness with which the manifestations of suggestion can be evoked. It is of course generally recognized that the most advanced form of these manifestations, somnambulic states, with the production of secondary personalities, is most frequently seen in cases of pronounced hysteria, and the resemblance of these to the spontaneous symptoms of hysteria is in general so striking that in the eighties Charcot and the Salpêtrière school did not hesitate to pronounce hypnosis to be only one of the typical hysterical syndromes. I have long thought that there is in this view more truth than is now commonly believed, and that the triumph of the opposing conception held by the Nancy school is destined to pass away. It is therefore a matter of gratification to me to find that Ferenczi, in a recent illuminating essay,* to which we shall several times have to refer, expresses a similar opinion. Let me briefly recall some of the considerations that seem to me of most weight in this connection.

Most striking is the fact that the operator can elicit in hypnosis not a single manifestation that may not be spontaneously produced by the neurosis, giving thus the im-

*Ferenczi. Introjektion und Übertragung. *Jahrb. f. psychoanalyt. u. psychopath. Forsch.* 1910. Bd.I. S.451.

pression that what happens in hypnosis is merely the evocation of hysterical symptoms. The tremors, paralyses, anæsthesias, amnesias, spasms, hallucinations, paræsthesias, somnambulic trances, attitudes, and ecstasies are typical instances of this. It cannot be maintained that all these symptoms are peculiar to the Salpêtrière clinic, for although in Paris some of them, particularly the convulsive attacks, owed several of their traits to artificial training (*dressage*) of the patients, still the manifestations just mentioned have been observed all over the world before and after Charcot's time, both as spontaneous occurrences in hysteria, and as the result of suggestion in hypnosis. Typical hysterical convulsions were the most prominent features in Mesmer's clinic a hundred and thirty years ago, and many patients permanently continued to suffer from them after they had once been evoked in hypnosis,* a danger to which Charcot called special attention in the case of other symptoms.† The peculiar *rappor*t between the operator and the subject, so characteristic of the hypnotic state, is identical with that obtaining between the physician and the patient in the spontaneous somnambulism of hysteria, as has been beautifully shown by Richer,‡ Janet,§ and others. Even the curious occurrence known as post-hypnotic suggestion has its precise counterpart in what Freud calls the "*nachträglicher Gehorsam*" of neurotics,¶ by which is meant the automatic obedience of a patient to a command uttered years before by some person psychically significant to him. Ferenczi, in remarking the resemblance between the two processes,|| relates a case where a noctambulic stereotypy could be traced to a certain command which had been given to the patient in his childhood by a harsh father, and

**Marquis de Puységur. Mémoires pour servir à l'histoire et à l'établissement du magnétisme animal. 1784. p. 104.*

†*Charcot. Accidents hystériques graves survenus chez une femme à la suite d'hypnotisations. Rev. de l'hypnotisme. Juillet, 1889. Année IV. p. 3.*

‡*Richer. La grande hystérie. 1885. p. 318.*

§*Janet. Névroses et idées fixes. 1898. T. I. pp. 160, 364, 424, 467.*

¶*Freud. Op. cit. S. 23.*

||*Ferenczi. Op. cit. S. 447.*

which later had been completely forgotten. Janet has interestingly shown* that the interval over which post-hypnotic suggestion remains potent exactly corresponds with the duration of what he terms the "*influence somnambulique*," a process that will presently be discussed. In a recent case I was able to observe that the neurotic *nachträglicher Gehorsam* similarly lasted until the affective bond between the patient and the person from whom the command emanated was deprived of its abnormal coercive power. The patient, who was suffering from a severe form of compulsion-neurosis, had on several occasions in his childhood been sternly forbidden by his mother to do a certain act which is more permissible in the adult than in the child. In later years he was unable to carry out the act in question, and was quite aware that the cause of this was connected with his mother's words. After, however, he had been freed by psycho-analysis from the unconscious source of his mother's excessive influence over him her command lost its unnatural constraining force.

The main reason why in late years the problems of hypnotism and hysteria have been kept apart is that the great frequency with which hypnosis can be induced in the normal has seemed to prove the mutual independence of the two conditions. In the light of more recent knowledge, however, this very observation is a strong argument in favor of Charcot's view, that the two are closely connected, for it is now recognized that Moebius's dictum "*Jederman ist ein bisschen hysterisch*" is not an empty satire, but a literal fact. As Jung puts it, we have all had to fight with the same complexes that cause the sufferings of hysterics, and scarcely any one gets off scot free from the "abnormal" effects of them. Freud has produced abundant evidence† to show that the same unconscious, dissociated trends operative in hysteria come to expression in the normal by means of mechanisms psychologically closely akin to those that generate hysterical symptoms.

*Janet. Op. cit. p. 443.

†Freud. Traumdeutung. 2^e Aufl. 1909. Psychopathologie des Alltagslebens. 3^e Aufl. 1910.

It is therefore expedient to consider the most pronounced manifestations of suggestion, particularly hypnosis, in cases of obvious hysteria, and to see whether the recent knowledge that has been acquired on the subject of the psychoneuroses can throw any light on the problem; it is notoriously easier to study the nature of psychical processes when they are examined under the microscope of "disease." From this point of view, as Ferenczi has clearly shown,* the phenomena of suggestion in the neuroses are seen to constitute only one variety of a group of processes to which Freud has given the name of Transference (*Übertragung*),† and these in their turn are only examples of the still more general mechanism known as Displacement (*Verschiebung*).

"Displacement" in psychology denotes the transposition of an affect from one conception to another less unacceptable one.‡ Its function is to evade a painful complex; this is excluded from consciousness, and represented only by the appearance there, in the shape of a compromise, of a secondary conception invested with the original affect. The association between the primary and secondary conceptions is usually of an exceedingly superficial order. The mechanism is common enough in everyday life,—a banal instance being the spinster's parrot who claims the preoccupation and care appropriate to a child,—but in the psychoneuroses its field of action is extraordinarily wide. Here the affect of the repressed complexes has no satisfactory outlet, and is at any time ready to find one when an experience presents itself that can be associated to the complex. What is called the "inadequate emotional reaction" of such patients, the excessive sympathy, love or hate that they display on apparently trivial occasions, finds its explanation in this process, a single instance of which will suffice. I was recently called to see a hysterical patient who was suffering from extreme prostration — for twenty-four hours she was too weak to speak — which had been induced by her

*Ferenczi. Op. cit. S. 424 et seq.

†Freud. Bruchstück einer Hysterie-Analyse. Sammlung kleiner Schriften zur Neurosenlehre. 2^e Folge. 1909. S. 104.

‡See Freud's Theory of Dreams. AMERICAN JOURNAL OF PSYCHOLOGY. April, 1910, and Freud's Psychology, *Psychol. Bull.* April, 1910.

hearing of the death of a young child she had never seen; the child belonged to a relative of one of her friends. The nurse rightly remarked, "She couldn't have been more affected had it been her own child." From my knowledge of the case I was able to surmise something of what had happened in the patient's mind; she had "identified" herself with the sorrowing mother, and was suffering as if she actually were the mother; naturally there were still deeper roots to her suffering which I cannot here describe. This process of unconscious identification with others is an extremely frequent and important one in the psycho-neuroses,* and accounts for much of the abnormally excessive reactions of the patients; they imagine themselves in the position of other people, and feel not only what the other person does, but also what they themselves had felt in the past on some forgotten similar occasion. In other words, part of their emotional reaction arises from some personal repressed complex, of which they are not conscious. Strictly speaking, their emotion is egoistic and not altruistic,—as it often appears to be,—for at bottom they are feeling, not for others, but for themselves. The "exaggerated emotions" of hysterics are thus only apparently exaggerated,—they are only so in relation to the exciting cause; when correlated with the unconscious source they are found to be fully justified and intelligible. Ferenczi's remark is very much to the point when he says:† "The tendency of hysterical patients to use exaggeration in the expression of their emotions has long been known and often ridiculed. Freud has taught us to realize that it is rather we doctors who deserve the ridicule, because failing to understand the symbolism of hysterical symptoms, the language of hysteria, one might say, we have either looked upon these symptoms as implying simulation, or fancied we had settled them by means of abstruse physiological terms." In the production of neurotic symptoms the displacement process plays a fundamental part, and it must be regarded as one of the most char-

*I have elsewhere described a case in which it 'played a predominant part. Remarks on a Case of Complete Auto-psychic Amnesia. *JOURNAL OF ABNORMAL PSYCHOLOGY*. Vol. IV. P. 218.

†*Ferenczi*. Op. cit. S. 423.

acteristic peculiarities of the malady. The symptoms are replacement-creations (*Ersatzbildungen*), which take the place in consciousness of the painful and repressed complexes; the pent-up affect tends to flow in any direction open to it, whether this is a physical (conversion-hysteria) or mental one (substitution neurosis, obsessions). Yet, as was mentioned above, the pathological outlets hardly ever prove satisfactory, and it would seem as if there was always present a certain quantity of free or loosely associated affect ready to fasten on to any fresh mental experience. To this excessive tendency on the part of the patient to incorporate his environment into his own personality Ferenczi has given the name "introjection."* It is merely an exaggeration of tendencies present in us all, common instances being the way in which a careful housewife is *personally* offended at any reflection on the cleanliness of her house, this being in a sense a part of herself, or the glow of *personal* pride we feel whenever anything enhances the renown of our particular city or country. When introjection of the environment is carried to excess, obviously it greatly increases the sensitiveness of the person in question; every new section of environment that is incorporated into his ego adds a fresh group of possibilities for pleasant or unpleasant emotions, it becomes, as it were, a sentient antenna. As is well known, the sensitiveness of some patients with advanced nervous invalidism is quite appalling; every trivial occurrence affects them in a personal way, and they are deeply moved by the most transitory impressions. The slightest happening may bring about such an exacerbation of suffering that life seems impossible for them unless they are shielded to an artificially elaborate extent, and they suck the very life-blood of all about them in their insistence that these should constantly make the finest adjustments in their environment. The process of introjection is the exact opposite to that of "projection" characteristic of dementia præcox patients, who on the contrary withdraw themselves from the outer world. As Ferenczi tersely puts it,† "The psycho-neurotic

*Ferenczi. Op. cit. S. 429.

†*Ibid.* Loc. cit.

suffers from a widening, the paranoic from a shrinking of his ego."

The most interesting manifestations of introjection are those relating to the persons in the patient's environment. He transfers on to them various affects, love, hate, and so on, that arose, perhaps years previously, in connection with quite other people, just as a child who has once been hurt by a doctor is for some time afterward fearful of every doctor he encounters. In order for this to happen there has only to be instituted the slightest resemblance between the original person and the present one; such a patient, having once intensely hated some one with a given characteristic, say red hair, will be ready to hate any one he may later meet who has the same characteristic. This tendency to live over again the same emotion in the presence of a person resembling one formerly associated with the emotion, is called "transference" (*Übertragung*), but Freud, for reasons of expediency, prefers to restrict the term to the occasions on which the process happens in relation to the physician who is treating the case. Every physician who has had much experience with psycho-neurotic patients knows how variable, unreliable, and changeable is their attitude to him; in fact, their "capriciousness" is generally notorious. On a slight change in his manner or in his treatment of them, and often apparently quite spontaneously, their attitude alters, trust is replaced by suspicion, resentment by gratitude, and so on, the extent of the alteration being out of all proportion to the exciting cause; to many physicians they are the most ungrateful, unsatisfactory, and disliked of all patients. This puzzling behavior, however, becomes at once comprehensible as soon as one realizes that it is determined, not by the external occasion, to which it is so inadequate and abnormal a response, but by previously existing and usually unconscious emotions which the external occasion merely evokes. Association is at the bottom of the whole process. A word or tone used by the physician unconsciously reminds them of some forgotten experience, pleasant or unpleasant, and really it is to this past experience that they are reacting; the reaction is determined not by the conscious personality, but by some unconscious complex

that has been stimulated. The association between the external occasion and the forgotten experience is frequently, as was mentioned above, an exceedingly superficial one, especially when the affect concerned is very intense, and so more sensitive to stimulation. The whole process can be experimentally estimated, for, as Jung has shown,* certain characteristics in the word-reaction association test, namely, the desire to add to the response something explanatory or supplementary (*sentiment d'incomplétude*), signify that the subject has a tendency constantly to give to others more feeling than is required and expected; Jung interprets this as a compensation for an inner unsatisfiedness and voidness of feeling.

A matter of peculiar significance is the observation that most frequently the affect transferred to the physician arose originally in connection with one of the parents, more usually the father, or with some person standing in a similar relation to the patient. The respect due to the physician, and his position of prestige and authority as regards the patient, in themselves make readily possible the formation of an association between him and the parent, and often the mere enforcing of a piece of medical advice, a slight sternness, or even increase of firmness in tone, the reproving of an omission or fault, are quite sufficient to consummate this. The "firmness" with which it is fashionable to treat such patients, a term that frequently covers a considerable measure of hostility and lack of understanding on the part of the physician, obviously conduces in a high degree to the transference of the affect of parental complexes; the result of such an attitude is sometimes beneficial, frequently disastrous, and always unpredictable. As in most cases the incestuous relation of the patient to his parents, particularly to his father,† lies at the very centre of his malady, it will be seen that the type of transference here indicated is of especial importance.

*Jung. The Association Method. Amer. Journ. of Psychol. April, 1910. p. 228.

†See Jung. Die Bedeutung des Vaters für das Schicksal des Einzelnen. *Jahrb. f. psychoanal. u. psychopath. Forsch.* Bd. I. S. 155.

We have next shortly to consider what is the actual nature of the affective processes in the psycho-neuroses that are in this way transferred from the patient to surrounding persons, including the physician. As first sight these seem to be of all possible kinds, gratitude, hate, affection, fear, jealousy, and so on, but psycho-analytic research has, in the eyes of those qualified to judge the matter, established beyond all possibility of doubt that these diverse processes are not, as they appear to be, primary and incapable of further analysis; on the contrary, they prove on examination to be only secondary reactions to deeper trends. It was one of Freud's most important discoveries* that these deeper and more ultimate trends are invariably components or derivatives of the primary psycho-sexual system of activities.† That resentment, anger, jealousy, and other sentiments and emotions may be secondary reactions to unsatisfactory sexual experiences, to despised or ungratified love, is of course a truism, one that is well expressed in Congreve's familiar lines:

Heaven hath no rage like love to hatred turned
Nor hell a fury like a woman scorned.

It would not be pertinent to the aim of this paper to discuss and explain the statement just made, to the effect that the pathogenic complexes in the psycho-neuroses are always of a sexual nature; one can only asseverate that whenever the affective process concerned is traced to its origin this is invariably found to be a sexual one. In hysteria, which is the psycho-neurosis that most concerns us here, the complexes arise from disturbances in the development of the psycho-sexual functions, and the symptoms are disguised and distorted expressions of the fulfilment of various sexual desires, most frequently of various perversions. The satisfaction of these desires in this form is, however, almost always incomplete, and for this reason there are generally two sources of affective processes ready to be transferred to any convenient object. On the one hand there

*Freud. Sammlung kleiner Schriften. zur Neurosenlehre. 2^e Folge. 1909.

†For a description of Freud's conception of sexuality see a paper in the *Psychol. Bull.* April, 1910. pp. 118-122.

is the free affect mentioned above, which has found no outlet, either in a symptom or in any other way; on the other hand there is a quantity of affect which is finding only partial and unsatisfactory outlet in the form of certain of the symptoms. These symptoms are the recent, temporary, or changing ones, the ones most easily "cured"; the more durable and constant symptoms are notoriously harder to remove, the reason being that they are proving more adequate outlets for the pathogenic affects concerned. There is in most cases of hysteria, therefore, a considerable measure of hungry needs and desires ready to attach themselves to any suitable object that may present itself, and it is the attachment of these to the idea of the physician that constitutes the process called "transference." Freud's definition of it runs thus:* "During the course of a psychoanalysis the development of new symptoms ceases as a rule. The productivity of the neurosis, however, is not extinguished, but occupies itself with the creation of peculiar sorts of unconscious mental states which may be designated as 'transferences.'

"What are these transferences? They are reimpres-sions and reproductions of the emotions and fancies, which are awakened and brought into consciousness during the progress of the analysis, the person that had previously been their object being replaced by the physician." In a recent lecture† he re-states this in the following words: "He (the patient) applies to the person of the physician a great amount of tender emotion, often mixed with enmity, which has no foundation in any real relation, and must be derived in every respect from the old wish-fancies of the patient which have become unconscious. Every fragment of his emotive life, which can no longer be called back into memory, is accordingly lived over by the patient in his relations to the physician." This subject of transference will presently occupy us further in relation to its therapeutic effect.

¶ To return to the questions of suggestion and hypnosis, which have apparently been deserted in the preceding con-

*Freud. Bruchstück, etc. S. 103, 104.

†Freud. The Origin and Development of Psychoanalysis. AMERICAN JOURNAL OF PSYCHOLOGY. April, 1910. P. 215.

siderations, is to continue the present theme, for these processes are merely instances of transference. Five years ago Freud ventured the following remark concerning hypnotism: * "Ich kann mir nicht versagen, hierbei an die gläubige Gefügigkeit der Hypnotisierten gegen ihren Hypnotiseur zu erinnern, welche mich vermuten lässt, dass das Wesen der Hypnose in die unbewusste Fixierung der Libido auf die Person des Hypnotiseurs (vermittels der masochistischen Komponente des Sexualtriebes) zu verlegen ist." Ferenczi, in developing this observation, † adds two very important corollaries, which, however, directly follow from the considerations adduced above. In the first place, agreeing with Bernheim that suggestion is the essence of hypnotism, he generalizes Freud's observation so as to include under it suggestion as well as hypnotism. He points out that sympathy, respect, antipathy, and other affective processes, which have long been known to play a decisive part in favoring or hindering suggestion, are elaborate constructions which are accessible to a dissection that separates them into their elements. "Bei der Zerlegung findet man in ihnen die primären unbewussten libidinösen Wunschregungen als Unterlage und darüber einen unbewussten und vorbewussten psychischen Überbau." These primary elements are, as was pointed out in connection with the complexes of hysteria, always of a sexual nature. In the second place, recognizing with Freud that repressed affects take their earliest origin in the child's reactions towards his parents, Ferenczi attributes to the "parental complexes" the predominating part in the process of suggestion. He summarizes his thesis in the statement ‡ that "Die Hypnotisierbarkeit und suggestive Beeinflussbarkeit eines Menschen hängt also von der Möglichkeit der 'Übertragung' oder, offener gesagt, der positiven wenn auch unbewussten sexuellen Stellungnahme des zu Hypnotisierenden dem Hypnotiseur gegenüber ab; die Übertragung aber, wie jede 'Objektliebe,' hat ihre letzte Wurzel in dem verdrängten Elternkomplex."

**Ibid.* Drei Abhandlungen zur Sexualtheorie. 1905. S. 81. Ann. II. 2e Aufl. 1910. S. 15.

†*Ferenczi.* Op. cit. S. 439.

‡*Ferenczi.* Op. cit. S. 441.

In regard to the matter of parental complexes he makes a number of noteworthy observations, illustrated by the description of cases, such as those of patients whom he had treated first by hypnotism and later by psycho-analysis. Thus, the procedures for inducing hypnosis, and the conditions that favor this, appear in a new light in view of the preceding considerations. It may be said in general that there are two types of procedures at our disposal for this purpose, though they cannot of course be sharply separated from each other; the two means are appeals to fear and to love respectively. In the first of these, the matters of decisive importance are: social and professional prestige of the hypnotist, high reputation for previous successes, absolute self-confidence, firmness, imposing behavior, and an assured tone in issuing commands. This is the popular conception of a hypnotist, a Svengali *par excellence*, with his lofty stature, black beard, heavy eyebrows, and penetrating glance; we are reminded of the Abbé Faria, with his famous "Dormez!" In the second type the necessary requisites are: a darkened room with complete stillness, a mild and friendly attitude on the part of the hypnotist, a low, monotonous, musical voice, with light stroking of the hair, the brow, or the hands. The response of the subject roughly corresponds respectively with the two forms of suggestibility Hartenberg has recently described* under the names of *Ausführungssuggestibilität* and *Empfangssuggestibilität*. Ferenczi calls these two types the "paternal" and the "maternal" methods,† and points out the resemblance between the first and the child's conception of the firm, infallible, and all-powerful father, whom it is his highest ambition to imitate and obey, and between the second and the oft-repeated scenes of childhood in which a mother woos her child to sleep by telling him pleasing fairy tales or singing tender lullabies. Even the various apparatus formerly employed for inducing hypnosis, the Luys revolving mirror, the bright light on which the gaze has to be fixed, the monotonous metronome, are repetitions of the means used to attract

*Hartenberg. Die zwei Hauptformen der Suggestibilität. *Zeitschr. f. Psychotherapie u. medizinische Psychologie*. Feb., 1910. Bd. II. S. 46.

†Ferenczi. *Op. cit.* S. 443.

the attention of a child, the bright objects, ticking watch, and so on. In short, the attitude of the subject to the hypnotist is not merely analogous with that of a child to its parent, it is identical with it. Unconscious fixation of infantile incestuous thoughts goes hand in hand with the capacity to be hypnotized. Freud's statement that the transference at the basis of hypnosis depends on the feminine component of the sexual instinct Ferenczi explains* by pointing out that the pleasurable obedience characteristic of this component is first exercised in regard to the parents; it is, indeed, the source of the child's docility and compliancy towards his parents. He further points out† that the obedience to a parent's command frequently becomes pleasurable by means of an unconscious identification taking place in the child's mind between him and the parent, the parent's will becoming his own and the child becoming in his phantasy endowed with the might and other graces of the parent; similarly, Lipps‡ remarks that in verbal suggestion the subject accepts the implanted idea only if the personality of the operator agrees with his own, a certain emotional fusion (identification) taking place between the two. It is also interesting in this connection to recall that Baragnon used to find that the most successful way to induce hypnotic ecstasy was to make pressure on the head over the "site of veneration."§

It would be impossible in the space of this paper to reproduce the extensive evidence for the truth of the propositions just specified, nor is it probable that any one would be convinced of them without personal experience of the matters in question, namely, psycho-analysis of the nature and origin of the affective processes underlying transference and suggestion; to those with this experience the conclusions stated inevitably force themselves on the investigator. I shall therefore content myself with considering some of the observations made by workers who were quite ignorant of

**Ferenczi*. Op. cit. S. 450.

†*Ibid*. Op. cit. S. 447.

‡*Th. Lipps*. Suggestion und Hypnotismus. Sitzungsber. der bayerischen Akademie der Wissenschaft. 1897. (1898). S. 490.

§*Baragnon*. Etude du magnétisme animal. 1853. p. 318.

psycho-analysis, and with pointing out how admirably capable of assimilation these are to the views here enunciated.

The first manifestation of hypnosis that may be mentioned is its most striking, namely, the *rapport* that exists between the subject and operator, the phenomenon which, according to Lipps,* actually conditions hypnosis. The state of *rapport* was well known to the early magnetizers and hypnotists, and has been fully described by many of them.† It is essentially characterized by an intimate psychical relation between the subject and the operator, or to speak more accurately, a one-sided relation of such a kind that the former is, as Lipps puts it,‡ psychically dependent on the latter. Bertrand was the first to point out that the cardinal event in the process, and therefore in hypnotism in general, is the thorough occupation of the subject's mind with the thought of the operator; he wrote, in 1823:§ "The patient submitted to magnetization falls asleep thinking of the magnetizer, and it is because he thinks only of him when he falls asleep that he responds only to him in his somnambulic state." This view has since been amply confirmed by Noizet,|| Moll,¶ Janet,** and others. Further, this concentration of the subject on the one thought of the operator, or monoideism, to recall Braid's term, has the consequence of making him more or less completely oblivious of other persons. This is the well-known "electivity" of

*Lipps. Op. cit. S. 503.

†Barety. Magnétisme. pp. 284, 398. Bertrand. Traité du somnambulisme et des différentes modes qu'il présente. 1823. p. 245. Charpignon. Physiologie, médecine et métaphysique du magnétisme. 1848. pp. 79, 144. De Lausanne. Principes et procédés du magnétisme. 1819. t. II. p. 160. Deleuze. Histoire critique du magnétisme animalé. 1818. t. I. p. 185. Demarquay et Girauld-Teulon. Hypnotisme. p. 32. A. Despine, d'Aix. Observations de médecine pratique. 1838. Traitement des maladies nerveuses par le magnétisme animal. 1840. Du Potet. Traité complet du magnétisme. 1821. p. 158. Myers. Proc. of the Soc. for Psychical Research. 1882. p. 255, 1887. p. 538. Noizet. Mémoire sur le somnambulisme. 1854. p. 97. Ochorowicz. Suggestion mentale. p. 404.

‡Lipps. Op. cit. S. 497.

§Bertrand. Op. cit. p. 241.

||Noizet. Op. cit. p. 101.

¶Moll. Untersuchungen über den thierischen Magnetismus. 1892.

**Janet. Op. cit. p. 424.

hypnotized subjects, who respond to the slightest indication on the part of the operator, but remain quite indifferent, even to gross excitations (painful stimuli, etc.) emanating from any one else; the details of this electivity have been well described by Janet,* who says that he has observed it in all the cases he has studied.

Intense concentration on a single train of thought is only another expression for engrossing interest for the thought, and, as is now generally recognized, this process is at bottom an affective one, though it may or may not relate to an intellectual sphere. Instances of both are common enough: the sleeping mother is *en rapport* with the babe in the cradle at her side, will wake at its faintest cry and sleep through much louder noises; Archimedes at work on his geometrical problem was so engrossed that he maddened the intruding soldier by ignoring him, and was thereupon slain. We may, however, go further, and say that a *rappport* between two people, so extraordinarily close as the hypnotic one, always indicates sexual affection, either truly erotic or else in a sublimated form. The subject who is so wrapt up in the operator that he can see the world only through the latter's eyes, and is blind to all else, irresistibly reminds any unprejudiced observer of the intense devotion of a lover, particularly that of a woman. The peculiar significance that the operator has for the subject above all other persons is illustrated by Janet's remark:† "It seems, then, that during the somnambulism the subject is especially preoccupied with his hypnotizer, and he displays in relation to him special marks of preference, docility, and attention, in short, indications of special feelings which he has for no one else." This electivity is truly remarkable; it recalls Bernard Shaw's epigram, that "Love is a gross exaggeration of the difference between one person and all the rest." Effertz, in describing the electivity of hypnotic *rappport*, says:‡ "A, for instance, can hypnotize X, but B cannot. Or A can hypnotize X but not Y. Relationships of this

*Janet. L'Automatisme psychologique. 1889. p. 283, etc.

†Ibid. Névroses, etc. p. 424.

‡Effertz. Studien über Hysterie, Hypnotismus, Suggestion. 1894. S. 55.

sort certainly exist. This was known long before hypnology was studied. We are taught it, among other ways, by observations on the origin and course of love relationships."

The resemblance goes still further. Janet distinguishes two stages in the development of the *rappor*t.* In the first stage, the presence (sound, touch, etc.) of a third person is indeed perceived, but is found by the subject to be irritating and disturbing, exactly as it would be in the case of two lovers enjoying the happiness of each other's company. In an exquisite sonnet of Mrs. Browning's the need of lovers to be isolated from all the rest of the universe is well depicted, and the passage here underlined shows how under such circumstances even the most delicately fine intrusion would be resented, exactly as it would in a hypnotic *rappor*t.

When our two souls stand up erect and strong,
Face to face, silent, drawing nigh and nigher,
Until the lengthening wings break into fire
At either curved point,— what bitter wrong
Can the earth do to us, that we should not long
Be here contented? Think. In mounting higher,
The angels would press on us and aspire
To drop some golden orb of perfect song
Into our deep, dear silence. Let us stay
Rather on earth, Beloved,— where the unfit
Contrarious moods of men recoil away
And isolate pure spirits, and permit
A place to stand and love in for a day,
With darkness and the death-hour rounding it.

In Janet's second stage the subject's absorption has become so complete that he is entirely isolated from the outer world, and it is quite impossible for a third person to get into any communication with him, let alone to disturb him. As was previously remarked, the *rappor*t that may exist between the physician and patient in cases of hysterical somnambulism is identical with that in hypnosis, a further piece of evidence that the forces underlying hysteria and suggestion are of the same nature.

When the emotional state in hypnosis is allowed free expression, then there frequently occurs the condition

*Janet. Loc. cit.

technically known as "ecstasy," of which Baragnon,* Despine,† Philips,‡ and many others of the older writers have given graphic descriptions; the last mentioned author says that in it "les mouvements des bras et les soufirs qui s'échappaient de leur poitrine étaient ceux qui caractérisent le ravissement porté au plus haut degré." The resemblance of the condition to the attitudes passionnelles of the Salpêtrière hysterical attack is evident.

Everything goes to show that the sexual attraction experienced by the subject in hypnosis is in the majority of cases an *unconscious* one, and that he is not commonly aware of actual erotic sensations; nevertheless, the possibility, or, as it is usually expressed, the danger, of erotic manifestations and complications has rarely been lost sight of by the various opponents of hypnotism. The first outburst of opposition against hypnotism, the notorious commission appointed by Louis XVI, in 1784, to enquire into Mesmer's practices, laid especial stress on this. In Bailly's secret report the following passage occurs:§ "Les médecins-commissaires, présents et attentifs au traitement, ont observé avec soin ce qui s'y passe. Quand cette espèce de crise se prépare, le visage s'enflamme par degrés, l'œil devient ardent, et c'est le signe par lequel la nature annonce le désir. On voit la femme baisser la tête, porter la main au front et aux yeux pour les couvrir; sa pudeur habituelle veille à son *insu* et lui inspire le soin de se cacher. Cependant, la crise continue et l'œil se trouble; c'est un signe non équivoque du désordre total des sens. *Ce désordre peut n'être point aperçu par celle qui l'éprouve*; mais il n'a point échappé au regard observateur des médecins. Dès que ce signe a été manifesté, les paupières deviennent humides, la respiration est courte, entrecoupée; la poitrine s'élève et s'abaisse rapidement; les convulsions s'établissent,

*Baragnon. Loc. cit.

†P. Despine, de Marseille. Etude scientifique sur le somnambulisme 1850. p. 186.

‡Philips. (Durand de Gros). Cours théorique et pratique de braidisme. 1860. p. 149.

§Rapport des commissaires chargés par le roi de l'examen du magnétisme animal. 1784.

ainsi que les mouvements précipités et brusques, ou des membres ou du corps entier. Chez les femmes vives et sensibles, le dernier degré, le terme de la plus douce des émotions est souvent une convulsion; à cet état succèdent la langueur, l'abattement, une sorte de sommeil des sens qui est un repos nécessaire après une forte agitation." The words underlined (by the present writer) show that during hypnosis the most obvious erotic manifestations may run their full course without the subject at all recognizing the nature of them; it need hardly be added, however, that Mesmer's manipulations, designed to provoke "curative convulsions," were especially adapted to elicit such manifestations, which rarely occur in hypnosis as carried out at the present day. Still it is not without significance that the best hypnotic and spiritistic mediums are usually women, and we can only give the same explanation for this that Baragnon did to his question,* "Pourquoi préfère-t-on employer la plupart du temps des femmes pour les soumettre aux expériences?" namely, that "il est un principe que nous croyons tout indépendant du fluide vital; c'est la domination d'un sexe sur l'autre, ainsi que Dieu l'a voulu." Ever since Mesmer's time the chief objection made to the use of hypnotism has been the possibility of erotic excitement, or, as Loos more guardedly expressed it,† that "überhaupt das Entstehen einer gewissen Neigung des Hypnotisierten zu dem operateur zu verfolgen ist." This fear has a certain justification in fact, inasmuch as rape is practically the only crime that can be facilitated by hypnotism;‡ in almost the only instance of any other crime, the celebrated Jane Weiss case,§ significantly enough, it could not be decided whether the influence of the inciter was to be attributed to hypnotism or to normal love. As the result of experience gained from psycho-analysis of patients in

*Baragnon. Op. cit. pp. 89, 90.

†Loos. Der Hypnotismus und die Suggestion im gerichtlich-medizinischer Beleuchtung. Inaug. Diss. Berlin. 1894. S. 19.

‡Gilles de la Tourette. L'hypnotisme et les états analogues au point de vue médico-légal. 1889.

§Tarde. Archives. d'anthropologie criminelle. 1891. t. VI. p. 458.

whom thoughts about hypnotism played a part, I am convinced that the deepest cause of the popular and medical prejudice against the use of hypnotism in therapeutics is the dimly recognized perception of its sexual nature. This prejudice is rationalized in all sorts of ways by the opponents of hypnotism; it finds its most naïve expression in the view that "it cannot be right for any one to be placed *in the power of a second person.*"

The development of the opinions held as to the nature of hypnotism, the beliefs in magnetic fluid,* vital fluid, nervous fluid, all-pervading ether, and finally, in a special psychical influence of the hypnotist, form an interesting chapter which would bear much exposition in the present connection, did space permit. The concrete vital fluid in question, which the operator projects into the subject, is one that has played an extensive part in the phantasy of mankind, and, in an increasingly disguised form, still does so in folklore, superstitions, and psycho-neurotic symptoms. I will briefly refer to one point, namely the significance attached to the power of the eye in hypnotism. The magnetic fluid was principally emitted from the operator's eye, and in many modern procedures fixation of the subject by a steady gaze, producing the so-called *fascination du regard*, still plays an important part. Now, belief in the influence of the human eye, for good or ill, has at all ages been very general, and still lingers in our customs, superstitions, and religious observations;† it can be shown beyond doubt that this takes its origin in the eye and its glance being symbolically regarded as the expression of the male organ and its function. In a patient of mine, whose chief complaint was the obsessive thought that if he looked at any one he might harmfully influence them, this fact was clearly to be demonstrated; as he had never heard of the existence of this symbolism, it was with him a spontaneous, and of course unconscious, creation of his phantasy. The term animal

*This view, commonly ascribed to Mesmer, who most precisely formulated it, originated, of course, with Paracelsus, and was developed by Fludd, Maxwell, Van Helmont, and others before Mesmer.

†See the remarkable work of Seligmann. *Der böse Blick und Verwandtes*. Zwei Bände. 1910.

magnetism itself, for so long applied to hypnotism, is ultimately derived from a more primitive source than the metal magnet, though it was actually taken from the latter. The Greeks designated a magnet as *μάγνης λίθος* "the influencing stone." The word magnet comes to us, via the Greek, from two Phœnician words, *mag* and *naz*; the former means "a powerful man," the latter "that which flows out and influences something else." It does not need much divining capacity to comprehend what the early conception of human magnetism originally signified; the word has by a devious route come back to its own in our phrase "a lover's magnetic charm." Thus magnetism was first applied to a human attribute, then to inanimate substances, and finally, via the second connotation, was used to designate, as animal magnetism, the hypnotic process.

The problem can be studied from another side by considering the relation of the subject to the operator, not during the hypnosis itself, but in between the *seances*, a matter that Janet has made an especially careful study of. He established the fact that this relation continues its influence in certain precise ways for some time after a given *seance*. After hypnosis has been induced several times two changes in particular become apparent:* (1) any preceding fear of or repugnance for hypnosis is now replaced by a passionate desire for its repetition, (2) the patient talks much about the physician, and is preoccupied with him in an evidently excessive fashion. Three stages may be distinguished, which Janet names as follows:† (1) a period of *fatigue*, which is usually very short, though it may occasionally last for as long as a day or two; (2) a period of *somnambulic influence*, which usually lasts for some days or weeks, and (3) a period of *somnambulic passion*, which lasts till the next *seance*. The second period, that of *somnambulic influence*, is marked by a considerable gain in the sense of wellbeing, and in a more or less complete remission of the symptoms and stigmata; the patient's capacity for mental synthesis is obviously greatly increased. While it lasts he thinks

*Janet. Op. cit. p. 425.

†Ibid. Op. cit. pp. 426-428.

much about the physician, but feels no need or desire for another *séance*. Janet expressly states* that this period is quite independent of any verbal suggestions made during hypnosis; it is therefore to be attributed to the more general influence that we have called "affective suggestion." The third period, that of somnambulic passion, consists in a recurrence of the previous symptoms and difficulties, with a restless craving to be hypnotized anew. These manifestations are not only independent of all verbal suggestions, but frequently are exactly opposed to such suggestions, given as strongly as possible;† they are, therefore, inherent in the circumstances. Janet compares the craving with that of the morphino-maniac,‡ and justly remarks that, like this, it is due not directly to the active agent, but to the absence of this; the significance of this will be evident to those familiar with Abraham's able paper on alcoholism,§ the craving may at times be so severe as to produce a state of complete mental confusion.||

The attitude of the patient to the physician during these intervals is not the same in all cases. Sometimes, for instance, fear and dread may be the most prominent traits in it; one of Janet's patients trembled and blanched whenever he caught sight of his physician.¶ This, however, is rare, and Janet states that he has seen it in only two or three cases. More often fear may be mixed with some other emotion. Thus:** "Un sujet, tout en aimant son hypnotiseur, se reud compte de sa soumission qu'il accepte plus ou moins facilement. Il éprouve une affection qu' mêlée de crainte pour un être beaucoup plus puissant que lui."

Since Freud's important work on the anxiety states (*Angstzustände*),†† we know that morbid dread is always the ex-

**Ibid.* Op. cit. p. 444.

†*Janet.* Loc. cit.

‡*Ibid.* Op. cit. pp. 429-455.

§*Abraham.* Die psychologischen Beziehungen zwischen Sexualität und Alkoholismus. *Zeitschr. f. Sexualwissenschaft.* 1908. N. 8.

||*Janet.* Op. cit. p. 437.

¶*Ibid.* Op. cit. p. 446

***Ibid.* Op. cit. p. 447.

††*Freud.* Sammlung kleiner Schriften zur Neurosenlehre. 1906. See Ernest Jones. On the Nightmare. *American Journal of Insanity.* Jan. 1910. p. 383.

pression of repressed sexual desire, i.e. of sexual desire that has been stimulated under circumstances when it cannot reach consciousness. The case just described evidently belongs to Ferenczi's class of "paternal hypnosis."

The most typical sentiment, however, is that of affection. Janet writes:* "What one most often observes is a feeling of affection which may become extremely intense. The subject feels happy when he sees his hypnotizer, when he speaks to him, he experiences pleasure when he thinks of him, and consequently soon comes to the point of feeling a strong love for him." Referring to hysterics he says:† "As soon as the physician shows an interest in them, he ceases to be, in their eyes, an ordinary man; he stands for them in a predominant position that no one else can occupy. But in return for this they are extremely exacting; they desire their physician all to themselves; he must not attend equally to any one else; he must come to see them at any moment, remain a long time with them, and take their smallest concerns to heart." This exacting jealousy is a very frequent and well-known occurrence; it was commented on by many of the old magnetisers.‡ Janet finds that his patients' attitude towards him is frequently that of a child towards its elders:§ "most often the subjects feel themselves humble and small, and compare themselves to children before their parents." Again, a sense of guilt or shame was commonly met with: "Je suis, dit Berthe, comme un enfant qui a fait quelque sottise et qui a peur que sa mère le sache."|| "Gu, qui après un sonambulisme, n'a plus de contracture de bras pendant deux jours, se sent gênée pendant ces deux jours comme si quelqu'un était auprès d'elle et la surveillait, comme si elle ne pouvait jamais être seule; elle a même à ce propos des sentiments de pudeur difficiles à décrire."||

The sentiment towards the physician changes as the period of somnambulant influence is replaced by that of

*Janet. Op. cit. p. 446.

†*Ibid.* Stigmates mentaux des hystériques. 1893. p. 158.

‡*De Lausanne.* Op. cit. p. 297. *A. Despine.* Traitement, etc. p. 105.

§Janet. Névroses, etc. p. 447.

||*Ibid.* Loc. cit.

somnambulatory passion. He still occupies their thoughts, but the patients now become complaining, ill-tempered, and querulous. The sense of being constantly accompanied by the physician, even in his absence, is exchanged for one of intense loneliness. Janet writes:* "I emphasize the expression 'alone,' which all patients repeat, and the serious mental confusion which this singular feeling of being abandoned may induce."

It need hardly be said that all these observations are in full accord with the thesis sustained in this paper. Warm affection, dread, jealousy, veneration, exactingness are all derivatives of the psycho-sexual group of activities. Morbid loneliness is directly comparable with the feeling of voidness, the sense of something essential lacking, experienced by devoted lovers who are parted. Janet himself does not fully agree with the sexual interpretation, evidently because he adopts an extremely limited conception of the sphere of sexuality, as in all his works. His definition of love, as "*l'amour proprement dit qui est en rapport avec les fonctions génitales et les désirs érotiques*,"† would be repudiated on the one hand by a great number of lovers, and on the other by all psychologists who know, as the Mesmer commission pointed out over a century ago, that complete sexual gratification may be attained without the subject being for a moment aware of the libidinous nature of the process. Janet brings three objections to the sexual interpretation:‡ (1) In rare cases no affectionate sentiment is evident, and the attachment may show itself purely as a filial devotion, as a feeling of respect, of superstitious terror, or even as a maternal sentiment.§ (2) The patient may at the same time be conducting an amorous passion with a lover. When so, it is surely to be expected that the two processes are to be distinguished, for hypnotic *seances* do not provide the same conditions for openly amorous manifestations as do other

**Ibid.* Op. cit. p. 454.

†*Ibid.* Op. cit. p. 466.

‡*Janet.* Op. cit. p. 457.

§Not underlined in the original. This exclusion of the maternal instinct from the psycho-sexual group is characteristic of the narrower conception of the latter.

circumstances. (3) The atypical nature of the affection, particularly its periodicity, and its occurrence in such different patients. It is to be observed, however, that the patients had this in common, that they all suffered from psycho-neuroses. As to the periodicity, this is so characteristic of amorous gratification, that the nature of the condition could have been suspected from it alone. A restless sense of something essential lacking, with a passionate craving to go through a given experience with a certain person; this lasting until some minutes or hours of soul-mingling intimacy occur, which is followed after a temporary stage of slight fatigue by a sense of blissful well-being and freedom from unhappiness: could anything point more directly to the source of the whole process? The remark of Janet's with which we can most cordially agree is:* "Il s'agit dans tous ces d'une espece d'amour, très mais il est essentiel de remarquer qu'il s'agit d'une espece particuliere." The particularity lies in the fact that the love emotion is repressed from consciousness, and therefore does not manifest itself openly. When the conscious emotions are traced to their sources in the unconscious, there is no doubt left as to their nature.

Janet has clearly shown that conditions identical with those of somnambule influence and passion are met with quite independently of hypnotism, and occur as spontaneous manifestations in psychasthenia,† particularly those he has described under the names of "besoin de direction,"‡ "besoin d'aimer,"§ "besoin d'être aimé."|| He considers that in both cases it is a question of a primary lowering of mental tension, but, as we have seen above, there are other explanations possible.

After these circuitous but instructive bypaths we have to

*Janet. Op. cit. p. 466.

†Janet. Op. cit. p. 467.

‡Ibid. Op. cit. p. 210. Les obsessions et la psychasthénie. 1903. t. I. P. 382.

§Ibid. Obsessions, etc. p. 388.

||Ibid. Op. cit. p. 389

return to the main subject of this paper, namely, the therapeutic effect of suggestion. As this is here dealt with from the standpoint of psycho-analytic experience, the relation of suggestion to psycho-analysis will first be defined. As was explained above, treatment of any case of psycho-neurosis necessarily brings with it the transference on to the physician of various repressed affects, which have arisen in past experiences of the patient with other people. These affective processes are in psycho-analysis traced to their source, when the patient realizes their evidently sexual nature. The wishes, desires, and so on, which previously had found unsatisfactory expression in the creation of various symptoms, are now free to be applied, through the process of sublimation, to non-sexual, social aims. As Freud puts it,* "The symptoms, which, to use a simile from chemistry, are the precipitates of earlier love experiences (in the widest sense), can only be dissolved in the higher temperature of the experience of transfer and transformed into other psychic products. The physician plays in this reaction, to use an excellent expression of S. Ferenczi, the rôle of a *catalytic ferment*, which temporarily attracts to itself the affect which has become free in the course of the process."

The criticism sometimes made of psycho-analytic treatment, that its brilliant results are brought about merely by suggestion, betrays a complete ignorance of what actually happens, and is easily answered by the following objective consideration. What can be accomplished by the use of suggestion depends to some extent on the physician, and few can emulate the success obtained by masters of suggestion like Babinski and Dubois. Every one, however, may determine how much he personally can accomplish in this way, and thus has a clear standard with which to compare the results he can obtain by other methods. Like the great majority of the Freud school, I had practised for some years with various forms of suggestion and hypnotism before I learned the psycho-analytic method, and I know indubitably that I am quite unable by the use of any other form of treatment to obtain the results that this method

*Freud. AMERICAN JOURNAL OF PSYCHOLOGY. 1910 p. 215.

gives me. It would be absurd to infer that suggestion is the influence at work in both instances, and that it is more successful when it is deliberately observed and neutralized, than when it is the sole mode of treatment.

Freud* and Ferenczi† hold that transference of unconscious sexual affects plays the most important part in all forms of treatment of the psycho-neuroses, with the exception of the psycho-analytic. In the latter it is merely a stage passed through in the cure, but in the others—electrotherapy, massage, sanatorium treatment, persuasion, etc.—it is not only the main agent in bringing about improvement, but it often remains as a more or less lasting effect of the treatment. The patient, therefore, exchanges one symptom for another (psycho-sexual dependence on the physician), the ill consequences of which we shall presently note. The occurrence of this transference has been brought forward as a reproach to the psycho-analytic method, though such writers significantly omit to mention the negative forms of sexual affect thus transferred to the physician,—hate, jealousy, envy, and so on. The transference is, however, not peculiar to psycho-analysis, but occurs in all forms of treatment of the psycho-neuroses; as Freud says,‡ “The psycho-analytic treatment does not create the transference, but simply uncovers it, as it does other hidden mental states.” The only difference in this respect between other forms of treatment and the psycho-analytic one is that the latter does not encourage blind transference, and then allow it to last, but on the contrary makes the physician and patient aware of what is happening, so that the process can be understood, controlled, and resolved. Ferenczi pertinently remarks:§ “The critics who look on these transferences as dangerous should condemn the non-analytic modes of treatment more severely than the psycho-analytic method, since the former really intensifies the transference, while the latter strives to uncover them and to resolve them as quickly as it is possible.”

Some generally familiar facts of observation appear

*Freud. *Sammlung*, etc. 2^e Folge. S. 105.

†Ferenczi. *Op. cit.* S. 433, 434.

‡Freud. *Loc. cit.*

§Ferenczi. *Op. cit.* S. 435.

more comprehensible in the light of the foregoing considerations. First, the fact that patients find benefit in some physician's treatment, and not in that of others. This merely means that the first physician's personality is such that transference of repressed affects onto him is possible to the patient, while with another it is impossible; the patient then finds the latter "unsympathetic," and soon leaves him. When the transference succeeds the patient is benefited, in the way Janet excellently describes when discussing somnambulatory influence; the repressed affects find a more suitable object to fasten on than the symptoms. The underlying abnormal mechanisms, however, remain the same, the complexes merely undergo a little further displacement, and are not resolved. That it is the transference, or "affective suggestion," that is responsible for the beneficial result is evident from Janet's observations on hypnotized patients. He found a close correspondence between the subsequent somnambulatory influence and the extent of therapeutic improvement, and draws the obvious inference that the beneficial effects are due, not to the physical results of hypnosis, but to the patient's absorption in the thought of a particular person.* In certain rare cases, particularly with patients who have been hypnotized by several different people, this preoccupation may not develop, and then no therapeutic benefit occurs. "The appearance of the personal influence and somnambulatory passion, whatever inconveniences they may present, seem to me very important for the treatment of the patients; it is at that moment that the physician gains control over their minds and begins to modify them. When these manifestations do not appear the mental changes produced by hypnosis are quite momentary, and the patient remains essentially the same as he was."† Referring to cases that do not show these manifestations, he writes:‡ "We must add that somnambulism has hardly any therapeutic action of value for them. Undoubtedly one may occasionally cause to disappear, for a time at least, a slight hysterical accident which has existed for a short time, a chorea

**Janet*. *Névroses*, etc. pp. 444-5.

†*Ibid.* Op. cit. p. 430.

‡*Ibid.* Op. cit. p. 452.

or a contracture by a single suggestion given in the hypnotic state. But, for my part, I have never seen serious hysteric accidents which have persisted for a long time, cured without the training of the subject in which these manifestations of influence play a preponderant rôle; the patients who do not present these phenomena cannot be influenced to any great degree." This last emphatic sentence shows the decisive importance that somnambulic influence, i.e. preoccupation with the thought of the physician, transference, *Übertragung*, has for the beneficial results of hypnotic treatment, and Janet's extensive experience agrees with that of the Freudian school in accepting the indispensability of the process. Confirmatory of this conclusion is the generally recognized fact that when a patient really recovers from his neurosis his abnormal suggestibility, i.e. his capacity for transference, greatly diminishes or ceases.

When a patient passes into the hands of a strange physician a conflict of influences takes place, which lasts until the thought of the first one fades, a fact noted nearly a hundred years ago by Deleuze.* In connection with this Janet writes:† "It is curious to observe that among these subjects, as among the preceding, among those in a word who for one reason or another do not retain the preoccupation with the hypnotizer, the somnambulism remains useless, is not followed by a development of sensibility or memory, does not bring any satisfaction and does not satisfy a need. This observation clearly shows that it is not alone the physical phenomena of sleep, the nervous perturbations of hypnosis, that bring about these changes and these phases. It is a certain thought about a particular person which invades and directs the mind of the subject."

In spite of the exaggerated claims put forward by professional hypnotists and others, it is widely recognized that the *permanent* results obtained by the use of hypnotism and suggestion leave a great deal to be desired. Mild cases of psycho-neurosis may without doubt be lastingly benefited in this way, though even here success is very inconstant

*Deleuze. *Instruction pratique sur le magnétisme animal*. 1825. p. 109.

†Janet. p. 453.

and uncertain, but as regards the more severe cases critical experience has an all too dissolving effect on the thoughtless optimism that is often preached. Again and again relapses occur, one symptom is removed only for another to take its place, and chronic nervous invalidism in spite of all efforts is a spectacle familiar enough to every medical practitioner. In many places* Janet, whose work has largely lain amongst these chronic cases, despairingly laments the temporary effect of the most arduous endeavors, and describes how a therapeutic edifice, patiently built up by the labor of many weeks, may in a few moments crumble into nothingness. These facts are now comprehensible in the light of the explanations developed above. The suggestion, or transference, acts by allowing affective processes, which had previously found an inadequate outlet in the neurotic symptoms, to become attached to a more suitable object, namely, the person of the physician. In severe cases their tendency to flow in the old channels is so fixed that the new outlet can be kept efficient only by renewal of the opportunity for transference, in the form of close intercourse with the physician and maintained interest on his part. As was mentioned above, the whole process psychologically consists merely in the replacement of one set of symptoms by another, dependence on the physician, and the underlying pathogenic agents remain unaltered; with psychoanalysis, on the other hand, these agents are permanently deprived of their power for harm, and their activity is set free to be devoted to more useful social functions. Janet repeatedly deplores the unsatisfactory nature of the psychical dependence that is so frequently set up; he says, for instance:† “Certain authors think that they can strengthen the will and freedom by suggestion, but in our opinion this is an error of reasoning and observation which we have often noted. The suggested patient will often appear to resist through obedience, but he will not be really free; on the contrary, suggestion develops automatic and subconscious activity, and diminishes the last voluntary efforts. This indifference,

*Janet. Op. cit. pp. 59, 429, 444, 472, 473.

†Janet. Op. cit. p. 194.

this renunciation of all personal control is most dangerous, and increases in no small measure the fundamental aboulia of these patients. In a word, suggestion, like all dangerous drugs, is useful in certain cases . . . but outside of this it is extremely harmful, for it can only increase the mental disaggregation, the underlying cause of all the accidents.''

Another matter capable of explanation on the same lines is the resistance shown by patients to psycho-therapeutic treatment. This may arise either from a general objection of the patient to surrender his symptoms, which is usually an unconscious one, or from an "antipathy" towards a given physician; the latter event denotes that the patient's complexes are of such a kind as to make the physician in question an unsuitable object on whom to transfer their affects. This resistance is often especially marked in the case of hypnotic treatment, towards which many show an invincible repugnance. It frequently happens that the patient says he will consent to have hypnosis induced, but that this is found extremely difficult or impossible. The cause of this is then an unconscious resistance to being hypnotized; as Freud puts it, "*Das Nichthypnotisierbare in bedeutet ein unbewusstes Nichthypnotisiertwerdenwollen.*" It is based on a fear of self-surrender, the meaning of which was pointed out above in connection with popular prejudice against hypnotism. In other cases the resistance is less and the patient is hypnotized, though unwillingly. The resistance then shows itself, as Janet has described,* in an absence of the subsequent somnambulic influence, and therefore in a failure to obtain beneficial results from the procedure.

I would attribute to a similar process the well-known refractoriness to hypnotism that most insane patients show, particularly those suffering from dementia præcox. In dementia præcox there takes place a projection of the patient's internal conflicts on to the outside world, the very opposite of the introjection characteristic of the psycho-neuroses. The patient suffering from dementia præcox, so far from having the exalted capacity of the neurotic to absorb

*Janet. Op. cit. pp. 452, 453.

the environment as part of his ego, and to transfer to it his repressed affective processes, has less capacity in this direction than the normal. In the scale of psychosis, normal, and neurosis we thus see that there is on the whole a gradation in the readiness with which affective processes can be transferred to the environment, and, correspondingly, a gradation in the capacity to be affected by suggestion or hypnotized.

In the course of psycho-analytic treatment the resistances met with are in some cases practically impossible to overcome. They are then as a rule due, not solely to internal conflict, but to gravely defective harmony in the environment. What Freud calls the "secondary function of neuroses" is the capacity they have to be made use of by the patient to obtain something he otherwise could not. Every practitioner knows the service a nervous illness often is to a patient in dealing with relatives, over whose heads the patient holds it almost as a threat; this process may be consciously or unconsciously carried out. Under such circumstances the patient's deep-rooted objection to getting better may defy all therapeutic measures. Some time ago I had the opportunity of demonstrating to myself that this form of resistance to recovery goes hand in hand with refractoriness to hypnotism. With two patients the domestic circumstances were such that insuperable resistances were met with in attempting to bring about recovery. In one case recovery meant again taking up life with an alcoholic husband who was extremely repugnant to the patient; in the other case the circumstances were more complicated. The patients, feeling from a sense of duty that they ought to make every effort to get better, asked me to treat them by hypnotism. If I had reflected on the psychological conditions present, or had read Ferenczi's illuminating paper, I would have known at the outset that such an attempt must fail. We often learn most from our errors, however, and fortunately for the experiment I unthinkingly consented to the patients' proposal. Both patients proved absolutely refractory to hypnotism, although on general grounds success might have been expected. I interpret these observations as forming some empirical confirmation of the considerations adduced above, namely, that willingness to be hypnotized corre-

sponds with willingness to give up the unconscious gratification afforded by the symptoms, either permanently or only so long as the physician consents to the transference.

The relation of suggestion to hysteria is also a question that discloses new aspects in the light of the considerations here advanced. It has long been known that between hysteria and suggestion there exists a close association. When the teaching of Charcot, that hypnotism is only a characteristic manifestation of hysteria, was followed by that of the Nancy school, showing that hypnotism is only one form of suggestion, it was an easy step to the inference that hysteria itself, or rather its symptoms, is nothing more than a product of suggestion.* This conclusion, enunciated by Babinski,† and accepted by most of the Paris school, though by hardly any neurologists outside France, contains in one sense a germ of truth, but in the sense intended by Babinski it is demonstrably incorrect. The limitations and errors of Babinski's views are too manifold to be dealt with in a paper devoted to another subject, but it may be said that they largely arise from attention being directed to the end-product in the pathogenic chain of cause and effect instead of to the earlier and more fundamental links. Babinski attributes a rôle of predominant importance to the process we have called "verbal suggestion." This, however, is only a consequence of a more primary process, namely, affective suggestion or *rapport*. This, in its turn, is one variety of the transference phenomenon characteristic of the psycho-neuroses, namely, that concerned with the transference of *positive* affective processes. The more general transference phenomenon is again a particular type of a still wider one, namely, displacement, and it is in the excessive tendency to displace affects by means of superficial associations that the final key to the explanation of abnormal suggestion must be sought. Even if it were true, which it certainly is not, that most hysterical symptoms are the

*As a matter of fact it would be just as logical to draw the reverse inference; to say that suggestibility is the result of hysteria is nearer the truth than that hysteria is the result of suggestion.

†For it cannot be maintained that there is any essential difference between persuasion and verbal suggestion, as defined above.

product of verbal suggestion, the observation would be of hardly any practical or theoretic interest; it would only bring us, even more inevitably than before, to the important questions concerning the source of the affective *rappor*t that heightens the susceptibility to verbal suggestion. To explain hysterical symptoms as being "due to suggestion," or even to regard this conclusion as in any way furthering our knowledge of hysteria, betokens a lamentable shirking of the real problems, which it obscures by ignoring the need for their solution. On the contrary, reducing the question of verbal suggestion to the broader one of affective *rappor*t, studying this in its relation to the other manifestations of transference, and tracing the latter to its source in abnormal displacement of affects, constitute a route that leads us to the central problems of the psycho-neuroses, namely, the nature and origin of intra-psychical conflict and repression and the deviations in the development of the primary psychical forces.

Finally, a word must be added on the application of the foregoing views to the normal, although this subject is so extensive that I have refrained from discussing it here. Psycho-analytic investigations, on both the normal and abnormal, fully confirm Sidis's conclusion that "every one of us is more or less suggestible."* The reason is that every one has a certain capacity to transfer affective processes, provided that the object fulfils certain requirements; these processes take their origin in the psycho-sexual group, though in the large majority of instances the erotic nature of the process is transformed ("sublimated") into one of a more social kind. Ferenczi states the position clearly when he says:† "*Everything points to the conclusion that a sexual element is at the basis of every sympathetic emotion*, and that when two people meet, whether of the same or opposite sex, the unconscious always makes an effort toward transference. When this effort is successful, whether it is in a pure sexual (erotic) or in a sublimated form (respect, gratitude, friendship, æsthetic admiration, etc.), a bond of 'sympathy' is formed between these two persons. When consciousness

*Sidis. Op. cit. P. 17.

†Ferenczi. Op. cit. S. 440.

refuses to accept the positive unconscious desire, then we get, according to the degree of intensity in each case, antipathy of various degrees up to loathing." The principal differences in this respect between the healthy and the neurotic are that the former transfers his affects on more logical grounds than the latter, and that he is in general more conscious of the whole process. The perspectives opened out by these reflections are too vast to be even alluded to here, the aim of the present discussion being only to illustrate the fact that, thanks to the epoch-making work of Freud, Janet's prophecy quoted at the beginning of the paper is at last being realized.

SUMMARY

The term suggestion covers two processes, "verbal suggestion" and "affective suggestion," of which the latter is the more primary, and is necessary for the action of the former. Affective suggestion is a *rapport*, which depends on the transference (*übertragung*) of certain positive affective processes in the unconscious region of the subject's mind; these are always components or derivatives of the psycho-sexual group of activities. The occurrence is a normal one, but takes place to an excessive degree in the psycho-neuroses, on account of the large amount here present of desires that find no adequate outlet; it is one form of the more general mechanism of displacement (*Verschiebung*), by means of which an affect is transposed from an original, unpleasant, and repressed (*verdrängt*) conception to another less unacceptable one. Suggestion plays the chief part in all methods of treatment of the psycho-neuroses except the psycho-analytic one. It acts by releasing the repressed desires that are finding expression in the form of symptoms, and allowing them to become attached to the idea of the physician; psychologically this means the replacement of one symptom by another, namely psycho-sexual dependence on the physician. This is often of temporary, and sometimes of permanent benefit, but in severe cases the replacement is inconvenient and detrimental. In psycho-analysis the repressed desires are permanently released by being made conscious, and hence can be directed, by sublimation, to more useful, non-sexual, social aims.

ON SOME OF THE MENTAL MECHANISMS IN DEMENTIA PRÆCOX*

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IN this symposium I have been asked to take up the symptomatology of dementia præcox from the point of view of the content of the psychosis. It is, therefore, not within my province to dwell either on the general principles of the disorder, or the constitutional factors which play such an important part in these cases.† My task is rather to state briefly what a study of the content of the psychosis seems to indicate.

In certain simple paranoic states, or in a certain type of psychoses of degenerates to which Birnbaum‡ has recently devoted a monograph, it can scarcely be questioned that the content of the psychosis represents conflicts and reactions to conflicts which the individual, owing to an inherent constitutional deficiency, has been incapable of handling adequately. In cases in which we are able to analyze the symptom picture of dementia præcox we find a similar situation. While an outside view of dementia præcox reveals an arbitrary array of manifestations: of delusions, hallucinations, queer notions, or autochthonous ideas, an emotional condition often out of harmony with what the patient says, peculiar incoherent utterances which impress one merely as a scattered ideation, bizarre acts often executed with an impulsiveness which appears strikingly forced and elementary — an analysis often shows us that instead of there being a lack of connection or significance in this array of manifestations, all these expressions mean something to the patient, that definite principles of depen-

*Read as a part of the Symposium on Dementia Præcox at the meeting of the American Neurological Association, held in Washington, May, 1910.

† See Hoch, A. Constitutional Factors in the Dementia Præcox Group. Review of Neurology and Psychiatry, August, 1910.

‡ Birnbaum. Psychosen mit Wahnbildung und wahnhafte Einbildungen bei Degenerativen. Carl Marhold, Halle, 1908.

dence of the individual symptoms upon each other can be made out, that certain mechanisms are at work, and that instead of an arbitrary diffusion there is in these manifestations a certain limitation to definite trends. There are cases, therefore, in which the same principles exist as in some paranoic states and in some degenerative psychoses. The question is only how general an application may we claim for this. It is not easy to analyze cases of dementia præcox, and a satisfactory demonstration has been possible in a limited number of instances only, yet aside from those we have many examples in which more or less clear indications point in the same direction, to say nothing of the support which such a view receives from other sources, namely from the general principles as claimed by Dr. Meyer, and from the recognition of constitutional deficiencies which forms an integral part of these principles. On the other hand, it must be frankly admitted that there are still many gaps, and that a growing knowledge of the clinical pictures, with perhaps a clearer separation of cases into smaller groups, may also demonstrate that mechanisms of another sort are at work. The reason the situation is clearer in some paranoic and degenerative psychoses, and why, therefore, in them the psychogenic origin is not doubted, is because there the conflicts are on the surface, they often lie essentially in an external situation, whereas in dementia præcox the external factors are insignificant compared with the internal conflicts. We are, therefore, in dementia præcox dealing with undercurrents which, however, as our experience shows, seem to give rise to the same sort of attempts at adjustment as those conflicts which are more on the surface, but they are often less transparent, the conflicts less obvious, partly because the normal person cannot understand the opposing forces of the conflicts and the real desires, partly because they refer to very personal matters, and therefore are under the influence of distorting and repressing forces which make the analysis more difficult. Any one who has analyzed cases of dementia præcox must have been impressed with the fact that the content often unmistakably refers to disharmonies in the sexual sphere, and this is, as we have reason to believe, not accidental,

but due to a fundamental defect of sexual adaptation in its widest sense.

I need hardly say in this audience that it is essentially Freud and Jung to whom we owe our insight into these principles, which are at times more clearly in evidence in dementia præcox than in hysteria, though not fundamentally different from those of the neuroses and of every-day life. I propose to take up the subject by giving: (1) the analysis of a case who evidently, owing to the comparatively good mental makeup, was particularly accessible, and who, probably for the same reason, eventually recovered; (2) the analysis of another case who did not recover; and (3) a brief general description of some of the more obvious mechanisms with which we are as yet acquainted, without any claim to completeness, even so far as our present knowledge goes.

The first case is that of a young girl of seventeen, who when seen presented a certain amount of excitement; yet without real distress, she tried the doors, made peculiar statements. She said that some one was in distress, that the country was in trouble, that she was "the center of a good deal." She spoke of explosions and automobile accidents, of fires, and the like,—events of which she had learned from headlines in the newspapers which were lying about; but she did not blame herself for it, as melancholics would. She spoke of electricity being applied to her, said that she felt connected in some way; she heard voices which said, "Stand still," "Get up," "Look out," "Danger." She suddenly saw "a fog" and in it a railroad train and a face. She often would not go to bed, and, without being able to explain it, would violently oppose any attempt at putting her to bed. At other times she would not eat, would not pass her urine, was very insistent that some special patients in the ward should not be there. She often asked what things meant, in fact to anything which was at all obtrusive a feeling of self-reference was attached. She slept poorly and ate insufficiently. She was always oriented as to her surroundings. The patient presented, therefore, a peculiar impulsive behavior, which was never accounted for by the situation, nor by any obvious ideas;

a markedly negativistic attitude at times, hallucinations in the form of voices, electricity, and occasionally visions; ideas of reference, odd acts, the whole characterized by a peculiar lack of transparency and want of connection.

The anamnesis told us that the patient had been self-willed, pedantic, with a great desire for consistency and justice; she was ashamed of her menstruation, but withal fairly natural. At six a boy had intercourse with her, and threatened her if she told about it. She claims she did not think much of it. At about the age of ten she began to masturbate and worried much about this. When eleven, she one morning woke up frightened and saw Christ on the cross. The night before she had sat at the window listening to men who went by, wondering who they were and whether she would ever meet them. She does not remember any other fancies at the time. In the morning after the vision she worried about her masturbation, and then the episode at the age of six came to her mind and she confessed it to her grandmother. When thirteen and fourteen she used to sit more often at the window at night, losing much sleep thereby, dreaming in the same way as when she was eleven. It is probable — but we can only infer it — that sexual fancies occurred at that time. She worked normally until fifteen, when she became absorbed, could not do her work, and half a year later dropped it all. She was sent to a relative, the place where she had lived when six; she became worse, surprised her people by saying that she was in love with a man whom she scarcely knew; she kept watching the house of a physician whom she also knew but superficially, thought of him a good deal, as she confessed later; she claimed she saw another man, whom she had seen at her own home, pass daily on a train, saying she recognized him only by his hat. When again at home, near the sea, she saw searchlights, and thought the doctor above mentioned was "in distress," saw a vapor with his face in it. When taken to her family doctor there were two men in his waiting room; she thought they were there to tell the doctor of her masturbation, or about her love for the other physician; she also felt that one of the men was exerting electrical influences upon her. In a shoe store she thought she re-

cognized the man who passed on the train, and the shoes she bought she never could wear because they were "charged with electricity." Finally, when she was again sent to the same relatives, she at once became more markedly abnormal, spoke of wires being through the house, of being surrounded by electricity, she refused food, hesitated to pass her urine, wanted things "straightened out," was undecided, and suddenly claimed she was married.

This patient could be analyzed even during the active stage of her condition, as it was found that she always quieted down when this was done. In the analysis many of the facts which have been embodied in the history were obtained, as well as the following:

It became clear that the idea of electricity represented a very important part of the picture and furnished the key to the situation. She said that electricity was tried in a way that it should not be tried, and said in the same connection that some one was trying to be near her, and finally that different people were trying to marry her, or were trying something which she did not wish to have tried. At last it was found that the electricity was localized in her sexual organs, and that the sensations were quite unlike electricity, but like the feeling which she had perceived during the sexual traumatism in the sixth year. This explained, then, the meaning of these sensations. And then the idea that she felt the electricity in the shoe store, and that the shoes were later charged with electricity, also became comprehensible. Moreover, it was found that these sexual sensations increased when she remained in certain positions for any length of time; hence she heard warning voices, saying "Stand up," "Look out"; they were most pronounced in bed; hence she frequently refused to go to bed, fought desperately when put there. The reason why she objected to the presence of certain patients became clear when it was found that all these were patients who wet their bed; that this, as she said, suggested to her kidney disease; the latter in turn suggested a vaginal examination, which her family physician had made, and this led, therefore, directly to the main trend. The refusal of food found its explanation partly in the fact that the sensations increased after

eating, partly in that she had heard her family physician say at one time that meat increased the sexual desire. The voices, the idea that some one was in distress, etc., were invariably traced to one of the men mentioned in the history, and were probably also determined by a projection of her own distress.

I think, therefore, that the case resolves itself into this: we have here a girl who had an early concrete sexual experience. This very probably led her thoughts into the direction of sexual matters to a degree which evidently went beyond the normal tendencies of this sort — and more important to note is the fact that certain reactions all along showed that these fancies were evidently disturbing factors. She lost sleep sitting at the window wondering who the men were who went by, whether she would meet them, etc.; in this connection it is interesting that immediately after the first episode of this kind she woke up with fright and had a religious vision, and then worried about her masturbation and her earlier experience with the boy. Then the fact that she was ashamed of her menstruation is of interest, and her growing pedantry, her desire to have things right, may have been, as it often is, a reaction to the feeling of guilt about sexual ruminations.

Finally, there came an absorbed period which was so marked that any objective interest and activity became impossible. And then came that peculiar diffuse rather than specific application of her love to real persons, as is the case so frequently in dementia præcox, and which in itself points to the marked lack of sexual adaptation. She said she was in love with several men whom she merely knew from a distance, and thought she saw them in various places.

Now it is very natural that the original and only sexual experience played a part in her fancies, and when these became dominant the sensations connected with it were represented by hallucinations; this was then a wish-fulfilment; but with it came something like a compensation, something like a feeling of guilt arose and she became stirred up, substituted electricity for sexual sensations, and the whole picture was then made up of these sensations,— of a

certain excitement, a feeling of danger with warning voices, the ideas of reference, the shunning of anything which recalled the main trend. In other words, the symptoms were largely grouped around the electrical sensations, while others, such as the hallucinations, "I love you," the seeing of the men, the appearance of the fog with the railroad train, the face, and the like, were phenomena parallel to the sexual sensations, but probably because they were not of such a disturbing character they remained comparatively in the background.

The second case is a woman thirty-six years of age, who even as a child was sensitive and stubborn; she often left the table on slight provocation, was hard to guide and influence, and was not inclined to confide in any one. She had a certain tendency to romanticism; liked literature and music, without, however, having any knowledge of either sufficient to give her a deep interest in them. Before her marriage her brother took her into his business as an assistant in the office, but she was inefficient, and yet constantly objected that she was not given better work to do. When twenty she married a cousin who was disliked by the family, and whom, it is thought, she herself really did not love. As a matter of fact she never got along well with him, and as marked evidence of this there stand out the following prominent features. In the first place she always made demands upon him which she knew he could not fulfill with his means; thus she wanted him to get a horse and carriage, and matters of that sort. It was not long after the marriage that another trait appeared which we also have reason to regard as a serious lack of adaptation, namely, her jealousy of him. This came out for the first time plainly during her first childbirth, when she suspected her husband of being in love with her nurse. Four years after her marriage she met a dentist who called her Miss instead of Mrs.; she did not correct him. He made a deep impression upon her, she felt that he was different from her husband, more sympathetic, that she could talk better to him; she became infatuated with him at the time, as she herself said later. She had another child, and the same nurse took care of her. She again got the idea that her husband was in love with this

nurse. Nine years after marriage, five years after she met the dentist, she was pregnant with the third child, Mary. In the mean time the lack of adaptation to her husband had increased, and her affection for the dentist had become more marked, so much so that at that time, as was discovered later, she had various longings which were to play an important part in her psychosis. Her relations towards her husband did not improve, there were frequent scenes, and she continued to be suspicious of him, in regard not only to the nurse, but also to some other woman. For some years before the onset of the psychosis they had very little sexual relation with each other, and for three years it had been given up entirely.

In the fall of 1906 she suspected her husband of intimacy with an Italian girl who occasionally visited his shop, and when, in January, 1907, she saw this girl deposit some money in a bank she took this as a confirmatory evidence that her husband was intimate with her.

In June, 1907, she was invited to stay at her sister's house, while the latter was absent. There she read two books which made a considerable impression on her, because they seemed to her to fit her case; one was about a woman whose husband was unkind to her and gave her no money, who consequently thought of leaving him, but who, as the patient put it, remained at her post and died; she had a devoted friend who was true to her to the end. In another story she read of a man who lived a life of self-denial to serve the woman he loved, but whom he could not marry. She thought of herself as the heroine and of the dentist as the hero. Towards the end of June, and probably not by accident, she one Thursday went to see the dentist, and then while sitting in his chair a feeling of love came over her. It returned again at night, and then for a while every night, after she had gone to bed, and she masturbated repeatedly. Then it returned with special force, chiefly every Thursday night, and then the more marked symptoms of the psychosis arose. She began to feel the dentist's presence near her, and a feeling came over her as if she were again looking into his eyes, "a feeling of love and longing, a sensuous feeling," as she herself expressed it. She used to

sit on the porch at night and sing all the love songs she knew. They came without effort. As this went on she could not put her mind on her work. In regard to this period the husband says that he noticed nothing except that she lay down a good deal, was somewhat absorbed, and once he heard her talk to herself. By the end of August paranoid ideas regarding her husband again appeared; she found a stopcock on the gas stove turned on, and suspected that her husband wanted to kill her and the children; she also believed he had put something into the oatmeal for the same purpose; she was not sure whether her husband had done this himself or whether an Italian had done it for him. Nothing further was noticed by her friends until September 10, when she suddenly proposed to go to California to visit her sister. In talking of this during the analysis she said that she thought getting away would help her to overcome the feeling for the dentist which had taken such a hold of her. This plan was refused, but she repeated the same proposal a few days later, and at the same time made an attempt to again straighten out her relationship to her husband. She confessed to him that she had been in love with the dentist for thirteen years, and asked him for forgiveness. He rebuked her, and he, as well as the other members of the family, said it was too expensive to go to California. Next day the condition changed. She said that she was "in a muddle"; began to talk in a disconnected manner of things which were not understood by those about her. What is remembered of it is the following: she spoke of having kissed the old family doctor, of white pills which he had given her; she thought somehow some harm was done; she spoke of a murder committed by an Italian years before. She became religious, said she wanted to do what was right, wanted to bring all together and take them to church; she spoke, in this connection quite irrelevantly, of gauze shirts, thought the dentist was one Alexander, a former friend of the family; again thought she saw the dentist in various other persons.

When first observed the patient appeared oriented, but later said for a time she thought she was among the Blue Alsatian Mountains. She was nervous, uneasy, anxious to talk. She said at once, quite irrelevantly, that her family

physician had given her large white pills during her childbirth; she made other remarks about the subject of childbirth, not only of her own, but also of that of her sister, and when asked why she said all these things, she answered, "It seems to be in my mind as though there was some connection." When questioned what this connection was, she said that the doctor also took care of her husband while he had appendicitis, that he told her he could not say what the outcome would be, and, after the husband was saved, he asked her to kiss him; she added: "The thought comes to me that the baby resembled the nurse who took care of him — is such a thing possible?" When told that this was nonsense, she said, "But why does the thought come to me?" During the rest of the day she became more excited, kept breathing very deeply, would not keep on any clothes, slapped herself vigorously, and became very forced in her attempts at breathing.

Next day she said that she felt forced to breathe deeper and deeper, that she could not stop, that a feeling came over her as if she were paralyzed, and that she had to slap herself; again she said that she could not move her hands from her side and felt like a post. She also spoke of having heard people talk about a court, said she was afraid Mary was dead, "Perhaps some one might have given her something wrong." In answer to the question why she was so uneasy, she said that she ought to have told her husband about her sensations which she had at the dentist's, yet when asked what sensations, she mentioned a toothache.

On the third day she became more quiet and rational, and remained so for two weeks; various symptoms were present, certain ideas of reference, a certain uneasiness about the court. The latter she associated with the dentist. Perhaps he might have given her child something which harmed her and he might now be prosecuted by the law; she spoke of the dentist testing her in some way. Above all there was present a constant desire to see her children, especially Mary. She repeatedly thought the children were in the next house and tried to get to them; she often tried to run away and could in no way be reasoned with regarding this desire to see her children. The idea came to her that

perhaps in some way she might have harmed the old family doctor. Then another excitement appeared, but without such markedly forced or odd actions. It seemed merely to be a constant senseless desire to get away to her children, with violent attacks upon the nurses when they would not open the doors, and, associated with this, was a constant insistence on following the examiner whom she finally half identified with the dentist, or called by the name of her husband. After six or seven days she again quieted down, but was no longer accessible for further analysis. One could not get beyond such statements as that she was nervous because she wanted to see her children and the like. She was then taken home by her family, having, so far as could be ascertained, no definite delusions at that time. At home she took, quite contrary to her usual habit, exceptionally good care of the household, but at the same time dressed with great care, bought clothes beyond her means, surprised the family by denying that she had been in a hospital and by denying that the house had been sold to her brother. The latter had been done in order to raise some money, and the patient herself had attached her signature to the deed. After a month at home the patient was sent on a trip to California to visit a sister, accompanied by her brother. While she did fairly well at first, her condition soon became worse and she had to be sent to a hospital in California, where she still is a patient, nearly three years after the onset.

While we have thus far become acquainted with the superficial facts of the psychosis, we shall now have to add the results of the analysis and the interpretations derived therefrom. Here again, as in the last case, a special set of symptoms gave the key to the situation. As there it was the electrical sensations, so it was here the peculiar breathing and slapping, etc., the analysis of which led us back to an occurrence nine years before, namely, to the time when she was pregnant and when the birth of her daughter Mary occurred. Her husband was ill with appendicitis towards the latter part of her pregnancy, and as the relationship between the two at the time was strained and her longing for the dentist again had swept over her, she wished that he might not recover, when the family physician told her that

he was in danger. She felt that then her chances for marrying the dentist would be better; that the dentist was already married throws an interesting light upon her personality, upon the lack of adaptation of her desires to reality, or perhaps upon that peculiar inadequate way in which dementia præcox personalities apply their libido. The husband got well, and when he was out of danger the old family physician asked her to kiss him for having saved him. Then the childbirth came and a similar train of thought occurred. She hoped the child would not be born alive, because her chances for marrying the dentist would be less with three than with two children. The physician told her that there was some danger and that her pains were inadequate, and that it was necessary for her to exert herself, to bear down, to breathe deeply, and he gave her white quinine pills to increase her labor pains. She did not follow his directions adequately, as they did not meet with her own desire, but the child was born and grew up a healthy girl.

The elements of this episode which are here put together in a connected story we find again in a disconnected manner in her psychosis. This episode may well have stood in her mind as the symbol of her desire to get away from the husband and to marry the dentist.

After she had for several years virtually broken off her relationship with her husband and was beginning again to apply her love to some one else, it was this older part of the same trend which again came up; she was now compensating for her lack of exertion at the time, with the forced straining, slapping, beating herself, etc.; yet the opposite was not lacking, she feared that Mary might be dead. We know now that such fears represent very often repressed wishes. So that again there was on the one hand the assertion of her desire to have the child dead, and on the other hand a compensation for this desire. It is not improbable that the feeling which at times came over her, namely, that in spite of the slapping and breathing there was something like a paralysis, may have stood as a symbol for the child's death, just as at the time of the birth the lack of exertion stood for it. Of a similar nature is possibly her thought that Mary looked like the nurse, in other words, was not her

child. Her speaking irrelevantly about an actual murder in the neighborhood by an Italian some years ago probably had some connection with her husband, whom she suspected of being in love with an Italian girl. It must be remembered that later she suspected her husband of wishing to kill her and doing it through an Italian; we know that such suspicions are often projected wishes. The feeling of guilt in regard to the child liberated as another compensation the idea about the court, which was quite prominent at times, and the general idea that some wrong had been done. It is certainly interesting that she projected her guilt on the dentist, thought that perhaps he had done something to Mary, and that there was going to be a court proceeding about him. Then the general uneasiness was attributed, not to the real source, but to such trivial substitutive matters as her kissing the old family physician, or her not having told her husband about her toothache. The idea that the dentist was testing her in some way may have been a part of that peculiar paranoic tendency which we often find in such cases where some sort of a relationship is imagined, instead of the desired one, often of a persecutory nature. Quite clear as a form of compensation or atonement is the patient's constant desire to see her children, especially Mary, which became at times very insistent and impulsive and dominated the clinical picture for a while. Of interest is also the delusion about Alexander. This Alexander was a childhood love of the patient. She said that she had often connected the two, the dentist and Alexander, because their eyes were so much alike, and it is possible that she fell in love with the dentist because of this fact. When asked what satisfaction it could possibly give to her to identify the dentist with Alexander, she said, with that insight which we find at times in our analyses, that then the dentist would not be married, because Alexander was not married; that she later connected the examiner with the dentist and with her husband was an instance of that typical diffuse application of the libido which we see in dementia præcox so often.

The religiousness which was present in the early part of the psychosis is a frequent form of compensation. She wanted to go to church; she said again and again that she

wanted to do what was right; she wanted to take others to church, spoke of wishing to unite every one, all of which is along the line of the same desire for a moral readjustment. It was at this time that a peculiarly irrelevant utterance about a gauze shirt frequently appeared. When the patient was probed about the significance of gauze shirts it was found that in June when she went to the dentist it was very hot and she did not change her clothes, more especially her gauze shirt, and she felt that the dentist might perceive an odor. Why this came out at the time I do not know, but it is clear that it belongs to the same general trend.

If we now summarize this case we find that we have a woman who was somewhat of a shut-in personality, inasmuch as she was not easily influenced by her environment and was unable to adjust herself well. Throughout her married life there was a marked lack of adaptation to her husband, showing itself in demands which she made upon him and which she knew he could not fulfil, but also in her jealousy of him. This lack of adaptation finally found its expression in the cessation of intercourse. Long before this her longing for another man manifested itself, and when the husband was ill she wished he would die, and when her childbirth occurred, that the child would not be born, so that her chances to marry the other man would be greater, and consequently she refused to help in the birth; all this, in face of the fact that the other man was married. Later there followed some years of a virtual separation from her husband, during which there was no other outlet for her interest, for she was not specially fond of her children, and had not much social intercourse with any one else; and preceding the outbreak of the disease there was a period of inactivity and day-dreaming. During this period she went to see the dentist often, fell in love with him, her day-dreaming about him increased, and then more marked symptoms appeared, namely, the semi-automatic singing of love songs, the feeling of his presence, and a greater absorption. This was followed by renewed suspicions of her husband, she thought he wanted to kill her. After this we find an interesting effort towards a frank readjustment, her confessing to her husband, an attempt at making up with him, and a desire

to get away from the dentist. When she was repulsed in both these directions there was almost at once a change, and the more acute breakdown came on, in which the picture was no longer clear, but in which the same trend prevailed, namely, that of her relationship to her husband, her desire to get away from him, to have fewer children, to marry the dentist, but in the foreground were the compensatory elements, as we have described in the analysis. The individual symptoms were: disconnected talk and incomprehensible actions, her speaking of white pills, of childbirth, of the family doctor, of having hurt him by kissing him, of the court, of her feeling guilty for not having spoken to her husband about the toothache, her fear about Mary's life, her constant desire to see her children, her peculiar actions of breathing and slapping herself, as well as her feeling paralyzed, her ideas that the dentist was testing her, that he was really Alexander, the idea that the dentist may have given something to Mary to hurt her, then her irrelevant talk of gauze shirts. All of these acts and ideas which appeared wholly disconnected and fragmentary, and entirely unaccounted for by anything which we could at first observe, belong to the same trend of ideas, directly connected with the sexual life in which there had existed conflicts for years prior to the onset of the psychosis. It is rather interesting that the patient herself said that she did not know what her ideas meant, but had a feeling, as she expressed it in the analysis, that there was some connection.

We may now supplement the report of these cases by a description and summing up of the most obvious mental mechanisms found in this disorder.

In the first place we find always the mechanism of wish fulfilment. In Case I this existed in the idea of the patient that she was married, in the hallucination of sexual sensations, and in the voice which said, "I love you," etc.; in Case II, in the presence of the dentist which the patient felt, in the identification of the dentist with Alexander, and in the idea that the child looked like the nurse. In some instances coitus is represented in hallucinations. One patient had a vision of her own marriage; another constantly heard her lover call "come"; a third patient heard that

the wife of the man towards whom her longings went was to be killed.

Akin to this mechanism is the fact that many patients see the object of their longings in all sorts of persons, although this may have a somewhat different significance as well. A very excellent example of a complicated, delirium-like wish fulfilment is given in Jung's article on the content of the psychosis.

On the other hand, Case I also covered up her *wish fulfilment*, that is to say she called that which we ultimately found to be plain sexual sensations "electrical influences," and she not only used that term metaphorically, but she dealt with them as such and believed them to be electrical. Here we see at work a force different from the wish fulfilment, something akin to a feeling of guilt and a desire to compensate for it. It is this compensation which represents another very important and very frequent type of mechanism. Quite often the compensation is in the direction in which the normal person compensates when the feeling of guilt is present, namely, in the direction of religion. In milder or early cases we find then greater interest in religion, in more advanced ones persistent praying, or, as I saw in one instance, the constant stereotyped repetition of a part of the Creed. Definite delusions which have this origin also frequently exist, the patient is "the only one free from original sin," is the "Virgin Mary," "St. Ann"; hears God say, "You are my beloved child," and sees herself go to heaven. One patient, who had fallen in love with a priest, had the idea of a peculiar mystical union of the priest, her husband, and Christ. Such vague ideas are not rare. It is quite possible that a conception of compensation which involves the idea of guilt is not always the correct formulation, but that somehow the undoing of that which a part of the personality desires may have its origin in an opposing force which cannot be thus expressed, and which has its root in the lack of sexual adaptation and the peculiar personality in general. This seems to be the view of Jung and Abraham. In hysteria similar opposing forces are found, but there it seems the feeling of guilt is more often a definite link or determining factor.

Something akin to compensation is to be found in the

anxiety or uneasiness which we sometimes find associated with wish fulfilment, as in Case I, or in the case who suddenly got much frightened when she thought her husband had been killed by a priest after she had fallen in love with a priest. Or in Case II, who was stirred up by the idea that her child might be dead.

This leads us over to a type of compensation which we may call *paranoid*, inasmuch as it manifests itself in ideas of persecution. Here it represents the direct undoing, as it were, of the fulfilment of the wish. This is the case where we have the belief in the love of a certain person, and at the same time the persecution by that person. A girl hears a man say that he wants to marry her, but also that he wants to shoot her; or another patient, who believes that a man is in love with her, also insists that he is persecuting her. In such instances the patients are apt to push the ideas of persecution to the foreground, and we only find later that the opposite is peculiarly intermingled with it. All this shows how closely delusions of persecution may be related to wish fulfilments, and may explain some purely persecutory ideas.

We might speak of mechanism of *atonement* as another type of compensating mechanisms; as, for example, in the patient who had been sexually excited by seeing certain things, and who later had a persistent impulse to dig out her eyes; or in the more complicated instance furnished by Case II, where the patient made up for her lack of exertion during childbirth by vigorously breathing and slapping herself.

An interesting mechanism which leads us from these compensations to that which is called the negativistic mechanism is to be found in the shunning of anything which tends to bring up the main trend, the sort of thing which Freud has illustrated in his psychopathology of every-day life. This is the case, for example, where the patient refuses to pass her urine, to sit down, to eat, or go to bed, because all this associated in her mind with her special difficulties; here may also be mentioned the substitution of trivial things for the important ones, as is the case when our second patient blamed herself for kissing the family physician, or for not having spoken to her husband about her toothache.

We must further mention that peculiar rather gross tendency to shut out the environment by warding off any interference,—that which is called negativism, which we may see in a more active form when the patient may entirely refuse to have anything to do with the examiner; or which accounts for the persistent closing of the eyes, the shutting out of the outside world, and probably to a considerable extent for the marked so-called negativistic stupor.

We must finally mention in this connection that frequently symbols are used very much as in dreams. Much of that which is incomprehensible, particularly in some of the advanced cases, is due to the fact that we do not understand the symbols, as has been so well illustrated by Jung and Maeder.

If we now glance over the entire field of these data and attempt to see their significance and their laws, we find that these laws are not essentially different from those of normal, mental life.

From a general psychological point of view we may say that all our memories are grouped, as it were, in more or less extensive and more or less circumscribed complexes, in the formation and cohesion of which special interests take an important part. We might, perhaps, more correctly call the complexes centers of attraction. We can conceive of the mind, therefore, as made up essentially of trends of interest. In the course of individual development certain main tendencies of the personality develop, which then take the lead, while other tendencies become repressed. These repressed trends exert, nevertheless, a marked influence on the conscious thought and activity, as Freud has shown, but in normal life they do so mainly through the fact that the energy they supply is led into profitable channels. Every trend naturally pushes towards a realization in the direction of its feelings. If this is in harmony with the main tendencies of the personality this is useful and represents the dynamic force behind our thinking, and our pursuits adapted to the environment and the given situation. If, however, trends which are not in harmony with the main tendencies of the personality, and which are, therefore, under the influence of repression, no longer find an outlet in profitable

channels, but assume a more or less independent dominating role, it is not to be supposed that the laws which govern normal mental activity should be suspended; on the contrary, we shall expect to find the same principle of the trend pushing towards its realization, while at the same time the other tendencies of the personality assert themselves in repressing influences as well as in adjustment reactions, but owing to the disturbance of balance between the usurping trend and the main tendencies of the personality, the thinking and acting is then no longer adapted to the actual situation, but appears as something strikingly out of contact with it, and is of a simpler and cruder type.

This, in so far as the mental side is concerned, is what seems to take place in the cases of dementia præcox, which can be analyzed; the overgrowth of certain trends at the expense of the main, well-adapted interests of the personality.

THE NATURE AND CONCEPTION OF DEMENTIA PRÆCOX*

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FROM time immemorial medicine has arranged its facts under as small a number of names designating that which struck the teachers of the day as essentials. These names or diseases had remained descriptive and traditional till Kahlbaum tried to get more definite nosological principles into them in 1863, without attaining success, on account of his heavy terminology. At the same time the old Græco-Roman names were liberally readjusted by others,—Wahnsinn, paranoia, amentia, had been added by German and Austrian writers, and when Kræpelin started on his great nosological revolution, he found a much richer and far more accurately subdivided material in German psychiatry than was found in the Anglo-American contemporaries. Indeed Kræpelin found the new types too many, too one-sidedly symptomatic, or too exclusively etiological. His aim still was the formulation of *types*, but types representing real diseases.

Kræpelin bends the facts of psychiatric observation to the concept of disease processes. His psychiatry works with the postulate that each case presents one of a relatively small number of disease entities with definite cause, course, and outcome. According to him, the assumption of transition forms is merely an admission of nosological cowardice. Each disease has its specific lesion; and a true clinical entity has its unity of cause, course, and outcome, and is necessarily the clinical picture of a unitary and specific histological process or condition (Nissl), with general paralysis as the paradigm.

This is the bald expression of the dogma, impressive and simple, but not altogether convincing or satisfying, especially when we come to his large group of dementia præcox.

The various lesions found in *dementia præcox* are not clearly understood and reduced to a definite intelligible

*Read as a part of the Symposium on Dementia Præcox at the meeting of the American Neurological Association, held in Washington, May, 1910.

mechanism, except they are essentially degenerative or simple reactive processes. With *general paralysis* we have a definite initial factor, the syphilis, and a very specific histological reaction. In *dementia præcox* the cause is left hopelessly vague by Kræpelin; the course is decidedly less fixed than that of general paralysis, and the symptomatology in its first formulation in 1895, and later, emphasized too many things which prevail also in other conditions, so that altogether too many errors occurred. In four hundred and sixty-eight of Kræpelin's Munich diagnoses even between 1904 and 1906, 28.8 per cent were cases subsequently considered to be manic-depressive (Zendig) — altogether too broad a margin of uncertainty. Since the pendulum has swung towards the diagnosis of manic-depressive insanity, we see again, even according to Alzeheimer, cases of manic-depressive insanity which do not wholly escape a certain kind of deterioration, and we stand in this respect about where the vanguard of European psychiatry stood just before the great proclamation of Kræpelin's nosology. The manias and melancholias in the very narrow sense of Meynert and Ziehen and Wernicke and Mendel, recovered from the individual attack in about ninety per cent of the cases, some remained chronic, a few became paranoic, and a few deteriorated. The German writers had considered it possible to single out these favorable types not only from the chronic manias and circular cases, but also from the less simple disease forms called Wahnsinn and amentia, which had a larger percentage that was apt to do badly, and thus included far more deteriorative disorders. Kræpelin's inspiration was the introduction of prognostic principles, and the recognition that if you wanted to speak of a *disease entity* you had to make much broader units — large enough, by the way, to make the refractory cases amount to a lesser percentage. The greatest gain among the manic-depressive psychoses, optimistically called recoverable, or at least non-deteriorating, was the recognition of "mixed forms." His other gain was the insistence on the fact that the bulk of the cases with deterioration in the so-called functional psychoses had a common stamp and course and evolution, an assurance which was perhaps too readily accepted, as happens with

cases whom one does not study eagerly because they seem doomed to permanent custodial care. That deteriorations and even cases which might, *or* might *not* deteriorate, were all one disease and the deterioration not merely the possibly *inevitable* feature of human makeup and mental decline under special constellations, was but a short step further.

What is or was Kræpelin's dementia præcox? The rare dementia paranoides of Kræpelin's Fourth Edition had suddenly been enormously enlarged by the absorption of almost all those paranoic states which showed evidence of dissociations (hallucinations, etc.); Kahlbaum's catatonia was liberally extended so as to include everything that showed catalepsy, negativism, automatism, stereotypy, and verbigeration, and the cases of silliness, mannerisms, and scattering were the enlarged hebephrenic group. The whole group was transferred from the degenerative psychoses to a semi-exogenous group. Enumeration of physical symptoms led to the captivating comparisons with general paralysis, which become less and less impressive, since the ingenious vagueness of the concept of general paralysis of Kræpelin's Fifth Edition has been swept away through the method of Wassermann, Plaut, and others. The claim that manic-depressive insanity occurs *only* on degenerative basis, and that this degenerative character was lacking in dementia præcox was based on the claim that heredity figured in only seventy per cent of the dementia præcox, and in eighty per cent of the manic-depressive cases, and it was often said that any one can develop dementia præcox, as well as any one can develop myxœdema. The anatomical lesions, too, failed to give a leading clue. In short, there was beside the most admirable assertion of a live and fruitful standpoint, too much wandering in uncontrollable domains, undoubtedly at the expense of an undesirable suppression of very valuable psycho-biological facts. Wilmans's paper was a first and most valuable note of warning from the Kræpelinian camp, showing diagnostic pitfalls, but quite recently Alzheimer re-emphasized the adherence to nosological orthodoxy, by grouping dementia præcox with the *essentially* organic diseases, and not merely as what I would call an incidentally organic disease.

With all these strictures, few of us would deny to-day the great value of the generalization which underlies the entity dementia præcox. Yet, while others searched for pathognomic signs in the handshake, the reaction to pin-pricks and the like, we made efforts to penetrate into the factors at work, into a dynamic interpretation. My main assertion has, however, been the fundamental importance of the psychogenic material, and a refusal of hard and fast nosological doctrines. In the Psych. Bulletin, 1908, Vol. 5, p. 257, I briefly characterized the group as presenting essentially *substitutive reactions*, the types of defect and deterioration of which show: "Existence or development of fundamental discrepancies between thought and reaction, defects of interest and affectivity with oddities; dreamy fantastic (crazy), or hysteroid or psychasthenoid reaction, with a feeling of being forced, of peculiar unnatural interference with thought, etc., frequently with paranoid, catatonic, or scattered tantrums or episodes." I further advocated that it was possible to formulate the main facts of most cases in terms of a natural chain of cause and effect, utilizing the psychobiological material at hand, better than a dogmatic assumption of a specific but hypothetical unitary toxic principle.

To assure common ground for a general pathological and nosological discussion we should be agreed as to the sense in which a psycho-dynamic school speaks of mental activities, and how it correlates them with the *non-mental* data, the non-mental neurological issues, and those of the non-nervous organs. Suffice it to say that by *mental activities* we do not mean an expurgated happening in an abstract "mind," but rather those activities and reactions, those functions of our body in which phenomena of more or less conscious association are a *necessary* feature. The *non-mental nervous functions* are that which can be produced by electric stimulation or reflex irritability with or without conscious processes. The *non-nervous functions* would be the circulation, respiration, nutrition, etc. Psychogenic disorders are those which depend on conditions or events which can only be described satisfactorily in terms of psycho-biology; actions, emotional reactions and attitudes, and intellectual

or "thought" constellations,—and their conflicts and abnormal combinations or atavistic or fundamentally or directly abnormal reactions, with their effect on the general mental balance. Every mental activity or reaction leaves its engram and has a certain dynamic value in the after-life of the individual and his general economy (which we call organic rather than "physical," in order to avoid the contrast of mind and body). But certain functions are much more determining and dominating (such as the instincts and fundamental longings); and the bulk of functional psychopathology consists of the sometimes simple and sometimes complex tangles of the conflicting dynamic elements. The ways in which they show may be special mental states or reactions, disorders of sleep and dream-life, hysterical and other amnesias, psychasthenic ruminations, and other substitutive activities, and under special breaks of compensation the classical psychotic reactions. They will also entail disorders in the *submental* functions, such as tremors, nervous dyspepsia, fits, contractures, vasomotor disorders, and disorders of nutrition and anabolism, etc.; or they may even simulate focal diseases of the nervous system (hemiplegia, etc.). The essential point is that the mechanism and its function would not be established without more or less conscious "mental" association.

In contrast with these psychogenic disorders we find the more or less definitely exogenous disorders (toxic or metabolic), and the focal disorders of the nervous system hardly requiring special discussion here, since their mental symptoms or syndromes essentially determined by non-mental disorders implicating the nervous system.

Any psychopathological consideration must to-day give unbiassed consideration to these *three aspects*: (1) collisions of functions as such, with possible incidental disorders of the organic balance of these functions (hysteria psychasthenia, nervous dyspepsia, and other conflicts of function); (2) the plainly and essentially submental toxic or metabolic ill-adjustments (alcoholic, metasymphilitic processes, hyper- and hypothyroidism, etc.); (3) the role of factors attacking more or less localized mechanisms of neurological balance, such as the hypothetical frontal lobe mechanisms of Kleist

(symptom-complexes produced by focal lesions, tumors, etc.).

Pathology of to-day must work with all these types of integration without favoritism, and show just how far any one of the individual components can do justice to the explanation of any experiment of nature.

Let us now return to the data in dementia præcox. Economy of time forces me to suppress the details of the actual mechanisms in the original constellation and evolution of dementia præcox, as they are assigned to Dr. Jelliffe and to Dr. Hoch. I should really give them the floor and then give my review of the additional issues: first, consider the factors in the prediagnostic stage, i.e., the material out of which the disorder grows, which Dr. Jelliffe is expected to treat, and the mechanisms to be described by Dr. Hoch, which show how the process is started and more or less established, and then the wider aspects with a summing up of the net result.

Whatever the material furnished would be, I have to discuss the three lines of interpretations, the special metabolism and toxic states of the initial period and the established dementia præcox, any autonomous neurological data, and the scope of psychogenic events with their submental implications.

Of the metabolism and toxic states the best investigators have so far least to say. The claims differ and certainly do *not* show anything specific or decisive so far. Hyperthyroidism, the sex glands, peculiar blood states, and other conditions have been accused with the most fragmentary evidence. They form interesting issues of general pathology, but no adequate material for a causal reconstruction of the facts in our cases so far.

The neurological data are meager. The most systematic consideration in this direction is that by Kleist, brilliantly speculative and referring only to the motility psychoses, and that not in a nosological sense. The isolated facts, the fronto-cerebellar disorders, tremors, reflex alterations, dermatographia, seborrhœa, the eye symptoms (including Dodge's and Diefendorf's interesting observation on the eye movements), appear like elements in the gen-

eral procession, but not like helps for an explanation. We simply have to try and respect them as material on which to bring our hypotheses to a test. The histological data are not unequivocal, but mainly of a character which might as well be merely *incidental* to the functional disorders, and Koch's interpretation of the chemical findings culminates mainly in defective oxydation. The differentiation of various disease forms according to special localization of the maximum disorder might as well be the consequence as the cause of special symptom-complexes. From a practical viewpoint, it certainly is more important to make the most of the initial weakness and to see whether it can be determined and followed in the functional constellation.

The data of conduct and behavior and of reactive material of the patients have certainly proved most directly helpful in the understanding of the developments.

We find here two tendencies,—the one of Freud and Jung, which emphasizes *concrete* experiences and reactive complexes thereto, and the less specific attempt to formulate the loss of balance attempted by me, on ground of habit deterioration and tantrums or more lasting reactions biologically unfavorable to restitution to a normal attitude, sometimes with evidence of short-circuits, but always with more or less characteristic mechanisms which may ultimately deserve differentiating instead of our having to bring the after all heterogeneous mass into too large a disease unit. The two viewpoints form no contrast; the concept of complexes really furnishes most fruitful material and issues of research, while in other cases the habit conflicts offer a better formulation of the broad lines and possibly the only material accessible.

As in almost *all* disease forms with which we deal, including the plainly exogenous ones, we are far from dealing with simple etiological constellations in the mental disorders of the deterioration group. The main contrasts or extremes are the cases with strong constitutional bias requiring but little extraneous cause,—and those with at least superficially more normal makeup and a preponderance of overt more or less extraneous or circumstantial etiological factors. The essential in both extremes and in the intermediary cases

is the break of compensation of adjustment with more or less deficit and, in most cases, with the peculiar attempts at balance and reconstruction which constitute the glaring surface picture of the clinical description and the special mechanisms of the analytical consideration.

While undoubtedly a large number of cases are beyond complete analysis and understanding, there is a growing number of cases in which definite types of breakdown are being demonstrated, which Dr. Hoch will discuss more specifically. The general form of the breakdown is perhaps superficially much like that of other types, for up to this day "mania" and "melancholia" and "confusional insanity" and "paranoia" embrace in the vulgar psychiatry the recoverable cases *and* also those tending to deterioration. But beneath this superficial coating the extremes of non-deteriorating or deteriorating processes show clearly different constellations and a different working out of the events, so that even the ordinary routine man knows the contrasts. There are, as far as I can see, a few general features in evidence that mark the dementia præcox course: The oddity, unnaturalness, and incongruity of the entire picture, in the face of relative clearness, and the tendency to turn on definite complexes, and these especially in spheres which are difficult to reach for an adjustment. The more the odd and unaccountable features prevail and involve the fundamental instincts and longings, the greater the chance for an unfavorable course; further, the more clearly we have evidence of not otherwise justified dissociation processes and of paranoid developments, the more likely is the fate of the patient sealed.

There is a striking narrowing of the resources of adequate reaction and then either a scattering or a prevalence of tension, and from the intellectual point of view, varying degrees of more or less distinctly morbid reconstruction of a suitable personality, with more or less paranoid results. The fixation of the disorders and of the defect is an inevitable consequence or correlate of the extent of recuperability of the psychobiological material and mechanisms.

The condition undoubtedly goes in some cases with a decided breakdown of cerebral material, marking an acute

delirium or perhaps an acute stupor suggesting submental factors. In other cases the phenomena of such wholesale and elementary breakdown are decidedly in the background and covered by the pseudo-adaptations of the catatonic or paranoid or hebephrenic character, and characteristic forms of dissociative mechanisms to be discussed by Dr. Hoch.

The crucial problem is *whether* it is well to consider such a large group of cases as a unitary and necessarily deteriorative disease process, giving up the possibility of individual prognosis, or whether we cannot single out some special factors at work, out of which we can construct a sufficiently accurate formula of nature's experiment? Some of us decide in the latter direction, for reasons to be shown on well-studied cases, such as would be too long to introduce in a symposium.

The *two main arguments* which are raised *against the dynamic importance of the psychogenic material* are the production of an actual deterioration and the existence of actual alterations in the brain and the undoubted fact that the release or start of the downward run is occasionally the outcome of an initial exogenous damage, such as an acute infection, typhoid fever, etc. The first two points, deterioration and the existence of lesions, might, I think, be dealt with as one issue: How can we account for the stabilization on a lower mental level, and what is the relation of the degenerative histological processes observed in many acute cases? The other point I dismiss because it is too much the exception and holds for too few cases; the majority starting without any clear somatic disease.

The available somatic facts in most cases are by far in favor of an endogenous break of compensation of anabolism and metabolism rather than in favor of a distinct exogenous disorder.

I am *not* a priori opposed to the favorite explanation of all and every lesion of the nervous system on ground of the action of special toxins. Considering the liberal interpretation of the concept toxin and the inclusion under it of all disorders of enzymes and anti-enzymes and hormones, it *may* become possible to demonstrate some specific

short circuits or chemical principles beside mere deficient oxydation (Koch) in such processes as are grouped under dementia præcox. The point is that to-day this simple formula is *not* available and therefore a mere postulate, and not of a character to cause us to cast aside the *practically valuable formulations of the facts in terms of defective balance of anabolism and catabolism and in terms of disastrous constellations of activities and reactions*, which can actually be weighed and used for an estimate of the disorder, its cause, course, and outcome. An unreserved objection would, however turn against the *original* Kræpelinian theory of disorders of metabolism, which puts myxoedema, general paralysis, and dementia præcox on the same principle of disorder of some as yet undetermined organ or mechanism, which in turn affects the metabolism so as to involve the brain, to produce with merely submental *poisons* special symptom complexes and to constitute a danger of permanent damage. For this the constitutional mental bias is too distinctive to be neglected. The possibility of alterations of the nervous system as a necessary occurrence incidental to normal and abnormal psychobiological reaction may, of course, appear very small to those who consider nervous function chiefly a physical process along nerve paths which show little chemical alteration in function. But on this question the last word is not spoken, at least not in the light of the recent work of the Cleveland school, which may well revive the interest in the studies of Hodge on fatigue, overstimulation, and the like.

The practical issue in the dementia præcox problem to-day is in the main this: Are we helpless in our estimate of the nature, depth, and prognosis of the disease as we see it clinically in the available data of psychobiological reactions? To decide that question I ought to show you the exact amount of accuracy with which the development of deterioration and general course of the condition could be foretold with a good anamnesis and careful observation of the reaction type. In the New York state hospitals an effort is made to distinguish dementia præcox and conditions akin to the dementia præcox reactions. Psychobiological estimates make it possible to distinguish differences of risks,

and that to a sufficient extent that the validity of a psychogenic theory and the incidental character of the lesions appears reasonably supported.

For didactic purposes the simple insistence on earmarks and signs of a "disease" have many advantages; but it is a dangerous method leading to too many blunders and not enough reserve.

That the interpretation of the disease group along psychobiological lines leaves the facts in the form in which they are experienced and gives us valuable helps in the handling of the cases, is obvious to all those who work with the method. That, of course, the therapeutic net results are usually *negative* and rarely clearly positive, is so much a necessary or inevitable fact that our conception should not give rise to false therapeutic hopes.

Without encroaching on the concrete material of makeup, etiological constellations and mechanisms, it is *not* possible to discuss adequately the question *what constitutes the actual establishment of a process*, which deserves the term dementia præcox, a point of great importance for a clear conception of the disorders and for the differential diagnosis.

My own conception is an attempt to make the most of the facts available to-day, and among these are specially prominent those of makeup and of psychobiological adjustments. If it should lead to obstruction, I should be the first to assign it its place. So far, evidence seems to favor the view that dementia præcox is essentially *unlike* general paralysis, and more likely the usually inevitable outcome of (1) conflicts of instincts, and more concretely put, conflicts of complexes of experience, and (2) incapacity for a harmless constructive adjustment. The mechanism is to quite an extent intelligible in psychobiological terms. The histological alterations are to quite an extent a problem akin to processes of anabolism and catabolism. A quest for further short-cuts for organic processes is in no way discouraged. There are those who go so far as to expect that the physician's task should be to find ways to make even the most undesirable and pernicious performances harmless and that anything short of direct remedy is equal to complete igno-

rance. Let us not forget that the pre-eminently psychogenic conception of dementia præcox formulates the clinical problem so that in some cases at least dangerous constellations can be pointed out in time. At the same time it formulates problems of investigations, and would not seem to be as likely to block necessary investigations as the exclusive faith in merely hypothetical poisons and as yet unexplained, but after all most probably incidental lesions, wholly sacrificing the fruitful field of psychobiology.

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ABSTRACTS

THE THEORY OF SLEEP (*Zur Kritik der Schlaftheorien.*) Ernst Trömmner. *Medizinischkritische Blätter, Hamburg*, 1910.

TRÖMMNER's article contains a critical recapitulation of the various theories of sleep and a supposed solution of the question based on general theoretical considerations.

The attempt to explain sleep from the physiological point of view Trömmner finds noteworthy only because it has claimed the attention of investigators for a considerable length of time, and because it has had a stormy history. Haller, Hartley, Muller, Cabanis, Marshall, Cappie, and others, in investigations extending over three quarters of a century, ascribed sleep to congested brain conditions; whereas Durham, Bernard, Donders, and Mosso, working during practically the same period, insisted that sleep takes place only when the blood deserts the brain for the periphery. These directly contradictory theories contended for supremacy until Brodman and Czerny made public the results of their thoroughgoing researches. It then became clear, particularly through Brodman's work, that the earlier physiologists had pursued a phantom, inasmuch as only the transitional periods between sleeping and waking reveal vasomotor changes. The entire controversy had been due to the fact that the two groups of investigators had chanced to make observations at different portions of the transitional stages, for the vasomotor conditions in sleeping and waking states are practically identical.

The more recent formulation of the physiological explanation of sleep, by such men as Lajoux and Devaux, in terms of lymph pressure instead of blood pressure, Trömmner also regards as unavailing. Trömmner contends that the lymph pressure hypothesis implies delicate changes of tissue tension which are "neither theoretically plausible nor capable of being proved practically." Physiologists have succeeded merely in "turning the problem around."

With the more conservative fatigue theory ("Ermüdungstheorie") Trömmner has little more sympathy than with the physiological hypotheses. This class of theories is based on the supposition that the day's work accumulates so large a quantity of waste products that a long, uninterrupted rehabilitation period is necessary to restore the body to its normal condition. This general explanation does not, according to Trömmner, agree with the facts of the situation. If exhaustion were the cause of sleep, then the length and depth of sleep would depend mainly upon

exhaustion. Yet it is a well-known fact that the normal person sleeps as long after an idle day as after a day of ordinary labor; that after a "hard" day one can regulate his waking time as readily as after an "easy" day; and that industrious individuals, as a rule, sleep less than do idle people. Again, the deadened sense susceptibility of the deep sleeper is out of all proportion to any possible "Ermüdungs intoxication." It requires, for example, a sound stimulus to produce a perception in the sleeping state 160,000 as great as in the waking state. Manifestly sleep cannot be explained on the exhaustion hypothesis.

Trömner regards sleep as almost entirely a psychological matter; in fact, he submits that sleep and hypnosis have much in common. "Kurz, Hypnose und Schlaf sind zwei Dreiecke, die sich in fast allen Punkten zur Deckung bringen lassen; Unterschiede zwischen beiden imponieren nur dem Fernerstehenden als wesentlich"—"sleep and hypnosis may be regarded as two coincident triangles." Sleep is simply a reaction of the organism "Gegen Ermüdung," in which state stimuli are inhibited by the action of a sleep center. This center—in fact he regards it as an organ—is not located in Wundt's "Stirnhirn," but rather Trömner agrees with Oppenheimer in assigning this function to the subcortical thalamus.

The historical portions of Trömner's paper are commendable for their succinctness; and his criticisms of the physiological and chemical theories of sleep are interesting. By way of comment on his general position it may be of value to compare his article with Sidis's "An Experimental Study of Sleep," a work to which Trömner makes one or two references. Sidis attributes sleep to a rise of thresholds due largely to monotonous stimuli and limitation of voluntary movements. Trömner, it is true, holds a similar opinion, saying, "Nur öhnet der Tierschlaf mehr einer Lethargie. Das Tier wird wach, wenn äussere oder innere Reize (Licht Würme, Sinnesreize und die Reize innerer Sekretion auf sein irritables Gewebe einwirken. Fallen diese fort, so ruht oder schlummert das Tier (Bichat), wie früher Heubel und Terchanoff, neuerdings Sidis gezeigt haben." But the two writers disagree; first, Sidis finds sleep and hypnosis related only in that they both develop from the "primitive hypnoidal state"; second, Sidis's investigations point to the non-suggestibility of sleep, whereas Trömner regards the sleep state as suggestible and frequently speaks of "Die suggestive Erzeugung des Schlafs." Sidis does note, however, that the intermediary states between sleep and waking are suggestible; and it may be that Trömner refers only to these portions of the sleep period. These suggestible inter-

mediary states Sidis does not consider constituent parts of the sleep state itself. Sidis considers them identical with the states which precede hypnosis proper — the hypnoidal states.

The theory that the thalamus functions as a sleep center, it should be said, Trömmner admits to be neither novel nor founded upon experimental work.

M. J. WESSEL.

GENESIS OF HYSTERICAL STATES IN CHILDHOOD AND THEIR RELATION TO FEARS AND OBSESSIONS. *By Tom A. Williams, M.B.C.M., Edinburgh, Washington, D. C. Medical Record, New York. August 6, 1910.*

It is in psychasthenia that obsessions and phobias are so insistent a feature. But either may be produced by a quite different mechanism, i.e., that of suggestion. They are in that case the direct product of an implanted idea, and have nothing to do with (1) feeling of inadequacy, (2) unreasoning dread, (3) sentiment of strangeness, the feature of psychasthenia.

The morbid emotions which accompany these induced obsessions are secondary, then, to the hysterical idea, and they must be cured by removal of the idea which causes them. The cases quoted clearly show this, e.g., A woman dared not enter a car alone for fear of fainting. It was not until one found the idea at the root of her fear that the latter could be removed.

Direct treatment of the physical or emotional results of a morbid idea, as by electricity, is bad practice: psychotherapy is the indication. The method of cure is illustrated by one of the author's cases of traumatic neurosis.

The labile suggestibility of children is very easy to manage when the physician or pedagogue understands the psychology of childhood. Only in studying this will he be able to obviate reactions so injurious to mental health as false shame, imitative grimaces, undue impressionability of character.

Finally is considered the mechanism of the implicit suggestions which lead to night terrors and an illustration of their prevention is related.

The exclusive acceptance of unpleasant sexual affects in infancy as the cause of psychoneuroses is protested against; and from pediatricists and educators of abnormal children are asked further data to estimate their causal frequency. The author's experience is that affectogenetic ideas of quite other resources appear to be efficacious in inducing fears and obsessions of childhood.

AUTHOR'S ABSTRACT.

THE SOMATIC ACCOMPANIMENTS OF ASSOCIATION PROCESSES.
(*Ueber Körperliche Begleiterscheinungen Assoziativer Vorgänge.*)
By H. Nurberg. *Jour. fur. Psychologie u. Neurologie.* Band. xvi.
Heft. 3-4. S. 102.

This work forms the twelfth contribution to Jung's *Diagnostische Assoziationsstudien*. It is divided into three parts:

1. The involuntary movements of the hand were studied by means of Sommer's apparatus. This proved not to be a very suitable instrument for the registration of fine movements, but it was possible to establish the following gross facts. As Martius has shown, the arm movements under these circumstances are closely dependent on the thoracic movements. This remains the case when emotionally indifferent stimulus words are employed in testing, but when "complex" reactions ensue, as determined by Jung's "complex signs," the arm movements are no longer influenced by the thoracic ones. The complex reactions, i.e., those constellated by a strong feeling tone, also show other distinctions from the indifferent reactions, particularly in the amplitude and frequency of the curves.

2. "Indifferent" and "complex" reactions were also contrasted in relation to the accompanying respiratory movements. In general, the complex reactions showed an inhibition of these, as compared with indifferent ones. There, however, appears to be two types of respiratory behavior in regard to complex associations, an inhibited and an excited. In the former, which is mostly seen with unconscious complexes, the breathing becomes more difficult, a sort of dyspnoea occurs, and with it a feeling of oppression which probably may amount to a part manifestation of anxiety (*Angst*). To the latter, which is mostly seen with conscious complexes, the breathing becomes irregular, alternately deep and superficial, and half sighing.

3. Comparison of the psycho-galvanic curves with the respiratory ones showed, in agreement with Jung's earlier results, a diminution of the amplitude of breathing correlated with the ascending limb of the galvanic curve, and an increase correlated with the descending limb. With conscious complexes there is as a rule a greater movement of the needle than with unconscious ones; under certain conditions, however, the reverse of this may occur.

The two valuable points in the investigation evidently are first, the production of still another kind of objective evidence for the determination of complexes, and secondly, the indication that we may be able objectively to distinguish between conscious and unconscious complexes.

ERNEST JONES.

FIRST INTERNATIONAL CONGRESS OF MEDICAL PSYCHOLOGY AND PSYCHOTHERAPY

THIS congress was held at Brussels, on August 7 and 8, 1910. The president, who was prevented from attending, was Raymond (Paris), the vice-presidents Forel (Yverne) and Vogt (Berlin), and the secretaries Seif (Munich) and von Hattinberg (Frankfort). About fifty members attended, mostly French and Germans; the present writer was the only Englishman, and there were no Americans. The usual four languages were permitted, but the following rule was adopted; communications and discussions in either French or German were immediately after delivery translated into the other language, and those in English or Italian into either French or German. This was an interesting departure, for it is probably the first time that such an expedient has been employed at an international medical congress; as a matter of fact, although the rule was faithfully carried out, the general impression was that the gain hardly compensated for the loss of time incurred, as French was understood by all who were present, and German by most. The following papers were read:

1. Forel. Psychology and Psychotherapy at the Universities.
2. Janet. (Paris.) The Problems of Suggestion.
3. Kohnstamm (Königstein). The Importance of Hypnotic Experiments for the Psychobiologie Theorem.
4. Trömmner (Hamburg). The Psychology of Sleepiness.
5. Semon (Munich). Association as a Particular Manifestation of the Fundamental Mnemic Law.
6. O. Vogt. Recent Anatomical Observations and the Problem of Localization.
7. Bernheim (Nancy). The Fundamental Distinction between the Psychoneuroses, including Hysteria, and the Neurasthenias.
8. De Montet (Vevey). The Theoretic and Practical Problems of Psycho-analysis.
9. Seif. The Importance and the Value of Psychoanalysis for the Diagnosis and Treatment of the Neuroses.
10. Mohr (Coblence). The Use of Adequate Physical and Chemical Stimulation in Psychotherapy.
11. Boujour (Lausanne). The Necessity of Hypnotism in Psychotherapy.
12. Ernest Jones. The Therapeutic Effect of Suggestion.

The papers are to be published in the *Journal für Psychologie und Neurologie*, and will probably be later reviewed in THE JOUR-

NAL OF ABNORMAL PSYCHOLOGY. The discussions were interesting and often animated. They were almost confined to Freudian questions, which shows the dominating interest that these have at the present time. The most keenly debated questions were the sexual ones. There was a general agreement that the sexual factors were by far the most important in connection with the psychogenesis of hysteria, etc., but several members, notably Forel and Vogt, held that they were not invariably operative. Forel maintained that Freud's views on the sexual life of children were exaggerated, and said that in his long experience he had never known of children having sexual intercourse below the age of five; Forel would restrict the term sexual to this act only.

A committee was appointed, under the presidentship of Professor Semon, to enquire into the different meanings attached by various authors to the same terms, and thus to study problems of nomenclature. It will be remembered that a similar committee was appointed by the American Psychopathological Association last May. The next congress will be held in Munich in October, 1911.

ERNEST JONES.

REVIEWS

PSYCHOTHERAPY. *By Hugo Münsterberg.* New York. Moffatt, Yard & Co., 1909, pp. x, 398.

IN Psychotherapy Professor Münsterberg has given us a tolerably stout volume, which succeeds in being at once interesting and instructive. The book belongs to a series intended to discuss for a wider public the practical applications of modern psychology. It professes to elucidate the relations of psychology to medicine, and this, not with the idea of stirring up interest, but rather of bringing an already present interest from mere gossip, vague mysticism, and medical amateurishness to a clear understanding of principles. Surely this is a worthy object, and however much one may be led to differ from the author in matters of detail, it must be said that in general his efforts have been eminently satisfactory. If he had done no more than to clear the psychotherapeutic atmosphere of much confusion, some cant, and not a little sham, he would have deserved well of the republic of letters; but he has done more,— he has written a thoroughly synthetic work, which, curiously enough, seems to us stronger in its medical than in its purely psychological divisions.

Psychotherapy, according to Professor Münsterberg, is the practice of treating the sick by influencing the mental life. It stands by the side of physiotherapy, which attempts to cure the sick by influencing the body, perhaps with drugs and medicines, or with electricity or baths or diet. While treatment of disease by influence upon the mind is as old as humanity, signs are not wanting that we are entering upon a period in which an especial emphasis will be laid on the too long neglected psychical factor. If we seek the reason for this, it will be found to proceed from the fact that we are passing from a period of realism into one of idealism. The great realistic movement of the nineteenth century lies behind us. With its study of facts, especially the facts of nature, its enjoyment of mere technique, its incomparable development of physics, chemistry, and biology, it impressed upon our mode of thought the unmistakable realistic stamp. While we are still under the influence of this gigantic movement, still its wave is ebbing and to-day a new period of idealism is rising. And here arises the double service of psychotherapy. It is the last word of the naturalistic movement, and yet in another way, it tries to articulate the first word of the coming idealistic movement. Thus it sometimes speaks the language of confusion, and to transform this vagueness into clear, distinct relations is the immediate duty of science.

The first sentence of Professor Münsterberg's discussion reads like a truism, which, in fact, it is. And yet it seems never to have stretched the *pia mater* of many who talk, write about, and even attempt to practise psychotherapy. The sentence runs thus: "The only safe basis of psychotherapy is a thorough psychological knowledge of the human personality." "A very large demand in these busy days!" some one may remark. And yet, as the author truly contends, nothing less will suffice. Now, if we are to have psychological knowledge we must know precisely what sort of knowledge this is, for we can know a man's personality in many ways. We may look upon it as a subject, that is, as the center of aims and intentions, or, on the other hand, as an object which we understand by describing its structure, its elements, and their connections. Regarding personality as a subject our view is called purposive,—we look from inside out and study the individual in his attempts to consummate his intentions and purposes. Regarding personality as an object our view is causal,—we look from outside in and examine the individual as we would any other object of investigation, passing over for the moment his special purposes and ends. We must understand that the casual view only is that with which Professor Münsterberg's psychology deals; the purposive view lies entirely outside of it, belonging to such studies as history, ethics, æsthetics, and logic.

On the very threshold of our attempt to construct a causal view of mental life we are confronted by the venerable problem of the relation between mind and brain. Here Professor Münsterberg adopts the theory of psychophysical parallelism, which after all does not enlighten us much, since it merely restates, with somewhat more of linguistic pomp what we felt to be true before, namely, that mental processes and brain processes go together. It is, of course, merely a postulate, a piece of robust faith, and as such helps to introduce some order into our thinking about mind and brain. Before the causal account of mental life can pretend to any semblance of completeness, it is necessary to bring under its rubric not only perceptions and memory images, volitions, instincts, and impulses, but also the more subtle processes represented by acts of attention, decisions, or flights of imagination. By insisting upon the importance of the motor, as well as upon the sensory functions of the cerebral cortex, Professor Münsterberg extends the causal view, and by propounding his ingenious motor theory of attention and vividness and of inhibition, manages to give to those complex processes a local habitation in the brain.

Accepting, then, the causal attitude as the proper one for the psychotherapist, one may ask what procedures are at hand for influencing mental life; and this brings us to the subject of suggestion and hypnotism. According to Professor Münsterberg suggestion and hypnosis are ultimately reducible to alterations in the psychomotor setting. Every suggestion is ultimately a suggestion of activity, and depends for its effectiveness upon the opening of certain motor channels and the closing of certain others. To speak merely of suggesting certain ideas and their opposites is vague and unsatisfactory. From a logical point of view, ideas may contradict each other, but that refers to their meaning. As mere bits of psychological experience, I may have any ideas together in my consciousness. I can think summer and winter, or day and night, or left and right, or black and white in one embracing thought. But I cannot will to turn to the right and turn to the left at the same time. There may be wrangling between these impulses, but as soon as my will stands for the one, the other is really excluded. There is no action which has not its definite opposite. The carrying out of any impulse involves the suppression of the contrary impulse, and the impulse not to do an action involves the suppression of the impulse to do it. The successful suggestion is that which succeeds in getting the appropriate motor pathways opened and the opposing pathways closed. In hypnosis all that is required is a higher degree of suggestibility than is found in normal life. Accordingly, we may maintain that the hypnotic state is in its very nature a condition of re-enforced suggestibility, and that it has as its most marked characteristic an abnormal or heightened attention to certain objects, usually to a particular person. There is no sharp demarcation between suggestions in a waking state and suggestions in a hypnoid state; and probably every physician of experience has found that his confidence in the effectiveness of the deep hypnotic states has been slowly diminishing, while his belief in the surprising results of slight hypnotization and of hypnoid states has steadily grown and has encouraged him in his psychotherapeutic efforts.

When we came to read Professor Münsterberg's startling sentence, "The story of the subconscious mind can be told in three words: there is none," we confess to a feeling of disappointment amounting almost to personal loss; for we had read many things about the subconscious mind, with its supposed wonderful capabilities and performances. But upon looking a little closer we were reassured, because the subconscious mind that was being taken from us somewhat pugnaciously we never admired at all. What

Professor Münsterberg rightly objects to is that all-inclusive, easy-going, and vague conception of a subconscious mind, which form the *deus ex machina* of so many popular books on psychology. But having demolished this idol, it does not appear that the author's substitute is entirely capable of supporting all of the facts he rests upon it. Of course, in its last analysis the question reduces itself to that of the kind of explanation which will satisfy us. Professor Münsterberg denies none of the facts, such, for example, as those manifested in automatic writing, crystal gazing, hysteria, and multiple personality. What he contends for is this, that their interpretation should be in terms of the brain and its action, rather than in terms of the mind and its functions. But in reading his explanation in terms of the brain and its action, one somehow gets the impression that the author is explaining, not as much, but rather as little as possible. Here is a statement which many will be disinclined to accept. "Psychology has to be satisfied with the fact that all the requirements of the case can be furnished by principle through physiological explanation. Least of all ought we to be discouraged by the mere complexity of the process. If a simple sound and a simple color sensation, or a simple taste and simple smell sensation can associate themselves through mere nervous conditions of the brain, then there is nothing changed by going over to more and more complex contents of consciousness. We may substitute a whole landscape for a color patch or the memory of a book for a word, but we do not reach by that a point where the physiological principle of explanation, once admitted, begins to lose its value. Complexity is certainly in good harmony with the bewildering manifoldness of those thousands of millions of possible connections between the brain cells." As we remarked before, it all depends upon what will satisfy us as an explanation. Looked at closely the above physiological account seems to have broken down at the very beginning, for it is necessary to personify the physiological process by saying that a simple sound and a simple color sensation "can associate themselves through mere nervous conditions of the brain." But that is the very point,—*how* they are associated,—and the physiological explanation finding itself in difficulties fills the gap in the old way, namely, by introducing psychological terms. When, therefore, we go further and attempt to substitute for these simple sensations, more complex contents of consciousness, such as a whole landscape or the memory of a book, we have not rendered the complexity any less complex by appealing to the bewildering manifoldness of those thousands of millions of possible connections between the brain cells. Are we

not, after a fashion, putting our minds to sleep with words, which are just what they are, so many words? We have merely exchanged one complexity for another, and as an explanation, that does not help us at all, except in so far forth as it purports to let us see our minds as we see physical things. The same difficulty confronts us everywhere when we attempt to explain psychic experiences in terms of brain cells, or neurones and the connections between them. The plain fact seems to be that every physiological account of the subconscious is bound to find itself in difficulties unless it is not over-critical in its scrutiny of what it is offering as an explanation.

By making "awareness" a necessary attribute of what is conscious, Professor Münsterberg must logically, of course, deny the subconscious, except as a physiological disposition in nerve centers, because by definition, that of which consciousness is not aware cannot be content of consciousness. Psychical objects which are below consciousness are thus as impossible as a wooden piece of iron. But on the other hand, there are reasons why mental states may be called conscious, even when not objects of "awareness." If we admit this much, we are enabled thereby to give an account of subconscious and coconscious processes in psychological terms, which, whatever their obvious shortcomings, are at least as intelligible as those in the physiological account.

In the second and third parts of his volume the author discusses the practical worth of psychotherapy. He delimits the field of its usefulness, describes entertainingly the general and special methods of procedure, and illustrates these by the recital of a number of typical cases treated by him. Finally he writes an eminently practical account of the value of psychotherapy to the physician, to the church, and to the community.

JOHN E. DONLEY.

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HYSTERIA AND MODERN PSYCHOANALYSIS

BY DR. A. FRIEDIÄNDER, FRANKFORT, GERMANY*

THE psychology of the neuroses and the psychoanalytic method of treatment which Freud developed on the basis of his theoretic studies have set a movement on foot which manifests itself either by enthusiastic acceptance, heralding the new method as a great achievement, or by energetic dissent characterizing the teaching as erroneous and dangerous. In both camps active warfare is going on. On the one hand the opponents of Freud are accused of being unable to understand Freud's teachings; on the other hand, both Freud and his disciples have laid themselves open to the charge that instead of argumentation and proof they have substituted personalities and dogma.

A similar charge was brought by Strohmayr against Freud's opponents. In answer to that we must bear in mind that it was Freud himself who wrote: "The publication of the histories of my cases constitutes for me a difficult problem, *even if I do not consider those persons who lack discernment and who are malicious*," and in another place, ". . . and I take it as an indication of a perverse lustfulness for any one to suppose that such conversations (e.g., the psychoanalytic investigation) are means of exciting or satisfying sexual passions."

Such strong attacks call forth equally strong defences. Bleuler, one of Freud's strongest supporters, who possesses great critical judgment combined with experience, has designated Freud's therapeutic measures as his weakest side. These therapeutic measures have, however, been so unusually em-

*Translated from the German by Dr. H. Linenthal, Boston.

phasized that they have called forth a strong reaction. I shall cite several examples. Says Jung: "Seldom has a great truth been proclaimed without a phantastic halo, for instance, the cases of Kepler and Newton." Bleuler compares the attacks on Freud with those on the gynecologist, Semmelweis, which "resulted in the wholesale slaughter of mothers for decades." These authors, however, confine their views to the medical world. There are others, however, who proclaim to the public as a well-established theory the teachings of Freud, which have still to be proven. Gross has been especially active in this direction. His motive for publicity is that the origin and significance of such cases can only be understood and treated by the newly introduced technic of Freud, a technic which is still unknown to the majority of neurologists. All those neurologists, therefore, who treat their patients by other methods must necessarily appear as ignorant. I consider it my duty, as Pelman and Hoche have done, to enter a protest at this international gathering against the methods adopted by Gross.

Aschaffenburg and others have already called attention to the improper way in which Sadger takes the side of Freud. Sadger says, "The prudery of physicians regarding the discussion of sexual matters with their hysterical patients is not a matter of principle, but it has a psychological basis. . . . Rather than class themselves (the physicians) as hysterical, they would remain neurasthenics. But even if they themselves are free, they have wives, mothers, sisters, whom they must admit to be hysterical. But to make such a concession about one's nearest relatives, or about one's self goes against the grain. It is far easier to discard the theory. They therefore condemn *a priori* the entire method." Aschaffenburg justly remarks, "I would recommend that such arguments be put aside in scientific discussions."

Sadger has carried on for six months a psychoanalysis with a patient and has established the following facts: "The first sweetheart of the patient was, as in all such cases (!), his own mother. When two years of age he proposed to an old governess, then he gave his heart to a servant girl; from his first year he loved passionately two cousins, who became later the objects of his masochistic and homosexual

tendencies. In his fourth year he conceived an affection for a young boy of his own age, later for his father, sister, etc." In another place Sadger says, "Consciously or unconsciously every man lies relative to sexual matters"; in still another place, "A complete and exhaustive account of the sexual life cannot be obtained in less than half a year of investigation (!)" That, then, which is brought to light in this investigation of half a year must be accepted as truth. Psychoanalysis, then, does not only cure but also elicits the truth in sexual matters. Happily, Sadger does not tell us whether his patient got well and remained so after this psychoanalysis of six months. His work, on the other hand, is not lacking in such dogmatic assertions as "Every man is from his very beginning bisexual." "To the youth, woman is always either a goddess or a wench." "As we learn from psychoanalysis all boys have the fancy of putting themselves in their fathers' places and impregnate their mothers." To establish such statements, which are denied by many observers or regarded as erroneously interpreted experiences -- to establish these as a *science* obtained from psychoanalysis is indeed going too far. *It is orthodoxy free from all timidity.*

Unfortunately, however, the matter has not been confined to scientific discussion in the medical press. It has gone so far that these unproved theories have been treated with the greatest publicity as firmly established facts, and have been used as a basis for further generalization. All those who dared to have other views have been branded as ignorant. Is not the conclusion inevitable to the laity that previous to Freud's discoveries we were all on a false track, that we could not cure any cases of hysteria, obsessions, etc.; that all the authors who wrote on these subjects were nothing but bunglers, and that no psychotherapy was practised before Freud and his disciples? Hellpach, in his discussion of Sadger's works, says, "The well-known hypothesis of Freud relative to the erotic origin of all psychopathic manifestations is presented, together with theoretic considerations, with an aggressiveness to the point of disgust, and it cannot be too strongly refuted."

Even so critical an author as Wulffen, to whom, as a result of his interest in our science, we are indebted for much

valuable and stimulating work, accepts the far-reaching generalization of the sexual etiology of the neuroses and he makes the following dogmatic statements. "The hysteria of women is, from the scientific standpoint, sexuality pathologically repressed." "All ethical forces innermost in man, his sense of shame, his morality, his religious feelings, his esthetic sense, his social feelings, all arise as a result of the normal repression of his sexual feelings." Thus these unusually complicated questions which, thanks to Freud and his school, have just entered the field of discussion, are for Wulffen already self-evident facts. They are no longer questions, but axioms.

One cannot help thinking of Weininger when he reads in Wulffen, "Woman is a born sexual sinner. Her strong sexuality, abnormally repressed, leads to sickness, to hysteria; insufficiently repressed to criminality, often to both at the same time." Poor sex, poor wives and mothers! Either physiologically weak minded (Mœbius), immoral (Weininger), hysteric, or criminal.

This is not the place to point out the dangers of such an estimation of woman, who is in many instances the mainstay of the family; nor can we consider here the consequences to the administration of justice by replacing the conceptions of moral insanity and born criminals — conceptions which have fortunately been largely discarded, by the conception of sexual criminals.

Wulffen works along Freud's lines in his book on Hauptman, whose poems he "analyzes sexually." Among much that is interesting we find assertions which well illustrate to what absurdities we are brought when our beautiful literature is carried into the sphere of unestablished scientific theories. I wish to point out several of the results which follow when scientific views are proclaimed to the world as established facts before they are tested and discussed by specialists in their special journals and periodicals. Such unwarranted popularization causes harm to the patients, to the science, and to the representatives of the new doctrine. The effect upon the latter is especially to be regretted. Authors like Freud, Bleuler, and Jung deserve to be heard, and yet a fair valuation of their work is rendered difficult

by the irrelevancies, examples of which I have mentioned, which bring forth such sharp antagonism as Foerster found necessary recently. We need not agree with Foerster in all he says, but his statement as to the consequences to which Freud's views must lead is the best that has been said against Freud. Foerster warns against talking about "scientific views" in a field where an exact determination of the facts is impossible. He justly regards the statement of a person in regard to his sexual life as unreliable. He points out the "suggestive action of the questions," which is a frequent occurrence, and which has not been disproved by Freud's school. Foerster is surprised that Freud gives publicity to assertions so badly founded. He compares the sexual psychoanalysis with other alleged events given in the confession of the patient, and he points out how a few accidental circumstances are taken by Freud's school as the "principal method." He rightly designates the observed facts as insufficient and the conclusions as unjustified. He further makes it clear that the hypotheses which have received such publicity tend to discredit medical sciences and, paradoxical as it may seem, cause us to lose all that is of value in Freud's doctrine.

My paper is confined to the subject, "Hysteria and Modern Psychoanalysis." I cannot enter, therefore, at great length into the nature, and especially the etiology of hysteria. But in as much as Freud's method stands in a causal relation to his theoretic views I must give a brief account of the latter. For a more detailed statement I refer to a paper which I wrote in 1907.

In 1895 Breuer and Freud published their "Studies in Hysteria." This work, which has just appeared in its second unchanged edition, surely belongs to the best work on hysteria, and indeed is the best of Freud's work. Bleuler justly says of this work, "It seems to me that every physician, whether or not he intends to put it to practical application, should familiarize himself thoroughly with the questions discussed in this book. It constitutes a part of a general medical education." In this book the authors develop their so-called cathartic or analytic method. This method is represented as the (*hypothetical*) result of the recognition

of the psychologic origin, nature, and cure of hysteria. That which both authors called psychic trauma in this work is developed by Freud in his later works as the all-powerful sexual factor. Hysteria has a sexual origin. All the fear neuroses, obsessions, phobias, and even paranoias have a sexual element as their basis. "The neurasthenics as a result of masturbation are afflicted with a fear neurosis as soon as they cease obtaining sexual satisfaction by this method." His experience culminates in the statement, "No neuroses without a disturbed sexual life." But he even goes still further. What we were accustomed to regard as childish naughtiness is to him an expression of infantile sexuality. The newborn child brings with it the seeds of sexual impulses; nursing at the mother's breast induces sleep or a kind of orgasm; the anal orifice as well as the mouth is an erogenic zone, that is why the suckling retains its stool as long as possible. It is not then, as we supposed, because the child is not properly looked after or because it is constipated, but in order "not to miss the pleasure associated with defecation."

Moll, in his valuable monograph on the Sexual Life of the Child, objects to Freud's general doctrine in the following words: "But I believe that Freud's assumptions have not been established and that he has not excluded the possibility of suggestion or autosuggestion." Against Freud's views as to the sexuality of the child, he says, "Freud sees the sexual in the life of the child where it cannot possibly exist."

Normal psychology is also brought by Freud into the sphere of his observations. In his work on "Wit," he says, "The obscene jest is directed to a particular person who excites one sexually, and who on hearing the jest recognizes the excitement of the speaker and becomes sexually excited in turn. The obscene jest is therefore originally intended for women, in order to bring about a seduction." (If, therefore, obscene jests are told in company of men, is it a sign that it has its origin in homosexual impulses?)

In his work on "Dreams," he says, "When a woman dreams of falling it signifies a sexual content; an overcoat indicates protective measures against infection." The

latest conclusions of Freud seem to me to be embraced in his paper, "Character and Analerotic." Persons who are orderly, stingy, and obstinate can be considered as formerly analerotic; their characteristic stinginess, obstinacy, and love of order are results of sublimation. Freud admits himself that "the inner relations between these things are not clear to him"; he therefore still looks for support for this most recent hypothesis. The extent to which these singular attempts at clarification lead him can be seen in his presentation of the well-known situation in Götz von Berlichingen. *He brings obstinacy, spite, defecation, and the anal region into intimate psychological relations.*

Avarice can surely often appear as a disease symptom, as is pointed out by Oppenheim, when he says: "Hysterical (especially psychopathic) tendencies can betray themselves early by abnormal avarice," he adds, "it is striking how little attention has been given to these phenomena and to their relation to psychopathic conditions." He may well be surprised at the significance Freud thinks he has found in these phenomena.

It is well known that Freud is the founder of schools. Melancholia, dementia præcox, manic depressive insanity have been studied from the same standpoint by Bleuler, Jung, Abraham, and Gross; bronchial asthma, by Stegmann; psychic impotence, by Ferenczi; legends and stories, by Mæder; consanguineous marriages and alcoholism, by Abraham. A further ramification of the system is to be expected when Freud decides to issue his series of "Contributions to Applied Psychology" — it should more properly be called psychology as applied by Freud — where the hypothetical views are further developed.

Now, as to Freud's therapeutic methods. Originally Freud and Breuer used their so-called cathartic method. The "repressed affective states" were brought to the surface in the hypnotic condition and thus made to disappear. In many cases this method proves valuable. At present, however, Freud has his patients narrate their thoughts, he investigates their dreams, and tries to determine the cause of the disease from these narratives. By this method he intends, in the first place, to make it intelligible why the

patient is suffering from one or another symptom, and secondly, to teach the patient how to guard his mind from similar injuries in the future. It is evident that such a training may be productive of good. But as has been stated above, Freud sees the etiology of the neuroses in the sexual life, he accordingly looks only for sexual experiences. The analysis is carried into the sexual life and all forms of sexual perversions are discussed with the patient. One of his patients was kissed when she was fourteen years old. Among the symptoms of the hysteria which developed were tussis nervosa, aphonia, and dyspnoea. At times she had a sensory hallucination of the pressure on her body of the man who embraced her. Upon questioning his patient he found that his supposition regarding certain sexual details of the embrace was correct. The asphonia was the repressed representation of the impotence of her father, and his perverted sexual relation with a friend of her mother.

Hellpach and Löwenfeld next joined Freud, without, however, identifying themselves with his views, as did Stegmann, Juliusburger, Muthmann, Porosz, Binswanger, Jr., Claparède, and Baroncini, whose names I can only mention here.

Bleuler, Jung, and Riklin declared themselves in favor of the psychoanalytic method. The latter two tried by means of their association studies to give to Freud's views a scientific psychological basis. Ricklin sees in the complex (the sum of certain affective experiences), and its activity the main psychological factor of hysteria, "All hysterical symptoms may be derived from the complex." Accordingly his therapeutic measures consist in the analysis and breaking up of the complex.

Valuable and suggestive work was done by Jung who, as is well known, carried his investigations into the field of dementia præcox. I cite the following important conclusions from his work, "Diagnostic Association Studies."

1. The complex appearing in the associations of the psychogenetic neurosis is the cause of the disease (a disposition is presupposed). Every psychogenetic neurosis contains a complex which differs from the normal complex in that it has an extraordinary emotional tone and can thus bring the entire personality under its influence.

2. Association tests can therefore be of great help in uncovering the pathogenic complex and also serve as a means of facilitating and shortening Freud's psychoanalytic method.

3. Association tests enable us to obtain experimentally an insight into the psychologic structure of the neurotic symptoms. Hysterical phenomena and obsessions are derived from a complex. The physical and psychic symptoms are nothing but symbolic representations of the pathogenic complexes.

In another place, he says, "The complex uncovered by the association method is the cause of the dreams and of the hysterical symptoms. The disturbances which the complex causes in association experiments are nothing else than the resistances met in Freud's psychoanalytic method.

"The mechanism of repression is the same in the association experiments as it is in the dream and in the hysterical symptoms.

"In hysteria the complex possesses an abnormal stability and tends to an independent existence. It progressively diminishes the power of the ego-complexes and substitutes itself in their place. A new disease personality is thus gradually formed, whose inclinations, judgments, and decisions are directed by the diseased will. The ego is thus destroyed by the new personality and is forced to become a secondary complex.

"The effective treatment must, therefore, aim to strengthen the normal self, to introduce new complexes which should free the personality from the mastery of the disease-complex."

These conclusions are indeed very interesting. But the last sentence contains what every psychotherapist has been attempting to do without perhaps such fundamental psychological consideration. To strengthen the "diseased personality," to introduce new aims in the diseased thought, to train the patient in self control, to suppress the emotions and to train the patient in diverting work, all these were and still are the effective instruments in the treatment of hysteria and neuroses in general. And that which Jung calls the disease complex is still termed by the "old school" affective disturbances and autosuggestion.

Frank and Bezzola agree with Freud in so far that they are convinced of the traumatic etiology of hysteria. Bezzola, however, uses the psychosynthetic instead of the psychoanalytic method. He found that "nothing occurred to the minds of many patients even after hours of trial." Among other patients the ideas were so irrelevant and empty that the most phantastic interpretations did not point to any subconscious complex. The mental images of the patient become, through his desires and strivings, as ambiguous as his dreams. They give the impressions of autosuggestions. He further says, "The physician must never suggest explanations, for all neurotics are highly suggestible, relative to their symptoms."

But his method of psychosynthesis, into which I cannot enter here, does not seem to me to be free from autosuggestions. The presentation of his experiences, however, deserves emphasis in as much as he frankly states that his method is undoubtedly beneficial, although he does not always bring about a complete cure. He agrees with Breuer and Freud that neurotic symptoms are most often the result of highly emotional experiences. But he is on his guard not to be mistaken as a supporter of Freud's sexual theory. He says, "To assume a sexual etiology as fundamental seems to me to be a mistake; in my cases it played a very small part. Freud constructs and suggests; I take the experiences as they come." But when Bezzola maintains that his method is free from the danger of false interpretations in as much as he avoids suggestion, I believe as I have stated above, that he is mistaken. Nothing is more difficult than to avoid suggestion in these methods, whether they are "analytic" or "synthetic."

Stekel, to whom we are indebted for a monograph on "Nervous Anxiety States" is in full accord with Freud's views.

This work appeared in 1908. The opponents of Freud are most easily disposed of in as much as *they are not even mentioned*. The works of Binswanger, Oppenheim, Aschaffenburg, Weygandt, the writer, and others are for Stekel non-existent. Freud, on the other hand, if I have counted correctly, is cited seventy-nine times. Stekel's dreams

analysis must be read in the original. I will only cite one passage from this book:

"I requested the patient to give a series of words when the stimulus word 'mother' was given. He began: mother, sister, brother, father, house, fortune, snow, sleigh, company, idiotic, capon, God d —n it, you may have me, you may have intercourse with me, *je vous aime, madame, je vous aime, monsieur*, opodeldock, popokate, upon the tree grows the plum. . . . In the sleigh he had a merry ride with his mother. Like an idiot he repeated frequently the word 'popokate.' This is the only word which he remembered of a student song which runs, 'Oh! how delightful love is!' Capon refers to personal relations (impotence), then come the curses, followed by love scenes, then the three obsessing words, each of which is intimately connected with sexual relations. (Opo-poppo; his mother's name is Katie!) Popokate is, therefore, a combination of popo (the post-genital zone) and Katie. 'Capon' and the phrases 'You may have me, etc.,' are also related to the anal complex. The patient has thus completely betrayed himself."

By such a method of reasoning Stekel thinks he gets an insight into the mental life of the patient, and all those who are unable to do so may well despair of producing such cures as he has done.

Eulenburg, Warda, Strohmayer, Römheld, and Forel may be mentioned as conditional supporters of Freud. Warda pursued Freud's teachings at great length, since the appearance of the "Studies." He says, "I have tried occasionally, in cases which had a sexual etiology, to explain the situation to the patient. My original supposition that a full insight into the origin of the disease will help the patient has not been substantiated." The question naturally suggests itself whether this author will also be classed among those who have not mastered the "method." As a result of his experiences he now omits in his therapeutic work any reference to the sexual etiology. He even considers that the discussion of the sexual moment in the anamneses *is not always free from objection*, although in the cases where he did so, no harm resulted. He recommends tactful reserve and selection.

Stromayer very justly remarks that only an exchange of experience can lead us to estimate the practical value of a doctrine. He is entirely convinced of the value of Freud's doctrine. But when he assumes in a patient addicted to masturbation, "as a result of erotic stimulation of the post genital zone by the spontaneous retention of feces and urine," when he says, "The sexual purpose of the constipation is evidently that the patient may still dream of attacks of appendicitis" (the "perverse" fecal retention caused inflammation of the appendix), I find these assumptions as unproven as those of Freud. Perhaps from their very nature they cannot be subjected to proof, but then they should be stated in the form of a hypothesis.

Agreement with Stromayer becomes easier when he leaves the theoretical grounds and reports his practical therapeutic results. In answer to the question "whether the uncovering of the sexual etiology is of any therapeutic value he can only give a reserved answer." He admits, with great modesty, that his successes cannot be compared with those of Stekel. I believe, however, that he will have less cause for modesty when the duration of Stekel's cures will be examined after the lapse of several years.

The number of authors who master and practice Freud's teachings (perhaps not to the extent of the Vienna School) is on the increase. They adopt Freud's doctrines more fully than the writer. But when they come, as is the case with Warda and Stromayer, to the question of therapeutics, we note considerable reserve. It is with a note of resignation that Stromayer remarks, "Psychoanalysis produces an astonishingly slight impression on the neuroses of my patients, and with the exception of several cases of obsessions, never results in absolute cures."

Römheld does not want to enter into the many, partly justifiable, objections which have been brought against Freud's teachings. He has no doubt that Freud's psychoanalysis, when generalized and used by unskilful hands, can produce much harm. He can point, on the other hand, to many cases in his experience which have been helped by Freud's method. In his book on "Hypnotism," Forel deals but briefly with Freud, with whom he agrees in part. He

emphasizes, however, that the method must be used "with great care and discrimination, for the injury to modesty and sense of decency may do more harm than good." *A method so cautiously recommended is, in the full sense of the term, a very delicate one.*

Hoche and Spielmayer in Germany expressed themselves against Freud's psychoanalysis. They have been reproached for condemning a method which they have not tested.

At the thirty-seventh convention of German psychiatrists, in a discussion following the paper of Frank and Benzola above referred to, Hoche characterized the "teachings of Freud and his disciples as perverted and one sided." In opposition Jung pointed to his association experiments, which confirmed Freud's work. Isserlin, whose valuable work was emphasized, stated that his experiments do not confirm those of Jung. Gaup took an intermediary position. Benzola protested that Hoche identified his views with those of Freud in relation to the neuroses. Frank stated that he does not always assume a sexual etiology, and he does not look for it when the treatment is successful without it.

At an earlier convention Aschaffenburg had already defined his position on the question. He has, in my opinion, stated all that might be said for and against Freud. His views, however, were only acknowledged by those who had previously been somewhat skeptical about Freud's methods. In the same year I was invited by the editor of the *Journal für Psychologie und Neurologie* to give a critical review of the origin, development, and practical application of Freud's methods. I do not flatter myself to have convinced even one of Freud's disciples. I have had as equally poor success with my communications wherein I brought proof to show that without the application of Freud's psychoanalytic method equally "astounding" cures may be produced. In my "Brief Remarks on Freud's Doctrine relative to the Sexual Etiology of the Neuroses," and in an address before a medical society in Frankfort, I have reported that in order to be impartial I have decided to apply Freud's psychoanalytic method in several cases. The results were not of a nature to change my views.

At this state of affairs the delegates to the Second International Congress of Psychiatrists welcomed the subject, "Most Recent Theories of the Etiology of Hysteria," which was put on the order of the day. The contributors to the discussion were Janet, Jellgersma, Aschaffenburg, and Jung. I cannot present here their theoretical considerations on the subject. A word, however, might be said about the views of Aschaffenburg and Jung. Jung designated Freud's doctrines as a "working hypothesis, which conforms to experience." "At the present time," he said, "there cannot be any question of a well-established theory of Freud." Jung, one of Freud's warmest supporters, thus emphasizes the hypothetical element in Freud's views. This, however, does not prevent him from saying, "No one who does not thoroughly understand Freud's dream interpretation will be able to get even an approximate understanding of his most recently developed views." But Freud's work on dreams has the least scientific foundation, and most serious objections might be raised against its accuracy and against its general conclusions. And yet this book is to give us the key to the understanding of hysteria. He who is not an interpreter of dreams in Freud's sense must, therefore, be and remain ignorant about hysteria!

In another place Jung says, "*At present Freud's material is not suitable for the construction of a universally valid theory.*" This is a scientifically critical statement. But I have shown that most of Freud's followers consider his methods as a well-established theory; they analyze and treat cases and write monographs on the basis of this theory, which, according to Jung, is not "universally valid."

Aschaffenburg has stated in the clearest possible manner all that might be said against Jung's views. He completely denies the possibility of the results of the forced psychoanalysis. The fact that Freud and his disciples invariably find sexual complexes is attributed by him to forced associations. He does not agree with Löwenfeld that Freud's material is of a special type, or that the population of Vienna is particularly inclined to sexual matters. He concludes by saying, "Freud's process directs the attention to the sexual life, a sexual meaning is given by him

to harmless words." This is the reason why Aschaffenburg regards the method as unsafe and objectionable, since it must lead to false conclusions. I have expressed the same in the following statement: "The methods adopted by Freud and his disciples to determine the etiology and to apply therapeutic measures may lead us astray." Aschaffenburg does not doubt that this special kind of psychoanalysis may yield therapeutic results, but he maintains that equally good results may be obtained without it. He objects to the intrusion into the sexual life which this "method" demands, and he points to a patient of Jung, who designated it as "extreme torture." He further emphasizes that all the patients whom he questioned in regard to their sexual life, although he did not enter into such details as Freud does, have almost all complained of some painful experiences. Aschaffenburg repeats his position: "The method is inaccurate for most cases, objectionable in many, and unnecessary in all cases."

In the discussion which followed, Frank again pointed out the value of the method and invited the delegates to visit his institution, where he could show cases which have been improved or cured by Freud's method of treatment. Alt stated that "he could not give an opinion as to the value of the psychoanalytic method, but that he would strongly advise against its use in hysterical cases, many of whom are without it inclined to make the physician a confidant about their sexual life. Neurologists have with their honest explanations succeeded in gradually eradicating from the popular mind the notion that hysteria is due to unsatisfied sexual desires. But Freud's work has once more thrown the ban upon the poor hysterics. The delicate questioning is of grave danger both to the physician and patient. He consequently feels himself *in duty bound to warn patients from entering any institution where the physician follows Freud's method of examination and treatment.*"

Weygandt regards Freud's theories as a sort of fashion. He says, "Freud's views have received such praise and veneration as if it were a question of a second Galileo. He feels compelled to warn those who are still indifferent, but he has no hope of obtaining a hearing from Freud's fol-

lowers, who have fortified themselves against all criticism. Concerning the work on dreams which Jung regards as the basis of the theory of hysteria, Weygandt finds that Freud goes too far with his ingenuous interpretations, and that the overstrained efforts at establishing relations renders the whole work unpalatable. "Most of Freud's interpretations are arbitrary and worthless." This is the statement of an author who expresses warm and enthusiastic appreciation of what is of value in Freud's and Jung's hypotheses.

Weber, in his critical review of two works of Gross and Jung expresses appreciation of the psychological value of the works of these authors, but he points out that the therapeutic effect of the discussion with the patient of the psychic trauma is only of slight temporary value. "That a talk results in temporary relief has always been known, the patient, however, becomes depressed again and must finally be placed in an asylum. . . In general it might be said that the usual psychic examination which every careful physician makes of his patient, without the use of psychoanalysis and dream interpretations, brings many sexual experiences to the surface without any substantial benefit to the patient, except a temporary improvement. Quite the contrary, improvement is noted only, then, when we succeed in diverting the patient's attention from these sexual experiences, and directing it to problems connected with his profession, family, or children."

Jung has maintained that seventy to eighty per cent of all asylum patients suffer from dementia præcox. Weber discusses the histories of Jung's cases, and while refusing to accept his psychological hypothesis, he points out the nucleus of truth contained in Jung's work. For the sake of completeness as well as to show the wide application that is being made of the views of Freud and Breuer, originally applied to hysteria, I have referred to works which deal with conditions other than hysterical. Weber calls attention to the same, as follows: "And when one sees the theories which Freud advanced for hysteria, neurasthenia, and other degenerative states, applied to dementia præcox, manic-depressive insanity, melancholia, paranoia,

impotence, etc., then there are no psychoses left which cannot be referred in their origin to sexual traumas. For with the role which sexuality plays in the life of every person it is not difficult to find in the past of every one some form of sexual trauma."

I have already referred in my work to the attitude taken by Binswanger and Ziehen to Freud's teachings. Ziehen has since expressed himself against Jung's work and he sounds a warning against "such a wrong use of the association psychology." Jung's as well as Freud's psychoanalysis appear to him as "forced."

Into the work of Vogt, Brodmann, Möbius, Krehl, Hellpach, Stegmann, Spielberg, Raimann, Babinsky, Pitres, Westphal, and others, I cannot enter here. In the last edition of his work Oppenheim says: "If we must attribute great value to the original work of Breuer and Freud, the further ramification of it by Freud is erroneous and we cannot warn too strongly against it. A special exaggeration of the facts is to be found in his attempted interpretations and in his theory of the sexual origin of hysteria and obsessions."

Mention remains to be made of Dercum, who in his "Analysis of the psycho-therapeutic method" takes a stand that causes one to wonder whether the work belongs to the present century. Having explained that all symptoms of the functional neuroses are of physical origin, he attributes some value to waking suggestion; hypnotic suggestion, on the other hand, is very seldom if ever justifiable, and psychoanalysis, he maintains, will never find a place in our therapy.

Steyerthal is equally conclusive in his judgment! He differs from Freud and Warda in no uncertain terms. What he thinks about the psychoanalytic method I do not know, for he does not discuss therapeutics in his work. Moreover, a disease like hysteria has no existence for him at all. The entire discussion about Freud's teachings and all the monographs about hysteria are therefore superfluous to him.

It is not without a purpose that I have quoted and given in some detail the views of authors who have dealt with

Freud's teachings, his friends as well as his opponents. I believe in this way to have given the opportunity to every reader to form his own judgment. If we review the results of the above, we find an unsatisfactory state of affairs. If we set aside those authors who have not committed themselves, and their number is small, we have two groups left between whom an understanding seems impossible. If Freud's opponents feel themselves challenged by certain authors who substitute sharp diction for experience and proof, it certainly is not a scientific procedure to disregard their opposition on that account. To the impartial observer there cannot be any doubt that the followers of Freud would have done better to test opposing views instead of continuing to build happily on the unsafe foundation of their hypothesis without concerning themselves with criticisms. All this, however, cannot influence the worth of a method. It appears, however, that the more popular Freud's teachings become, the more they become the property of educated laymen, the more they are rejected by scientific men. This is true as far as the psychoanalytic treatment is concerned. Almost all writers recognize the value of Freud's and Jung's psychologic work. *But as far as the therapy is concerned, the penetration into the darkest recesses of the patient's sexual life, innumerable conversations with him, about his sexuality, the tracing of his sexual impulses from the time he nursed at his mother's breast to psychic or senile impotence, such a therapy is refused recognition by most writers.* Surely not on account of prudery or on the grounds assigned by Sadger (see above), but because they regard the theories upon which this therapeutic procedure is founded as false, or because they can achieve their ends by other means. That the latter is the case has been sufficiently proven. The ignoring by Freud's school of these proofs, and their attitude that before their time there existed no psychotherapy, that no hysteria or fear neuroses were cured — this is in my judgment the greatest mistake of such authors as Gross and Stekel. This is not a matter of error in judgment, it is unscientific. I am personally acquainted with the success which such authors as Binswanger, Vogt, and Boardmann had in the treatment

of hysteria. I know a friend who treated a relapse in a case which was "cured" by Freud. I have cured severe hysterias without psychoanalysis; among others I can point to a case of neurasthenia which I have treated ten years ago by hypnosis and which recovered completely after a few treatments without tracing the sexual life of the patient. When Freud's disciples maintain that they know of no such cases they can only offer as an excuse their lack of familiarity with the literature. Such lack of familiarity is conceivable, since no one can be fully guarded against oversights and no one can fully master a certain line of study. But under such conditions greater modesty might be expected, and one ought not to say that "*only the method introduced by Freud, which is not yet within the reach of most neurologists can help* (Gross)."

But how explain the fact that it is the Vienna school which always finds a sexual basis. Aschaffenberg has dealt with this question in great detail. There is one point, however, upon which I cannot agree with him. He does not agree with Löwenfeld that it is a question of "genius (or demonus) loci." But I am still of that opinion. I cannot go into the question at great length, but I may once more point to the thoroughly pathological work of Weininger, which could be produced only on Vienna soil. (I am not unaware of the remarkable brilliancy of some parts of the work.) For a long time this book was the main subject of discussion, and intimate scientific relations arose between Freud and Weininger. Many threads were disclosed which led to the formation of a literary circle, and beside a great deal of erotic material some work of high psychologic value was produced; but this is not the place for it. I only mention this because I am of the opinion that specific material finds its way to these authors. But this very material is made specific by the works of the physicians which have become "popularized." One cannot help thinking of the unintentional injury caused by Kraft-Ebing's "Psychopathia Sexualis." Many of the patients thus come "prepared" to the office to get the treatment, the principle of which is already known to them. I am aware that the objection might be raised that many of the cases

come from the provinces not even being able to read German, or that the above cannot apply to a case like Dora, who became a patient of Freud when only fourteen years old. But I do not maintain that all cases are under the influence of auto-suggestion when they come for the psychoanalytic treatment. What I maintain is that they either know or suspect the method which will be used upon them, or that after a short time they are suggestively influenced by the questions. It cannot be said that they are not questioned. When they relate their dreams they are asked if nothing else occurs to them; their falterings and hesitations are interpreted as resistances that must be overcome. The examiner in question must find something in accordance with his scientific convictions; he seeks — and he finds. That many of the patients feel relieved by their utterances we all agree, even if our opinions otherwise differ from those of Freud and his pupils. But we have the same experience with our method. Every curable neurosis can be cured by the physician who possesses a personality which invites the patient's confidence, who is self confident, who possesses the needed therapeutic measures, and who can combine with his skill the technic and the desire to give his whole personality to the patient.

Suggestion is to some extent a secret remedy which can neither be taught nor acquired. An otherwise skilful physician may not possess the power of suggestion, while on the other hand a bungler may possess it in a high degree. Lourdes and Andrechs have also cured many hystericals.

Now, with reference to the Swiss School. It must be stated that many Swiss authors seem to differ with Freud in their views. At a convention of Swiss physicians in Zurich, Freud's theories were severely attacked. Kesslerling stated that with such artificial psychoanalysis one can introduce anything one may desire into the complex human mind. Bleuler and Jung were the most important supporters of Freud's doctrines. When the former told me that he wished to demonstrate to me in his clinic, that since they practice Freud's method they no longer have any cases of confused dementia præcox (Schizophrenia), I remained doubtful till I visited Zurich. But when Jung

has from seventy to eighty per cent of cases of dementia præcox in his asylum then it becomes necessary to come to an understanding as to what he means by the term dementia præcox, in the same manner as it was necessary in the case of Stekel and Gross relative to melancholia and manic depressive insanity, and in the case of Freud relative to paranoia. In such cases our obscure terminology is a stumbling block. It is, however, remarkable that at the present day when in accordance with Kræplin's views dementia præcox is continually narrowed to find that an observer like Jung meets such an enormous number of these cases.

The retrospect we have taken is not consoling, perhaps a view of the future is more promising. Scientific strife stands for progress provided it does not turn into personal quarrels. Freud and his followers should see if they could not get equally satisfactory results without their "sexual investigations." We, the opponents, gladly acknowledge their psychological work helping us to understand the neuroses. But it must be remembered that with all their analysis they have not succeeded in throwing any more light as to the real nature of hysteria. Psychoanalysis in itself is indispensable to the neurologist and psychiatrist. Sexual psychoanalysis, on the other hand, appears to many of us as objectionable or superfluous. We all recognize the importance of sexuality in normal human life as well as in disease. But, with the exception of rare cases, treatment should be directed to the suppression of the sexual representations and not to bring them to the surface. Education of the youth relative to sexual matters is indeed desirable, but the discussion of all possible perversions is objectionable.

I may conclude with the hope that the future is not far distant when no undue emphasis will be given the sexual factor, and when we will be able to come to an understanding without doing violence to the facts; and that not only should we learn from Freud, Jung, and Stekel, but that the latter should give earnest, critical consideration to the views of their opponents.

Freud, who sees in the hysterical symptom an expression of the most secret repressed desires of the patient (naturally the sexual desires), can proceed in no other way but to disclose in his analysis these most intimate secrets. But, as I have pointed out in my paper in 1907, his premises are wrong and are far from being applicable in all cases. But even if his premises were correct it is still open to question whether a method of treatment is justifiable which fixes the attention of the patient for months upon sexual experiences or pseudo-experiences, in waking and in dream states. If this method were the only one by which results could be obtained, then, as Aschaffenburg puts it, "it would have to be used in the same manner as we prescribe the most bitter medicine when we are convinced of its good effects, or we undertake mutilating surgical operations in order to prolong life." But Freud's method of treating hysteria is morally injurious even to the "hardened" hystericals (he certainly does not realize it or he would not apply the method). When Freud makes the statement that in no case of hysteria is purity of thought to be found, and that there is never the danger of corrupting an inexperienced maiden, it is to be classed with the numerous assertions for which he has offered no proof; and in the interest of our patients it were far better to avoid such generalizations. It is indeed dangerous (in spite of Sadger) to stamp a disease *so that the diagnosis of hysteria carries with it a moral perversity*. This, however, is the conclusion, surely not of physicians, but of laymen, who, thanks to the work of several of Freud's followers, have been well informed about his doctrines. *But even if every hysterical had such "knowledge" she ought to be questioned, and her perversity explained by any one rather than by the physician.* At any rate, I can conceive of parents who would see their daughter hysterical for all her life rather than submit her to a sexual psychoanalysis lasting for years(!).

I may briefly summarize as follows:

1. We do not possess a therapy equally applicable in all cases of hysteria.
2. The cathartic method of Breuer and Freud has, from the theoretical standpoint, been very fruitful for the

psychology of hysteria; it is of practical value in certain cases of traumatic hysteria. The association studies of Jung and others deserve critical consideration.

3. The psychoanalytic method is surely not the only one that is of value in the treatment of hysteria, neurasthenia or obsessions. In so far as the method is connected with the detailed discussion of sexual matters and perversities, it is justly rejected by many authors.

4. Psychical treatment, as it is practised by those who do not belong to Freud's school, accomplishes as much as sexual psychoanalysis, but it must be aided according to the particular case by general therapeutic measures applicable to functional neuroses and psychoses. (Training in work, hydro and electro therapy, dietetics, etc., and under certain conditions hypnosis.)

5. The procedure of those authors who carry on a propaganda in lay journals about this method of treatment, which at best is not proven, and which is rejected by many, deserves emphatic disapproval.

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FUNDAMENTAL STATES IN PSYCHONEUROSIS*

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IN the investigation of psychoneurosis the psychopathologist is confronted by some strikingly characteristic features. The symptoms are not isolated or disconnected, but appear in connected groups, in well-associated systems. The symptoms are logically related, being grouped round a nucleus which seems to guide and control the rest of the morbid manifestations. The disease, in spite of its manifold variations of symptoms, really presents a well-told story, with a central plot running through all its ramifications, with a hero and possibly a heroine round whom the main interest gravitates. Viewed from another standpoint we may say that we have here the evolution of a low form of parasitic personality. This parasitism is well brought out in the attitude of the patient towards those morbid mental states. He regards the whole system-complex as foreign to his personality.

Another important characteristic is the *periodicity* of the system. The morbid system runs in cycles. The patient tells that during the time of obsession the mind works in a circle. There is a sensory nucleus, a sharp attack lasting but a short period, followed by a long period of depression and worry. In most, if not in all cases, the origin of the obsession is unknown to the patient. The morbid mental state flashes lightning like on the patient's mind, keeps him spellbound in terror, and then suddenly disappears, to reappear on some other favorable occasion. Other states persist in consciousness for some time, but even in such cases periodicity of remissions is quite marked. This characteristic of periodicity is so marked that some writers describe such cases by the term "psycholepsy," while others classify them under the misused term of "psychic epilepsy." In order there should be no confusion with epileptic states I describe these morbid states as *recurrent psychomotor*

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states. These states do not belong to the patient's normal associative life, but appear to the patient himself as opposed to his usual normal life-activities, they appear to him as dissociated from the rest of his interests, from the rest of associations and psychomotor adjustments. He does not understand those dissociated states, wants to extrude them from his mind. Under certain conditions he is not even aware of them, since they either appear subconsciously, or swamp his personality during the whole period of their activity. The states are essentially subconscious, dissociated states, they come in attacks, in seizures, and manifest themselves, like vulcanic upheavals, with extraordinary violence and emotional disturbances. As pointed out in former works: "One general characteristic of these morbid psychomotor states is the fact of their recurrence with the same content of consciousness and with the same almost invariable psychomotor reactions. The patient thinks, feels, wills, and acts in the same way. Subconscious dissociated states belong to the type of recurrent moment-consciousness, a type characteristic of the lower forms of animal life, a low type that responds to the external environment with the same adjustments, with the same psychomotor reactions. From this standpoint we may regard the recurrent psychomotor states as a reversion to lower forms of consciousness. The suddenness of the attack, the uniformity of the manifestations of the symptom-complex, the uncontrollable overpowering effect on the patient's personal consciousness are all due to the same underlying condition,—the dissociation of the patient's subconsciousness."

The nature of the subconsciousness, whether it be physiological or psychological, or both, we may leave to the speculations of the philosophical psychopathologist and metaphysical psychologist. Our present object is to note the clinical facts, describe them accurately, correlate them into generalizations, and use provisionally limiting concepts, much in the same way as the mathematician uses space or the physicist uses matter and ether. By the subconscious we simply indicate this fact of dissociative activities characterized by their recurrence and automatism, of which the person is often not directly cognizant.

During the predominance of the recurrent state, the sense of reality is affected, since the subconscious or dissociated mental states come with an insistency and intensity of the sense of their reality almost directly proportional to the insistency of the recurrent mental state which is truly delusional or even hallucinatory in character. This is especially true of the highly developed and fully systematized *complex* recurrent mental states. This sense of reality is still more enhanced by the suddenness and violence of the subconscious eruption.

The attacks can be traced to mental trauma, emotional shocks, and especially to experiences of early childhood. This generalization was developed in my various works; especially in my *Studies in Psychopathology*. These subconscious experiences of early childhood are not based on sexual trauma as claimed by some German psychopathologists and their enthusiastic adherents.* Where present the early sexual experiences can be shown to be ineffective and inessential.

*Die Theorie der Psychosen behauptet mit ausschliessender Sicherheit (?), dass es nur sexuelle Wunschregungen aus dem Infantilen sein können welche in den Entwicklungsperioden der Kindheit die Verdrängung (Affectverwandlung) erfahren haben, in späteren Entwicklungsperioden dann einer Erneuerung fähig sind, sei es in folge der sexuellen Konstitution, die sich ja aus der ursprünglichen Bisexualität herausbildet, sei es in folge ungünstiger Einflüsse des sexuellen Lebens, und die somit die Triebkräfte für alle psychoneurotische Symptombildung abgeben. (S. Freud, *Die Traumdeutung*, p. 376, 2^e Auflage. 1909.)

In other words, slippery and mutable as Freud's statements are, he clearly declares in the last edition to his *magnum opus* the far and wide reaching generalization that all psychoneurosis is based on sexual wish-impulses (Wunschregungen) coming from infantile life. Suppression of sexual experiences can be easily observed (by competent observers, of course), in infants of a few months old. If you miss the process of suppression in the baby, you can easily trace it by means of psychoanalysis to the early recollections of tender infancy. It is certainly lack of comprehension that induces Ziehen to daub Freud's speculations as Unsinn.

Some of Freud's admirers, with a metaphysical proclivity, are delighted over the theory of suppressed wishes. The wish is fundamental and prior to all mental states. This piece of metaphysical psychologism is supposed to be based on clinical experience. "If wishes were horses, beggars would ride." The Freudist manages to ride such horses.

Feldsmann in his paper on psycho-analysis,* and in my own work, find that early sexual experiences are on the one hand present in many healthy individuals, and on the other hand absent in many cases of psychoneurosis. Sexual experiences may become exaggerated in the patient's mind by the suggestive importance ascribed to them by Freud, Stoeckel, and their followers. Such sexual psychoanalysis is often extremely harmful to the patient. It is but another aspect of the pious quack literature on sexual subjects.

In my cases of recurrent mental states, especially of the phobia type, I find on the soil of a sensitive nervous organization the presence of a fundamental state of primitive fear of the unfamiliar and the strange, an instinctive fear characteristic of all animal life, and rooted in the fundamental impulse of self-preservation. In most people this primitive animal and child fear is inhibited by training and familiar environment, but in our psychoneurotics this instinctive fear is not inhibited, in fact it is even over developed. Under certain unfavorable conditions of training, especially religious, this primitive fear may be combined with a developed sense of the mysterious, and the result is *fear of the mysterious*. The two, however, are often simply associated and do not form a composite fear state. This association of the instinctive primitive fear and the sense of the mysterious and the unknown constitutes the soil on which all forms of anxiety and phobopsychoses grow luxuriously.

The fear instinct and the sense of the mysterious when trained by religion, morality, and accompanied by deeply rooted superstitions and prejudices of a religious and moral character may attach themselves to any sphere of life, sexual, professional, or purely personal, and give rise to the phobias or to the anxieties of psychoneuroses. The feeble personality of the child becomes the victim of fears. We have thus the fear of having committed some awful wrong act, never being satisfied, even when the wrong is made definite, "there is some mysterious wrong beyond"; there is the fear of doubt, of not arriving at what is *absolutely right* and *really true*. There may be the fear of having committed the unpardon-

*Sovremennaja Psichiatria, May, June, July, 1909.

able sin with mysterious communication of unseen powers; fear of eternal damnation; fear of ghosts; fear of remaining alone or claustrophobia, fear of open place or agoraphobia, fear of loss of personality or general vague fear, known as panophobia. A few concrete clinical cases may best bring out these fundamental states of psychoneurosis. I am sorry that my time is limited, and I must make the account of the cases so brief and unsatisfactory.

I. The patient is a young man of twenty-eight. Family history good. The patient is physically well developed, very able, he is instructor in one of the foremost American institutions. He is obsessed by the fear of loss of personality. The fear is of a periodic character, coming at intervals of two weeks, occasionally disappearing for a few months and even for a few years, but reasserting itself with renewed energy and vigor. During the attack the patient experiences a void, a panic which is sudden in its onset, the patient feels that his self is gone. He can carry on a conversation or a lecture during the attack so that no outsider can notice any change in him, but his self is gone and all he does and says, even the demonstration of a highly complex problem in integral calculus is gone through in an automatic way. The fury of the attack lasts for but a few moments which to him appears of long duration. He is "beside himself," as he puts it. He seems to stand beside himself and watch "the other fellow," as he describes it, carry on the conversation or the lecture. He is knocked out of his body, which carries on automatically all those complicated mental processes. For days after he must keep on thinking of the attack, feels scared and miserable, thinking insistently, in great agony, in a vicious circle over his awful attack.

At first the patient could trace this attack as far back as his seventh year. Later on earlier experiences of childhood came to light, and then it became clear that the attack developed out of the primitive instinctive fear of early childhood, fears of unfamiliar environment, fear of the dark, fear of strange conditions to which he had been subjected in his tender childhood. The attacks are usually induced by unfamiliar situations; strange conditions, a new location, strange towns, unfrequented places or the noise and bustle

of a large unfamiliar city, darkness or loneliness in an unusual quiet place are all conducive to attacks with their intense agony of fear.

Along with it goes a highly developed sense of the mysterious, which dates far back into the patient's early childhood, revolving around the problem, "*What am I?*" He began to dwell on that problem of "What am I," since he became conscious of himself as a thinking, living personality. This question of "What am I" accompanied with intense fear and anxiety keeps on coming to him in his present attacks. He felt the fear and the overawing mystery of the problem of "What am I." As the patient puts it: "It is the mystical fear of the attacks which overpowers me." In other words, the patient suffered from the persistent primitive fear of the unfamiliar, and from an over sense of the mysterious. With the disintegration of these states the attacks were the first to disappear and then the general depression of the after-effects gradually faded away.

II. Another case is that of a lady of forty-three. Family history is good. Patient has always been in good physical health. Eight years ago she married and had two children, both well. She distrusts and fears her husband, suspecting him of some heinous crime. The attacks come in waves, in seizures of brief duration, with intense excitement, agonizing fear, palpitation of the heart, chattering of teeth, followed by a long period of depression and worry. When near her husband she is excited and full of agonizing fear. She feels her husband must have committed something awful. "There is an insurmountable obstacle between us; what it is I do not know." When finally her husband confessed to her to some escapade of his youth, she was for a time quieted, but soon the fear of the mysterious sin or crime once more arose. The confession did not satisfy her. "There must be something more beyond." This thought keeps on coming to her mind. "It turns like in a circle," as she puts it. She herself is conscious of the predominance in her of the sense of the mysterious. "Even if my husband," she tells me, "should confess to me the most awful of crimes, I would still suspect him of worse ones. There is something mysterious. Nothing definite can satisfy me." We may add that the patient

and her family have been Christian Scientists for years. She suffered from fears of telepathic suggestive influences and from fears of receiving telepathic death thoughts,—suggestions given by Christian Science. As a child she was dreamy, had a love of the mysterious, and was possessed by a well-developed fear of the unknown.

III. Patient is a young man of twenty-seven years. His parents, though slightly neurotic, have reached a good old age. Patient is physically well. Since his early childhood, as far back as the age of eight, he suffers from intense melancholic depression, often reaching a state of agony. He is obsessed by the fear of having committed the unpardonable sin. He thinks he is damned to suffer tortures in hell for all eternity. He keeps on testing any chance combinations and if his guesses turn out correct, he is wrought up to a pitch of excitement and panic. For it means to him a communication coming from an unseen world by unknown mysterious powers.

"The omen testing," he writes in his account to me, "had a monstrous growth. The tests have been concerned with the letters in my reading, with people walking on the street, with carriages and automobiles, fire alarms, sounds of all kinds, the sound of the voice and of birds, hymns in church, the weather, the arrangement of letters in conversation, etc. The general principle has been the same throughout, which is briefly this: If the normal course of events is interfered with in a special way that I arbitrarily arrange in my mind before the happening, I infer, or rather fear, that it is a signal from some extraneous intelligence. As to a signal of what, that also is arbitrarily arranged beforehand. For instance, I considered it was not the normal course of events to be able to predict on what day of the week several people would arrive at the hotel and still I predicted it. I feared either that I had a supernatural power of prediction or that the people themselves were in some supernatural way forced to fall in with the day I predicted."

The attack proper comes in pulses of brief duration, followed by long periods of brooding, depression, and worry. The primitive fear of pain, of danger and death, and the sense of the mysterious cultivated by his religious training,

reached here an extraordinary degree of development almost paranoidal in character. Among the earliest memories that have come up in the hypnoidal state there was the memory of an old woman, a Sunday school teacher, who cultivated in the patient, then but five years of age, those virulent religious germs which, grown on the soil of the primitive instinctive fear and the highly developed sense of the unknown and the mysterious, have brought forth those poisonous fruits which now form the curse of his life.

Let me read to you another paragraph from the patient's account: "It is difficult to place the beginning of my abnormal fear. It certainly originated from doctrines of hell which I heard in early childhood, particularly from a rather ignorant elderly woman who taught Sunday school. My early religious thought was chiefly concerned with the direful eternity of torture that might be awaiting me if I was not good enough to be saved."

I can bring many more cases, but these will suffice as illustrations. In all my phobia cases I find as the basis of the morbid condition the primitive instinctive fear of the unknown, of the unfamiliar, a fundamental fear instinct rooted in the impulse of self-preservation, and an over-developed sense of the mysterious. The recognition of these fundamental states by the psychopathologist and their disintegration by treatment are of the utmost importance for psychopathology and psychotherapeutics. The educator may possibly find here some important hints in regard to the bringing up of the young. The Holy Scriptures claim: *φόβος κυρίου ἀρχή σοφίας*, but from our present standpoint we may paraphrase the biblical statement by saying that *the fear of the mysterious is the beginning of phobia*.

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REMARKS ON DR. MORTON PRINCE'S ARTICLE:
"THE MECHANISM AND INTERPRETATION OF
DREAMS"

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TO members of the Freudian school Dr. Prince's article on dreams must prove a source of especial interest and, in several respects, of considerable gratification. In the first place Dr. Prince is to be felicitated on being of those who do not share Freud's views, the first to make a sincere attempt impartially to appraise them from the outside, and to compare Freud's results with those obtained by other methods. In the second place he has been able by these methods to confirm a part, and by no means the least important part, of Freud's theory of dreams. The fact that he has so far failed to confirm other fundamental parts of this theory would in itself call for no comment from any psycho-analyst, and the only reasons why the following remarks seem to me both desirable and necessary are these: The article purports to set forth an investigation of dreams undertaken by means of Freud's own (psycho-analytic) method, and this, coming from a man of Dr. Prince's authoritative standing in clinical psychology, will naturally tend to create the impression that Freud's conclusions have been adequately and fairly tested, and found wanting. As, however, the evidence that the investigation was largely vitiated by certain deficiencies and misunderstandings, some of which will presently be mentioned, is so apparent to any psycho-analyst, it becomes necessary to protest against such an assumption, the more so as there is every reason to believe that Dr. Prince would be the last to acquiesce in an injustice being done to Professor Freud through a false impression having been unintentionally created.

Shortly put, the conclusions of Dr. Prince's study are as follows: He agrees with Freud (1) that dreams have a psychological history, and that the manifest dream content as related is connected with underlying dream thoughts that can be discovered only through special investigation; (2) that these dream thoughts are egocentric, i.e., are concerned with important and characteristic mental processes of great significance to the subject; (3) that they are often unconscious, i.e., are neither present in the subject's waking consciousness, nor accessible to introspection; (4) that they are not disordered and haphazard, but have an intelligible meaning; (5) that the manifest dream content is a symbolic, usually visual, representation of the underlying dream thoughts. He essentially differs from Freud in not being able to find (6) that the underlying dream thoughts are of an unacceptable nature and have been "repressed"; (7) that they always express the fulfilment of a wish; (8) that there is a resistance due to censoring thoughts which interposes an obstacle to the subject becoming aware of them. "We do find a symbolism which is a perfectly clear and simple representation of previous openly avowed ideas (wishes, fears, etc.), which were not only entertained without restraint, but which dominated the mental life of the dreamer" (p. 173). The question of the relation of the dream thoughts to infantile sexuality is not mentioned, but one is safe in inferring that it would have been answered in the negative.

1. Féré. Note sur un cas de paraplégie hystérique consécutive à un reve. C. R. Soc. de Biol., Nov., 1886. Nr. 41. A contribution to the pathology of dreams, etc., Brain, 1887. Vol. ix, p. 488.

2. See, for instance, De Messières. Les rêves chez les hystériques. Thèse de Bordeaux, 1895.

3. Waterman, Dreams as a Cause of Symptoms. *Journal of Abnormal Psychology*, October-November, 1910. Vol. v, p. 196.

4. See A. A. Brill, Dreams and Their Relation to the Neurosis. *New York Med. Journ.*, April 23, 1910.

5. Ernest Jones. Der Nachtmar in der Mythologie und in der Geschichte, 1911.

6. For a definition of this term see Ernest Jones. *Psychol. Bull.*, April, 1910, p. 111.

7. Freud. Traumdeutung. 2^e Aufl., 1909, S. 175.

8. Erythrophobia, as distinguished from ereutophobia, the fear of blushing, to which this term is sometimes incorrectly applied.

First, as to the material of the investigation there is something to be said from the point of view of both its quantity and quality. Dr. Prince (p. 157) states that he has studied "about a dozen or more" dreams; even of these only some were studied by means of what Dr. Prince calls psycho-analysis, but which for reasons which presently will be mentioned I must call the method of distraction. Now that it is thoroughly well known to every psycho-analyst that no one succeeds in making more than a most elementary analysis in the first attempts, so that it is not at all surprising that Dr. Prince has not succeeded in confirming all Freud's conclusions in this preliminary investigation. Freud himself studied by means of the psycho-analytic method over a thousand dreams before he wrote a word on the subject, and since then he and others have investigated by this method over fifty times that number, with uniformly consistent results. In view of these facts, Dr. Prince's complaint of the inadequacy of Freud's data (p. 151) comes a little strange. Then, again, the choice of the subject whose dreams were studied was in some important respects unfortunate. From previously reported accounts of her case one gathers that she is an unusually intelligent and well-educated lady, having a great interest in psychology, but that she had suffered from a dissociation of personality due to a severe hysteria which has never been treated by psycho-analysis. Personally I have been able to study only two cases of multiple personality, neither so complete as this, but from this study, from a reading acquaintance with all the published cases of the kind, and from my general knowledge of simpler hysterical cases I feel justified in making the following statement, with which I expect hardly any psycho-pathologist, and certainly no psycho-analyst, will disagree. Though such cases are highly instructive and are well adapted for certain kinds of observations, they are exceedingly difficult cases fully to unravel the psychogenesis of, and this for the following simple reason: When a complete psycho-analysis of even a single trivial symptom is made it is found that the unconscious determining factors are far more extensive and elaborate than might have been expected, the symptom being a highly condensed symbol for

a large group of underlying mental processes; when the symptom itself is an elaborate one, still more when it amounts to a splitting of the whole personality, the disaggregated processes constitute such a huge section of the mind and form such a colossal mass of material as to make the penetrating, unravelling, and ordering of them a most formidable task. In such cases, further, the resistance to a proper analysis must be almost insuperable, for the patient is asked to surrender not a relatively unimportant part of his sexual life, for so one conceives hysterical symptoms, but the main constituents of this.

We come next to the question of method, a vital one, for Dr. Prince states that "even by a conscientious use of the Freud method of analysis" (p. 177) he was unable to confirm Freud's conclusions. Now I would formally deny that there is in Dr. Prince's article any evidence that he employed psycho-analysis at all, and to any one familiar with this method there is the strongest positive evidence that he did not. In his description of psycho-analysis (pp. 142, 144, etc.), the only procedure he mentions is that the patient was put into a quiet state (distraction), and told to supply free associations from various themes. It is true that this is *one*, and an important one, of the *sources of the material* from which a psycho-analysis is made, but, if it constituted the whole procedure, then, evidently, acquiring the method would be a very simple matter. In fact, however, psycho-analysis is a much more elaborate procedure, and I have space here to mention only two of the other important steps. When free, unforced associations are made the patient inevitably comes sooner or later to an obstacle in the communicating of them, and this is termed a resistance. The external evidences of this obstacle are numerous, but many of them can easily be overlooked before one learns to appreciate their significance; such are a halting, a blocking in the flow of thoughts, signs of emotional disturbance, a pause followed by an inexplicable change of the theme, the latter being due to the patient disobeying instructions and resuming a voluntary guidance of the direction of his thought, and so on. It has further to be noted that the patient is often unaware of any direct unwillingness to communicate

the thought that has been kept back. A most important part of the technique of psycho-analysis consists in learning to divine the nature and source of each particular resistance as it arises, thus enabling the patient to overcome it and to proceed with the analysis. Secondly, an integral part of the method is the art of interpretation, of learning how, when, and what to interpret, and how to know whether a given interpretation is correct or not. A false interpretation is soon objectively proved to be so, while a correct one receives ample confirmation and proof. I need not go further into this matter of psycho-analytic technique, but I think enough has been said to show that of the most integral stages one finds no trace in Dr. Prince's paper. Indeed, although an essential preliminary to the analysis is the gradual and often very difficult overcoming of innumerable resistances, Dr. Prince repeatedly says (pp. 173, 177, etc.) that he never encountered any resistance. This I can only explain as a misunderstanding of terms, for if the underlying thoughts were only accessible in the hypnotic state, that is only another way of saying that there was a difficulty in their reaching consciousness in the waking state, i.e., there was a resistance to their becoming conscious; surely Dr. Prince cannot be taking the term in the narrow sense of a voluntary, conscious opposition? Resistance is one of the most readily experienced of processes; in the dreams related it would be easy to select a dozen words which one could guarantee to evoke an early resistance, provided, of course, that all critical selection and judgment were really suspended.

Once it is realized that no psycho-analysis of the dreams was performed a number of questions answer themselves. Dr. Prince's curious finding (pp. 143, 144, 146, etc.), that many forgotten memories could be recovered by hypnotism, but not by Freud's method, is thus easily explained. It is well known to every one who has used both methods that far deeper memories can be recovered by psycho-analysis than by hypnotism, a fact which was one of the main reasons why Freud long ago abandoned the use of the latter.

Dr. Prince agrees with Freud that in relation to dreams three sets of mental processes can be distinguished: (9)

9. I might say that the associations to these two words filled some twenty pages.

the manifest content, or the dream as directly related; (10) the dream material, or memories, usually recent, which serve in the construction of the dream, and (11) the latent content, or dream thoughts, which reveal the ultimate cause and meaning of the dream. In the progressive stages of the analysis one proceeds in this order, and thus penetrates through deeper and deeper layers of memory until the whole structure of the memory is laid bare. It is easy, however, to halt at any step in the analysis, to call the material already collected the latent content, and to designate the varying characteristics of this material (fear, wish, etc.) as the essential attitudes in the formation of the dream. Ferrero has happily termed this procedure an *arret mental* and writes in reference to it:* "C'est une loi psychique que, dans la série des phénomènes à laquelle un autre phénomène est lié par une loi de causalité, la pensée humaine s'arrête aux phénomènes qui produisent des sensations et qui se révèlent directement à nos sens, négligeant ceux dont la présence ne peut être calculée que par la réflexion et la comparaison. C'est un vrai défaut de l'intelligence humaine, un défaut organique, auquel la logique idéale tâche de remédier, en étudiant différentes méthodes de correction." It was the tireless energy of Freud that enabled him to overcome this natural human impediment, and to pursue his penetrating investigations through the shifting early stages of his analyses until he reached a solid vantage ground. Now

10. It is not necessary here to discuss the question of somatic excitations during sleep, for since Freud's work it is not probable that anyone will maintain that these are ever the whole cause of any dream.

11. A recent communication by Kreist to the Société de Psychologie (*Journ. de psychol. norm. et path.*, 1910, p. 252) contains a singular illustration of the prevailing tendency to be satisfied with the first steps of a psychological analysis. A certain married couple were continually in dispute, and a divorce was talked of. The husband, as is usual, under such circumstances, recognized in himself an alternation of antipathy and tenderness. There was no apparent cause for the disharmony. Kreist hypnotized the husband, and found that his antipathy to his wife dated from a given dream, which had been previously forgotten. According to Kreist the whole trouble was due to this dream (1), and peace was restored as soon as the husband learned the trivial cause of it. It would be interesting to know the later history of this touching episode.

* Ferrero. *Les lois psychologiques du symbolisme*. 1895, p. 100.

the material that Dr. Prince offers as the result of his studies, and which he terms the latent content of the dreams, is of a kind that every psycho-analyst will recognize as belonging to the first stages of any investigation into the sources of dreams, but which is quite unlike the latent content as revealed by psycho-analysis. It is therefore entirely comprehensible that it does not show the characteristics (repression, conflict, etc.) which Freud finds in the true latent content. I can only assure Dr. Prince that the dreams as related, and still more the associations he records in connection with them, give a psycho-analyst every hint that more significant mental processes would have been reached had the investigation been carried deeper, and the full expectation that they would display the same characteristics that one finds in all other dreams.

Incidentally, it is desirable to rectify a few other misapprehensions which otherwise would serve to obstruct the path to that scientific accord that we all hope will ultimately obtain in regard to these problems. Dr. Prince agrees that the dreams, at all events in part, were allegorical representations of thoughts which could only be discovered in hypnosis, and not in the waking state, but goes on to assert that he found no indication of "disguise" in the dreams. Well, all that one means by disguised thoughts is the allegorical representation in consciousness of thoughts not accessible to introspection, in other words just what Dr. Prince records. He further states (p. 186) that "it is preposterous logic to assume that the hallucinatory words, 'Saul, Saul, why persecutest thou me?' were a disguisement of the true thought. . . . Yet this interpretation would be required by this hypothetical mechanism of Freud." I gravely doubt whether any one is in possession of sufficient evidence to dogmatize about the significance of St. Paul's alleged experiences, but with the delusions of patients who ascribe to imaginary external figures thoughts that arose in their own mind it is hard to avoid the conclusion that the true state of their own mental processes is disguised from their consciousness, and sometimes very seriously so. We must all agree with Dr. Prince in his demand that the study of dreams should not be divorced from other, and especially

from psychopathological processes. It was one of Freud's triumphs to have evolved from the facts generalizations that are equally applicable to the most diverse regions of mental functioning.* A typical example is the parallel he has drawn between dream "regression" and hallucinations, in a theory of the latter that resumes the facts more completely than any other that has yet been produced, and the basis of which has been amply confirmed by Jung and others in hysteria and in different forms of insanity. Another instance is Freud's theory of amnesia, which applies as well to the massive disaggregation sometimes seen in hysteria as to the amnesia for dreams or for so many of everyday life experiences. When Dr. Prince says (p. 178) "Nor can I accept the view that the amnesia following the dream differs in principle from that so commonly observed for dissociated states in general," all I can say is that he is not asked to. His misapprehension here probably arises from the non-realization that frequently the repression of dissociated mental processes is not due to the inherently unacceptable nature of these, but is secondary to their becoming associated with deeper unconscious processes of an unacceptable kind. When he further states (p. 187) that Freud's mechanism of secondary elaboration "was easily to be recognized" in the dreams I would remind him that this secondary elaboration is the "disguise produced by the censor," the existence of which he elsewhere energetically denies. In drawing analogies between different phenomena, however, one has to be careful to see that they are truly comparable. In discussing, for instance, the significance of symbolism in general, a highly interesting and important topic, Dr. Prince gives several examples (pp. 181, 183) which, strictly speaking, are not of symbolisms at all. A symbol, or sign, is an indicator for some group of mental processes, and is therefore necessarily an *abbreviation*. It is hardly correct to designate as symbolism, in

* See, for instance, the analogies drawn by Brill between dreams and psychoneurotic symptoms. "Dreams and Their Relation to the Neuroses." New York Med. Journal, April 23, 1910.

the way that is sometimes done, the mere substitutes of one set of sensorial impressions for another (p. 181). How one mental process may have a double meaning, and thus be a true symbol, Dr. Prince excellently illustrates (p. 157). This is the reason why the manifest content of dreams represents, as he points out (p. 153), a much larger group of associated underlying mental processes. Lastly, Dr. Prince's statement (p. 188), that in none of the dreams can he find the mechanism of displacement, must certainly be due to a misapprehension of the sense in which psycho-analysts use this term (*Verschiebung*), for in all the dreams he relates it is visible to the naked eye. Displacement, which is one of the very commonest of mental mechanisms, denotes the investment of an idea with a given affect that originally belonged to another idea. In Dream 2, the investment of the idea of a rocky path with the feelings of difficulty and hardship which the patient had previously experienced in regard to the idea of life, and in Dream 1, the multiple shifting of the temptations of life from one person to another, are excellent illustrations of displacement.

In conclusion, I can only say that Dr. Prince's paper, interesting and welcome as it is, in no way invalidates my previous statement* that up to the present no one who has taken the trouble to acquire the psycho-analytic method has failed to confirm Freud's theory in all essential particulars.

*See some remarks on this point: "Freud's Theory of Dreams." *Amer. Jour. of Psychol.*, April, 1910, p. 284.

THE MECHANISM AND INTERPRETATION OF DREAMS — A REPLY TO DR. JONES

BY MORTON PRINCE, M.D.

DR. JONES'S very courteous criticism of my paper, "The Mechanism and Interpretation of Dreams,"* seems to call for a few remarks in reply. It is not possible to take up all the points made by Dr. Jones without transgressing the limits of space, but I will discuss a few of the most important.

First.—My critic writes from the viewpoint of my study of the dreams having been made to test the validity of Freud's theory, or, if not that entirely, of a study which "purports to set forth an investigation of dreams undertaken by means of Freud's own (psychoanalytic) method." Now this was far from the case. I insisted with considerable detail that other methods were employed as well, particularly the use of various hypnotic states (discarded by Freud) which were described and the value of which was emphasized, and I made a considerable point of the fact that the "psychoanalytic" method was applied to these hypnotic states.

Further, I would insist that the methods employed were an entirely secondary consideration. My primary purpose was to study the psychology of dreams, and to make use of any and all methods that might afford all the possible data required to draw sound conclusions regarding the mechanism and interpretation of the dreams.

I sought to obtain every scrap of material that might throw light on the problem. Necessarily, therefore, I was constrained to obtain those data which Freud's method would afford, but, I would reiterate, further data were obtained by other methods and by the extension of the Freud psychoanalysis to hypnotic states, practically a method in itself. I did make a point, and still do, that by the combination of these methods fuller data were obtained than is possible by a less extensive mode of investigation. I should

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have been very glad to have omitted all reference to Freud's method, letting the methods employed stand for themselves, but if I had done so I should necessarily have assumed a false position and laid myself open to just criticism. Being obliged, therefore, to point out the use in my investigation of what I believed and still believe to be Freud's method, *even if inadequately carried out*, as Dr. Jones insists, it became necessary to compare the results arrived at and point out how far the conclusions reached confirmed and how far they contradicted the Freudian theory. Finding that in certain important respects my results confirmed those of the distinguished Austrian author, it gave me very real pleasure to call attention to this fact and give recognition to the truth of his theory so far as my own studies could establish it.

After all is said the matter of real importance is whether the findings revealed, no matter what the methods employed, offered a logical and satisfactory explanation of the dreams, and whether the theories advanced — for instance, that of a causal subconscious process and caused conscious process — were logically supported by the evidence. I hope Dr. Jones will forgive me for saying that it sometimes seems as if the followers of Freud care more for the acceptance of their method — for being baptized in the faith, than for the determination of the truth. He would undoubtedly reply that if Freud's method alone had been used and had been adequately employed the dreams would have been traced to other and different causal factors (sexual?), but it is clear that if the factors discovered (the antecedent mental experiences) were a logical and sufficient cause of the dreams other antecedent experiences could not have been. If, by way of analogy, it can be shown that the typhoid bacillus is the cause of a group of symptoms (typhoid fever) in a given case, it is not logical to hunt for another bacillus. The question simply is whether the antecedent experiences I discovered were a logical and sufficient cause of the dreams.

I note that Dr. Jones accepts my confirmation of "a part and by no means the least important part of Freud's theory of dreams"; for instance, "(5) that the manifest dream content is a symbolic, usually visual, representation of

the underlying dream thoughts." But may I suggest that the correctness of this confirmation depends entirely upon whether I discovered the true underlying dream thoughts. The logical correctness of my conclusion, that the manifest dream was a symbolism, plainly depends upon having determined the correct underlying "thoughts." If those which I supposed I had determined were erroneous then there was no evidence of symbolism at all, and I was entirely wrong in my conclusions. Surely Dr. Jones cannot logically accept the conclusion that a symbolism was shown and deny that of which the dream was a symbolism. But I submit that the "psychoanalysis," whether good, bad, or indifferent, disclosed that there were conserved mental experiences antecedent to each dream, which experiences were logically pictured in the dream if the latter be considered as a symbolism; or, to put it in another way, that there had been a number of antecedent thoughts which had played an important part in the life of the individual, and from time to time were still playing a part; that they were conserved (as shown by the fact that they could be recalled as memories); that they stood in associative relation to the dream imagery; that the dream images, whether coincidences or effects, could be viewed as very intelligent and logical symbols of these thoughts; and considering the frequency and regularity with which the (manifest) dream could be viewed as an intelligent symbolism of these antecedent thoughts, it was logical to infer as a conclusion that the dream did actually symbolize these thoughts and no others. It might even be said that if one intended to symbolize these thoughts in dream imagery one could not have done better than have selected these very symbols. This is all that we are entitled to infer by any method of investigation of this kind.

By reference to another series of facts it was inferred that the antecedent thoughts which were discovered continued to function subconsciously during the dream. I submit again that if I did not discover the true underlying thoughts I was not entitled logically to conclude there was any symbolism whatsoever. As the evidence stands, however, I am still of the opinion that my interpretations of the dreams were logically sound and justified, whether

I employed Freud's method or not. This, after all, is the main question, and of this each reader must judge for himself.

Second.—Dr. Jones makes a point of the fact that the number of dreams analyzed was small (a dozen or more) compared to the number analyzed by Freud and his followers, viz., fifty thousand! (As a matter of fact I have studied a good many more than the number I mentioned, but not so exhaustively, and all have given the same results.) Without presuming to question the accuracy of the statement of the vast number of dreams analyzed by Freud and his followers, involving though they would fully one hundred thousand hours' of study (the analysis of two dreams studied by me occupied between nine and ten hours) I submit that if the number of dreams had been five hundred thousand instead of fifty thousand claimed by Dr. Jones, it would not *necessarily strengthen in any way* the hypotheses advanced. More important than numbers is the sufficiency of the data and the soundness of the reasoning upon which the hypothesis rests. If other data involved in the problem are disregarded, the facts insufficient, or the reasoning loose, the conclusions are necessarily unsafe. It was once thought that tuberculosis was inherited and this theory rested on the data furnished by many more than fifty thousand cases. Unfortunately, however, the important fact that tuberculosis was due to a bacillus was not known and was disregarded. The minute this fact had to be considered the conclusions were seen to be due to loose reasoning and based on only a portion of the data and the whole theory fell to the ground. I dwell upon this point in passing because so much has been made by Dr. Jones at different times of the large number of dreams analyzed by the Freudian school.

Third.—Dr. Jones takes exception to the character of the case which was selected for study on the grounds that though "an unusually intelligent and well-educated lady, having a great interest in psychology," she had previously suffered from a dissociation of personality, which, by the way, had been cured. He thinks that hardly any psychopathologist would disagree with the statement that such cases "are exceedingly difficult cases fully to unravel the

psychogenesis of." With this I totally disagree unless he means difficult when studied solely by the Freudian method. If so I will not gainsay it. I do say, however, that a case which can be artificially dissociated and the subconscious tapped as this case can be by hypnotism, abstraction, automatic writing, crystal visions, etc., is an ideal case for the study of dreams and other subconscious phenomena; for these methods allow us to dissect and unravel subconscious processes in a way that is not possible with the ordinary run of cases.

There is one objection to such cases which Dr. Jones has not touched upon, and this is that in them subconscious processes presumably more readily occur than in the ordinary man, and, therefore, generalizations from the findings are risky. It is for this reason that I have carefully guarded myself from extending the conclusions arrived at beyond this individual case.

Fourth.—As to the question of method, Dr. Jones insists that I did not use "psychoanalysis at all" — meaning Freud's psychoanalysis, to which he restricts the term. To this I will presently say a few words, but first let me say I am perfectly willing to let it go at that and let the method stand as my own if any one wishes. The question then resolves itself into three: Is the method a sound one; were all the data essential for the solution of the problems obtained; and were the conclusions logically justified by the data? In other words, is the solution arrived at of the specific problems, the study of which was undertaken, sound? This, after all, is the only question of importance and the answer may be rightly withheld until the results have been confirmed or rejected by further researches. To my mind whether the method of investigation employed was that of Freud or not is entirely a secondary and inconsequential matter. More important is whether the final results arrived at were in agreement or disagreement with those of that investigator.

I don't care a button what method is employed in the investigation of any given problem, provided it does not lead to fallacies in the results. To be fair to Dr. Jones it should be said that his position is, as I understand him, that

the Freudian psychoanalysis is the only method that can give reliable results. This might be logical if it could be proved. But I submit that this is begging the question, whether the results obtained by that method are sound is the very point at issue. I obtained results by other methods (denied by Dr. Jones to be Freud's), which differ from those obtained by him. Which are correct? I can imagine Dr. Jones answering "mine; because yours were not obtained by my method."

Dr. Jones, in his paper, says, "Dr. Prince's curious [sic] finding (pp. 143, 144, 146), that many forgotten memories could be recovered by hypnotism, but not by Freud's method, is thus easily explained. It is well known to every one [!] who has used both methods that far deeper memories can be recovered by psychoanalysis than by hypnotism, a fact which was one of the main reasons why Freud long ago abandoned the use of the latter." I can only understand such a statement on the assumption that Dr. Jones does not speak from the standpoint of wide experience, or of that larger knowledge of hypnotism which researches of recent years and the newer conception of hypnotism have offered us. Our knowledge of dissociations and syntheses has been vastly extended. The hypnotic state has long lost that artificial, cramped, and limited meaning which used to be ascribed to it. I would traverse his assertion by the counter statement that any one who is thoroughly trained in "hypnotic" procedures and versed in their resulting phenomena is well aware that there is no conserved memory which, theoretically, cannot be brought within the conscious field of some one or other of the dissociated and synthetic states into which the mind can be resolved by hypnotic procedures in favorable subjects. Practically, too, given the favorable subject, by the use of various devices this can be approximately accomplished. In making the statement that he does Dr. Jones must be limited in his conception of hypnotism to the minor dissociations and syntheses commonly observed in the average run of office practice. If any one believes with Dr. Jones that he can recover deeper memories by the Freud method let him try the simple experiment of recovering the memories of a strongly dissociated hypnotic

state (e.g., a somnambulistic state) by that method. I would like to see him try even to recover the dreams of those people who do not remember their dreams at all, or the thoughts which occur in the pre-sleeping state; or even many forgotten incidents of life,—for example, the “cat episode” in my subject B. C. A. If this were a sporting article I would like to put up a good fat wager on the result. That Freud long ago abandoned hypnotism, the more is the pity. If he had continued his investigations he would, with his brilliant fertility of mind and imagination, have contributed still more largely to our knowledge of psychopathology and formulated his theories from the standpoint of a richer knowledge.

In saying what I have I would not be understood as belittling the Freud method. It is a valuable method and capable of rendering rich returns. But it is not the only method, nor, in my opinion, is it always an adequate one to completely solve psychopathological problems. The final results, too, become so much a matter of interpretation that the cautious mind will too often refuse to accept them as demonstrated.

Now a few words as to the adequacy or inadequacy with which the Freud method, so far as I used it, was carried out. Dr. Jones strongly condemns my paper on the ground of such inadequacy. I do not for one moment doubt that he or any one of Freud's trained disciples would have carried out the method more skilfully than I did, and it may well be that more could have been desired. But let us see what force there may be in the specific criticisms made by Dr. Jones. No objection seems to be taken to that part which consisted in obtaining the associative memories, but only to the alleged failure to overcome the alleged “resistances” which it is asserted must have been encountered. “When,” he says, “free unforced associations are made the patient inevitably comes sooner or later to an obstacle in the communicating of them, and this is termed a resistance.” Here again we have an example of reasoning in a circle, of begging the question. If the Freudian hypothesis be true that every dream is the fulfilment of a repressed wish, and the repressed wish continues to meet with a re-

pressing force which prevents its coming into consciousness, then, as Dr. Jones says, it would be inevitable that the patient would come sooner or later to an obstacle. But suppose the hypothesis is not true, what then? To assume an inevitable resistance is to assume the question at issue.

To this a Freudian would undoubtedly answer: In fifty thousand cases analyzed, or more, perhaps (they are fond of figures), we have always come to a resistance and on this we have founded the hypothesis, not the results on the hypothesis. But it seems to me, at least, plain that whether or not the inability of the patient to communicate any further so-called free associations is due to a "resistance" is a matter of interpretation, if we are to give to the word any definite meaning whatsoever. We are asked to accept as an article of blind faith the interpretations put upon concrete psychological phenomena in a multitude of varying cases by a diversity of observers of good, bad, and indifferent capacities. This matter of resistance is so inextricably interwoven with the larger hypothesis of which it is a part that I cannot go into it here. Whatever be the truth regarding "resistance" I am compelled to believe that Dr. Jones has read into my paper much more than is to be found there. "Dr. Prince," he says, "repeatedly says (pp. 173, 177, etc.) that he never encountered any resistance." I have reread the paper and have been able to find the word resistance only once, and in the following sentence (p. 173); "In this dream, as in the others, we find no 'unacceptable' and 'repressed wish,' no 'conflict' with 'censoring thoughts,' no 'compromise,' no 'resistance,' and no 'disguise' in the dream content to deceive the dreamer,—elements and processes fundamental in the Freud School of Psychology." In this sentence the word obviously has no meaning and is out of place. Its use was plainly an error of phraseology and should have been struck out in the proof-reading; for, of course, "resistance," even on Freud's hypothesis, does not appear in the dream, but in the procedure of psychoanalysis or antecedent conditions.

If Dr. Jones has in mind, as well may be, the term "repression," as the equivalent of resistance, I may say the two terms are not by any means synonymous. But letting that

point go — a point pertaining to clear thinking and close reasoning — we now have a very definite meaning given to the resistance offered to a subconscious idea and which prevents its becoming conscious; namely, that which comes from voluntary or involuntary repression. To say then, as Dr. Jones does, that the obstacle to which a “patient inevitably comes sooner or later” in the communication of his associative ideas is a resistance of this kind, i.e., due to repression, is an interpretation of the phenomena, and, indeed, is begging the very question at issue.

However, let this point pass also without pursuing it further. I find the words “repress,” “repressed,” or “repression” twelve times in ten passages; of these ten passages *in only two instances was the expression used in connection with psychoanalysis, and in these two respectively it was expressly stated that by the methods used memories of “repressed ideas, which had been so completely forgotten as to be beyond voluntary recall,” were recovered* (p. 143); and that in some instances the source of the *material* for the dreams was found to be ideas which “had their origin in the personal consciousness, but having been repressed had gone into the subconscious (or unconscious) and there flowered” (p. 150). In one passage (p. 169) it is pointed out that previous repressed (though not unacceptable) thoughts appeared in the dream. Of the remaining seven instances, in three (pp. 177, 186) the expression was not used in reference to the dreams which were the object of study; and in four (pp. 151, 173, 177, 188) it was used, not in reference to the procedure of psychoanalysis at all, but to state that *those particular manifest or latent dream thoughts* which were determined by the analysis had not been previously unacceptable and repressed by the subject. This latter was a simple fact of experience easily testified to by the subject herself. Whatever meaning, therefore, be given to “resistance” I can only explain Dr. Jones’s statement, “Dr. Prince repeatedly says that he never encountered any resistance” [in the psychoanalysis] by a misunderstanding of the text. As a matter of fact I did not discuss the evidence for or against “resistance” in the procedure of psychoanalysis, as the paper was not primarily concerned with Freud’s

theories, but was intended to be an independent study of dreams.

But was, in fact, any resistance encountered in the procedure of psychoanalysis? Here we are on the dangerous ground of interpretation. Certainly we came to an end in the flow of associated thoughts in each state of consciousness, including the waking state, and if any one wishes to insist this was due to "resistance" there is no objection, only he must define "resistance." If he means, as surely he ought, resistance coming from a previous repressing force, and not simply an inability to remember or a change in the flow of ideas, etc., then it becomes a matter of interpretation. These latter phenomena may show resistance to recollection, but not necessarily the kind of resistance in question. Dr. Jones has himself insisted on the large part that interpretation plays in his psychoanalysis. "Secondly," he says, "an integral part of the method is the art of interpretation, of learning how, when, and what to interpret, and how to know whether a given interpretation is correct or not." This being the case, what assurance can we have that any given person's interpretation is correct?

I am quite familiar with the phenomena of "break in the flow of thoughts," "signs of emotional disturbance," "a pause followed by an inexplicable change of theme," etc., and I am free to say that these were singularly absent in the analyses. The flow of associated ideas was unusually uninterrupted, and the patient had become quite expert, by practice, in suspending all critical judgment and selection.

It is quite possible that the freedom with which associated ideas entered into consciousness can be attributed to the preparatory mental state of the subject. She entered into the experiments as a scientific study with great zeal and interest. She had determined to abandon all mental reserve, and, come what might, to reveal her inner life because of her own interest in the problems, and to discover whatever psychological secrets there might be. This attitude would almost inevitably diminish "resistance" if it had previously existed. I know that a Freudian will scoff at this statement because it is contrary to his hypothesis. It is a fact all the same. Any one who is well grounded by experience in the

influence of conscious processes upon the subconscious knows the extent to which the latter may be modified by the former. It may be observed in various conditions and phases within the field of psychopathology (e.g. hypnotic phenomena). I have made numerous experiments in this problem and particularly in determining the phenomena resulting from "resistance." I have found that this resistance is strongly modified or subjugated by overcoming the previous attitude of mind of the subject. It would be interesting to describe these experiments here, but the necessary limits of space forbid.

Dr. Jones remarks that "if the underlying thoughts were only accessible in the hypnotic state, that is only another way of saying that there was difficulty in their reaching consciousness in the waking state, i.e. there was resistance to their becoming conscious." (I did not say that they were *only* accessible in the hypnotic state; some were and some were not.) But surely Dr. Jones cannot hold that inability to remember in the waking state episodes that can be remembered in the hypnotic state is necessarily due to resistance of the kind we are speaking about. Such a view reduces the whole matter of resistance to an absurdity, as it disregards a vast number of data collected by hypnotic investigations. This is too large a subject to go into here. I would point out, however, that the method employed by Freud in fact makes use of the principles of hypnosis; for the state of abstraction, in which the so-called free associations of the subject are obtained, is in *principle* hypnosis — it is a condition of dissociation with the formation of new syntheses. I say so-called free associations, because when the attention is concentrated on a particular theme the associations are determined by this act. There is no such thing as free associations under these conditions. Space will not permit me to answer Dr. Jones's criticisms of "disguise" and "displacement" as understood by me. I can only say it would not be difficult, even passing over his somewhat careless reading of my text, to refute his objections by referring him to his own writings. As to amnesia and symbolism these are too large subjects to enter upon again.

Before concluding I feel that the time has come to say something on the general methods and attitude of the Freud School of Psychology. I have refrained from expressing myself on this matter up to this time, and I do so now with considerable reluctance, as I dislike to enter into a discussion which may be construed as personal criticism, however far that may be from my intention. In all scientific investigations the one aim by which all should be actuated should be the desire to discover the truth, let it be what it may, and anything that savors of personal criticism should be deprecated. I have no sympathy with those who resolutely refuse to examine the Freudian psychology because of the consequences to which that psychology may lead. If these consequences are true they must be accepted whether pleasing or displeasing. If, however, a theory, when carried to its logical and ultimate consequences ends in a *reductio ad absurdum*, the argument based on this fact is a fair one. On the other hand, the disciples of Freud in private and public have declaimed so strongly and sometimes so effectively against the incompetency and lack of knowledge of their critics that one is compelled to examine the pretended deeper knowledge of the Freudian expounders.

On the surface this new psychology may seem to be very deep. It seems to me, however, as I view it, and I say this with reluctance, that so far from being deep it is shallow and restricted. The methods and reasoning, it is true, pursue certain lines of inquiry with great minuteness; they delve deeply into the behavior of certain phenomena, and, so far as this is the case, the researches are penetrating and instructive. Too great praise cannot be bestowed on the effort of the originator of this psychology to discover the mechanism by which various phenomena are produced, and on the emphasis which has been given to the part which antecedent mental experiences play in their production. For this alone the name of Sigmund Freud will always hold an honorable place in medical and psychological science; it may be that the future will confirm many of his theories in detail.

But in the pursuit of these researches there has been too great a disregard of large numbers of facts, of psychopathological data which have been accumulated by the patient

investigations of other observers. It is much as if a bacteriologist had confined his studies to the investigation of a single bacillus and had neglected the great storehouse of knowledge acquired in the whole bacteriological field. For this reason the "new psychology" seems to me narrow. Amongst the writings of those who have accepted the Freudian theories one looks in vain for evidence of personal experience (as distinguished from book reading) with a wide range of psychical phenomena and of that *broad* knowledge which can only come from such personal experience in the whole field of psychopathology. One looks in vain for reference to the large number of well-known phenomena of psychopathology, of mental physiology, of the multi-form subconscious phenomena to be observed under artificial, pathological, and quasi-normal conditions, which must be taken into consideration in any attempt to establish general laws. One also looks in vain for evidence of that long and sustained training in the study of phenomena of these kinds — a training which science demands of its votaries. There are certain fundamentals in psychopathology, as in every other branch of science, which must be the ground work of advanced research.

The consequence is that the believers and unbelievers do not stand on common ground, do not speak from common knowledge.

Another difficulty which the unbelievers have in accepting the teachings of the "psychoanalysts," as they are beginning to style themselves, is the loose reasoning by which the latter interpret their facts. We do not question their facts. We are ready to accept substantially every one of these facts as revealed by psychoanalysis. But when it comes to interpretation, to reasoning from effect to cause, there is a painful absence of that close and sustained reasoning, of consideration of all possible causes and explanations which sound logic requires. One opens a work setting forth the results of psychoanalysis in a given case; one reads with unfeigned delight the facts as they are disclosed, and then one is suddenly repelled by the loose reasoning by which an attempt is made to fit the facts to the universal concepts which dominate the school. One accustomed to the close

reasoning of science cannot avoid the feeling of shock which is experienced from such methods.

The fact is, as Dr. Bernard Hart, one of the most logical and sanest of this school, has pointed out, the Freud psychology is only a concept by which it is sought to explain certain psychological phenomena. But, I would insist, whether this universal concept is adequate can only be determined after all known phenomena have been taken into consideration and compared. This, I insist, in spite of all protestations to the contrary, has not been done. When one takes up, almost at random, the literature of the expounders of the Freudian psychology, one finds dogmatism in the place of tentative exposition. One is almost overwhelmed by the frequency with which such expressions as "proved," "established," "well known," "accepted," occur. These and other dogmatic expressions oftentimes appear sprinkled over the paper as if shaken out of a pepper-pot. Such expressions take the place of "theory," "possibility," "probability," etc., to which we are accustomed in progressive science, and make it all the more difficult for unbelievers to embrace the faith. This cocksureness of youth brings only the smile of amusement to the older and more philosophical reader, but to the younger it seems undoubtedly to smack of arrogance.

I have before me now a paper by a well-known expounder of Freud, sent me by another distinguished disciple for my edification. It is one approved of also by Dr. Jones. I say this to show that it is by no unsophisticated and unacceptable disciple. Notwithstanding a rather beautiful analysis of the facts which commands my admiration, after studying it carefully, I cannot help being repelled by the looseness of the thought, the assumption as facts of what can by their very nature be only theories, and the general inadequacy, from the point of view of the principles of logic, of the conclusions. I can only say that the mind that accepts such interpretations as facts, and the mind that rejects them can never meet on common ground.

If these general statements be justified, the apparent paradox needs to be explained, because amongst the expounders of "psychoanalysis" are to be found as able minds as

there are in any department of medicine. The explanation, I believe, is to be found in the *attitude of mind* of those who have accepted the concepts of this new psychology. These concepts have a peculiar fascination for many minds. From the fact that they offer an explanation of human thought and conduct, and the methods seek to penetrate within the hidden depths of human nature, to unravel its mysteries, and to lay bare the unsuspected motives which lie behind the apparent motives that determine conduct and thought, the psychology has for some a resistless attraction. It is difficult for me, too, not to feel it. The result is that once having accepted the concepts as true they become almost a faith. There develops an attitude of mind which finds it easy to explain the mental phenomena in each individual case by the concept. The concept being accepted as true, it easily explains any specific phenomenon; it is no longer necessary to test, to compare, to sift every other possibility in each given instance. A mass of symbolisms being accepted as representations of specific thoughts, whenever these symbolisms appear they are used to explain the underlying thoughts, however slight the evidence in the given case.

We see the same tendency in every science. In medicine, for example, to-day we accept the concept that locomotor ataxia is invariably due to a certain infectious disease. Hence, whenever we meet with locomotor ataxia we assume previous infection, although there may be no evidence thereof at hand in the given case. This, in this particular example, may be justifiable, yet to-morrow some other additional cause of this spinal disease may be demonstrated. When this attitude has been assumed it becomes no longer a question of weighing the evidence in each individual case, and every phenomenon is readily explained by the concept.

The assumption of this attitude of mind is not rare with scientists, as with other well-trained minds in other departments of human experience. It is particularly liable to be adopted in dealing with psychological and somewhat mystical phenomena, which are not subject to objective examination as in the materialistic sciences. We see extreme illustrations of this in those able scientists who have accepted

the spiritualistic hypothesis to explain mediumistic phenomena. Once the hypothesis has been accepted the phenomena become readily intelligible. We see the same apparent paradox in those able ideal minds who have accepted the concepts of Christian Science; disregarding all other possible explanations of psychological phenomena, they, of course, readily explain them by their own peculiar dogmas. It seems to me that the Freudian psychology has become a cult or a philosophy rather than a science. It has attracted a large number of adherents and I look to see their further increase. I see no reason why the number should not increase to indefinite proportions.

In saying what I have, I have been actuated by no spirit of unkindness or hostility to the hypotheses of this new school, or lack of sympathy with the attempt to explain the mechanism of mental phenomena. On the contrary, I believe the hypotheses should be tried out and I welcome their investigation and exposition. Among the disciples of the school I count some of my best friends for whose talents and intellectual capacities I have the profoundest admiration and behind whom I am glad to place myself in inferior rank. But so much complaint has been made of the unwillingness of the unbelievers to accept the concepts of this psychology; this unwillingness has been charged so often to our lack of knowledge, our misunderstanding, our incompetence, and our prejudices; the claim of being misunderstood has so continuously been made until it has almost degenerated into a dirge, that I feel that the time has come to state frankly and fully the real reasons for the unwillingness of the unbelievers to be converted. As the "psychoanalysts" teach, with frank confession—the method of "catharsis"—a better understanding on both sides will be reached. Let me say in ending that I do not wish to appear to deny the whole psychology. There is undoubtedly much that is sound, much that is valuable in it, but I endorse the following words of one of its keenest expounders to whom I have referred above, Dr. Hart: "On the other hand, some of Freud's work has been carried out by methods which do not altogether harmonize with the requirements of modern science. He has built up enormous structures upon bases which have

not been adequately established, and formulated wide-reaching generalizations from a comparatively *small number of facts*. He may be said to have the genius rather of the poet than the scientist. In all his books are ideas which astonish by the intensity of their illumination, and which inevitably arouse an answering thrill of conviction. *But when he attempts to demonstrate their validity, the facts often seem insufficient and the deductions unconvincing.*

The need of the moment is — not the enthusiasm of the disciple who builds the structure ever higher, not the indiscriminating attack of the *a priori* opponent — but the cold criticism of the impartial investigator, who will examine the foundations with every care, and estimate the justification with which each stone has been laid upon another.*

Dr. Jones ends his paper with the statement, that my study “in no way invalidates my [her] previous statement, that up to the present no one who has taken the trouble to acquire the psycho-analytic method has failed to confirm Freud’s theory in all essential particulars.” To this frank statement I would make an equally frank counterstatement: No one who has shown by his writings that he is thoroughly trained in and conversant from first-hand knowledge with all the phenomena of abnormal, experimental and functional psychology has accepted Freud’s theory.

*“The Psychology of Freud and His School,” *Journal of Mental Science*, July, 1910.

RAYMOND — HIS LIFE AND EXAMPLE 1844—1910

BY WALTER B. SWIFT, M.D., BOSTON

IN the death of Prof. Fulgence Raymond we meet the passing of one of the great scientists of France — great in having realized unusual attainments in a rise through merit from meager and small beginnings; great in his numerous contributions to the field of neurology. Born Sept. 29, 1844, at St. Christophe, he left an active life of boyhood with nature at the age of seventeen and studied in the Veterinary School at Alfort. Then fired with a higher ambition he pursued a regular academic course, which was followed by the study of medicine in Paris. He received his “doctor” with distinction in 1876, and then follows a series of successes; he was made interne under Charcot and Vulpian; in 1877 Chief of the Clinic, and in 1880 a member of the Faculty of Medicine.

When Charcot died on August 16, 1895, Raymond was then considered by the Medical Faculty as a man of the first rank, and granted the important post of successor to Charcot at the Salpêtrière — an honor equal to that bestowed only recently upon Marie when he was made Professor of Pathology. He set out at once to enlarge the laboratories of this great poorhouse of Paris, also made new laboratories and brought the equipment up to the requirement of modern science and opened them to French and foreign workers.

His best contribution to medical literature is his “Ten volumes of clinics on all parts of the nervous system.” Other notable contributions were upon anatomy, hemi-anæsthesia, studies in hemichorea, symptomatic tremor, bulbar and cerebral localization of the trigeminal, facial, and hypoglossal nuclei, muscular atrophy, tabes, Freidrich’s disease, and systemic sclerosis of the cord. He published several works in conjunction with Janet.

He was highly esteemed. He was decorated by the Legion of Honor, where at one time he was an officer; he was made Professor of Neurology in the Medical Faculty of

Paris, a member of the Academy of Medicine and of other learned societies.

I saw him only last July actively at work still, and personally he was a man of heart and character, simple in dress and ways, modest, genial, and cordial. He was then making his visits as usual in the Salpêtrière, a poorhouse of some six thousand inmates. Study with him was free. Under his laboratory chief, Dr. Lehrmitt, one could start almost innumerable neurological researches, and his laboratory was considered richer than that of Déjèrine.

He married Madame Moreau and lived in the winter season in one of the beautiful Parisian residences on Boulevard Hausman. The summers were spent in his Château la Plauche, in Andille, where he died in November last, of angina, and where so many of his pupils were the recipients of his genial hospitality.

ABSTRACTS

ZENTRALBLATT FÜR PSYCHOANALYSE. MEDIZINISCHE MONATSSCHRIFT FÜR SEELENKUNDE. *Herausgeber Prof. Dr. Sigm. Freud. Schriftleitung, Dr. Alfred Adler, Dr. Wilhelm Stekel.* (Bergmann, Wiesbaden.)

THIS new journal is to serve as a supplement to the *Jahrbuch für psychoanalytische und psychopathologische Forschungen*. (See JOURNAL OF ABNORMAL PSYCHOLOGY, Vol. v, p. 89.) It will publish short contributions on psychoanalytic questions, together with abstracts of articles published elsewhere, both in support of and against the Freudian theory. Its size is exactly that of the enlarged JOURNAL OF ABNORMAL PSYCHOLOGY. The contents of the first number are as follows:

Original Articles:

1. FREUD. *Die zukünftigen Chancen der psychoanalytischen Therapie*. This paper, which was read at the last psycho-analytic congress, reviews the probable lines along which future progress is to be anticipated. Without having any illusions as to the resistances and difficulties in the way of general acceptance of his theory, Freud is confident that they must in time be overcome, as they have in previous movements where reason has ultimately forced its way through affective obstacles. He indicates the directions in which further knowledge of technique, etc., is needed, and makes a series of most interesting suggestions as to the probable effect on the prevalence and nature of the neuroses that may be expected to follow a more general recognition of the causative factors and mechanisms of these.

2. ALFRED ADLER. *Die psychische Behandlung der Trigeminusneuralgie*. The greater part of this paper is taken up with a novel and stimulating presentation of the author's contributions on the roots of neurotic disturbances, which he largely traces to psychical hermaphroditism, and on the relation between organic defects and psychical occurrences. In three cases of trigeminal neuralgia he has found the condition to be based on a uniform psychical structure which is amenable to psychotherapeutic influence, and he makes the suggestion that a great number of these cases are really of psychogenic origin, and not due to pathological alterations. The attacks of pain are replacements of repressed outbursts of anger.

3. OSKAR PFISTER. *Zur Psychologie des hysterischen Madonnenkultus*. The author, a Zurich clergyman, relates the analy-

sis of a young man in whose mental life the cult of the Virgin Mary played a great part, and adds a number of general remarks on the erotic and incestuous basis of religious adoration. "Auch wo hysterische Symptome fehlen, wird sich die unglückliche Liebe gerne zur himmlischen Jungfrau flüchten, die als Gottesmutter auch für die entbehrte Mutter Ersatz bietet. Bald bildet der Mutter,—bald der Brautkomplex das stärkere Motiv. In den mir bekannt gewordenen Fällen spielte aber auch ausnahmslos ein Vaterkomplex mit, der verhinderte, dass sich die gestaute Erotik zur Gottesminne sublimierte." The practical dangers of an excessive erotic fixation on heavenly persons is pointed out.

Communications:

1. WM. STEKEL. *Der Neurotiker als Schauspieler*. The author discusses the significance of the unusual interest so many neurotics take in the theatre and in acting, about which they very frequently dream. He connects it with their anxiety that they will not reach a given goal, will be just too late for the train, will never get to the end of their task, etc. The explanation lies in the tendency of the unconscious to present dramatically various phantasies that serve the purpose of the neurosis; the theatre usually represents the parents' house.

2. STEKEL. *Ein Beispiel von Versprechen*. A striking instance is given of an almost incredibly over-determined double lapsus linguae, the analysis of which opened the way to the recognition of unexpectedly important unconscious thoughts.

3. FREUD. *Beispiele des Verrats pathogener Phantasien bei Neurotikern*. Two short examples of a patient betraying pathogenic phantasies by projecting them on to a third person to whom he ascribes them.

4. FREUD. *Typisches Beispiel eines verkappten Oedipus-traums*. A pretty instance of a dream in which the actual relationships of waking life were reversed, and in which Oedipus wishes of both the present time and of childhood found their expression.

5. STEKEL. *Zur Differentialdiagnose organischer und psychogener Erkrankungen*. An account of two cases of organic nervous disease, showing principally psychical symptoms, with some general remarks on differential diagnosis.

Abstracts and Reviews:

Thirty-one books and articles are reviewed, some at considerable length. In conclusion a number of quotations bearing on psycho-analysis are given from various poets and writers, and notices inserted of meetings of psycho-analytic associations.

ERNEST JONES.

CHRONIC AND RECURRENT HEADACHES. NEUROLOGICAL ADVANCES IN THEIR DIAGNOSIS AND TREATMENT. By *Tom A. Williams, M.B., C.M.* (Edin.), Washington, D. C. (*Charlotte Medical Journal*, January, 1910.)

(1) The author excludes from consideration the headache from ocular strain, having nothing new to add. The relationship is discussed between typical migraine, and the irregular headaches which occur in *petit Brightism* and states of high blood-pressure. Allusion is made to recent comparisons between migraine and epilepsy. Toxicosis is the basis of all three conditions, as is shown by a leucocytosis preceding the convulsive attack and the increased urinary toxicity which follows it. The periodic character of the symptoms conforms to a natural rhythmicity of metabolism, the exaggeration of which may be termed *cyelothymia*, a state in which some psychoses seem to originate.

(2) Even in organic new growths this periodicity occurs, as students of cerebral tumors know; for even in these, headache may disappear for weeks at a time. In these cases the cause of the headache is high intradural tension. It can be detected by ophthalmoscopic observation of the papillœdema, which it causes; but neither this sign nor the symptoms will tell us that a growth is present; for cerebral œdema can produce all the symptoms of neoplasm. A study of vascular tension and of the urine may, however, determine a diagnosis. Even if a growth cannot be localized, intradural pressure must be reduced at once to save the eyesight. Repeated lumbar punctures will accomplish this; but it is safer and more effective to remove a flap of cranium from under the temporal muscle.

(3) If headaches are purely toxic, psychic perturbations nearly always precede the actual pain, sometimes for days. By detecting these, the physician can forestall the headache, and save much distress to, and much increase the working capacity of a patient who has a tendency to them either constitutionally or from unhygienic environment. In this way, every case of chronic non-organic headache, even if true migraine, can be cured for all practical purposes, as Mercier states.

From the foregoing types it is essential to be able to distinguish the so-called "neurotic" headache, for metabolic disorders are common in neurotic people. Psychogenetic headaches, however, are quite different from toxicogenetic. One kind is rather a distress,

which the patients declare to be less supportable than actual pain. Strict anamnesis reveals sensations of weight, emptiness, expansion, etc. Indeed the description is often quite figurative; because the morbid sensation is unlike ordinary experience. It is a cenesthopathy, having to do perhaps with autonomic or protopathic sensibility. Generally an episode among plaver symptoms, it may disappear during general psycho-therapeusis; but when monosymtomatic, it is often incurable.

(4) Like the somatic forms, it has to be differentiated from the induced headache of hysteria, and the simulated headache of the malingerer or seeker of sympathy, the latter of which are common, headache being a current conventional lie. Produced and removed by suggestion, the former conforms to that to which we should now limit the term hysteria. It is easily curable; and the tendency to its recurrence can be removed by appropriate training.

(5) This criterion alone should distinguish it from the headache of cerebral tumor; but knowledge of this fact is not current, for Cushing declares that nearly every case sent to him with cerebral tumor has previously been diagnosed hysteria, either on account of general nervousness or because of the inversion or interlacing of the visual fields, for red and blue, which the textbooks still state to be stigma of hysteria. This is incorrect; for it is a sign of high intradural tension, and often appears before papillœdema.

(6) Thus, no physician should try to dismiss a headache as imaginary, even after determining its pathogenesis; for psychic disorders require treatment; and all headaches are warnings of disease of body or mind, the source of which should be attacked, and not the headache, which is a mere symptom. As the case may be, our therapeusis should be dietetic, surgical, or psychic, and, of course, hygienic; pharmacodynamics are rarely the indication.

AUTHOR'S ABSTRACT.

WUNSCHERFÜLLUNG UND SYMBOLIK IN MÄRCHEN: EINE STUDIE. *By Dr. Franz Ricklin.* Leipzig und Wien, Franz Deuticke, 1908.

THIS extremely instructive and interesting monograph forms the second of Freud's series of "Die Schriften zur Angewandten Seelenkunde." Following very carefully and intelligently the theories of Freud, Ricklin made a painstaking study of the psychology of the fable and maintains that its mechanism is analogous

to that of a dream, hysteria, and imaginations of the insane. Symbols usually sexual and wish fulfilment play an important and active role in the fable. Many illustrations are given to prove his thesis which is presented plausibly and intelligibly. The author remarks, "In psychiatry and allied sciences has recently a battle been waged for and against Freud's theories and investigations. I consider myself happy to have come across such beautiful and attractive material, with which I am enabled to carry a weapon in the hand in this struggle." This contribution is of great value and interest to race psychology and psychopathology.

M. J. KARPAS.

BOOKS RECEIVED

A TEXT-BOOK OF PSYCHOLOGY. *By Edward Bradford Titchener.* New York, The Macmillan Company, 1910. Pp. xx + 565. \$2 net.

THE ESSENTIALS OF CHARACTER, A PRACTICAL STUDY OF THE AIM OF MORAL EDUCATION. *By Edward O. Sisson, Ph.D.,* Professor of Education, the University of Washington. New York, The Macmillan Company, 1910. Pp. x + 214. \$1 net.

THE EVOLUTION OF MIND. *By Joseph McCabe,* Author of "Evolution," "Prehistoric Man," etc. London, Adam & Charles Black (The Macmillan Company, Agents), 1910. Pp. xvii + 286. \$2 net.

MEDICAL EXAMINATION OF SCHOOLS AND SCHOLARS. *Edited by T. N. Kelynak, M.D., with an introduction by Sir Lander Brunton, Bart.* London, P. S. King & Son, 1910. Pp. xvi + 434.

DIE PHÄNOMENOLOGIE DES ICH IN IHREN GRUNDPROBLEMEN. *Von Dr. phil. Konstantin Eisterreich,* Privatdozent der Philosophie an der Universität Tübingen. Leipzig, Johann Ambrosius, Barth., 1910. U. 15.

THE JUDGMENT OF DIFFERENCE WITH SPECIAL REFERENCE TO THE DOCTRINE OF THE THRESHOLD IN THE CASE OF LIFTED WEIGHTS. (University of California Publications in PSYCHOLOGY, Sept. 24, 1910.) *By Warner Brown.* Berkeley, The University Press.

REVIEWS

THE CLINICAL AND PSYCHOPATHOLOGICAL ASPECTS OF DEMENTIA PRÆCOX (UEBER DIE DEMENTIA PRÆCOX, STREIFZÜGE DURCH KLINIK UND PSYCHOPATHOLOGIE.) By *Erwin Stransky*. Wiesbaden, 1909.

In a recent contribution, Stransky again returns to his favorite theory of the psychogenesis of dementia præcox. The present unsettled state of the question is shown by the many conflicting theories which have arisen in recent years, the histopathologists on one side of the discussion and the psychopathologists on the other. As I have previously pointed out, pathological anatomy has little or nothing to offer in explanation of the essential cause of dementia præcox, as the present evidence seems to show that the cortical changes found in the disease are of a secondary nature and are not specific for the disorder. On the other hand, the advances of psychopathology, while still conflicting, have thrown considerable light upon the psychogenesis of the condition. In brief, these theories are the narrowing of the field of consciousness (Vogt and Evenson); diminution of attention (Masselon); disintegration of consciousness (Gross); the mechanism of unconscious emotional complexes as influencing the formation of the delusions and hallucinations (Jung); intrapsychic ataxia (Stransky); the analysis of the personality of those individuals who later develop dementia præcox (Hoch); and finally the theory that the disease develops only in those individuals who show a long-continued and unhealthy biological adjustment, and who meet their difficulties in an inadequate manner (Meyer). Many of these points with particular reference to Jung's researches have been touched upon in a previous review (*JOURNAL ABNORMAL PSYCHOLOGY*, Vol. III, No. 2, 1908), and therefore this discussion will be limited to a summary of Stransky's work, which appears to be but little known in spite of its importance.

In 1904 Stransky pointed out (*Zur Auffassung gewisser Symptome der Dementia Præcox*—*Neurol Centralblatt*. December, 1904) that the fundamental disorder in all cases of dementia præcox was a loss of what he termed the inner unity between the understanding and the will. Especially characteristic was the altered relation between the disturbances of understanding and the corresponding states of affect, so that there arose a sort of a sejunction in the sense of Wernicke. To support this theory, Stransky

gave a lengthy analysis of a case of dementia præcox, which presented many katatonic features. In brief, this splendidly analyzed case showed the following disturbances. The patient, who was arrested for petty larceny, was at times stuporous, the talk and writing were scattered and showed shallow and superficial associations, the actions were clownlike and childish, with an automatic repetition of the movements of others. Attempts to use objects ended in an aimless fumbling resembling apraxia. There was no emotional expression, while indecision and helplessness were marked. It was the aimless hesitation in the use of objects and in the execution of orders, together with the emotional dullness, which furnished a typical example of the loss of the inner unity of the mind or intrapsychic inco-ordination.

In reviewing this case, Stransky pointed out, that while the subject seemed to understand many complicated things, yet on the other hand he was quite simple in manner. From the very beginning the most prominent disturbance was in inner unity of the mind and in spite of the prominent superficial apathy, there was no absolute emotional dullness. That the emotions are quite active in dementia præcox and that the so-called emotional apathy formerly thought to be so characteristic of this disease, is merely superficial, has been experimentally proven by other investigators by means of the electrical and pulse reaction tests. The most marked feature revealed by the analysis of Stransky's patient was the aimless and senseless hesitation and the peculiar irrelevant execution of actions. For instance, when the patient was given a key and told to unlock a door, he placed his fist upon his abdomen, looked under the mattress, and finally went through aimless manipulations with the key, without, however, carrying out the requested act.

There was not an absolute loss of the inner unity, but a difficulty and uncertainty in the harmonious workings of all the mental processes. It is this which explains the capriciousness of cases of dementia præcox. Therefore, according to Stransky, dementia præcox consists first in a poverty or superficiality of emotional reactions, and secondly, of an inco-ordination or ataxia, between the emotions and the ideas in consciousness. The disease process is consequently something more than a mere deterioration of the emotions, since, indeed, the latter on close analysis are found not to be deteriorated at all, but active and merely split off from their corresponding ideas. According to this theory there are two psychical groups; the noopsyche, which comprises all intellectual processes, and the thymopsyche, which comprises all affective processes. In a healthy mind, these act side by side, harmoniously

and in unison. As soon as inco-ordination takes place, there is no longer any unison between ideas and their corresponding affects and the condition known as dementia præcox arises. In hysteria the same condition may take place, but here a motive is usually found by means of psychoanalysis. In a dementia præcox, on account of the peculiar blocking of thought, we are unable to penetrate deep enough to find a motive, if indeed there is one.

Now all those peculiarities of speech and action in dementia præcox have more than an ingenious theory of a kind of dissociation of the inner mechanism for will and action to support them. The exact experimental work of Stransky on speech disorders throws considerable light on the entire concept. (See *Ueber Sprachverwirrtheit*.) According to these experimental investigations, when there is a lack of harmony or ataxia between ideas and their corresponding affective processes, there results a superficial stream of thought or superficial associations resembling a flight of ideas. This is particularly liable to take place when the attention is relaxed. In Stransky's experiments, when normal subjects in a state of relaxed attention were requested to make associations at random, without paying any attention to what they said, the productions bore a striking resemblance to the speech productions in cases of dementia præcox. In other words there were numerous repetitions, stereotypes, shallow associations, and newly formed words and jargon. This according to Stransky, was one proof of his ataxia theory of dementia præcox.

Several of my cases of dementia præcox on analysis presented interesting examples of this intrapsychic ataxia. One would suddenly grab a pencil and paper and write meaningless and disconnected words, like "cat" and "Hebrew." Another one spontaneously produced sentences like the following: "China and a flaxon pretty hand — South America Plutus keeps pretty hand for Alladine. I am Rupert of Hentzau. I speak as if in a polyshone. I am anæsthetic, and I said it was a question always at the point of a needle." Another patient, when pressed for a reply to a certain question, would say, "I don't care to answer — talking violent — disease — application — distraction word, deed, and action to the place." The resemblance of these productions to the condensation and neologisms occurring in dreams is certainly striking. These contaminations of speech in dreams was also pointed out by Freud (*Die Traumdeutung*) and Kraepelin (*Ueber Sprachstörungen in Traume*). Jung in his recent monograph on dementia præcox also confirms these experiments of Stransky.

The whole matter is again taken up by Stransky in the monograph referred to at the beginning of this review. Here he lays great stress upon the awkward, constrained attitude of these patients, which is explained as due to an intrapsychic ataxia. This ataxia causes, superficially at least, a defect more marked in the emotional than in the intellectual sphere, and even the shallow thoughts in dementia præcox are an emotional rather than an ideational disturbance. The emotional expression may be entirely at variance with the content of thought, and the dementia præcox patient therefore is often seen to smile or act in a silly manner when he should be serious. The intellect and the fund of educational experience may be disturbed, the memory unaffected, and yet there is no ambition and no emotion, except some silliness entirely at variance with the seriousness of the mental condition. This is intrapsychic ataxia par excellence. It is this superficial emotional indifference which strikes the observer as a profound dementia, yet when certain stimuli break through this emotional indifference one is surprised at the intellectual capabilities of the patient.

Unfortunately, this fascinating theory explains only one aspect of the subject, namely, the emotional indifference and the lack of harmony between ideas and affect. It does not explain the bizarre conduct of these patients or the psychogenesis of their hallucinations and delusions, which had been so well done by Jung and the Zurich School. The basis of the disturbance Stransky believes to lie in an organic disease of the brain.

In a recent extensive monograph (*Die Dementia Præcox und ihre Stellung Zur Manisch — Depressiven Irresein*, 1909) Urstein also accepts the theory of intrapsychic ataxia as explaining the psychogenesis of dementia præcox, this, according to him, leading to a genuine splitting of the personality. He points out how in this disease there is a marked discrepancy between spoken and written productions, as in the cases where the patients write long letters, but are mute as soon as attempts are made to question them. This also is an evidence of the intrapsychic ataxia. He believes that dementia præcox is caused by certain organic changes in the deeper layers of the cortex.

ISADOR H. CORIAT

A FIRST BOOK IN PSYCHOLOGY. By *Mary Whiton Calkins*. New York: The MacMillan Company, 1910. Pp. 399.

A TEXT-BOOK in psychology that is at once comprehensive and comprehensible to the beginner is a rare production. Miss Cal-

kins, however, in her new book, "A First Book in Psychology," has made a good advance in this direction. Throughout the book we get the interesting personal touch without the loss of scientific precision. The author has written the book "in the ever strengthening conviction that psychology is most naturally, consistently, and effectively treated as a study of conscious selves in relation to other selves and to external objects." Another noticeable feature of the book in comparison with the author's earlier work, "An Introduction to Psychology," is the omission of a discussion of "The Science of Ideas." Thus the double treatment had been abandoned "with the intent to simplify exposition, not because I doubt the validity of psychology as a study of ideas, but because I question the significance and the adequacy and deprecate the abstractness of the science thus conceived." Whatever the motive we are glad that such a decision was reached.

The attempt "to embody what seem to be the important results of so-called functional psychology," would not be considered a complete success, perhaps, by many psychologists; but considering the author's manifest predilection for structural psychology, we consider this a fair advance toward the inevitable. In spite of this advance, however, the "old psychology" has not entirely lost its sway. The author informs us that "the method which distinguishes psychology is that of introspection." Experimental psychology and the various branches of comparative psychology are considered as secondary; although they aid "scientific observation in a multitude of ways." But however much we dissent from the author's attitude, the fact that she has persistently applied the introspective method to psychology, viewed from the structural standpoint, has given us throughout a simple, clear, consistent presentation.

The two hundred and seventy pages making up the main part of the book are divided into fifteen chapters. After the usual introductory chapter, the next four are given over to the treatment of perception and imagination. We are led into a study of the subject in a most simple, natural way through the perceptual and imaginative experiences of everyday life. Chapter III analyzes these experiences and gives us the sensational elements. In Chapter IV we are shown how these elements are combined and differentiated, while the following chapter briefly sets forth the bodily reactions to perception and imagination. Attention, imagination, memory, association, and recognition occupy the next three chapters. Chapters IX and X are given to the study of thought as conception, judgment, and reasoning. The remaining chapters are

taken up with emotion, will, faith, and belief, the social consciousness and the religious consciousness.

To the advanced student perhaps the appendix is of greater value. This part contains one hundred and thirty pages, divided into sixteen sections, the first fifteen of which correspond in subject-matter to the fifteen chapters in the text. Section sixteen gives an elementary treatment of non-pathological abnormal psychology. In this part of the book we find a very good discussion of the "physiology of the nervous system and sense organs, as well as a brief discussion of moot points in psychology. Another very valuable part of the appendix is the bibliography given at the close of each section. After reading the discussions of the moot points, one feels that they have not been given as complete a treatment from the various standpoints as one would wish; but the necessary limitations would, perhaps, furnish a good excuse for this deficiency.

The trinity of conscious elements of the older psychology is here met with in a new garb. The sensational elements are given much as usual, save that more emphasis is placed upon the extensity character of the special senses than most psychologists give. The second group of elements are called "attributive elements," and are divided into three classes: the effective elements, pleasure and displeasure, attention and consciousness of realness. The third group, the relational elements, are only partially given. Among those given, we find the "conscious of one, more than one (many); more, less; like, different; connected, opposed," etc.

Most of the analytical work of the book stands or falls with this classification of the conscious elements. For instance, recognition is analyzed into (1) peripheral sensations, (2) verbal imagination, (3) organic sensations, (4) affective elements, and (5) the consciousness of familiarity which consists of the relational elements of "same and past." Emotion consists of (1) effective elements, and (2) organic sensational elements. Thought is composed very largely of relational elements. Instead of the volitional or "conative" elements, which is denied, we find three unsensational elements: (1) "the consciousness of realness," (2) "the consciousness of the future," and (3) "the experiences of linkage or connectedness."

Considering the importance of these unsensational elements of consciousness, we feel that the author has failed to establish their "irreducible" character in a thoroughly convincing manner. The fatal weakness of this view is expressed by the author's frank

confession that "in our study of these relational elements, we are in great part thrown back upon individual introspection — notoriously untrustworthy and on this point especially difficult," and "are thus liable to mistake a relatively simple yet analyzable experience for one which is really elemental." While we do not deny an important value and a certain validity to "individual introspection," we might be puzzled to know whose introspection to accept as authoritative, unless we are pragmatists. If we are told by a careful psychologist that all these so-called unsensational elements are indeed simple experiences, but may, nevertheless, be analyzed into sensational elements, are we not just as much bound to believe this statement as the former? Must we not appeal to some other more convincing, not to say safer, method for the solution of these psychological problems?

In the chapters on the social and religious consciousness we find an interesting departure from the usual text-book in psychology. On the whole the book is well worth reading, even by those who do not agree with the standpoint taken by the author. The appendix will be found especially useful as a condensed reference work.

HARVEY W. COX

THE SEXUAL LIFE OF WOMAN. *By E. Heinrich Kisch.* Translated by M. Eden Paul, M.D. pp. 686. Rebman Co., New York, N.Y.

THIS subject both in its normal and abnormal aspects (particularly the latter) has been so much written on in the last ten years, that the reviewer confesses to a prejudice at seeing a new work appear. Not that the subject is unimportant, on the contrary there is no doubt that the sexual life of the woman is one of the most important factors in her life, and a knowledge of its physiology and pathology in the individual case would be a great help. But the purpose with which a good many of these books have been written seems far from the right one. There is a lack of the scientific spirit which alone would justify their publication. Many are mere compilations of abnormal cases given with a wealth of detail which is only a stimulant to a prurient curiosity, and serves no useful purpose. The morbid spirit of confession has been exploited to give full and perhaps sometimes imaginary life histories from a sexual standpoint.

The present work is not open to these objections. It is a very exhaustive treatise conceived in the right spirit, and carried

out with a proper amount of reserve. The opening paragraph will perhaps explain its scope best. The author says: "By the sexual life of woman we understand the reciprocal action between the physiological functions, and pathological states of the female genital organs on the one hand, and the entire female organism in its physical and mental relations on the other; and the object of this book is to give a complete account of the influence exercised by the reproductive organs during the time of their development, their maturity, and their involution, on the life history of woman." He divides the sexual life of woman into three periods: the menarche, or the onset of menstruation and the succeeding years up to full sexual activity; the menacme, the period of culmination of the sexual development when the processes of pregnancy, parturition and lactation occur; and the menopause or cessation of menstruation. Each of these periods is very fully treated, in various aspects, physiological, pathological, and social. Thus under the first head the anatomical changes which take place, the hygiene of menstruation, the diseases of the various organs of the body occurring at this time, functional disorders of menstruation, masturbation, the sexual impulse and its aberrations are all described in great detail. There are most elaborate tables, and the results of countless observations which make the book a mine of knowledge on many interesting and obscure points. Too much space is, however, given to diseases of the pelvic organs which though occurring at this time of life have nothing to do with the sexual element, and could be very well left out. The section devoted to the menacme is open to the same objection. The space devoted to copulation, conception, dyspareunia, fertility, and the determination of sex is amply justified; but the pages which describe cardiac disorders, nervous diseases and digestive disturbances are unnecessary. The book contains one of the most exhaustive and on the whole satisfactory treatises on sterility known to the reviewer. His repudiation of the extreme views of Noeggerath as to the widespread prevalence of latent gonorrhoea in women, and its dire effects, is in accordance with modern teaching.

The subject of the menopause is also well treated. On the whole the book is a good one of its class. It is full of facts, the value of all of which has not been perhaps sufficiently weighed. One gets the impression that the author has tried to unburden himself of all he or any one else knows on the subject.

But his conclusions are on the whole sound, and he has handled these delicate topics with an admirable reserve. It is a valuable book of reference, and concentrates a wealth of facts which show most painstaking research.

F. H. DAVENPORT

PROBLEME ET METHODE DE LA PSYCHOLOGIE DE LA RELIGION. HAROLD HOFFDING. REPORT TO THE INTERNATIONAL CONGRESS OF PSYCHOLOGY, GENEVA, 1909.

PSYCHOLOGIE DES PHENOMENES RELIGIEUX. JAMES H. LEUBA. REPORT, ETC., GENEVA, 1909.

THESE brief reports are concerned more with the task of marking out the general location of religious experience, and less with an intensive analysis of the phenomena in question, a thing which each of these writers has essayed elsewhere. Hoffding's view is characterized by a reaction against intellectualistic conceptions of religion, and an insistence on the affective and conative aspects of life, that is, those aspects of life which have to do with "value" and its appreciation. The pursuit of things which man regards as valuable may assume a number of forms, and the objects of value may range from bodily health and strength to ideal objects, such as beauty and truth. But the pursuit of these "values" does not constitute religion. We get the proper setting for religion and for religious experience only when the fate of these values comes in question, as determined by the real world. It is the feeling awakened when values are considered against the background of existence, i.e., as respects their survival or extinction, which constitutes the religious experience. The belief that values,—those which for any race or individual are of supreme importance,—are not lost from the world, but are, in ways seen or unseen, conserved; the belief that the real world is the home of the development and conservation of value is the essence of religion. The religious experience, as thus viewed, may take a variety of forms; there may be hope or resignation, peace or anxiety; but in any case the dominant feeling will be that determined by the fate of values in their relation to existence. Whenever man is, or believes himself to be, the absolute master of his own destiny, or of that of his values, there can be no question of religion. The condition of religion is the experience of a relative dependence on an order of things standing over against human will and power, and the consequent feeling of a need to assure ourselves that, even beyond the limits of our power, value exists and is conserved. Religion may be, either, the means of

putting to flight anxiety and fear concerning the fate of values in existence, or, by a displacement of motives, religion may itself become the supreme value (mysticism).

Leuba regards his view of religion as standing, to a considerable degree, in contrast with the foregoing. If we take a biological standpoint we shall see that the religious life differentiates itself from the secular life chiefly by the kind of *means* which, in the former, man employs in the struggle for existence, or, in other words, in the struggle for the increase and conservation of those things to which value is attached. It is natural that in this struggle man should make use of all of the forms of energy in which he believes, and which are at his disposal. But we find that man, at an early period, conceives of the presence around about him of beings, ordinarily invisible, and more or less similar to him, that is, of a psychical nature. Probably later he conceives of the existence of a different kind of power, viz., material and physical. Religion, in general, is that portion of the struggle for existence which man wages with the aid of forces (either real or assumed to be real) of the spiritual kind. The historic religions are, on their external aspects, systems of relations, — rites, ceremonies, etc., maintained with one or more powers, which are physical and superhuman, and ordinarily, though not necessarily, personal and invisible. On its subjective side the religious life consists in the states of consciousness which express themselves, either by the above mentioned practices and institutions, or, in the case of passive religiosity, simply by inner movements and actions which are not systematized or made social. Passive religiosity is characterized by the action of these powers on man, while active religion consists in the utilization of these psychic powers (believed to exist); it is that part of the struggle for existence which is carried on with their assistance. Leuba dwells upon the inadequacy of certain attempts to frame the definition of religion in strictly intellectual terms (Spencer, Guyau), or in terms of feeling (Ritchie). Religious life, as all other psychical life, consists, in every pulse of it, of will, feeling, and thought, and while, according to the circumstances, one of these aspects may predominate, we are not thereby enabled to find the essence of religious phenomena in any one of them.

DONALD FISHER.

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