hypnotised, and subject to post-hypnotic suggestions. It was found impossible to make an end of the voices by this method.

No. 3 was a young woman who was much tormented by voices and noises in the ears. She had no affection in the other senses, and was quite sane. Examination showed chronic inflammation of the middle ear.

No. 4, though not the least interesting, is given in too great detail to be here condensed. The subject was a Caucasian Mahomedan, an officer in the Russian service. He suffered from otitis media, with displacement of the bones of the ear. Besides sounds, voices, and music, which persistently tormented him, he had several hallucinations of sight and smell. He regarded these affections in a critical spirit, had no delusions, and in his regiment was regarded as a sensible and intelligent man. WILLIAM W. IRELAND.

1. *The History of Katatonia* [*Ueber die Geschichte der Katatonie*]. *Cbl. f. Nervenheilk. u. Psychiat., xxv, Nr.* 145, *S.* 81.) *Arndt, E.*
2. *A Contribution to the Clinical Study of Katatonia* [*Zur Kasuistik der Katatonie*]. (*Monats. f. Psychiat. u. Neurol., Bd. xii, Heft* 1, *S.* 22.) *Kahlbaum, K.*
3. *The Psychology of the Symptoms of Katatonia* [*Zur Psychologie der katatonischen Symptome*]. (*Cbl. f. Nervenheilk. u. Psychiat., xxv, Nr.* 150, *S.* 433.) *Vogt, R.*

When Kahlbaum published his monograph on katatonia he merely, so far as regards symptomatology, brought together the results of previous workers. This innovation was to give prominence to the principle that *natural* forms of disease should be established by taking into account their pathogeny, entire symptoms, course, and result, and not merely some special symptom or groups of symptoms. Even the principle, however, was not new. Pinel, in his account of mania, described a prodromal period and stages of onset, acme, and decrudescence; while Esquirol expressly stated that "mental diseases, like bodily, have a definite course, with prodromata, onset, acme, and termination." On this principle Bayle and Calmeil described general paralysis, Baillarger *folie à double forme*, and Falret *folie circulaire*. Guislain tried to establish certain elementary forms of mental affection, from which morbid entities were to be built up (and among them described, under the term ecstasy, a state of suspended intellect with muscular spasm). He thought that all mental disease began with melancholia, and that the feelings were first affected, then impulse and passion, and finally thought. Zeller, followed by Griesinger, and especially Neumann, promulgated the doctrine that there is but one natural mental disease, of which the forms of mental disorder are only stages, the earlier being curable, the later not. This is a recognition of the uselessness of previous classifications, and Kahlbaum, in his own classification (1863), tried to show that it was really the method which was at fault, and asserted the great principle above mentioned, *viz.*, that to establish a natural form of disease every factor must be taken into consideration.

As regards the symptoms, the most important group, melancholia attonita, was long considered a variety of ordinary melancholia, of

which Baillarger held it to be merely the most advanced form; and Kieser held that it was simply due to the reflex on the will of morbidly increased feeling. Pinel, however, classed it with idiocy, and Esquirol called it *démence aiguë*. Kahlbaum, on the other hand, denied it any connection with ordinary melancholia, and said that the rigidity of the condition was not of psychic but of motor origin. A tendency to pass into excitement was observed by various authors. Of the other motor symptoms, Guislain described mutism, declamation, mannerism of speech, repetition of phrases, grimacing, impulse, and fantastic actions. He pointed out the unfavourable significance of stereotypy and mannerism, and held the symptoms to be of automatic motor origin. Verbigeration, stereotypy, and mannerism were described by Esquirol and others. R. Arndt described various motor phenomena also, and tried to group the symptoms into a single disease, but placed the condition under the head of chorea, thinking that muscular restlessness, not spasm, was the characteristic feature.

On the basis of these and other observations Kahlbaum built his concept of katatonia. It arose naturally out of his new classification of insanity, published in 1863, which he worked out on the general principle before alluded to; and especially from one form of disease described therein, *viz.*, *vesania typica*. This, when complete, contains four stages, *viz.*, melancholia, mania, "perturbation," and dementia, corresponding respectively to those of increment, acme, decline, and defect; and the stage of perturbation is equivalent to melancholia attonita, which is therefore not a form of disease, but a morbid state. In 1866 he described katatonia in all but name, laying stress on the importance of the combination of mental and motor disorder, under which latter he included not only spasm and catalepsia cerea (between which he held that there was no essential difference), but also others, and especially stereotypy and the mimetic and facial phenomena. The name was given in a communication made in 1869, though it was not until 1874 that the formal description of the disease was published. He defined it as a brain disease running a cyclic course, of which the mental stages are successively melancholia, mania, stupor, confusion, and dementia, but one or more may be absent. In addition, certain motor phenomena with the general character of spasm are essential. It occurs mostly in early middle life, shows slight heredity, and is predisposed to by masturbation, chlorosis, and mental strain. Remissions are rare, but prognosis is favourable. The chief motor symptoms are spasm, catalepsy, mannerism, stereotypy, and negativism, and mutism and verbigeration are especially important. The cases are divided into katatonia mitis, gravis, and protranata. The anatomical basis was held to be a degenerative process, ending in atrophy, but no microscopic evidence was forthcoming. It will be seen that the present conception of katatonia differs very markedly from this original description.

In tracing the history, the influence of another concept, hebephrenia, soon becomes felt. Cases of hebephrenia had long before been described by Esquirol under the name of "acquired idiocy," and by Morel under that of "precocious dementia" (the first occurrence of this term), as well as by others, including Kahlbaum (1863), who laid special stress

upon puberty as an etiological factor. Hecker, however, gave the first thorough description of it under the above name in 1871. He defined it as a disease occurring at puberty (from eighteen to twenty-two years of age), characterised by successive or variable stages of melancholia, mania, and confusion, and rapidly issuing in dementia of a peculiar form (which resembles in permanence the ordinary mental characters of puberty). Heredity he regarded as an unimportant factor, and the hallucinations and delusions as possessing no special significance. Fink, however, insisted on the great importance of degeneracy, whether hereditary or acquired, and relegated puberty to a subordinate position, a contention supported by later writers. He also laid special stress on the termination in dementia, considering the scheme of the course (which was intermittent or remittent) unimportant. The dementia varied in degree, and some cases showed motor symptoms like those of katatonia. Schüle even defined the latter as a hebephrenia with associated spastic neurosis. He distinguished a congenital degenerative acute dementia of puberty, distinct from hebephrenia, to which he gave the name *dementia præcox*, and with Neisser and Rienecker thought that there was some confusion between the former and Sander's "original paranoia." Pick, however, considered hebephrenia to be a variety of dementia præcox, which is a progressive mental weakness commencing at puberty. The concept gained most acceptance in Russia, where several writers handled it; and the consensus of more recent opinion has been to lay increased stress on heredity, less on the time of life (which Daraszkiewicz has advanced to thirty years), and most of all on the terminal dementia. Two distinctions between hebephrenia and katatonia—the time of life and the comparatively slight degree of dementia in the former—having been swept away, the two concepts have finally been grouped together with a third, dementia paranoides, by Kraepelin, under the name "psychical degenerative processes," the three forms being connected by transitions, and possessing the common feature of termination in psychical weakness. He regarded the bad prognosis and the frequency of hereditary degeneracy as the most important characters in hebephrenia, and advanced the limit of age to early adult life.

Unlike hebephrenia, an attempt was made to restrict the boundaries of katatonia by separating from it a number of cases under the name "primary derangement," the characteristic feature of which is, according to Westphal (1876), a primary disorder of ideation without implication of the emotions. The concept accordingly rests upon a prominent psychical symptom, disregarding somatic and etiological relations, and therefore it and katatonia are mutually exclusive.

The subsequent history of katatonia has been one of gradually increasing acceptance of the concept, so far as Germany is concerned. Hecker early gave in his adherence, and although Brosius (1877) only partially adopted the theory and doubted the existence of the disease as an anatomical entity, Jenser (1881) and Neisser (1886) soon accepted it.

The first text-book to describe katatonia was that of Schüle in 1880, but he made it a variety of "derangement," not a separate entity, grouping together melancholia attonita, primary dementia, and "katatonic

derangement" (under which last he included forms of very different character) as "cerebro-psychoses with tension-neurosis." The classification is essentially symptomatic. Later, in 1886, Schüle put down katatonia as a peculiar form of acute hallucinatory insanity (*Wahnsinn*) with motor symptoms, explaining the latter as the result of delusion. In 1897, however, though still refusing to hold katatonia a natural morbid entity, he discarded the psychical system of classification, and adopted one based on general pathology, classing katatonia as akin to hysterical insanity in the slighter form, while the severer is a primary dementia, or a form of periodic psychosis. In 1901 he restricted the term entirely to cases of primary dementia, and considered the essential character to be the whole phenomena of the degenerative process.

The Vienna school strongly opposed the idea of katatonia, owing largely to the attention which they gave to "acute derangement." Thus Krafft-Ebing to the last classed it under the circular psychoses. It is, however, really identical with the form of Meynert's "amentia" called by him "compound amentia," which, beginning as hallucinatory confusion, may end in stupor with verbigeration, stereotypy, mannerism, catalepsy, mutism, etc.

L. Koch (1889) made katatonia an organic psychosis, whereas Sommer (1894) placed it amongst the anatomically unrecognisable diseases. Ziehen in the same year considered it a rare disease, and placed it amongst the "composite psychoses." As he seeks to work out psychiatry on the basis of association psychology, his method is opposed to that of Kahlbaum. All authorities in Germany do not accept the disease; *e. g.*, Wernicke considers it a mere congeries of symptoms. On the other hand, Kraepelin, who in 1889 classed katatonia as a form of "Wahnsinn" (hallucinatory confusion), had in 1893 adopted the clinical standpoint and accepted it as a natural morbid entity arising on a basis of congenital or acquired degeneracy, and ending in dementia. He was also the first to point out its close kinship to hebephrenia, the essential character in both being the tendency to dementia. Finally, in 1898, he grouped katatonia, hebephrenia, and "dementia paranoides" together as dementia præcox. He considers primary derangement, whether acute or chronic, as akin to katatonia, if not to be included under it, and believes that it comprehends all cases of melancholia attonita.

As regards the genesis of the motor phenomena, two main theories have been advanced: (1) that they are due to delusion and hallucination; and (2) that they are of automatic motor origin, being caused, for example, in the case of flexibilitas cerea, by equal innervation of antagonistic muscles, in that of spasm by unequal innervation (Rieger, Roller, and Neisser). Neisser thought mutism due to a high central obstruction, which in verbigeration is broken through by pathological irritation. Cramer ascribed some of the symptoms to muscular hallucination, the sense of a movement being conveyed to the brain, and then followed by the actual movement. Kraepelin is of opinion that the common element underlying motor anomalies is a morbid disorder of will activity.

The concept has not gained so full acceptance in other countries, with the exception of Russia and America. In France Séglas and

Chaslin declared against it, but they took Kahlbaum's original scheme for their starting-point. In England it has not met with much recognition, but has been accepted by Nolan.

Referring to the pathology, it may be noted that Sommer (in opposition to Kahlbaum) found no atrophy of the cortex, but thought that katatonia might arise from various brain diseases—paralysis, tubercular meningitis, and cortical gliosis. Alzheimer found numerous karyokinetic figures and signs of growth in the glia of two cases, along with peculiar ganglion-cell changes.

K. Kahlbaum, by the study of twenty-seven cases from the Frankfurt Asylum, seeks to answer two questions, *viz.:*

1. Is katatonia an independent disease, capable of sharp demarcation? and

2. Is the prognosis unfavourable when marked katatonic symptoms are present?

In this study he brings out a number of interesting points. Fifty *per cent.* of his cases showed hereditary degeneracy (alcoholism in the father in 20 *per cent.*), but there was no essential difference in the disease as it occurred in the cases with and without heredity. The age of onset varied from seventeen to fifty-five, but over 80 *per cent.* were under thirty. Advanced life does not exclude the hope of full recovery. Sixty-five *per cent.* of his cases were women, 35 *per cent.* men. In contrast to the results of other observers, the number of manual labourers was found to preponderate over that of members of the cultured classes. He is inclined to consider onanism either as a symptom of the disease or merely as an indication of degeneracy. In nearly one third of the female cases the disease began after confinement or abortion. In two cases it followed influenza, and both recovered. In about 40 *per cent.* of the cases the acute onset occurred within the first eight days, and in half of these within the first two or three. A distinct feeling of impending illness preceded in some cases; in others a melancholic stage, lasting several days. In the rapid cases the disease soon reached an acme, taking the form either of acute confusion with violent excitement, or of katatonic rigidity with negativism and stereotypy. On the other hand, 40 *per cent.* of the cases showed a prodromal stage of four to six weeks, and in these cases a paranoiac tone prevailed, which had no prognostic significance. This tone prevailed still more in the remaining 20 *per cent.*, which took months to develop the disease fully. In 50 *per cent.* the prodromal stage passed rapidly into stupor; in 40 *per cent.* stupor alternated with excitement, or a long stage of excitement was followed by stupor; while in 10 *per cent.* no stupor of long duration was present, but the katatonic symptoms appeared during the excitement. Distinct katatonic attacks were several times observed, taking the form either of short fainting fits with tonic spasm and froth on the lips, or of a seizure resembling hysteria. Amongst the somatic symptoms, irregular and slow pulse was observed at the commencement, and cyanosis of the skin was marked in many cases, while other vaso-motor phenomena were frequent during the stupor. One third of the cases recovered completely, and about 15 *per cent.* more incompletely, so that the prognosis is not necessarily unfavourable.

The katatonic symptoms are not in themselves characteristic of any

one disease. Still, the establishment of katatonia as an independent morbid entity is thoroughly justified, but its limits must at present be described as extremely ill-defined.

Starting with the view of Sommer and Kraepelin that the various katatonic symptoms (catalepsy, echolalia, echopraxia, negativism, stereotypy of deportment and movement, persistence of ideas, mannerism and impulse) have the same psychological basis, *R. Vogt* seeks to reconcile and enlarge upon the explanatory principles of these two authorities, *viz.*, stereotypy and suggestibility. He calls to his aid the theory of James as to the action of the will (the function of which is, according to this author, to remove from consciousness all ideas of action except one, which, being left alone, inevitably produces the corresponding action), and the doctrine of Müller that the physiological processes which accompany a content of consciousness persist after that content has sunk beneath the threshold of consciousness, until a new content enters the field; and that so long as they last the original idea can very readily be excited again. In katatonia the power of persistence of the psycho-physical functions is especially great; hence the tendency to continuance or repetition of a recent innervation. The oftener the same psychical process is repeated, the greater the ease with which it is reproduced; hence stereotypy. Suggestibility, however, demands, in addition to increased power of persistence, a narrowing of consciousness, as in hypnosis. The idea of position caused by raising an arm, for instance, causes a maintenance of the arm in position only so long as no other idea of position enters consciousness. For the same reason any chance erratic stimulus, entering consciousness, may issue immediately in impulsive action. Negativism may be explained by a specially high tendency to persistence, and so on.

Increased power of persistence, and narrowing of consciousness, are parallel phenomena, and suffice to explain all katatonic states.

W. R. Dawson.

---

6. Treatment of Insanity.

On the Means of allaying Excitement in the Insane [*Die anwendung von Beruhigungsmitteln bei Geisteskranken*]. (*Published by Carl Marhold, Halle-a.-S.*, 1903.) *Pfister, H.*

In this short treatise the author deals systematically with the various means at our disposal, both within and outside the walls of the asylum, for combating the symptom *excitement.* His teaching will appeal more directly to those upon whom may be forced, for various reasons, the thankless task of endeavouring to treat the mental case in the private dwelling, but he does not fail to urge the advantage which, in the great majority of cases, the asylum offers.

Naturally, the first object to be attained is the removal of the exciting cause, as, for instance, when poisons such as alcohol, lead, mercury, morphia, cocaine, etc., underlie the manifestation. The like endeavour must hold in those infections, such as malaria, syphilis, pyæmia, in which we possess more or less power of control over the poison.