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Part I.—Original Articles.

THE LATAH REACTION: ITS PATHODYNAMICS AND NOSOLOGICAL POSITION.

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I. INTRODUCTION.

FEW mental diseases have attracted the attention of medical men working in outlandish parts of the world more than Latah. This is due, not only to its intrinsic interest, showing as it regularly does the unusual symptoms of echolalia, echopraxia, and automatic obedience, but also to its remarkable geographical distribution. This illness was described by travellers to the Malay Archipelago in the latter part of the nineteenth century, but very similar reactions were later found to exist in other lands, known to the native peoples by other names. The term "Latah," however, is the best known, and as the common features between these various reactions became apparent, it has been used as an inclusive name for them all. It is to-day employed with much the same connotation in the French, Dutch, Italian, and English literature, but the discussion of its nature betrays inadequate understanding, attempts at its nosological classification remain unsatisfactory, and speculations as to its aetology continue to be somewhat fanciful.

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The reason for the unevenness of the contributions to the study of this reaction lies doubtless in its occurrence remote from centres of modern civilization. It is only within the last decade or two that it has received the (rather scant) attention of trained psychiatrists, in contrast to ethnologists and doctors with anthropological interests; but the psychiatrist is, as a rule, unschooled in the concepts and methods of the anthropologist, and sometimes becomes the victim of common prejudices when he studies psychological phenomena in ethnic groups far removed from his own.

Apart from "latah," the reaction is known by a motley of names. Those of purely ethnic interest are: *Miryachit* (Hammond), *Amürakh* (Czaplicka), *Meriatschenje* (Tokarski), *Olonism* (Shirokogoroff), *Ikota* (Schrenck), *Imu*, *Imubacco*, *Toconibacco*, *Young-dah-hte* (Manson), *Bah-tschi* (Scheube), *Yuan* (Bastian), and *Malimali* (Musgrave, Sison). These are all local names used in different parts of Siberia, Hokkaido and S.E. Asia, while in other parts of the world where the reaction is found, e.g., on the southern fringes of the Sahara, there is no local term for it. Other names by which the reaction has been described are: *Schreckaffekt* (Moreira), *Echomatism*, *Mimicismus* (Castellani), and *Arctic Hysteria* (Hammond), all of which have psycho-pathological or psycho-dynamic connotations. In addition, this subject has in the past been linked with *Convulsive Tics* (de la Tourette), to which latah is quite unrelated; and also with *Jumping* (Beard), with which latah is definitely identical, as we shall show.

The term *lâtah* conveys to the Malays a curious behavioural quirk, or aberration, normal, and yet not quite so. Its derivation is obscure. O'Brien (1883*a*) remarks that the Malay use of the term is wide; he mentions Clifford's suggestion (1897) that it means "ticklish," a suggestion very meaningful, as we shall see, for our understanding of the psychopathology of the reaction; and he himself suggests that it is derived from *melata*, meaning "to creep," adding slyly, but not without psychological insight into the nature of the illness, that the derivation would commend itself "chiefly to those classes of English-speaking ladies who connect nervousness with 'the creeps'." Gimlette and Thomson (1939) in their *Dictionary of Malay Medicine* say that metaphorically *latah* means "love-madness"; this points to the sexual connotation with which the term is coloured. The use of it to describe an anomaly of behaviour probably dates from the early years of Islamic expansion into Malaysia in the fourteenth or fifteenth century, as evidenced by old Malay manuscripts.

II. The Literature on Latah.

Previous contributions to this subject may be divided into two periods: (*a*) The period up to the second decade of the present century, characterized by descriptions of the reaction as found in different parts of the world, and efforts to bring these together into a common syndrome, with only feeble attempts to explain its underlying basis. (*b*) The modern period, when more serious attempts were made to arrive at a psychopathological understanding of the illness.

(a) *The Early Period.*

The earliest mention of latah in Malay literature is in an old manuscript, the *Hikayat Koris*, wherein a queen is described as "falling into a fit of *latah*, and behaving like a lunatic, not knowing what she was doing" (Gimlette and Thomson, 1939). An early description of it was by Logan (1849), who communicated it to the *J. of the Indian Archipelago* in Calcutta.

In 1880 Beard first drew attention to the "Jumping Frenchmen" in Maine in an address to the American Neurological Association. The following year, Gilles de la Tourette, who, while studying under Charcot, had been formulating his syndrome of "Convulsive Tics," translated Beard's communication into French (Tourette, 1881). O'Brien (1883*a*, *b*), working in Malaya, wrote on latah to a local journal, declaring it to be a "common but mysterious" malady; not being a medical man he refused to speculate on its nature, but nevertheless his papers are of scientific value, and remain among the best on the subject. Hammond (1884), a New York neurologist, first drew attention to *Miryachit*, basing his account on the reports of three U.S. Naval officers who had travelled from Korea across Siberia to Europe. With great perspicacity he compared it to "somnolentia," "sleep-drunkenness" and "*schlaftrunkenheit*." He was aware of Beard's report, and thought that

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miryachit was " identical " with " jumping," though he curiously maintained that the former required an example as a stimulus, and the latter only an order.

From this point Tourette (1884) took up the subject again, and boldly (but mistakenly) insisted on the identity of his syndrome of convulsive tics with *miryachit*, " jumping," as well as latah (which last disease he mentioned in his paper of 1885 to have been described in the *London Medical Record* of 15 August, 1878). While reporting that several such cases were known to both Charcot and himself, he refused to offer an interpretation of this " bizarre state," and stressed the need for further observation and for approaching it without preconceived ideas. Neale in the same year also claimed that *miryachit* was indentical with latah. The following year Tourette gave a full description of convulsive tics (" *une affection nerveuse caractérisée par de l'incoordination motrice, accompagnée d'écholalie et de coprolalie* "), and again stressed its relationship to latah, etc. In 1897 Ellis brought into relationship with latah not only " jumping " and *miryachit*, but also the *bah-tschi* of the Siamese, first described in the German ethnological literature by Bastian (1867). Osler (1894) mentioned both latah and *miryachit*, and thought they were " choreiform " in nature.

About this time interest began to fade in these various types of what I propose to call the latah reaction, with the exception of the latah of Malaysia itself. This was probably due to the accessibility of that area, and the fact that at that time European colonization of Malaya and Indonesia was at its most vigorous. Latah was so common in Malay lands that it claimed the pen of several lay writers. An account by a naturalist, Forbes (1885) was probably exaggerated, as, e.g., when he described a woman suddenly frightened by a snake vibrating her finger in imitation of its tongue until she was struck dead ; or another crawling on all fours in imitation of a lizard which had startled her. Clifford (1897) and Swettenham (1900), both pro-consuls of great literary ability, gave accurate and sober accounts, which are of note because of their authors' intimate knowledge of the Malay racial character and cultural *milieu*.

The steady increase of interest in latah as a psychiatric syndrome by itself may be dated from a paper by Van Brero (1895), the first report from what is now Indonesia. He gave it the astounding name of " Provoked Imitative and Impulsive Myospasm " (*Provocirte imitatorische impulsive Myospasie*), and regarded it simply as a hereditary cerebral neurosis. Ellis (1897) offered the interesting suggestion that there were two forms of latah, mimetic and paroxysmal, the latter related to amok. Gimlette (1897) emphasized that latah differed from the " lata " or " *délire à Java*," previously noted by Bordier in his *Gèographie Mèdicale* by being non-epidemic. This reference to an epidemic latah-like disease invites comparison with the hysterical epidemics of medieval Europe (*). Gimlette also compared to latah the conditions of *ramenajana* in Madagascar (*vide* Andrianjafy, 1902), *tara* in Siberia, and *tigretier* in Abbysinia, but it is extremely doubtful whether these are as definitive and clear-cut a reaction as latah is, and they should probably not be classed with it. In this, however, he has been followed by other writers, e.g., Manson (1912).

The practice of collecting descriptions of the reaction from various parts of the world and grouping them together was by now common. Scheube (1903) gave an account of latah in a chapter on organic illnesses (along with sprue and dysentery). He followed van Brero generally, and also mentioned at the same time what he regarded as allied diseases : the *mali-mali* of the Philippine Islands (? ref.), *bah-tschi* of Siam (quoting Rasch), and *yuan* of Burma (quoting Bastian, 1867). He further mentioned that Högström (? ref.) has seen it among the Laplanders. He thought that they were all " based on suggestion.† "

By 1902 the use of " latah " to describe the reaction outside Malaysia had become accepted, and Gilmore (1902) reported it as such in S. African Kaffirs. The illness was sufficiently well-known for Milne-Bramwell in his classic book on hypnotism (1903) to take notice of it, and he asserted therein that latah was definitely not hypnotism as others had suggested, e.g., Gimlette (1897), who regarded it as self-hypnosis. Gerrard (1904) described a case in whom type-dreams of white people

* Cp. also the report of epidemic latah in a religious brotherhood by Porot (quoted by Repond, 1940*a*) and of epidemic *miryachit* in a troop of Cossacks (quoted by Czaplicka, 1914, p. 313).

† Other German contributions were by Scheben (1900) and Revez (1911), but further German interest in latah ceased with the frustration of their colonial ambitions. *Vide* also Moreira (1924).

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riding winged horses occurred after every attack, and whose attacks could be stopped and prevented by hypnotic suggestion. Fletcher (1908) thought that the severest cases were in a state similar to that of somnambulism or the third stage of hypnotism.

In 1910 Musgrave and Sison reported on *mali-mali* or the latah reaction of the Philippines, ascribing the disease, in the fashion of those times, to " degeneracy " ; they also remarked on the fact that it was an affection of the lower classes and suggested, adopting a psycho-dynamic point of view, that the educated instead would tic when placed under similar psychopathological conditions.

As late as 1912 Manson was discussing latah in relation to various epidemic hysterical phenomena, and even compared it to " possession." He was probably the first to write a formal account of it as a purely psychogenic disease, emphasizing the factors of suggestibility, imitation, habituation and a craving for sympathy ; he thought it was characteristically a disease of " barbarous and semi-civilized countries," although the weak-minded of more advanced nations were not immune. Omerod (1912) regarded latah much in the same light as Manson, but called it a form of epidemic hysteria. Although neither of these two authors had made first-hand studies of latah, their interpretations were in the light of the psychiatric knowledge of those times, not unplausible. The same could not be said, however, of the views of Abraham (1912) who said that latah in its " paroxysmal form " (*vide* Ellis, 1897) was identical with amok ; or of Ballard (1912) who thought that latah was a minor hysterical fit, as *amok* was a major one.

Latah was now so well known that Allbutt and Rolleston's *System of Medicine* (1912) devoted a whole chapter by Manson to it. Castellani and Chalmers' *Manual of Tropical Medicine* (1919) similarly had a chapter on it, but they merely quoted from other sources, and betrayed a complete innocence of psychiatry (as could be seen from their adoption of sub-headings like " Delusions " and " Autosuggestion "). Fitzgerald (1923) presented a formal treatise on latah and amok which contained nothing original, but repeated the out-of-date notion of van Brero's that it was a cerebral neurosis.

(b) *The Modern Period.*

The modern period of the study of latah may be considered to date from Galloway's effort (1923) to analyse the psychopathology of the disease. Although only a general practitioner, and not a psychiatrist, he ascribed the reaction to shock and delayed inhibition, hypnotic-like suggestion, and what might be termed culturally determined fear ; and he also attempted a psychopathological classification of different degrees of the reaction. Van Loon, who held the Chair of Psychiatry in Batavia, was probably the first psychiatric specialist to give full attention to the disease. In 1927, after an earlier paper in Dutch, he wrote on latah, in connection with amok, in English. In terms familiar to us, he described latah as an elementary and monotonous type of hysteria arising from fear in peoples with a relatively simple ego-organization ; but he had a sterile belief in innate racial psychological traits and called latah " a psychosis of the Malay races, rooted in the oriental psyche." He was, however, keenly interested in the comparative psychology of peoples and in 1928, influenced by Head's ideas, published some observations on " protopathic-instinctive phenomena " in Malay behaviour with special reference to latah (and amok). His generalizations were somewhat forced ; his notions were basically those of Kretschmer's concerning the " primitive reactions," but were boldly applied to racial psychology, employing the terminology which Head had evolved for describing certain aspects of sensory physiology. Van Loon's observations and ideas were summarized in the French literature by Codet (1927), who called latah simply " an exotic psychoneurosis."

A few years later a series of papers by Italian writers appeared. Sarnelli (1934) described latah in the Yemen, Penso (1934) in Italian Somaliland, and Natoli (1937) around Benghazi, in Cyrenaica.

The most satisfactory studies in recent years have been by van Wulftten-Palthe (1936), and by Repond (1940*a*, *b*). The former, who was Professor of Psychiatry in Batavia, prefaced his account of latah with some very sound comments on the principles which should guide the student of comparative psychiatry, and has given the most adequate nosological analysis to date of the reaction. He denied that it was a psychosis, still less was it hysteria, but it was a hysteriform reaction, largely an artificial product of the environment, with hyper-impressionability to fright

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playing an important part, but he failed to give an interpretation of the very characteristic echo-symptoms and hyper-suggestibility seen in the reaction. Repond observed his cases in the S. Sahara (but called it an "oriental psychosis"), and concluded that it was neither hysteria, anxiety neurosis, nor " obsessional anxiety " as had been suggested by Perussel but a neurosis peculiar to primitive peoples whose mentality was too rudimentary for them to be able to build up a psychic structure comparable to the psychoneuroses of more developed peoples. He placed great emphasis on the " suggestibility " of the natives, and made interesting observations on the necessity of " rapport " between patient and examiner, but attempted to explain neither the nature of the symptomatology nor the relation of the reaction to fear ; and, like many French-speaking psychiatrists, he failed to pursue effectively the dynamic point of view.

If we turn to other recent writers, the very unsatisfactory understanding of the reaction is painfully evident. Fletcher (1938), contributing on this subject to the *British Encyclopedia of Medical Practice*, was clearly unused to psychiatric terminology when he said that latah was " akin to a kind of hysteria called ' suggestion-neurosis '." It is a matter of regret that the standard text-books are very feeble and out-of-date in their treatment of the subject, and keep on repeating opinions of no value. Kinnier Wilson (1940) stated that the " hypnosis-like condition " lasted until suggestion was removed, which is not true ; he repeated the myth that it had affinities with convulsive tics ; and furthermore he called *miryachit* in a very banal manner a " collective psycho-neurosis." Strong (1944) could say no more than that it was " a peculiar form or manifestation of hyper-impressionability." Christian (1944) in *Osler's Principles and Practice of Medicine* likened latah as well as " jumping " to Bamberger's " saltatory spasm," which he supposed to be related in some way to impulsive tic or Gilles de la Tourette's disease—an impulsive tic being " a psychosis allied to hysteria and psychical tic, though in some respects it has the features of a monomania " (p. 28). Nothing could be less helpful or more confusing. It was not until 1946 (the 7th edition) that Price's *Text-book* ceased to term latah, after Scheube, a " cerebral neurosis " (a suggestion first offered by van Brero nearly sixty years ago), and to express the regret that no *post mortem* examination had been recorded. Manson-Bahr (1950) still regarded it as a " hypnotic-like trance " in some way related to the supposed fact that the Malays were highly strung. His account of it revealed an understanding of the subject which went little beyond that of Manson when the latter wrote on it in 1912.

III. The Jumpers.

Although almost as soon as " jumping " had been described by Beard (1880), Tourette identified it with latah (1884), and the connection between the two was repeated parrot-fashion from one author to another, there was little real understanding of their mutual relationship. The result was that the vague resemblance of latah to the " jumping " of N. America was mentioned on the one hand, and, on the other, it was naïvely suggested that the Mongolian racial constitution as well as extremes of climate were causative factors in latah. It is necessary clearly to examine and to re-affirm this relationship between latah and " jumping."

The " Jumpers " or " Shakers " were a group of religious folk, originating from the Methodist Congregation of Wales during the time of the evangelist Whitefield. They called themselves the " United Society of Believers in Christ's Second Appearing." Their religious devotions involved ritualistic jumping, shaking, and also the utterance of incoherent gutterals (hence the name of " Barkers " by which they are also known). These unusual ceremonial antics were looked upon as exercises to supplicate divine favour, but they eventually led to the repudiation of the whole group by the English Methodists, and their leader, a Manchester woman called Ann Lee was tried by the Church of England for blasphemy. (It was said that she rebutted the charge in seventy-two different languages, some of which had not been heard of before or since.) In 1774, under her leadership, the group migrated to America, where like so many other earnest sects they founded several colonies on the Eastern sea-board. About this time, there were wide-spread hysterical epidemics in the south-west of England (Hirsch, 1886, p. 525).

The peculiar social organization of these colonies was highly conducive to the appearance of collective hysteria. Men and women lived together in one building, but strict separation of the sexes were enjoined, and each sex lived on a separate

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floor, cooking and eating apart. Their ministry included women, but this was because those who took part in confessionals had to have ministers of the same sex. They were communistic, revolting against the institution of the monogamous family, and at the same time they had to be celibate. On this account married people joining them had to live separately. Conditions like these are naturally frustrating to the sexual needs of men and women. They were as stern as they were industrious, and enjoined for themselves strict rules of discipline which even told them which foot to put first on the ground when they got up in the morning. According to Holloway (1951) there are still about a hundred of this sect in the present day.

The origin of their characteristic mannerisms during worship may never be fully known; but the term "Holy Rollers" sometimes used to describe them serves to indicate that their ceremonial behaviour might not have been strictly defined and standardized, and might originally only have been a manifestation of excessive religious fervour, energized and heightened by instinctual drives that were denied their direct expression. The institutionalization of such behaviour would almost be inevitable in a group struggling to maintain its precepts, beliefs and its whole identity in a new country; such behaviour would with the greatest of ease develop into ceremonials which would serve effectively as an expression and a symbol of group cohesion.

If the "jumping," etc., developed into accepted ceremonials, it cannot therefore be separated from the hysterical. Charcot and Richer have remarked on their resemblance to the symptoms of some of their cases of "*grande hystérie*." Religious excitement provides just the right psychological condition for the mass appearance of crude hysterical symptoms, and the preaching of fiery and none too elegant Methodist evangelists caused these curious and extravagant mannerisms to spread far and wide in the United States between 1798 and 1805. At the "revivals" or camp-fire evangelistic meetings of this period thousands of men and women would jump or roll about together in religious ecstasy, sometimes at a single word of command. Yandell (1881) has given a striking account of these mass hysterical phenomena. The jerkers would jerk violently and all together, sometimes in a most alarming fashion; the rollers would roll or run until they were exhausted, and often mere laughter might bring on the attack; the barkers would move about on all fours, growling and snapping their teeth, and barking in exact imitation of a dog. Often 3,000 people would fall on to the ground as one.

Those who practised these exercises commonly became a prey to them, and they might find themselves laughing incongruously during a sermon; or a woman might suddenly jerk and fall from her horse, and then start to roll, while giving an account of her religious devotions. Even cynics were reported to have been affected by example. Only the slightest stimulus was needed to produce these effects, even at quite ordinary times. Beard (1880) reported that it was only necessary to point a finger at some of them to start them rolling. He was the first to study these phenomena from the medical point of view, and it is only necessary to read his description of the Jumpers he met to be convinced of the complete identity of "jumping" with latah. Because of the significance of this relationship in establishing the aetiology of latah, and the neglect of it by so many writers, I shall quote Beard's original contribution *in extenso*. His subjects were a little colony of people of Caucasian stock (not half-French as commonly repeated) living by Moosehead Lake.

"One of the Jumpers while setting in his chair with a knife in his hand was told to throw it, and he threw it quickly, so that it stuck in a beam opposite*; at the same time he repeated the order to throw it, with a cry or utterance of alarm resembling that of hysteria or epilepsy. He also threw away his pipe when filling it with tobacco when he was slapped upon the shoulder. Two Jumpers standing near each other were told to strike, and they struck each other very forcibly. One Jumper when standing by a window, was suddenly commanded by a person standing on the other side of the window to jump, and he jumped straight up half a foot from the floor repeating the order. When the commands were uttered in a quick loud voice the Jumper repeats the order. When told to strike he strikes. . . ."

When Beard tested their powers of repetition with quotations from Virgil's *Aeneid* and *Homer's Iliad*, he managed to make them repeat the text in a quick

* Cp. the case described by Shirokogoroff (1935, p. 248) when a knife suddenly fell before a Birarcen, and he at once seized it and plunged it into his child; and again Ellis' case where a Malay-Portuguese woman, at a sudden noise, would shout out an obscenity and throw anything handy at the nearest person (Ellis, 1897).

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sharp voice, while at the same time they kept on jumping, striking and twisting their shoulders.

" It was not necessary that the sounds should come from a human being. Any sudden or unexpected noise . . . would cause these Jumpers to exhibit some one or all of these phenomena. One of these Jumpers came very near cutting his throat while shaving on hearing a door slam. They had been known to jump into the fire and into water ; they could not help striking their best friend, if near them when ordered. . . . It was dangerous to startle them in any way when they had an axe or knife in hand. All the Jumpers agree that it tires them to be jumped and they dread it, but they were constantly annoyed by their companions."

Beard mentioned that the disease was " epidemic," but restricted mostly to the north of New Hampshire, Maine and the adjoining part of Canada. He was aware that " cases had been reported among the Malays upon the other side of the globe." The disease affected even children of 4 or 5 (as in latah), but quite unlike latah it was rare among women. This is a unique feature of " jumping." He found 15 cases in only 4 families, which suggested a familial distribution. Those affected were quiet and retiring by nature, deficient in power of self-assertion or push. He thought it was a temporary trance induced by reflex imitation and fear. In a sense, he reflected, we were all Jumpers since many of us, if caught in a fire, would go into a trance and show convulsive movements. Moreover, it was probably an " evolution of tickling," adding as a curiously naïve after-thought, " the habit of tickling each other in the woods." We shall later have occasion to discuss the importance of tickling in producing the latah reaction.

IV. Miryachit.

The first mention of *miryachit* was by Hammond in 1884, and in introducing it into medical literature he compared it to " jumping " as well as to " *Schlaftrunkenheit* " (which Bleuler (1936, p. 116) regards as a kind of hypnagogic intoxication arising from a sudden wakening, and generating a dream which leads to motility before the dream passes off). La Tourette (1884) and also Neale (1884) were the first to relate it to the latah of the Malays.

Although Hammond's account was based only on the reports of a trio of U.S. Naval officers in Siberia, yet he seemed to have grasped the essential nature of the illness. The case described is that of a ship-steward, middle-aged, intelligent and physically normal, who, against his will, was mercilessly teased by his colleagues, and rendered echolalic and echopraxic. When the captain clapped his hands, and when he made as if to fall, the victim had to follow suit. He eventually managed to hide himself in his cabin, but even then had perforce to imitate the shouts and grunts of his tormentors outside.

Hammond asserted that *miryachit* differed from " jumping " only in that the former required an actual example and not simply an order for the echo-reactions to be elicited, but later writers have observed automatic obedience in *miryachit*. There is no doubt that features of latah such as the echoing can be experimentally produced on rude awakening from sleep, and his invocation of a hypnoid condition to explain the basis of the reaction enables us to identify the common underlying basis of the several quasi-normal reactions known by different names which have been associated with latah.

Hirsch (1886) quoted the ethnologist Schrenck (1850) on the *ikota* of the Samoyedes, an illness undoubtedly the same as *miryachit*, which Hammond recorded as being commonly found in the Irkutsk region. Schrenck distinguished a mild form which consisted in the utterance of inarticulate sounds when teased or when something repugnant is seen ; and a severe form in which the patient may become violent and aggressive. It was found almost always among women, especially married ones. The so-called " severe form " is not clearly delineated, and it is not clear that Schrenck and Hirsch distinguished *ikota* from the undifferentiated " hysterical " outbursts of primitive peoples. The " screaming women of Samara" observed by Acke as well as the " screaming possessed women " studied by Guttceit in the people of Orel and Kursk, both quoted by Hirsch, are almost certainly examples of " primitive" hysteriform phenomena unrelated to the latah reaction.

For later studies on *miryachit* we must turn to Bagenoff (1911), Czaplicka (1914), Novakovsky (1924), Shirokogoroff (1935). The works of Czaplicka and Shirokogoroff deserve special attention, being detailed ethnological reports. According to

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the former, *miryachit* was first described by the traveller Steller in 1774. It was known by many local names, e.g., *amurakh* among the Yakuts, *olan* among the Tungus, *irkunii* among the Yukaghirs, *menkeiti* among the Koryaks, and *imu* among the Ainus. In practice, the term " arctic hysteria' ' has been used loosely to cover *miryachit* as well as other vague nervous disorders and religio-magical phenomena which are themselves essentially hysterical in nature. Czaplicka thought that most cases of *miryachit* were cases of hysteria, although it was clearly not hysteria as seen in Europe. It was always regarded as a disease (unlike the latah of the Malays), and even a Shaman, if he should become affected, would be ostracized and made to give up his position of authority.

Shirokogoroff used the terms " olonism " and " imitative mania " in describing the latah reaction among the Siberians, and, like Czaplicka, regarded the term " arctic hysteria " as having a rather wider connotation. " Olonism " is derived from the Tungus word meaning " to be suddenly frightened," and has the associated meaning of " doing something stupid and useless because of sudden fear." The term is used to describe only non-violent, imitative behaviour that is not regarded as the result of spirit-possession. " Olonism " only involves a minimal loss of consciousness, if it does occur at all. As soon as the patient recovers from unconsciousness, he may react in one of three ways—attack, retreat, or beg for mercy (the last reaction, as may be expected, is commonly to be seen in females). For continuation of the imitative behaviour a series of stimuli are needed. The symptoms are exhibited in all degrees of intensity, and in the minor degrees it is not held to be abnormal. Cases have been known where discouragement and disapproval have resulted in the arrest of the development of the disease. In order to bring this about the patient is sometimes given a new name, or a case of advanced " olonism " is given another name so that his illness may not bring him harm. This, of course, is a magical way of propitiating unseen powers not unknown in the superstitious practices of other races.

Shirokogoroff noted that among the Tungus " olonism " had a certain social function, as it often provided a spectacle or performance (like Malay latah) " without which Tungus life would be impoverished." The Manchus in the region were settled agriculturists and rather more " civilized " than the Tungus ; they expressed a great disapproval of the symptoms, especially coprolalia in women, and this appeared to have resulted in a much smaller incidence of the disease in Manchu women in contrast with the Tungus.

Shirokogoroff's attempt at explaining the symptoms was essentially a theory based on a rather tortuous application of the conditioned reflex (*op. cit.*, p. 248), and is incomprehensible ; but his studies of the latah reaction among different ethnological groups in Siberia, like that of Czaplicka, are of permanent value. He disagreed with the latter, denying that " olonism " was a kind of hysteriform syndrome, and insisted that it was an illness *per se*. " It is liable to diffusion, fashions and variations, both individual and ethnical, is rooted in the normal psycho-mental complex, and as such it must be separated from the facts gathered under the name of hysteria " (p. 252). The root of the problem in this case as in so many others is the meaning of " hysteria."

It might be well to append some examples of this very important type of the latah reaction. We may take as being quite representative of the mild, abortive reaction the cases mentioned by Shirokogoroff (p. 247) where the word *sirkul* (evil-spirit) if suddenly spoken out in the presence of a susceptible subject will at once produce a brief show of echolalia or coprolalia.

Advanced cases are exemplified by the girl described by Shirokogoroff (p. 248) who, after a fright, kept on imitating the eating movements of another, and stuffed herself so full that at last she had to vomit. Another example is that quoted by Czaplicka (p. 310) from Jochelson, where an old woman had to imitate a mischievous Cossack teasing her and run with a fish between her teeth into a stream, shouting all the while " Enough ! Enough !" Czaplicka also quoted Kashin's account of a regiment of Transbaikal Cossacks who echoed their Colonel's commands, and the more the latter expostulated the more readily were his swears imitated. This is (apart from the example described by Porot (*vide* Repond, 1940*a*) in a Moslem religious group) the only convincing example of what might be called in the exact sense epidemic latah mentioned in the whole literature on the subject, and is clearly of great importance for our understanding of the reaction. Just as " jumping " is related to the epidemic hysterical behaviour of the revivalists, so *miryachit* may under

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certain psychological conditions (e.g., in groups trained to instant obedience) take on an epidemic form.

V. Imu.

This illness was mentioned in passing by Czaplicka (*op. cit.*), but she was unaware of any serious study on it. Apart from the latah of the Malays, it is the most closely examined of the various examples of the latah reaction, and deserves a section to itself. A first-hand account was furnished Winiarz and Wielawski (1936), but this was based partly on earlier papers by Sakaki (1903, 1906), Uchimura (1935), and Uchimura *et al.* (1938).

The Ainus were the earliest inhabitants of the Japanese islands (with a language showing evidence of an original Sanskrit stem) who were in the course of time driven by the present-day Japanese into the northernmost island of Hokkaido. To a large extent they are still pastoral folk, living by fishing and hunting only and unable to take to agriculture. They have no literature, but only folk-tales for a cultural tradition. Their social organization shows traces of totemism in the past. The social position of women is very low. In religion they are animists, the world for them being peopled by gods and spirits personifying the forces of Nature.

Some figures are available regarding the incidence of *imu* among this people. Winiarz and Wielawski observed 12 cases in three villages with a total population of 1,000 and estimated that there were about 100 in all Hokkaido. Uchimura *et al.* estimated that there were 111 cases among the total of 17,500 Ainus; and they thought that cases of *imu* composed two-thirds of the psychiatric material to be found in this people.

As in the case of latah, old women are mainly affected, and indeed Uchimura found that the overwhelming majority of his cases were female. With the advance of civilization the disease is getting rarer, so that most cases are now confined to old women. The Japanese are hardly ever affected, and if they are, they have invariably been brought up from childhood in Ainu homes. (This is exactly the case with Malay latah when it occurs among the Chinese brought up in Malay surroundings and according to Malay customs.)

The attack is always brought about by some sudden stimulus, be it only a sudden sharp word or a loud interruption during a conversation. Commonly the initial fright springs from the ingrained fear of serpents and similar snake-like creatures, so that the reaction may be exhibited by the sudden sight of caterpillars and the like (or even snails). There is a belief that a certain serpent spirit can expel evil spirits from the body by entering in their place, and in becoming thus possessed, the patient shows the condition of *imu* (*imu* means " possessed "); another version by Sakaki is that serpent-possession is regarded as punishment for wrong-doing, and the superstition is so firmly held that if a person steps on a snake he expects to become, and in fact does become, *imu*. This is an excellent example of the cultural conditioning of an abnormal psychological reaction. Sakaki found that, of the 12 cases he studied, 5 developed the disease after a snake-bite, 2 after seeing a snake, 1 after hearing a noise like that made by a snake, 1 after a nightmare of an attack by a snake, and 1 after a fright by a large caterpillar followed by nightmares over this for several nights; only two failed to give a definite history of trauma due to fright. Uchimura stated his belief that about 60 per cent. of cases follow fright, the remaining cases arising from imitation, but he did not explain why mere imitation should have such a pernicious effect.

The immediate reaction to fear may sometimes only be wild aggressive behaviour, or running away in panic; but certain persons show the typical echoing and automatic obedience, and negativism too, if the fear stimulus is prolonged. Loss of consciousness only occurs if the " fit " is drawn out, and when the patient recovers he usually retains full memory of it and may show considerable embarrassment.

Once a person is subject to *imu*, he never recovers from it. It may become progressively worse, and in such cases the patient becomes solitary and seclusive, with, as Winiarz and Wielawski noted, marked changes in personality such as fearfulness, meticulousness and shyness. This fact is of great importance when a nosological analysis of the reaction is attempted.

Winiarz and Wielawski affirmed that *imu* was identical with " jumping," latah and *miryachit* (but wrongly ascribed the first to the Red Indians, influenced, no doubt, by the popular notion that the reaction sprang from a racial peculiarity associated with the Mongolian division of the human race). They believed that it

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was " a primitive form of reaction to fear, manifested by impulsive action, by aggression, by flight, or by forms approaching to the cataleptic conditions". This is much too vague and inclusive a definition of the reaction, and while enabling some insight to be gained into its psycho-dynamics, tells us very little about the pathogenesis of the remarkable symptomatology. Their analysis goes no further than to reduce it to " catalepsy," which, in any case Sakaki (*ibid.*) denies as ever occurring in *imu*. Uchimura *et al.* (*ibid.*) pointed out that it was not simply acute fear, but a reaction standardized by habituation. It was not hysteria as we knew it, since it was monotonous, undifferentiated, and almost itself a reflex action. They added the important remark that since other hysterical symptoms were only rarely to be observed, this was Ainu hysteria. *Imu*, like latah, they regarded as a " primitive or ancestral form of hysteria," dating back to the earliest times, and arising in a primitive psychic disposition marked by suggestibility, emotional lability, and superstition.

It is doubtful whether anything is to be gained by saying that any kind of hysteria is " primitive," and the fact of its occurrence among *some* of the " simpler " peoples is certainly not explained by invoking " a primitive psychic disposition " and " superstition."

VI. Disorders Related to, or Confused with Latah: Convulsive Tics; " Primitive Hysteria "; " Sleep Intoxication "; " Startle Neurosis."

The latah reaction has from the very first been unfortunately associated with convulsive tics. This syndrome is still described by contemporary neurologists (e.g., Ascher, 1948) and it is necessary to examine it in some detail to differentiate it clearly from latah. Apart from this, the idea of " primitive hysteria " is frequently encountered in the literature on the latah reaction, and it is clearly of importance for a proper nosological study of latah to enquire into its meaning as well as its import. In this connection it will also be necessary to consider " sleep intoxication " and the so-called " startle neurosis."

Convulsive Tics.

The interest of French neurologists towards the end of the nineteenth century in involuntary movements led them to classify and differentiate the tic-like dyskinesias. Gilles de la Tourette, working with Guinon under the general guidance of Charcot, isolated the syndrome of convulsive tics as a clinical entity in itself, defining it as a nervous affection characterized by motor inco-ordination and accompanied by echolalia and coprolalia, and gave a description of 8 cases (1885). He was particularly interested in the coprolalia (or "*escholalia* ") which occurred together with the tics. Trousseau had previously drawn attention to this association before, but, as Tourette pointed out, his observation had been completely ignored until the reports of Beard and Hammond on " jumping " and *miryachit*. Tourette, of course, had no opportunity to study at first-hand these two illnesses, and it was solely on the basis of these two papers that he boldly synthesized his own *maladie des tics convulsifs* with " jumping," *miryachit* and latah (known to him through O'Brien's account) into a single clinical entity. In doing so he departed from the intelligent psychological speculations of Beard, Hammond and O'Brien; for although he stated that it was premature at that time to offer an explanation for the " bizarre state " that was latah, yet by incorporating the latter into the general class of neurological tics, he could not but contaminate discussions of its nature and aetiology with the sterile idea of " degeneracy " so fashionable in France at that time. However, Tourette's views were repudiated by Tokarski (1890), who insisted that *miryachit* fundamentally differed from convulsive tics in being a psychogenic condition. Meige, Feindel, Guinon and Magnan were all against regarding *convulsive tics* as an entity by itself, although Meige and Feindel held that both the tics as well as the echo-reactions sprang from the same soil, but were otherwise unrelated. (*vide* Meige and Feindel, 1907, p. 226).

There can be no doubt that the latah reaction and convulsive tics are unrelated. As understood nowadays, the latter consists in facial twitching and stereotyped movements of the upper and lower limbs, with compulsive utterances and often obsessional ideas. The movements usually begin in the lower part of the face and spread downwards. The patient opens and shuts his mouth, spits, twists his head, jumps, twirls, and may even dance. The muscles of phonation are frequently in-

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volved and they produce with the tic, weird, barking noises, or sometimes echolalia or coprolalia. Echolalia, however, may be manifested independently. The movements can be partially inhibited by the will, and cease in sleep or under the stress of emotions. Obsessions, when they occur, may not coincide with tics. Although the patients show no definite symptoms of dementia, they are often unable to concentrate and undergo a personality change in the direction of seclusiveness and nervousness. The symptoms begin between the ages of 7 and 15, and the illness runs a fluctuating but usually progressive course.

The Salpêtrière school attempted to derive echolalia from tics of the muscles of phonation, and echopraxia (or " echokinesia," to follow Charcot) from tics involving the limb muscles. Tourette indeed was so impressed by the association of tics with echolalia and coprolalia that he considered them to be essentially the same thing. This rather bold generalization no doubt arose from the neurologizing trends of that time, and a failure to appreciate the significance of the psychological forces binding the individual to his " behavioural field."

When the echo-reactions and coprolalia are prominent and they are manifested as a result of a sudden and unexpected stimulus, it is possible to see a resemblance of the condition to latah. In the original 8 cases described by Tourette, however, 3 cases showed neither echo-reactions nor coprolalia, and 2 others did not show echolalia. Two of these cases showed the symptoms if they were unexpectedly stimulated. In one case the illness began by conscious imitation of these unusual symptoms in early life. The cases ranged in age from 11 to 26, and only 3 of them female. The two cases which reacted to sudden stimuli might be quoted in detail :

Case 1 was a girl, aged 20, intelligent, and drawn from the working class. At the age of 16 she first started to show facial tics. Soon she began to remark aimlessly on things around her, with frequent obscene interjections, and she also frequently repeated the last word of her sentences. Her interjections were usually accompanied by odd contortions of her face. There was no echolalia in the true sense of the word, but when excited she sometimes showed echomimia. Whenever she was suddenly called she would jump and repeat her own name.

Case 2 was another girl, aged 21. Her illness started at the age of 8 with tic-like blinking, one year after she had been terrified by a bursting bomb during the siege of Paris. The tics spread and took a fluctuating course. Whenever she was unexpectedly touched she would jump up in fear and tic. She was by nature nervous and excitable. She became much better after a lapse of 7 years. One of her sisters was similarly affected.

These cases resemble latah but are clearly not identical with it, inasmuch as tic-like phenomena, which are essentially spontaneous contractions of muscle groups, are never seen in the former. Echoing and automatic obedience in latah always require some degree of " rapport " or at least of forced attention to a stimulus. There is no reason, of course, why some features of the latah reaction, in particular the " clouding of consciousness " following sudden fright and leading to a certain helplessness and passivity cannot be superimposed on a person of poor personality already suffering from co-ordinated tics. Indeed, the second case above, although she showed no definite echo-phenomena, might well be an abortive case of latah, and the history of the illness dating from a definite psychological trauma is highly significant, as we shall see later when we come to discuss the nosology of latah. The complete syndrome of convulsive tics is very rare, and must have been so even in Tourette's time. He himself mentioned that Broadbent and Hughlings Jackson told him that they had neither of them seen a case in England.

Tourette never committed himself on the pathology of convulsive tics, but his whole approach was of course neurological. Nor could he have escaped from the climate of French neurology at that time and its preoccupation with the doctrine of degeneration. He contributed little to our understanding of the latah reaction, but he was the first to bring this subject, after unifying it from disconnected accounts drawn from widely separated areas of the world to the attention of those in the fore-front of neuro-psychiatric development at that time.

" *Primitive Hysteria.*"

The term " hysteria " has been given different meanings from ancient times, and is even to-day interpreted in various ways. The evolution of the concept of hysteria is of fundamental importance for any discussion of the nosology of the latah reaction, and this we shall deal with in the next section. We may consider now the large

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range of quasi-normal psychological phenomena that have been described among various outlandish peoples under the name " hysterical " or " hysteriform," especially the primitive " short-circuit " reactions to overwhelming stress, or abnormally exaggerated affective reactions described by Kretschmer as the " primitive reactions " (*vide* p. 51).

Behaviour which may be called the " primitive hysterical outburst " has been reported in many of the " simpler " peoples. Among the natives of Nyasaland, when a person is crossed or frustrated, he may sometimes brood and remain morose for a long time ; if he is further teased, he may suddenly run away into the forest, throw himself blindly at others, or in a rather histrionic manner jump into the water. This type of behaviour is known as *misala* (although it appears that this is a generic name for all sorts of vague mental disorders) and has been the subject of a paper by Howard (1910).

The same kind of reaction is found among adolescent girls in the Congo region, and is known as *banga*. Unable to stand frustration, fear or sorrow, they rush about, crying aloud, and may show speech disturbances and even convulsions (Castellani and Chalmers, 1919).

Brill (1913) has described very similar behaviour among the Eskimos, which he calls " *piblokto* or hysteria." Certain women, rebuffed by husbands or lovers and thereby suffering a loss of love, may brood for a time, with their eyes reddened, their pulse raised, and perhaps showing a long-continued tremor of their limbs. Then suddenly they may scream, gesticulate, run away across the snows, or jump into the water, meanwhile completely disrobing themselves. These attacks end in copious weeping. Brill did not observe any conversion hysteria among these women ; their mental organization was too simple, and their repressive powers too weak, he thought, for them to show anything but " anxiety-hysteria." This kind of behaviour is not simply " anxiety-hysteria," but " anxiety-hysteria " of a very elementary kind. Eight out of 20 women in the ship were affected, which is the same proportion, Brill remarked, as the number of hysterical American women to the general female population of America. Czaplicka (*op. cit.*, p. 314) also quoted cases described by Whitney in Greenland. The latter ascribed the condition partly to the gloom which descended upon everyone because of the " fearful stillness " and the feeling of " impending doom " which the arctic climate induced. Pallas was quoted by Czaplicka (p. 313) as reporting that among the Samoyedes and Yakuts, a sudden call or whistle might startle a man and induce terror in him, so that he may blindly kill someone with any weapon that might be handy ; and if he were restrained, he might scream, beat himself, roll on the ground, or rush away. Shirokogoroff (*op. cit.*, pp. 235f.) mentioned similar examples of primitive responses to stress, e.g., hiding in the dark, crying and singing, sitting on the ground, and running away to hide in rocks and bushes and not returning unless brought back by force. The elementary flight reaction, with or without disrobing, as a result of frustration, shame or rebuff is also to be found among the Cree Indians (Cooper, 1934).

It would appear that this kind of reaction, which among ourselves is commonly seen only in the immature or the mentally deficient, is widely distributed among the peoples of the " simpler " cultures, and provides illustration for Rivers' analysis (1920) of elementary " instinctive " responses to acute stress. Whether it is " hysterical " or not remains to be discussed, but it may be pointed out that it is not necessarily " abnormal " for such peoples, although it may be so for the majority of us. Among these " instinctive " responses to acute danger Rivers also mentioned the immobility reaction, which he believed to be related not only to hypnoid states, but also to hysteria (*op. cit.*, pp. 105, 130). In actual fact, it has been observed that some aboriginal peoples may show a trance-like immobility when confronted with something startling or frightening, for example, when they are brought face to face with or interrogated by Europeans. Van Loon (1928) reported this in the *orang udik* of the Indonesian jungles, and Repond (1940*a*) in the children of the aborigines of the Senegal region. It is also said that the Australian aborigines have been observed to show this reaction. The fact of being " transfixed by fear " is of course well-known and it has crept as an expression into ordinary speech.

This is the kind of behaviour which has led some authors writing on latah to call it " primitive hysteria," without attempting to account for the highly specific picture which the reaction itself presents, and also the fact that while the " primitive reaction " is so common among peoples with a lower level of culture, the latah reac-

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tion is not always to be found in every one of these. It has, for instance, never been described among the Veddahs of Ceylon or the aborigines of Taiwan. Nevertheless, it is significant that the reaction is found to be widespread only in cultures embodying a primitive level of natural knowledge and technology, in which the problem of resisting the encroaches of Nature looms larger than in our own. This is the fundamental fact in the aetiology of latah, and we need not be led astray by the existence of various hysteriform states of dissociation and " possession " which undoubtedly bear a relation to the latah co-existing with them, but are quite independent types of abnormal behaviour.

It appears that the term " primitive hysteria " is customarily used in the sense that the behaviour covered by it is exhibited by relatively simple and undeveloped personalities under the stimulation of biologically primitive impulses, which in more sophisticated personalities possessing a more complex mental organization will lead instead to the formation of those hysterical symptoms commonly seen among ourselves. We shall later see that such behaviour is perhaps better classed simply under the " primitive reactions " of Kretschmer.

" *Sleep Intoxication.*"

" Sleep intoxication," or " hypnagogic intoxication," is the term used by Brill to translate *Schlaftrunkenheit* (cf. Bleuler, 1936, p. 116), a condition Hammond compared to " jumping " when he first wrote on the latter in 1884. Sleep intoxication is a quasi-pathological phenomenon which is seen when a sleeping person, rudely awakened, shows " clouding " of the sensorium, wild and often aggressive movements, and, perhaps, on being addressed, mitigated echolalia. This condition naturally lasts only a brief moment, and is obviously related to the more familiar " sleep paralysis." Charles Dickens in *The Cricket on the Hearth* (1845) described an instance of it:

> " It was a loud cry from the Carrier's wife; a loud, sharp, sudden cry that made the room ring like a glass vessel. . . . The men were all about her in a moment. Caleb, who had been dozing on the cake-box, in the first imperfect recovery of his suspended presence of mind, seized Miss Slowboy by the hair of her head, but immediately apologized."

It is clear that pathodynamically there is a close relation between the latah reaction and the quite unexotic condition of " sleep intoxication "; both are essentially temporary states of dissociation, when the personality is disorganized following a shock; the former occurs in persons culturally prone to fright and disorganization of the Ego, and the latter in persons with an abeyance of the highest control during sleep. However, the latah reaction with its characteristic symptomatology is also to some extent fixed by habituation, and moreover receives some degree of cultural support which succeeds in impressing on it a special form.

" *Startle Neurosis.*"

Thorne (1944) described this " neurosis " which clearly has affinities with the latah reaction, without apparently being aware of the existence of the latter or of " jumping." He described excessive reaction to simple stimuli like a slap or a nudge in three white American Army recruits, and estimated that 1 out of 2,000 recruits showed this anomaly. One of his subjects would jump right out of his chair and laugh nervously with the slightest unexpected stimulus, but was normally well-adjusted and not unduly nervous. A second would jump up with a cry, whirl round and start to tremble, but he was normally a somewhat nervous individual. His third case, on being bumped against, or " goosed " (having a finger put into his gluteal fold), or startled by having something thrown at him unexpectedly, would jump up with a yell and become genuinely distressed. He was a solitary, suspicious and irritable person, probably as a result of having been repeatedly experimented upon. He could be made to show the reaction eight times in succession without fail.

Thorne did not commit himself as to the pathological basis underlying this " neurosis," except to ascribe it to inherited " irritability of the nervous system." In this connection he pointed out the interesting fact that in training police dogs it was possible to breed a strain not prone to startle by eliminating from the stock those which showed this reaction readily. This " neurosis " is obviously very much

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the same thing as " jumping," and, moreover, the third case might even be regarded as an abortive case of latah.

VII. Evolution of the Concept of Hysteria.

The ancient writers understood by the term hysteria convulsive phenomena which were never clearly distinguished from the " sacred disease " or epilepsy. Thus Hippocrates in describing the latter mentioned as part of its symptoms theriomimicry, which was very probably hysterical in origin ; but the convulsions regarded as hysteria were ascribed with great wisdom and insight to the frustration of the female sexual instinct. Hippocrates thought that it was due to the wanderings of the uterus, thirsting for semen ; Plato similarly implicated the uterus which he thought of as an animal desirous of begetting off-spring ; and Galen in a rather more oblique manner thought that it was due to the excitation of the uterus from the retention of semen. Thus the underlying notion of hysteria as a manifestation of disturbed sexuality in women which we still hold to-day has long been foreshadowed.

Further development of the concept took two directions : firstly there were continued attempts to broaden the clinical picture of the disease ; and secondly speculations as to its nature accumulated. Although the convulsive aspect of the disease was always held prominent, symptoms like tremors, paralysis, anaesthesias, deafness and blindness were added to the clinical picture of the disease by Ch. Lepois ; and gastralgia, laryngeal spasm, and hysterical coughing by Willis in the course of the seventeenth century. Finally, in 1681 Sydenham declared that hysteria could manifest itself by simulating every known organic disease, and could affect every system in the body. It was then, according to him, the most common of all the chronic diseases, and indeed hysteria was a favourite subject for medical treatises during that epoch. It was left to Briquet in the middle of the nineteenth century to distinguish from the usual spasms, paralyses and anaesthesias (which he called " inter-paroxystic ") the strictly psychological symptoms of a " paroxystic " kind, viz., somnambulism, " ecstasy," coma, syncope, catalepsy and " lethargy." By this time the existence of hysteria in men and children were already well recognized.

Charcot towards the end of the nineteenth century undertook further to systematize the symptomatology by dividing Briquet's " inter-paroxystic " symptoms into " stigmata " or permanent symptoms, and " accidents " or transient and protean bodily symptoms of psychogenic origin. It was about this time that a clear distinction was first made between epilepsy and hysteria. Bernheim rejected Charcot's " accident " and " stigmata," and returned to the old practice of restricting hysteria to mean only the " *crise de nerfs* " or the convulsions ; and he also pointed out the importance of suggestion in building up the symptomatology of hysteria as in the case of Charcot's " *grande hystérie*." The descriptive trend in the development of the concept of hysteria practically came to an end with Charcot, except for the description of the Ganser syndrome and the prison psychoses by Ganser and Siefert respectively at the turn of this century.

Attempts at analysing the nature of hysteria took two complementary courses ; the French school adopted as its point of departure the structural theories of Janet (1892), and made great play with the ideas of dissociation and suggestion. The German school on the other hand took a more penetrating and dynamic view of it, influenced inevitably by the work of Breuer and Freud (1895). Freud studied with Breuer the hysterical " twilight states " (" hypnoid states "), which, in opposition to the latter, he insisted were due to a revival or reliving of early traumatic experience, mainly sexual in content. Later he elaborated the idea of failure of repression leading to " conversion " into somatic channels of libidinal energy. He regarded the " hypnoid state " as a state of dissociated consciousness, much in the same way as Janet, who explained on this basis abulia, doubling of the personality, as well as restriction of the field of consciousness in certain hysterical states. This relationship of hysteria to hypnoidal conditions is of importance for our understanding of the disease.

With the application of general psychoanalytic principles to hysteria, the psychodynamic point of view gained gradual acceptance, though not necessarily within the Freudian tradition. Gaupp (1911) first discussed the illness as a reaction-type rather than a disease, and in the same year Bonhoeffer identified the reaction as one essentially involving dissociation directed by the will in a pathological direction,

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" the will to illness." This, of course, originated from Freud's idea of a " flight into illness." Jaspers (1913) also emphasized the will to sickness, and believed that the hysterical dissociation depended on mechanisms found also in hypnotic states. In becoming sick, the patient satisfied a purpose not fully conscious and at the same time obtained a morbid gain, whether it be an escape from reality or a wish-fulfilment. It was left to Kretschmer (1917, 1923) to make a searching analysis of the implications of this point of view ; he attempted a classification of hysteria based on an evaluation of the extent to which volition entered into the illness, and his later monograph was important for its study of non-volitional hysterical mechanisms (*vide infra*). Bumke (1918) pointed out that sometimes the fear of being ill might be as effective a cause of hysteria as the desire to appear ill. In general the idea of a morbid secondary gain in hysteria has been widely accepted, although Schneider (1923) has argued that such motivation is not essential for the pathogenesis of hysteria, since the illness may occur on the basis of the mechanisms that Kretschmer has emphasized, as well as the ordinary process of "forgetting" (*verlernen*) associations.

The descriptive trend in the evolution of the idea of hysteria passed from a preoccupation with the " interparoxystic " symptoms to a study of the " hysterical personality," and this aspect of hysteria has claimed much attention. It was a Frenchman, Hartenberg, who, with the acuteness of perception so typical of French psychiatrists, first attempted to delineate this type of personality (1910) ; he thought it was characterised by a lively and vivid imagination, which by means of pronounced auto-suggestibility, could give the quality of reality to its images. Bernheim (1913) held that suggestion working upon emotionally-laden ideas brought about the hysterical reaction in certain people ; but he denied that suggestibility was anything but a feature of normal psychology (in contrast to Babinski), and refused to associate suggestibility with proneness to hysteria ; nor did he believe (in contrast to Charcot and Babinski) that hypnosis was induced hysteria and that therefore hypnotizability was evidence of the disease. In later years belief in the usefulness of the concept of the hysterical personality was expressed by Jaspers (1923), who regarded it as characteristic of a person who " instead of accommodating himself to given situations and possibilities of life is under the necessity to appear more than he is both to himself and to others, and also to live more than he is able " ; and also by Bumke (1924), who incriminated the traits of suggestibility, lability, instability of the emotions, over-development of phantasy, untruthfulness, selfishness and egoism. Binswanger (1920) and Schneider (1923) denied the usefulness of the concept, the former on the ground that if the psychogenic factors were strong enough, anyone could become hysterical, and the latter on the ground that there was so little definitely known that almost every personality trait had been dubbed " hysterical." Many contemporary psychiatrists would adopt a position less sweeping and extreme : Lewis (*vide* Price, 1946), for instance, recognizes the existence of the hysterical personality, which he regards as unduly responsive, posing, pretentious, affectively labile, with unstable standards and an exuberant fancy. However, not every hysteric will possess these traits, although almost every personality of this type will show hysterical symptoms. Hysteria is potentially present in most people, as can be especially seen when they undergo extreme stress, but in these cases environment will be more important than heredity. The combination of heredity and environment will have, long before illness occurs, resulted in the formation of a hysterical personality.

Present-day Connotation of the Term.

The idea of a flight into illness with morbid gain, first stressed by Freud and Bonhoeffer, is now generally accepted as an essential feature of the hysterical reaction. The other important characteristic of this illness is the ability of the organism to utilize physio-psychological processes, normally beyond the control of conscious volition, in the task of adapting itself to its environment. This is essentially the problem of " hysterical mechanisms," and is closely related to the question whether or not a hysterical personality exists. It would be entirely in accord with the principles of modern psychopathology to conceive of the pathodynamics of hysteria as exaggerations, or distortions of physiopsychological processes present in the normal individual, and from this point of view it is clearly important to identify in the normal personality the basis of the common hysterical mechanisms. The views of Lewis, quoted above, succinctly summarize the whole matter from a clinical standpoint.

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Our understanding of hysterical mechanisms comes mainly from the efforts of Kretschmer (1923; Eng. ed. 1926), whose ideas represent the clearest expression of the biological trend in the interpretation of the nature of hysteria. He said (*op. cit.*, p. ix): "such psychogenic reaction-forms are predominantly called hysterical where a tendency to dissimulation makes use of reflex, instinctive or otherwise biologically preformed mechanisms." The reflex and instinctive mechanisms he regarded as part of the "Hypoboulic Will," which in action tended to be explosive, undiscriminative, and "all-or-none" in character; being primitive, it was also suggestible, and was responsible for the phenomena of automatic obedience as well as negativism. In contrast, the "Purposive Will" was exact, discriminative and fully conscious. Normally these two wills were in dynamic opposition, but if the higher disintegrated the lower became dominant, so that dissociation of the mental organization occurred. This condition in its cognitive aspects he called "Hyponoia," meaning by it a state of lowered or relaxed consciousness. He worked out the laws governing the co-operation of reflex, hypoboulic and volitional processes. Habit-formation was according to him, a natural process which enabled experience to be transformed into physiological change. A voluntary and originally meaningful act became by habituation automatic and independent of the will and might even work against it. Habit formation did not have to be active, and purely passive disinterest of the will could lead to hysterical fixation. Furthermore, fixation could also occur through the conditioned reflex. When a reflex had been ingrained in the organism, it was maintained in a constant state of excitability, either by nervousness that was natural to the patient, or brought about by self-excitation through constant attention to morbid and horrifying things. It could also simply be a lasting effect of extreme shock (pp. 37f.).

Kretschmer's approach to hysteria was a functional one, and he did not emphasize the forms which this reaction could take. The pathogenic mechanisms he described are generally accepted, and have been utilized by Schneider (1923) and Bleuler (1923; Eng. ed. 1936) in their analysis of hysteria. The former excluded from hysteria both the hysterical personality and the "psychogenic psychoses," and confined the term to disorders of *bodily* function which were psychogenic and psychologically "bound" (*festgehaltene*). He considered that the pathogenesis of true hysteria involved dissociation through hysterical habituation and fixation of reflex activity or of vegetative function, simple "forgetting" of associations (*verlernen*), or, rarely repression. This very narrow interpretation of hysteria, is of course not accepted by contemporary psychiatrists, who recognize the "quasi-psychotic" (Lewis) forms of the disease. Bleuler (*op. cit.*, p. 554) described two types of hysteria: the first type developed in the hysterical personality (commonly female) and the symptoms, whether mental or physical, arose more from unconscious or semi-conscious complexes than from external pressure or seduction; the second type was commonly found in men, and followed some definite external event with strong affective meaning, e.g., shell-shock. This latter type was usually produced through reflex enforcement in the widest sense, as well as the will to illness ("a desire which also needs the capacity to produce a symptom, bring it to the surface, and at the same time give it permanence"). He did not make himself clear as to whether this second type of hysteria could take on quasi-psychotic manifestations, although in discussing traumatic hysteria (p. 551) he mentioned "attacks, paralyses and twilight states" in addition to "paralyses with tremors." It would appear, however, that according to his ideas the symptoms of hysteria arising from shock would be directly related to the nature of the shock itself, without the influence of any complex-determined factors; and that such symptoms would mostly be simple and undiversified.

Bleuler furthermore quite definitely distinguished from hysteria those forms where the "association reflex" (conditioned reflex) was the essential factor, e.g., constipation following enemas. Also to be distinguished were the "primitive reactions" of Kretschmer (1918), namely, "exaggerated or false simple reactions like screaming, attacks of rage, affect stupor, reactive depressions, the rare manic-like states and similar conditions." These reactions Kretschmer ascribed to a variety of subjects, who, because of constitutional predisposition, organic or biogenic mental disease, or complex-determined "sensitivity," are either unable to deliberate on the exciting stimulation or are possessed of an all-dominating affectivity.

Nor did Bleuler include under the term "hysteria" "the strong affectivity seen among savages, or the phenomena of becoming perfectly rigid from a knock on the door, or the twilight loss of clearness, and similar states, or the mass epidemics . . ."

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However, he realized that the monosymptomatic hysterias of children and the monosymptomatic tremors of shell-shock graded into the primitive reactions, inasmuch as they developed more on the basis of a " false connection" (i.e., conditioned reflex, *vide* p. 494) than on a will to illness (pp. 551, 555).

In discussing hysterical mechanisms Kretschmer disdained the concepts of the psychoanalysts, which he regarded as comparable to the " mythologic and devil-incarnated concepts of the primitive mind," but he himself noted that the hypoboulic will corresponded to the Freudian " complex." It is doubtful, however, whether in terms of his own concepts he can adequately describe the important psychological processes which lie within the province of psychoanalysis; when he talks about the " hypoboulic demon hurling a tremor," for example, he is taking liberties with his own explanatory concepts in a manner which lays him open to the same charges that he made against the Freudians. The usual run of cases of hysteria can often be meaningful and usefully analysed from the point of view of psychoanalysis, especially where physical or " conversion " symptoms occur; but in those less common cases of mono-symptomatic hysteria which arise as a direct result of some catastrophic event, where, furthermore, the symptom is a fixation of some physiological change precipitated by fear or shock, there is clearly no need to resort to any more complex mechanism to account for it than that of reflex enforcement, habituation, or the conditioned reflex.

Thus we may conclude that hysteria cannot be diagnosed in conditions where neither the will to illness nor the presence of hysterical mechanisms in the widest sense can be discerned. The hysterical mechanisms of Kretschmer (" reflex, instinctive or otherwise biologically pre-formed mechanisms ") may play only a minimal part in the pathogenesis of most cases of hysteria, but in other cases they are all important. From the nosological standpoint, however, it might be well to exclude from the category of hysteria any case in which, although the so-called hysterical mechanisms are involved, a flight into the illness, a purpose in the illness (or a fear of the illness*) cannot be demonstrated. It should instead be classed among the fright or traumatic neuroses, or among the recently recognized group of " psychosomatic diseases " which arise on the basis of the fixation or structural organization of functional bodily changes following prolonged or intense emotional activity (cp. the " organ-neuroses " as delimited by Alexander, 1936).

VIII. The Concept of the Fright or Shock Neurosis.

The term " traumatic neurosis " was originated by Oppenheim in 1889, when his monograph on the subject appeared. Although there was little difference of opinion on the symptoms of mental disease brought on by trauma, yet there was much debate on the nature of the illness itself. Westphal and Struempell regarded these cases as organic in basis, but Schultze, Hoffman and Mendel considered that they were either examples of hysteria or neurasthenia. Charcot and the French generally insisted that they were nothing but cases of hysteria. Oppenheim advocated an organic histo-pathology to account for the illness, but his views were never widely accepted, and by the end of the First World War almost every German neurologist, thanks to the work of their psychiatric colleagues who had been actively elaborating the modern theory of hysteria, had begun to mention the significance of " morbid gain " in discussing its pathology. The frequent development of frank hysterical symptoms following trauma had led many authors to describe " traumatic hysteria," and Freud (1895) went so far as to say that there was a " pathogenic analogy " between ordinary hysteria and traumatic neurosis, which justified the broader conception of " traumatic hysteria "; inasmuch as every experience producing the painful affects of fear, shame, anxiety or pain might be regarded as traumatic, and inasmuch as ordinary cases of hysteria could be held to spring from a series of minor, repeated traumatic experiences. Without a strict definition of the term " traumatic " this analysis, pursued logically, would deny any usefulness to the concept of traumatic neurosis. Later, in discussing the war neuroses, Freud made the important formulation that in cases where the individual was faced with violent trauma, the essential conflict was not, as in the ordinary neuroses, between the Ego and the Id, but between the Ego and the outside world, and this resulted in a rupturing of the protective mechanism for warding off undue stimulation, so that the subject is overwhelmed by massive excitation (Freud, Ferenczi and Abraham, 1921;

* Cf. Bumke's views, p. 46.

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Freud, 1922). He was the first to give a theory of the traumatic neuroses as we would understand them to-day, and he has been followed by Fenichel (1934), Kardiner (1941) and Radó (1942). The work of Kardiner represents the most satisfactory study of the traumatic neuroses to date.

While Freud may be said to have pioneered the psychodynamic approach to our understanding of traumatic neurosis, Kretschmer has led the way in analysing it biologically (or psycho-biologically). The contemporaries of Oppenheim—Bonhoeffer, Gaupp and Stierlin—had paid a great deal of attention to the psychiatric effects of fear, and Stierlin had especially unrivalled opportunities of studying them in the Messina earthquake of 1908. From the varied symptoms of tremors, increased reflexes, tachycardia, polyuria, insomnia, nightmares, disturbances of sensations and consciousness, etc., Bonhoeffer had isolated his " vaso-motor symptom-complex " as the basic pathological manifestation of fright. It was the realization of the fundamental importance of fear in the aetiology of the traumatic neuroses that led eventually to the formulation of the more accurately defined concept of the " fright neurosis." Kraepelin (1913, p. 269) limited, in his *Lectures*, the traumatic neuroses to the fright neuroses (denying that the latter were the same as latent hysteria set free by trauma, though he admitted that this was in other circumstances not impossible). Kretschmer, adopting a broad biological approach, has been able to give an illuminating presentation of the relationship between the fright neuroses and hysteria. His interest in the effects of fright on the organism arose, to begin with, from his studies on hysteria (1923). He proceeded from a survey of the phenomena of the sham-death reflex in animals following fright, and discussed in the higher animals the associated reactions of analgesia, collapse, relaxation and cataleptic states. These states, he affirmed, were not only " identical with human hypnosis, but with closely related spontaneous hypnoid processes, the stupor and twilight states in fright and hysteria (p. 8). In man he recognized that fright might lead to convulsions, delirious clouding of consciousness, hypnoid states which sometimes passed into " resistive somnolent states or narcolepsy," long continued immobility and also activity arising from the " violent motor reflex."

In 1937 he summarized his views on the relation of " shock neurosis " to hysteria. Both could follow from fright, but often the two were intimately mixed. The " shock neurosis " (or fright neurosis) showed the " vaso-motor symptom-complex " and twilight states described by Bonhoeffer, as well as other " primitive " physical effects, but the hysterical reaction could also exhibit these, since a wish to escape reality or obtain a secondary gain can fixate these primitive affective processes. Theoretically, the effects of shock or fright would die away and perfect normality would return ; but, in fact, a psychic aim would in many cases work upon the instability of the organism immediately after the shock to produce various hysterical symptoms. " That is why we are unable to separate the fright neuroses from hysteria, but also cannot identify these with each other."

The terms " fright neurosis " (or " fright psychosis,"* Bleuler, Kleist) and "shock neurosis "† have been used interchangeably with each other and also with " traumatic neurosis." Classifications of these and allied reactions arising from trauma are numerous and confusing,‡ including as they do " traumatic neurasthenia," " concussion neurosis," *pavor nocturnus*, etc. There is nothing to be gained by distinguishing more than three classes of mental illness following acute trauma, viz., the organic post-concussion states, traumatic hysteria and fright neurosis or psychosis. The last is characterized by stuporose inhibitions of varying degree, clouding of consciousness, various vaso-motor disturbances, trembling, dizziness, irritability, fatigue, insomnia and nightmares, and do not last for more than a few weeks at the most. They occur in those of more or less normal personality, in circumstances which do not justify us in inferring that the illness involves a need for attention, approval, revenge, reward, or escape from reality. The fright neurosis is basically the same kind of reaction as Kretschmer's primitive reaction (*vide*, p. 51), but in addition involves a long-lasting impairment of the adaptive capacity of the subject; so that clinically it runs a rather chronic course, without complete restitu-

* Henderson and Gillespie (1944, p. 68) state that the term " traumatic *psychosis* " is usually reserved for reactions following organic head injury.

† The term " shock " has undesirable physical connotations.

‡ Huddleson (1932) gives a full list of these classifications in an otherwise uninstructive book.

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tion to normality. However, Bleuler (*op. cit.*, p. 494) included the fright neurosis under " primitive reaction."

Both fright neurosis and traumatic hysteria may be included under the term " traumatic neurosis " if no attempt is made to distinguish the hysterical element in such cases from that which is purely a result of exaggerated fright. This term may have practical value for clinical use, but it is nevertheless a confusing one for nosological purposes, since it has been used with organic connotations and is so inclusive in meaning.

The most adequate and complete work on " traumatic neurosis " in recent years is that of Kardiner (1941). He defined it as " a type of adaptation (following traumatic experience) in which no complete restitution takes place, but in which the individual continues with a reduction of resources or a contraction of the Ego." He defined trauma as an injury to the Ego or the individual's powers of adaptation ; excessively traumatic stimuli, he believed, cause an overwhelming of the Ego, with chronic damage to the adaptive capacity and impairment of perception, co-ordination and manipulative skills, with fruitless attempts on the part of the patient to recover control over his tools of mastery. He essentially followed Freud by placing the locus of pathogenesis in the loss of control of the Ego over its environment. " From the physiological point of view," he said, " there exists a lowering of the threshold of stimulation ; and from the psychological point of view a state of readiness for fright reactions " (p. 95). It is clear that he was in fact dealing with the fright neurosis in its strict sense, although he did not use this term. We shall have occasion later to refer again to his analysis of this reaction.

I shall use the term " fright neurosis " with the connotation that Kardiner gave to " traumatic neurosis," and I do not propose to restrict the term to cover only those cases of psychiatric illness following major catastrophes (as Bleuler insisted should be done, *op. cit.*, p. 564), since it is employed in a functional and not a clinical-descriptive sense.

No discussion of the fright neurosis can be complete without a consideration of the panic state. In the past the meaning of this term has been obfuscated by the notion of " pure and impure affects," and it has never attracted much attention as a technical concept. Diethelm (1933) attempted to delimit it by defining it as " a maximal fear state which results from prolonged tension and anxiety." In panic the feeling of insecurity might lead to projections and other kinds of personality disturbances so as to bring about disintegration. Panic, he said, was never brought on suddenly or without cause, nor was it the result of an accumulation of anxiety. This would result in short-lived abreactive shouting and screaming, but panic led rather to " thinking disorder," projection and passivity feelings which were not complex-determined. Panic was the result of maximum " tension and apprehension," and was closely related to fear, in which, unlike anxiety, the frightening object was clearly apprehended.

Diethelm regarded it as part and parcel of the major affective reactions, and not a nosological category by itself. According to his formulation, panic is thus only an intense fright reaction to a clearly perceived fear-provoking object, but with elaborations such as " thinking disorder," projection and passivity feelings. Unfortunately he did not say how long he thought such panic states could last, nor is it clear what he meant by " thinking disorder." The specific symptoms he mentioned obviously could not be experienced in the acute fright reaction, or the short-lived " primitive reaction," except in so far as thought processes are disorganized and purposive behaviour to various degrees inhibited ; on the other hand, paranoid states following fright are better called such. There is little to be gained by giving panic an exact technical connotation.

IX. Cases Observed in Malaya.

The following 7 cases were personally examined by me during a visit to Malaya and Singapore in 1949 using the Malay language as the medium of interrogation. (Several other cases were seen, but they possessed latah " mannerisms " more than symptoms, and need not be recorded). Since latah is regarded less as a disease than an eccentricity of behaviour, cases are never seen in hospital or clinic, but have to be sought for, as it were, *in situ*. Even the advanced cases are never looked upon as mad, and when I visited the Central Mental Hospital in Tanjong Rambutan, which receives all the cases of psychosis to be found in the whole of Malaya (more than

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3,000 beds), I was informed by the Medical Superintendent that latah was never seen among the inmates, and indeed some doubts were expressed as to its incidence as well as its claim to nosological independence.

Anyone who has worked in Malaya, where a large population with a high degree of illiteracy is growing up in an undeveloped country, will understand the great difficulty of obtaining adequate histories from patients who often do not even know their exact age. Moreover, the process of interrogation carried out by one who is a comparative stranger is bound to inhibit people who have never been accustomed to it by schooling. Practical difficulties and the demands of etiquette alike make it impossible to submit such patients to a proper physical examination. Under these circumstances, it would be worse than useless to elaborate a formal psychiatric history for each patient, and I shall restrict such to a minimum compatible with what can reasonably be held to be true.

I shall describe them under two classes, the mild and the severe :

Mild Cases.

(1) A *nonya* (woman of Chinese racial extraction, who for two or three generations have taken largely to Malay speech, customs and manners), aged about 40, in Malacca. She had long been regarded as eccentric, and was called *goreng pisang* (fried banana) by way of a nick-name. She was employed as an odd-job cook during festivals, etc., and had a daughter and a son, who was also regarded as " silly." Her husband was a stall-holder, selling sweetmeats.

She was markedly histrionic and sensitive to attention. When persuaded she would, after a show of reluctance, start to walk about with exaggerated swaying of the hips and dance the *ronggeng* (a recognized folk-dance). At the same time she sang snatches of a love song, facing me all the time. After a little while she stopped, saying in a mischievous way that her testicles were dropping. When asked to bow she did so repeatedly, advancing all the while, and incidentally raising hails of laughter from those around. When tickled she would start to strut about as though making determined and demonstrative attempts to stride away. She was not echolalic, but when she wanted to leave and was, with some physical pressure, made to remain, she showed some confusion in speech which is typical of persons in the latah state : she had been playing cards and had hoped to win some money, and kept on reiterating this idea : " Good-night, *eh*, good-night, *untong-lah, kanah lottery, eh, kanah lottery, eh*, good-night . . . " (which may be rendered : " Good-night, eh, good-night, shall have to owe money then, win a lottery, eh, win a lottery, eh, good-night. . . . ").

She had developed these peculiar mannerisms and exhibitionistic personality traits from childhood, and her latah symptoms hardly ever went beyond this. She appeared to be a gay, mischievous and fairly intelligent person, not unusually nervous or anxious. The most genuine symptom she showed was decomposition of speech when embarrassed or discomfited.

(2) A Malay woman of about 40, the wife of a fisherman, with two children, seen in Malacca. She was a slow, stupid woman of rather elementary mentality, not easily drawn into conversation. She would not reply to questions, but when prodded in the ribs or teased she would make little attempt to defend herself beyond saying in a slow, deliberate drawl " *puki* " or " *butol* " (vulgarisms for female and male sexual organs). She would not budge from her squatting position on the floor, but kept on eyeing one in a rather puzzled manner. When commanded " Bukol ! " (" Strike ! "), she immediately said, " *Bukol lu, Bukol lu* " (" Strike you, strike, strike you "). When I accidentally dropped some coins, she at once exclaimed " *Duait kechil, ah, duait kechil* " (" Small money, ah, small money ") in some excitement, as though she was startled by the noise of the dropping coins, and had to verbalize what suddenly attracted her attention.

These coprolalic and mild echolalic symptoms were elicited without any preceding attempt to frighten or startle the patient. Nevertheless, although the patient carried on a normal life as a housewife of humble station, there was no doubt that she was a mild or incipient case of latah. I was informed, although I had no chance to test it, that she was known to be capable of rather more definite symptoms when really confused and frightened. It was difficult to determine whether she had any nervous symptoms because of her unintelligence and lack of co-operation.

(3) A *nonya*, aged 60, seen at Batu Tiga, near Malacca. Her symptoms had become noticeable 15 years previously ; during the Japanese occupation two of her four children had died within a few days of each other and her illness was said to have taken a more severe turn then. For the previous two years she had ceased to go out, because she had developed a fear of cars.

She was a thin, shy, pleasant, compliant, normally intelligent woman, of humble status but by no means coarse. When asked her age, she seemed not to know, and made play with figures—" 50, 60, 70 . . ."—giggling the while. When touched unawares, she would

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expostulate, accelerate and raise the pitch of whatever she happened to be saying, show word-play, or definite echolalia. Repeated touches had no effect, but sometimes a sudden gesture as if to tickle her sides would bring about a response. Her word-play usually centred round a word or phrase in itself meaningful for the situation; e.g., when suddenly squeezed in the arm, she exclaimed "*Eh, towsa, kras-elmbak, kras-elmbak* . . . " ("Oh don't, hard and soft, hard and soft . . . !"). Or she might in this state simply repeat words, e.g., "*Mampus, mampus, eh, mampus, eh, mampus, jugak* . . . " ("I'm done for, done for, eh, done for, eh, done for, so indeed . . . "). When stimulated while counting cards during a card game, she would go on and on with the counting quite needlessly as though her words had a momentum of their own. There was nothing remarkable about the echolalia she showed. She did not exhibit coprolalia. Automatic obedience was never quite convincing, and she made attempts to evade the examiner, murmuring that she was afraid of the "Japanese" doctor ("Japanese" being a term of derision). Echopraxia again was not elicited except for an occasional imitative movement.

However, I was informed that more marked symptoms could be elicited, and the person herself said that after a severe shock leading to the latah state she would not remember what had happened. That was why the condition did not really "*naik ati*" (cause psychological harm), since the amnesia protected her from the memory of the traumatic shock. She had tried taking "holy water" for a cure, but did not appear to be much troubled by the illness and was not otherwise nervous, irritable or easily fatigued.

(4) A Malay male, aged about 45, married with two children, a part-time chauffeur, seen at Kampong Bharu, Kuala Lumpur. Both his grandmother and mother had been latah, the former so severely affected that, according to the patient, a passing cat might make her jump and rush off into the jungle.

He had played at being latah in childhood, but it was only two years previously that, following his seizure by two mischievous friends, who tickled him inordinately, he discovered that he could not shake off the "habit." His colleagues were prone to make play with him, and on one occasion he nearly had a serious accident because of this.

He was a cheerful, pleasant and intelligent person, and said he did not mind a bit if his friends teased him while he was not driving. When tickled in *both flanks* simultaneously for a little while and prevented from escaping, or when suddenly startled, he would go into the latah state. He kept on laughing and twisting, expostulating all the time, but did not use obscenities. Then he began to show signs of confusion and helplessness and echo short sentences spoken in English and Chinese, as well as Malay. A fist held up for his attention would cause him to do the same, and he would also imitate the clenching and opening of the fist, but nothing more remarkable than that. Automatic obedience was shown only in so far as he stood, turned and sat down as ordered though not without hesitation and reluctance; but this was not very convincing, as he had to be constantly prodded in the sides. After a time it appeared as though he had lost interest in the whole proceedings, and escaped from our grasp. He said later that he retained only a hazy memory of all that had been done to him at the time.

He did not, however, think that he was suffering from anything more than excessive ticklishness; but it was bad enough for him to ask me if I knew of a cure for him. His friends had advised him to take a soup made from the front legs of a goat, and after having taken this he believed he had improved. He appeared to be a mild, yielding type of person, soft-spoken and gentle. He was never brought to a marked degree of disorganization during the examination but he was undoubtedly a moderate case of latah.

Severe Cases.

(5) A *seranee* woman (i.e., of Malay-Portuguese extraction), aged 70, and feeble, whose husband was an ex-fisherman, living in a depressed fishing community on the outskirts of Malacca.

She was a meek and senile woman who persisted in calling me *tuan* (Sir). She jumped at the slightest noise, and at the same time repeated it, e.g. a noise made in imitation of a dog bark; also when she was spoken to abruptly in a loud and commanding voice she would show typical echolalia. Any aggressive movement made towards her, including attempts to tickle her would bring about confused and incoherent talk, with ineffectual efforts to escape. She never exhibited coprolalia. After some time she did not have to be constantly stimulated to show these symptoms. She imitated movements of the arms made in front of her, and contortions of the face, though without any exactitude. All simple and direct commands she promptly obeyed. She became tired, rubbed her eyes repeatedly, said she was *mabok* (drunk), and begged me to desist because she wanted to be well, and attend mass that night, in preparation for the Feast of our Lady Fatimah the following day.

When composed she was fully orientated, could tell her age, and informed me that she had had four sons, all of whom had died. She could tell thrice three was nine, but thrice nine elicited a confused answer. (Like all the other patients described here, she had never been to school.)

(6) A *nonya*, aged 70, with four children, seen at Pudu, Kuala Lumpur. Her husband had been the owner of a small tin-mine, but she was living then in relative poverty. Her

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maternal grandmother as well as her younger sister was also subject to latah. She had played at being latah as a child, but she did not fall prey to the illness until she was about 50 years old. The onset apparently coincided with the death of a daughter under violent circumstances.

She was quite able to attend to various domestic tasks, but was obviously showing signs of senile decay. She could not hold my address in mind for more than a few minutes, and insisted that I was a " Japanese " who during the occupation had stolen two brooches from her. Memory for more remote events in her life was easily recalled. She could do simple arithmetic quite well.

When dug in the ribs she would become incoherent, and after a short while, attempt to compose herself, throwing up her hands and chuckling. Sometimes she showed echolalia in Malay as well as Chinese and English, which last she could not understand. Her echolalia was always interrupted by protestations, and meaningless exclamations. Occasionally she would interject " *Nonok* " (vagina) and on one or two occasions made as if to touch the examiner's genitals. She was distinctly echopraxic. When a ruler was hit against the table to make a noise, she imitated the movement as well as the noise. When her patella was tapped she tapped her other knee, or the examiner's. When a lighted cigarette was held by me against my own arm, she did the same with her own cigarette, felt the burning heat, pulled it away, squealed and kept on laughing. Movements of my face she imitated on hers readily provided I had her full attention.

When I ordered her to give me her bangle she took it off, but then her son ordered her not to do so, and she never gave it to me again. When asked to dance she did it without hesitation, and stopped at once when either her son or myself asked her to do so. If the son in front of her clapped his hands, and I, also in front, and claiming partly her attention, raised mine instead, she became nonplussed, and after a moment compromised with an intermediate movement.

Eventually she moved from the room in order to urinate. She had full insight into her condition and said she did not want to be too much excited as it made her tired. She was more susceptible when worried. When actually latah she could not think clearly or do simple calculations like 3×3. After the bout she could not remember clearly what had happened, e.g. she could not remember that I had asked her to hand me the bangle.

She slept well enough for an old woman and was not especially troubled by dreams. She was however prone to be upset by trifling worries, especially when she got tired. She was pleasant and by no means irritable or difficult to get on with.

(7) A Malay woman, aged 50, with three children and a husband alive and well, teaching in the village school. She had been latah for more than twenty years, but the onset was not related to any special occurrence. She was seen in Bukit China, near Malacca.

She was a dull, stupid woman, with a dazed expression. She appeared listless and tired, although when made to speak she became facile and even euphoric. She could not give her age or tell how long she had been latah ; she said repeatedly that she had 17 children when she was asked, but this was obviously not true. The time she told incorrectly and persisted in this even after correction. She was incapable of sustained conversation and showed no spontaneous speech.

The remarkable feature was that she needed no stimulation in order to show the symptoms. It was a case of being permanently in the latah state. All that was necessary was in an ordinary way to engage her attention. She did not echo Malay words spoken to her in a level tone, but might do so if one spoke in an urgent manner. When asked in English, " Do you speak English ?," she at first said " No," and then merely echoed in a rough imitation of the question, which she could not have fully understood. Often when speaking she would break up her words with the typical " *eh* " so commonly used by persons subject to latah (or even normal Malay women), and then momentarily check her talk or change the phrase, the whole being an attempt to correct her speech.

On one occasion when I thrust a cigarette at her, she said, " *Kotek, Nonok* " (male and female organs) ; (it is tempting here to speculate whether this is not an example of dereistic thinking involving Freudian symbolism). Otherwise the patient did not exhibit prominently the symptom of coprolalia.

This case showed behaviour which might be considered to be phenomena based on autosuggestion. Thus when I handed her my hat she put it on, made a half-salute, spoke a few words in imitation of English, then took it off and corrected herself with an " *eh*," and grinned sheepishly. Again, when I handed her a box of matches, she started to strike a match, and blew it off. It was not necessary to give her an order to perform an action. the merest suggestion being sufficient. She also showed automatic obedience to commands, sitting and standing, and striking herself and others with great force when told to do so. Sometimes negativism would appear as, e.g., when asked to allow her pulse to be felt, she would at first hold out her wrist, and then withdraw it again. Echopraxia she showed perfectly. A match-box thrown at her she would at once throw back ; if she was hit, she would hit back although not necessarily with the corresponding limb on the same side ; if I blew some cigarette smoke from my mouth she would imitate, although not smoking herself. Hand postures she imitated exactly, so also a sniff (I had a cold then), or a cough. When I put out my tongue, she did the same, but shot it in and out, as though to tease and insult. If

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I smiled or looked fierce she also affected to do so, but only if I was looking at her, and never if my attention wandered.

Her husband informed me that if the session was prolonged she would exhibit symptoms with increasing ease, so that if she was told to use a knife on someone she would obey. She would become very exhausted and faint, with eyes closed, and remain flaccid. This happened once when she ventured on to the street one day and she was frightened by an onrushing pedicab (a tricycle plying for passengers), and she had to be carried home in a coma, from which she had to be wakened by the usual methods of stimulation, water splashed on the face, etc., after some hours. As a rule she kept very much to herself at home doing ordinary household work which did not require strain or exertion. She had to be sheltered from noise and excitement, and was under those conditions less subject to insomnia and anxiety dreams, which used to trouble her.

Some general features of the latah reaction may now be pointed out. Except in the most severe and chronic cases, symptoms can only be elicited after a sudden shock, and these have to be continuously repeated if the patient is to undergo prolonged examination. These stimuli need only be quite trivial. The patient's attention must be gained, and repeated stimulation may serve simply the purpose of maintaining attention. Imitating of the movements and sounds of inanimate objects unrelated to the examiner with whom the patient is " en rapport " must be most unusual. While some of the milder cases show an evident delight in demonstrating their symptoms, the severe ones attempt to struggle against their own helplessness, showing some degree of anxiety or anger.

The commonest symptom is echolalia, followed in order by coprolalia, echopraxia, automatic obedience and echomimia (i.e., imitation of facial expression of mood and feeling). Coprolalia is commoner in coarser patients. In its mildest form the echolalia merges into the palilalia-like " decomposition of speech " (cf. Cases 1, 3), when the stream of speech is interrupted by repeated attempts at correction, on almost every occasion with an interjection denoting surprise or amusement ; it is as though the subject was speaking experimentally, groping for the right word and the correct phrase. Normal Malay speech also shows mannerisms of this kind, but of course to a much lesser degree. " Decomposition of speech " has not been described before. Nor have phenomena like the patient's striking a match when merely handed a match-box (cf. Case 7) ; this may be called " auto-suggestion," since to class it with command automatism will be to make the latter term meaningless.

I was not able to get any clear evidence that the onset of the illness dated from some frightening experience, as Sakaki so frequently found in his cases of *imu*. But several cases I saw incriminated conscious imitation of latah in childhood, later " stamped in " by " shock " as the cause of their illness (e.g., Cases 4, 6).

Latah is a disorder of women past their prime. The severity of the illness increases with age, although not all cases are progressive. The severer cases become nervous and tend to keep away from crowds and noise. Some of them sleep poorly and may be troubled with dreams of a frightening nature (e.g., Case 7), but the number of cases I studied is too small for me to be able to say how frequently this occurs or how significant it is. I found the greatest difficulty in inquiring into the sexual life of the younger cases, since these never regarded themselves as patients, and would have resented such questioning. The really severe cases are usually elderly, and they appear to be somewhat dull and easily exhausted, and under stress may actually faint or otherwise collapse without losing consciousness. The last case in my series conveyed the appearance of dementia, with flights of fatuous euphoria, and in others there were doubtless symptoms of senile dementia.

The diagnosis of established cases presents no problem, but where mild, abortive cases are concerned, it is often difficult to separate the genuine cases from those which are basically histrionic and exhibitionistic in nature.

X. Patho-dynamics.

Latah is a specific reaction produced by sudden psychological shock in naïve, undeveloped or poorly endowed personalities, and is characterized by disintegration of the mental organization and the boundaries of the Ego, with impairment of volition as well as the power of attention ; this results in the exhibition of echo-reactions and automatic obedience, associated with a minimal degree of anxiety and attempts at self-defence, which may express itself in coprolalia. The reaction

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occurs in all degrees of severity, and is chronic and facilitated by habituation, but is not always progressive.

It will be convenient to analyse the reaction under the following headings :

(1) The fright stimulus and proneness to fear ; (2) adaptation to fear ; the startle effect and processes of central inhibition ; (3) echo-reactions and automatic obedience and their relation to identification, fascination and hypnosis ; (4) a theory concerning the basis of Command Automatism (or automatic obedience) and the echo-reactions, with special reference to the latah reaction ; (5) coprolalia ; (6) the psychology of tickling ; and (7) ageing, habituation and hysterical gain.

The Fright Stimulus and Proneness to Fear.

The feeling of fear is the immediate affective response to a fear-provoking stimulus, clearly apprehended, but for which we are unprepared, and to which we therefore cannot adequately react. Since it must be sudden, the stimulus must necessarily be visual, auditory, or tactile, and must also occur in close propinquity to the subject. The frightening or startling quality of the stimulus depends not only on the physical characteristics of the stimulus (intensity, extensity, and suddenness), but also on the set or disposition of the subject towards fearsome stimuli.

It is possible that cultural factors may determine in a general way the proneness of a person to fear and fright. There may be developed a generalized attitude towards danger which would take the form of personality traits like wariness and self-assurance and, moreover, a person may be culturally conditioned to become afraid of certain stimuli which are neither in their physical aspects frightening nor in themselves real threats to human life or security. Thus the Ainus have a special fear of serpent spirits, and the sight of any creature remotely resembling a serpent may throw them into great fright (thereby precipitating the latah reaction). Similarly, certain Canadian Indians will throw a " primitive hysterical seizure " if they should suddenly step on a harmless type of garter-snake, toad or frog, all of which they believe to be inimical to man (Hallowell, 1934).

The stimuli precipitating the latah reaction are numerous, but they all arouse fear, either because they are intrinsically fearsome, or because they are associated with something originally frightening. Thus a cry of *rimau* (tiger) or *sirkul* (name of a spirit) will bring about the reaction in the Malay and the Tungus respectively. In the unique case described by Van Loon (1928) a woman developed the reaction following a nightmare with sexual content. It is not impossible that the latah patient may in some cases be conditioned in the Pavlovian manner to react with fright to stimuli which have been adventitiously associated with an original frightening stimulus.

The undoubted susceptibility of latah cases to fright will be further discussed in Section XI. Here we may note that the important stimulus of tickling (which gives the name to the latah reaction among the Siamese or Thais), while it is not strictly frightening in character, can produce effects both physiologically and psychologically similar to those of fright, especially if the tickling is prolonged (*vide infra*).

Adaptation to Fear : the Startle Effect and Processes of Central Inhibition.

According to the " intensity " of the stimulus and the adaptive resources of the subject, the manner in which a person reacts to immediate danger may take one of the forms described by Rivers (1920)—flight, manipulative activity, immobility or collapse with tremor. In man the last two reactions are definitely pathological, and come about when for some reason the other modes of adaptation are blocked. Both involve processes of inhibition (Rivers prefers the term " suppression," *op. cit.*, p. 31) ; in the immobility reaction inhibition is excessive and total, involving not only bodily processes, but also processes of perception, whereas in collapse inhibitory processes conflict with one another, leading to disorganization and a complete failure in adaptation. The physiological basis of these elemental reactions, which Rivers even calls instinctive, are of special significance and we shall later return to them.

It has become possible with recent interest in the startle effect (or the startle " reflex ") to identify the immediate changes in the behaviour of a person exposed to a sudden frightening stimulus. This has been extensively studied by Carne, and Hunt (1939) who noted that the almost instantaneous startle (which they regarded

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as a reflex) is followed by after-effects of a varied sort denoting disorganization, viz., nervous giggles, odd remarks, aimless changing of position, fear, flight and curiosity. This secondary behaviour, they pointed out, is " socially conditioned." A culturally standardized type-reaction to fright is therefore possible. (The startle reaction has been described as a " startle neurosis " by Thorne (1944) among American conscripts showing constitutional proneness to the reaction (*vide*, p. 41) ; this so-called neurosis, as I have pointed out, can be regarded as an abortive form of latah or " jumping.")

The physiological analysis of startle is clearly relevant to our study of the psychodynamics underlying latah. Carney and Hunt think that a disinhibition of the cortex and an excessive activity of the motor-neurones occur. That fright produces a severe disorganization of cerebral dynamics is quite evident, and in rats auditory shock may even cause convulsions (Finger, in Hunt, 1944). This disorganization very probably expresses itself in River's state of trembling and collapse,or in what Kretschmer has called " violent motor-activity."

Under extreme conditions fright may cause, not an acute disturbance of the excitato-inhibitory configuration in the organism, but a total and overwhelming inhibition, and Rivers finds the biological equivalent of this in the immobility reaction. The immobility or stuporose states following acute terror are commonly thought to be the result of generalized inhibition. Gillespie (1945) suggested how these conditions could be explained by Pavlov's observations on the *paradoxically inhibitory* effects of excessively strong or " ultra-marginal " stimulation. Pavlov (1941, p. 51) stated his Law of the limit of the intensity of stimulation as follows : " For every one of our animals there is a maximal stimulus, a limit of harmless functional strain, beyond which begins the intervention of inhibition . . . A stimulus, the intensity of which is beyond the maximum, instantly elicits inhibition, thus distorting the usual rule of the relationship between the magnitudes of effect and the intensity of excitation." In the earlier volume of the translations of his work, Pavlov (1927) stressed that inhibitory processes set in more easily if the animal was half asleep (and therefore already subjected to some degree of " internal inhibition "), or if they were of a special constitutional type (the " inhibitory type ") characterized by cowardliness. " Evidently under the effect of an extremely powerful and unusual stimulus the cortical cells, which in this dog already had a tendency to inhibition, now permanently became still more susceptible to inhibition. Stimuli to which the dog had for a long time been indifferent . . . and also strong agencies which had acted before as powerful conditioned stimuli . . . produced a strong inhibitory effect upon the cortical elements, the resistance of which was now diminished. Minutest components of the extraordinary stimulus of the flood was sufficient to evoke the same abnormal reaction " (pp. 272, 316).

There can be no question about the facts that Pavlov gathered under his law of the limit of intensity of stimulation, but Pavlov unfortunately never clarified his ideas on the nature of " inhibition," and his theoretical interpretation of these phenomena needs revision. Konorski (1948) has given a highly plausible explanation of the nature of the " ultra-paradoxical phase." He denies that there is a top limit to the strength of stimulation to which a neurone may normally react. If excessive stimulation causes an inhibitory effect it is because a strong defensive " reflex " is brought into play by the stimulus, and this reaction conflicts with the conditioned reflex already set up to the same stimulus so that the latter is inhibited. In the " hypnotic phases " (i.e., whilst sleepy and in conflictful states following attempts to produce " experimental neuroses "), when paradoxical inhibition is best exhibited, the defensive excitability of the animal is increased. Thus the locus of abnormality which Pavlov localized in the centre for the conditioned stimulus Konorski localizes instead in the centre for unconditioned response, i.e., the defence reaction (pp. 121. 207).

We thus see that paradoxical inhibition rests on a fundamental biological basis, and that different animals, or the same animal under different psychological circumstances, may react with differing degrees of inhibition to excessive stimulation according to the strength and excitability of their defence reaction. The phenomena of the " ultra-paradoxical phase " in reflexology serve to elucidate and confirm under laboratory conditions the existence and nature of the inhibitory processes following exposure to excessive or traumatic stimuli. We can see how a traumatic experience can, by way of the defence reaction or " reflex," bring about a whole configuration of inhibition in the organism and paralyse normal reactions both conditioned as well

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as unconditioned. The " inhibition " of reflexology, according to Konorski (*op. cit.*, p. 70) is identical with Sherrington's " antagonistic (central) inhibition " ; and Pavlov himself indeed used the term " reflex inhibition " in a manner compatible with Sherrington's central inhibition (*vide* Pavlov, 1927, pp. 43 f.). We may follow Sherrington and Konorski and speak in terms of configurations of inhibition without, of course, having to touch on the " micro-physiology " of the process of inhibition itself.

There need be no difficulty in conceiving of " inhibition," with its admittedly physical connotation, as having both physical and mental effects as long as we do not depart from the organismic point of view, and regard every human action as simply the explicit manifestation of urges actually to act, which implicitly are expressed in corresponding ideas and concepts, in phantasy and in dreams. The inhibition of such psycho-physical action tendencies is illuminatingly discussed by Cameron (1951).

It is appropriate here to note that Rivers (*op. cit.*) ascribed the immobility reaction to " suppression " which, apart from its physical effects, essentially involved a suppression of fear and pain ; and furthermore he stated quite explicitly that his concept of " suppression " was but " one aspect of the universal physiological property of inhibition " (p. 31). Thus the immobility reaction, which has so much in common with the defence reaction, both biologically as well as physiologically, can be regarded as embodying functional arrest both in the physical as well as the psychological sphere.

The inhibitory effects of excessive fright or excessive stimulation are well recognized in neuro-psychiatry. The extreme condition of death from generalized vagal paralysis or vagal inhibition following massive stimulation, e.g., a plunge into water, may be mentioned ; although the stimulation in this case is physical yet in the last analysis it must be mediated psychologically and produce an associated psychological effect. A review of this condition was made by Kayssi (1948). Narcoleptic-cataleptic symptoms following sudden and overwhelming trauma were discussed by Fabing (1946) on the basis of widespread inhibition. A generalized fear-provoking inhibition was employed by Kleist (1918) to account for the occurrence of regressive stupors in the fright-psychoses, and he has been followed by Kretschmer (1923) in his analysis of hypnoid states following fright ; by Kardiner (1941) in his discussion of the symptoms of stupor, immobility, mutism and muscular paralyses in the traumatic neuroses ; and by Mira (1944) in discussing regressive behaviour in traumatic war neuroses.

The psychological aspect of abnormally severe fright is perhaps best studied from the subjective and retrospective reports of patients precipitated into abnormal states by terror. Kardiner (*op. cit.*) described a case periodically going into " spells " like the initial one marking the onset of the illness ; the patient described (no doubt with some elaboration) an unawareness of the existence of his body, and an inability to localise or name any part of it ; he could not understand what was said, had no idea of perspective or the relation of one object to another, and had to react in the same manner to all questions. Mira (*op. cit.*) noticed that some patients would say that while paralysed by fear they were spectators and not authors of their own actions.

Our latah patients immediately after the shock show a state of confusion and helplessness, a failure of discriminative perception and intelligent elaboration of what is vaguely sensed, and a failure (or paralysis) of purposive direction of the motor apparatus. In brief, there is a total disorganization of the whole audio- and visuo-motor systems, including the speech apparatus. In the normal individual, immediate restitution takes place following fright, with attempts at regaining control of both the self and the environment. In latah patients, owing to the " weak " psychological organization of the subjects as well as a certain susceptibility to fright (*vide infra*) restitution is much delayed and for a long time incomplete. It is this state of disorganization with paralysis of purposeful thinking and acting, during which the patient feels passive and helpless and disorientated, that provides the conditions for the appearance of primitive attempts at adaptation like the echo-reactions.

It is not uncommon for the term " regressive " to be applied to such conditions following acute fear. Certainly the cases described by Strecker and Appel (1945) in the last war, and also those by McDougall (1946) during the first world war showed extraordinary symptoms very similar to the behaviour of infants, and provided we understand by " regression " not a principle of explanation but a term to describe

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the appearance of ontogenetically prior elements in behaviour, there can be no objection to it. It must be noted, however, that from the point of view of introspective psychology, " regression " is a rather vague concept, for the reason that apart from the efforts of Kretschmer in delineating the levels of cognitive function (1934) and that of Werner (1940) in his studies on the comparative psychology of mental development no overall and systematic account of the development of the perceptual process has been attempted. It seems best to avoid the term altogether, and speak simply of *disorganization* with the appearance of primitive elements of functioning.

Echo-reactions and Automatic Obedience, and their Relation to Identification, Fascination and Hypnosis.

The first formal description of echolalia and echopraxia (associated with coprolalia) was by Itard in 1825, and it was in a case of epilepsy. After him these symptoms were described in various organic cerebral diseases, and it was not until Merschede in 1897 that they were mentioned in connection with psychosis. Pick (1902) pointed out that they could occur in stupors, febrile infections, epileptic confusion, emergence from morphine intoxication as well as from organic brain disease. The recognition of the existence of reversible echolalic states was important, for it obviously made possible the understanding of the symptom in terms of psychological dynamics. The tendency, however, was to explain it on a neuro-pathological basis. Thus Pick (1916) thought that it was due to the release of an acoustico-motor speech reflex from disinhibition of the temporal lobe. Goldstein (1917) incriminated a lesion in the frontal lobe, the seat of " concept building," which had become pathologically isolated from the speech area. Kleist (1934) concluded that a lesion of the basal ganglia was responsible. Schneider (1938) described echo-reactions associated with grasping and sucking in various organic and toxic confusional states as well as in insulin sopor, and although he discussed the significance of Freudian identification in the genesis of the symptoms, was still inclined towards an organic pathology, adopting a position lying between that of Pick and Goldstein by incriminating a mixture of lesions of the motor and sensory cortex. There is little that is conclusive as regards the neuro-pathological basis of the echo-symptoms. It appears much more profitable to return to a holistic point of view, or at least to the position taken by Bastian as far back as 1890 when he insisted that echolalia could only appear when there was a general impairment of cerebral functioning.

It was Stengel (1936) who first attempted a psychological interpretation of the echo-reactions on the basis of " identification."* Hitherto the psychological approach had been concerned with the instinct of imitation or the conditioned reflex. The former was clearly tautological and the latter manifestly impossible as a general principle of explanation for any but the echolalia of the infant learning to speak. In 1947 Stengel studied these reactions in cases of aphasia, mental defect, chronic epilepsy, catatonic states, in the early period of speech development in infants, in states of fatigue and lack of attention, and states of clouded consciousness of various origin. (It is notable that he made no mention of the latah reaction, which is a state of clouded consciousness of psychogenic origin.) He employed the Gestalt concepts of " completion " and satisfaction of " quasi-needs " in the " behavioural field " of the subject who showed the reactions, and demonstrated that certain degrees of discrimination and selection, i.e., of attention and " rapport " on the part of the patient were essential before the echo-reactions could be exhibited. The application of field-concepts to the explanation of the formal aspects of echo-reactions is of great value, but it must be based on the idea that in showing these reactions the subject is showing essentially *adaptive behaviour*, though under rather abnormal circumstances. That this is so can be best seen by studying the normal echolalia and echopraxia of infancy.

It is well-known that infants of about three years of age show a strong tendency to imitate sounds, inarticulate at first but articulate later, as well as gestures. At

* According to the Freudians, in the process of identification the Ego imitates, and as it were, takes another Ego into itself. Under the pressure of the Id demands the Ego assimilates its object. Identification is a primitive form of object-tie, an intermediate stage between primary narcissism and specific object-investment. It necessarily involves an alteration of the Ego (*Ichveranderung*). This mechanism begins to operate at the age of two. *Vide* Freud (1933).

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this age the distinction in the infant's mind between the body-Ego and the outer world is not clear-cut, and it is on this basis that the infant, trying to adapt itself to the environment and to master it as well as to understand it, exhibits echo-phenomena. This is of course most clearly seen in the echolalia which is the forerunner of developed speech ; and also in the " mitigated echolalia " (the questioning repetition of words before its full meaning is grasped) to be observed so frequently in children learning to converse and developing their vocabulary. This was the point of view of both Janet and Baldwin, and when Piaget (1932) denied that the echolalia of infancy had any adaptive significance, but was simply unconscious imitation, he was surely unjustifiably mechanistic. Purely ego-centric, playful repetition may occur, but the echolalia need not be entirely of this nature.

Apart from the fact that echolalia arises from efforts at adaptation in special circumstances, Fenichel (1945, p. 37) has argued that imitation of the object perceived is the most primitive form of perception.* Moreover, the act of changing one's body according to the shape of the perceived object is, according to him the most primitive form of motor reaction to external stimulus (earlier even than " oral incorporation," from the Freudian point of view). It is a kind of identification, the first step towards mastery of the environment. Much the same view was taken by Stout (1938, p. 215) when he said that the most primitive kind of imitation was " a direct consequence of the principle that attention to a movement involves a tendency to make the movement." He stated further that where there was intense attention, immobility occurred and even the breath might be held. This had the purpose of more clearly apprehending the object. A state of intense concentration like this naturally led to the development of empathy, which was, of course, associated often with imitation. This important fact that hyper-attentiveness leads to imitation and an apparent inhibition of the higher forms of volition is in keeping with McDougall's view (1943, p. 272) that volition is essentially a higher form of attention.

This phenomenon has been studied in detail and from a genetic viewpoint by Berfeld under the name of " fascination " (1928). Berfeld defined this as a state of increased attention associated with motor inhibition, which if prolonged, would amount to paralysis. It involved the mechanism of identification, and was an important function of the Ego. The object of attention filled the whole Ego of the subject, as it were, and he was completely immersed in it. It was in some important respects like sleep, although the total energy of the subject was directed towards a real object and not a dream-image. It was also very closely related to hypnosis, especially as regards automatic obedience and actions like the pursuit of the fascinating object with the eyes, and indeed it might easily pass over into hypnosis. On the other hand, it was to be distinguished from other states of Ego-impoverishment (*Ichverarmung*), where the individuality was lost ; for instance, from the state of being in love, where the object, unlike that in fascination, was always desired ; and from ecstasy, where motor excitation instead of inhibition occurred. The Ego was dissociated, its perceptual function constrained, and the object of perception had, as it were, direct access to the motor apparatus normally under the control of the Ego.

There were, Berfeld pointed out, complex libidinal and economic factors involved in fascination, but in essentials there was no difference between this state in adults and the imitation of infants such as the automatic fixing of the infant's eyes on a flame, and the turning of its head to follow its every movement. He thought that such sudden and transient states of inhibition might be accounted for by the inhibiting effects of fright from stimuli of moderate intensity, but he confessed that where the echoing was concerned there was a gap between stimulus and reaction which could not be explained, certainly not by any theory of imitation. I shall outline below a hypothesis concerning the basis of echoing from this point of departure.

Command automatism (automatic obedience or suggestibility) very often goes with echoing, and this association is indeed of great help to us in arriving at an understanding of the psychological conditions which gives rise to these symptoms. Bleuler (1936, p. 152) noted that some cases of echo-reactions involve " hysteria-like " mechanisms where the echoing is due to the influence of a " conscious or unconscious wish " (as in hysteria and schizophrenia) ; while other cases are due to the " derail-

* Fenichel quoted Goldstein's very instructive case of an aphasic patient who could read only if he moved his head to trace out, as it were, the letters of the alphabet before him (Goldstein, 1942). Siekmann (1932) found that one of his aphasics could not put matches together in a simple pattern unless he had first imitated the pattern by posturing himself.

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ment " of an impulse or wish in the (wrong) direction of echoing (as in the mitigated echolalia and echopraxia of organic disease). Neither of these two mechanisms for explaining echo-reactions seems adequate. It is necessary to recognize that the echo-reactions are only one manifestation of a general state best called automatic suggestibility and any theory to explain these symptoms must also elucidate the nature of command automatism. Kraepelin himself derived the echo-reactions from command automatism.

The comparative rarity of command automatism in distinction to the echo-reactions is due to the fact that the former involves the interposition between stimulus and reaction of a symbolic system, i.e., speech. In essentials there is no difference between the repetition of a movement following direct perception of it and similar repetition following the presentation of the idea of it in the mind of the subject by means of words describing the movement, i.e., by means of verbal suggestion. In the case of suggestion or command automatism the response occurs on a higher level and is therefore more subject to influence by such volitional trends as may still operate in the pathological state. Thus while a patient may show negative as well as positive command automatism, he may not at the same time show the echo-reactions; and, moreover, where echopraxia is elicited, it is very rarely negative or contrary.

We need not at this point discuss why it is that a verbal suggestion or command given to a suggestible subject inevitably leads to obedience. The basis of this obedience or suggestibility on the part of the subject is precisely that which underlies the echo-reactions, and will be discussed next in some detail. Here we may inquire into the relationship between states showing echo-phenomena and hypnosis. They doubtless vary in nature. In both the characteristic feature is a hyper-suggestibility, but hypnosis is due more to an active influence on the part of the operator than to a pathological receptiveness and passivity on the part of the subject; hypnosis, furthermore, is not complicated by disorientation as in states of echoing with clouded consciousness, or by dementia as in such states arising on an organic basis. Hypnosis is on a rather higher plane of integration, and the hypnotized subject shows much more adaptive or goal-seeking behaviour.

What light can the theory of hypnosis throw on states of echoing and automatic obedience? The mechanistic view represented by Hull (1933) is that hypnosis rests on hyper-suggestibility to prestige suggestion which merely shows a quantitative difference from the normal. Suggestibility depends on previous conditioning to language stimuli, or speech. In fact, Guthrie (1938, p. 174) says, " Suggestibility is the result of learning a language. When we acquire any language, such acquisition lies in associating the sounds of the language with action. . . . There is no essential difference between causing a man to perform some act by suggestion and causing him to perform that act by request." During hypnosis the subject's symbolic processes are in abeyance so that " the tendency to action arising from the experimenter's words " is not interfered with, and this abeyance arises from the fact that the subject is repeatedly told to go to sleep. Hull's views do not really explain satisfactorily how this withdrawal of symbolic activities arises as a result of suggestions to go to sleep, unless it is assumed that suggestions of sleep have intrinsically powerful suggestive effects compared with other suggestions. It is clear that when he spoke of " prestige suggestion," " withdrawal of symbolic activities," and "the tendency to action arising from the experimenter's words " he was using concepts which could not easily be reduced to associative principles. Moreover, the view that suggestibility is due to conditioning of bodily responses to speech fails to explain the echo-reactions as such, although no doubt it could be argued in a devious manner that perception of a movement or a sound gives rise to " sub-vocal speech " embodying a description of the movement or a repetition of the sound (Hull actually regarded the conditioned bodily responses as conditioned to proprioceptive stimuli arising from sub-vocal speech, and not to speech simply as mental images of words). The problem why perception should result in " sub-vocal echoing " of what is perceived, however, is still to be solved. Thus a mechanistic interpretation, however ingenious, fails to give a complete explanation of the phenomena of echoing and automatic obedience. More recent theories of hypnosis which stress the purposive goal-directed striving on the part of the subject " to behave like a hypnotized person as this is continuously defined by the operator and understood by the subject " (White, 1941), and which therefore take note of the adaptive significance of such behaviour, are of greater help.

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A Theory Concerning the Basis of Command Automatism and the Ego-reactions, with Special Reference to the Latah Reaction.

The hypothesis will be advanced here that in those psychiatric conditions (e.g., fascination, states of clouded consciousness) where command automatism and echoing are exhibited the Ego is in partial dissolution, so that the " inner " and " outer fields " (Lewin) corresponding respectively to the mind of the subject and his environment become psychologically a single system. Under these circumstances automatic suggestibility can be explained by the general Gestalt principle of forces in a field seeking equilibrium. In the special case of latah the Ego dissolution is brought about by disorganization through inhibitory processes arising from fear, a fundamental aspect of the dissolution being the loss of local signature in perception.

The position arrived at by Stengel (1947) was that echo-reactions of various degrees of complexity and " completion phenomena " were responses of a " rudimentary " kind made by a subject to relieve tensions caused by interlocution, when the subject's powers of perception and expression were impaired. He did not deal adequately with the rather more elementary phenomenon of echopraxia as compared with echolalia, and did not touch at all on command automatism. Nor did he explain why a " rudimentary " response should take the form of an echo or an imitation, and I have already pointed out that he failed to recognize the unique effect of fright as a purely psychogenic factor in bringing about a state of echoing and hyper-suggestibility.

We have seen how from the biological observations of Rivers and the study of cases of stupors following shock as well as the phenomena of " paradoxical inhibition " in reflexology (pp. 72 f.), it can be inferred that generalized inhibitory processes are produced by stimulation of the organism so excessive as to be traumatic and fear-provoking. Whether or not a given stimulus is fear-provoking depends of course not only on its physical characteristics but also on its psychological meaning, which is culturally conditioned. When we are faced with the problem of interpreting the effects of neuro-physiological inhibition at the psychological level, it would be preferable to use instead of " inhibition " the term " suppression " as employed by Rivers originally to mean a fundamental inhibitory or suppressive effect found in all living processes, from the sensory-motor and reflex to the psychological.

Acute fear upsets the equilibrium of the organism and disorganizes its adaptive capacity. Suppression of active motor activity on the one hand, and of apperceptive and conative activity on the other, occurs. The organism is helpless and incapable of discriminative activity. At the same time the power of attention of the organism is impaired, inasmuch as attention is a basic manifestation of volition. Consciousness becomes reduced to the purely perceptual level, and the ability to think in terms of general classes or to detect particulars is impaired, so that only a vague likeness to dissimilarity can be perceived. All the processes of suppression may be considered to be *derived* from the immobility reaction of lower animals which of course has a primitive adaptive value. It may be presumed, however, that the organism, while almost immobilized by fear, yet strives to accommodate itself to the threat from the environment ; and in doing this concentrates its already weakened attention on to those aspects of the environment which are most directly threatening (or at the time meaningful). These must necessarily appear " concrete " in nature, rather than " abstract " and will stand out from its background. Under such circumstances it is clear that the organism can attend only to one small aspect of its environment at a time, and that such powers of reaction as it still possesses will be directed towards this. If we use the terminology of Goldstein (1947) we will say that the person's field is " narrowed " and that he is " stimulus-bound," because of an impairment of his reactive capacity. This condition of course can be brought about not only by fright, but also by the development of consuming interest in a thing and by organic brain injury. The *topological* relationships are identical with those in the state of " fascination," and the conditions of hypnotic " rapport," and they provide the conditions for the appearance of symptoms of echoing and automatic obedience.

Along with the reduction of consciousness to the level of simple perception and the weakening of attention, there is also impairment of the power of discrimination in respect of the localization of stimuli (local signature). Local signature may be considered to be a specific spatial quality of touch and also (in a less direct manner) of sight and hearing. In the latter two senses local sign arises respectively from the

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retinal mechanism (the retina, says Sherrington, is a group of " glorified warm-spots"), and from the sensitivity of the ear-drum to touch and pressure (inasmuch as sound stimulus can be localized even with one ear). Local signature is closely associated with " two-point discrimination " so that the latter may be taken as the measure of the former. The anatomical and physiological bases of punctate discrimination are still obscure, but there is no doubt that the process is complicated and may involve central mechanisms (*vide* the discussion by Parsons, 1940) ; but it has long been known that the perception of local sign by itself can vary under different psychological influences, being more acute after training or habituation, and less so in states of fatigue and sleepiness (Myers, 1928). It is of no importance, for the present purpose, whether this is due to varying attention or some central neuro-physiological regulatory mechanism, or to both ; the fact is that it is possible for the perception of local sign to vary in acuity and be diminished in certain psychological conditions without a corresponding diminution of the perception of the sensation to which the local sign is attached.

It is probable that this is what happens during the clouding of consciousness which follows acute fright, since this state is characterized by a general weakening of attention, and although efforts may be made in the interest of adaptation to the environment to concentrate on the fearsome object, yet the level of attention attained may not be such as to enable the subject to have a clear perception of local signature in the various modalities of its senses. The effect of this is momentous, for it brings about directly a dissolution of the limits of the Ego.

Uexkull (1926) has pointed out the fundamental importance of local signature in differentiating body space (subjective space), from external space : " If we imagine ourselves as having an eye that can release colour sensations but not local signs, still that would alter nothing with regard to subjective space ; the sensations of red, green, blue and yellow would indeed arise, but the colours would remain properties of our subject, and the inner world of the subject means likewise the world as a whole. We ourselves would be emitting simultaneously sound and colour and filling the whole of space with our person. It would be impossible to show a distinction between thought and feelings on the one hand, and sense preceptions on the other, because the latter could not become the properties of objects. . . ."

" As soon as local signs appear, the whole world is transformed in a flash ; space requires a place to which colours can attach themselves . . . the red circle over there remains red, even if we are no longer looking directly at it, and by so doing it has acquired the objective existence independent of the optical activity of the subject ; on the other hand it remains dependent on the position in a space that has become objective" (pp. 50 f.).

Thus with the loss of local signature the whole world becomes absorbed into the Ego (which as the seat of perception is without local sign), and the distinction between the " I " and " Not-I " breaks down. It is not necessary of course to suggest that a complete loss of local signature need occur, but it is quite clear that any impairment of the power to perceive it, or any diminution of this quality in sensations perceived will result in a tendency to obscure the limits of the body-Ego.

It must be noted that the perception of movement does not involve the existence of local signs. Thus in the peripheral visual field, movements can be detected although the object moving is scarcely seen and certainly not localized. Wertheim (1912) in his classic experiment has shown that perception of movement is not only independent of the physical spatial translation of an object, but can even take place without the perception of a starting or ending position of an object. According to him, movement is a completely independent experiential unity. This is also the view of Uexkull (*op. cit.*, p. 63), who says that movement is perceived only when several " direction signs," which are of the same status as, but independent of, the local sign, fall within a single moment (or are comprehended within one " moment sign," which last is a constant property of the Ego).

It may be argued further that the " direction signs " will also be less clearly perceived in such abnormal states, so that the perception of movement will become vague and confused. Thus not only will the Ego-boundaries be blurred, but the localization of objects and their movements will also be unclear. The fusion of inner with outer fields makes it possible to regard the total situation of the organism in its environment as one single region where psychological forces operate in the general direction of seeking a dynamic equilibrium. The Ego, as Lewin (1926) suggests, may be regarded as a complex functional part within the psychic totality of the

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" soul " (*Seele*), that is to say, one strong Gestalt within another weaker one; we may further say that the Ego, the organism and its *milieu* can be viewed as a series of Gestalts of decreasing stability, one operating within another. Normally in the total behavioural field the distribution of forces depends on the valencies which bind the organism to the environment as well as on the intentions or quasi-needs of the organism. These valencies and quasi-needs naturally are in constant change. The resulting behaviour is steered in such a direction that tensions are sooner or later resolved. Under normal conditions the region of greatest figural stability is the Ego, and behaviour is directed in such a way as to make the forces in the behavioural field " pro-structural " to this region. In conditions where the dominance of the Ego is impaired, however, intentions and quasi-needs are weakened, and the field valences then direct behaviour. In other words, behaviour becomes relatively " contra-structural " to the region of the Ego. Echoing and automatic obedience are clearly of this nature.

When a person in the subject's environment gains his attention by means of an act of speech or otherwise, he creates a valency which demands a response from the latter, so that the tension may be reduced. If the subject is reduced to the level of perceptual consciousness, with enervated powers of apperception and expression, if he is unable clearly to localize objects and perceive movements, then not only is he unable to grasp the full meaning of his interlocutor's action but he is also unable to carry out intelligent and premeditated acts of adaptive value in response to the stimulus. The most efficient and economical way of relieving tension will then be simply to *imitate*, as best as he can the stimulus. The imitation is adaptive in a primitive manner, because it is at least some sort of an immediate response, and also because it helps to convey to the subject the full meaning of what is perceived. (It is in this latter sense that imitation has been regarded as a very elementary form of perception by Stout and Fenichel, *vide*, p. 83). Under the circumstances prevailing imitation will be the response which is quickest, most adaptive, as well as least expensive of energy. The above argument applies to the echo-reactions, but clearly command automatism is little different.

Instead of echoing a sound heard or imitating a movement seen the subject showing command automatism merely imitates the idea or image of the act presented to him through the symbols of speech. Often in command automatism the order is verbally repeated as well as obeyed at the same time. It is obvious that command automatism is on a higher level of organization in so far as it involves imitation through the intermediary of verbal symbols. It may be noted that a command need not be verbalized always, but can be indicated by an expressive gesture. In such cases there is no point in distinguishing between command automatism and echopraxia.

Thus it will be seen that in our treatment of the problem, " suggestibility " is reduced to the fact of the subject imitating directly stimuli perceived, whether they are verbalized or not, the stimuli having been presented to him by an operator who has gained his total although limited attention. The explanation for this lies not in the previous conditioning of the subject's behaviour to language, but in the fusion of the inner field of his psychological processes with the outer field of his psychological environment, following a weakening of his own Ego organization; and the behaviour demonstrating suggestibility arises from the natural tendency of the total psychic field to structure itself in such a manner as to attain the greatest degree of equilibrium and balance the needs of the subject with the demands of his environment.

Coprolalia.

We have seen that Tourette was so impressed by the occurrence together of tics and coprolalia that he considered them, along with the echo-reactions, as primary features of his syndrome. French neurologists at that time were disposed to regard coprolalia as exteriorized tics of speech (Meige and Feindel, *op. cit.*, p. 215). No one now seriously derives the coprolalia of latah from tics of phonation, although the general view is still held that these tics can provide the physiological vehicle for the expression of coprolalia (cf. Creak and Guttman, 1935), and there is still confusion over the relation of convulsive tics to the " psychical tics," and of these latter to obsessional ideas (which are sometimes obscene in nature). In recent years Perussel (quoted by Repond, 1940*a*) has stressed the importance of obsessional anxiety in the pathogenesis of latah.

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The relationship which coprolalia bears to tics, obscene obsessions and compulsive utterances is unnecessarily obfuscated by a limitation of the point of view. Various possibilities have been suggested : Creak and Guttman, as mentioned above, thought that coprolalia is superimposed on tics of speech ; Bleuler (*op. cit.*, pp. 150, 562) regarded it as a compulsive act based on an obsession, and suggested indirectly that the coprolalia of *miryachit* arose on an obsessional basis ; and others would speak of both coprolalia and obsessional ideas with an obscene content as resulting from a common psychic event (cp. the view of Kleist that " spasms of attention " cause both obsessional thinking as well as oculo-gyric crises). These are all possible ways of examining the problem, and it is important to realize that these various symptoms bear a dynamic relationship one to another. This is suggested by the case quoted by Meige and Feindel (*op. cit.*, p. 216) where the patient had to tic more strongly if he suppressed his echolalia, and could suppress a coprolalic utterance only with a cough or an " ahem ! " instead of a mere exercise of the will ; and he was able thus to exchange, as it were, one symptom with another only if he was not upset by having been startled. A complicated tic, like a compulsive utterance or an obsessional idea is experienced or carried out with a certain urgency, and once the action or experience is over there is a sense of relief and a lowering of psychic tension. From the dynamic point of view there can be little difference between the thinking of an obsessional idea with obscene content and the compulsive utterance of coprolalic words with the same meaning as the obsession, except that the latter will be more efficient in relieving tension.

However, we can find in latah nothing to suggest an underlying obsessional-compulsive disorder. Anxiety of a " free-floating " kind one may detect, especially during the latah state, but it is not associated with phobias, obsessions or compulsions. Nor is it probable, in view of the widespread incidence of latah, that the previous personality of these patients can be markedly over-conscientious or meticulous in the obsessional way, compared with normal persons. The coprolalia in latah usually consists of disconnected obscene remarks, but it may vary from mild indecent interjections of annoyance normally to be heard from the lips of vulgar people to prolonged coprolalic commentaries directed at the examiner (or persecutor). It is as a rule not shown unless the patient is stimulated or teased in order to bring on the various symptoms. It no doubt has the same function of relieving tension as in the case of obsessional-compulsive disease, only in latah the anxiety is of a superficial type generated by a threat to the Ego from the exterior, and is not purely intra-psychic as in obsessional anxiety. That most latah patients experience anxiety and resentment when they are stimulated to produce the reaction there is no doubt, and only a very few cases which are probably abortive or spurious will show indifference or delight on being made to perform.

When a person seeks to defend himself from aggression or annoyance, he may strike back bodily or make use of verbal behaviour, that is to say scolding or abuse. In the state of disorganization which is the prerequisite for the exhibition of latah the subject is clearly unable to fight back, or even to scold back in an effective manner. Under these circumstances the most economical and effective mode of retaliation is coprolalia.

It is a simple fact of observation that obscene exclamations have the most expressive force and are most effective in relieving irritation in oneself ; and similarly obscene speech of a propositional nature is most effective in conveying one's hatred and aggression on to others. The reason for this lies in the fact that obscene words as well as ideas have in the normal person been held under repression from an early age and retain their original infantile vividness as compared to other words which, not undergoing repression, have in the course of the individual's development become more and more drawn into the service of abstract and conceptual thinking. Obscene words and phrases moreover have a dramatic and concrete quality about them, or to use Freud's term, they are characterized by a vivid " mimicry of imagery." The telling of obscene jokes to the opposite sex has much the effect of developing actual physical intimacy. This general theme is discussed by Ferenczi (1916, Chap. 4).

The coprolalia of *latah mulut* (" latah of the mouth "), i.e., those cases of latah characterized by marked coprolalia, may be divided into three classes :

(a) *Curses :* e.g., *mati lu* (death to you), *mampus lu* (be you done for).

(b) *Mentioning of names of parts of the body socially tabooed :* e.g., *kotek, butol* (penis), *nonok, puki* (vagina).

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(c) *Accusations of being inferior, socially or otherwise: or of being a breaker of codes:* e.g., *binatang* (animal), *babi* (pig), *orang Japun* (Japanese—a term of derision after the Japanese occupation).

While the above are not all obscene in the strict sense of the word, they all are designed as it were, to inflict the painful emotions of fear, horror and embarrassment on the victim. Mention of the genitals to somebody produces associations and images which lead to painful embarrassment and uneasiness; curses produce fear since they are essentially magical attempts by the primitive mind to call on the supernatural to bring about some disaster; and mention of the tabooed or placing in the category of the tabooed causes anxiety, inasmuch as taboos were originally designed by primitive man to bring about avoidance of what was full of fear and mystery. All these have power to hurt, but none more than the obscenities concerning sex.

Although from a psychological analysis of the meaning of coprolalia it is clear that they have the function of relieving tension, yet it may be questioned if they always succeed in doing this effectively. It is quite possible that in many cases, especially the advanced, coprolalic discharges are automatic habituation phenomena, and like many habits attain some degree of peripheral autonomy to become independent of the central processes of volition.

The Psychology of Tickling.

An aspect of latah which is hardly ever discussed is the fact that the reaction can be precipitated in susceptible subjects by tickling. This suggests that the stimulus of tickle may produce effects which are analogous to the stimulus of fright.

The sensation of tickling is so distinct a form of skin sensibility that it is held by some to be a specific sense modality. On the other hand, it may simply be a complex manifestation of the haptic sense, and this is probably the correct view. Be that as it may, a characteristic feature of all skin sensations is the physical intimacy of the stimuli, and because of this they possess a quality of urgency and immediacy which, if the stimuli are sudden and unexpected, renders them more capable of producing fright and the consequent accumulation of tension in the subject than exteroceptive sense stimuli. However, the effects of tickling, unlike those from fearsome stimuli, are produced without the element of surprise necessarily coming in. Indeed it is doubtful if there can be such a thing as sudden or acute tickling, and probably ticklishness does not appear until after an initial feeling of fear and after the nature of the stimulation is fully realized. Much more so than in the case of fright, it arises only if the psychological set of the subject is conducive to it, for if the subject is not prepared to be tickled the stimulation will not lead to ticklishness with its mixture of pleasant and unpleasant feeling tones, but to the perception of ordinary touch sensations in the general situation of a physical attack on the person.

It is important to note that ticklishness has a specific sexual quality about it (Dunbar, 1946, p. 387, pointed out that many languages have the same word for coitus and tickling; and that in some folk-beliefs ticklishness is regarded as a sign of virginity). Ticklishness can only be elicited by stimulation from another person, either directly or indirectly, and in the act of tickling a special relationship is set up. This relationship presupposes a varying degree of passivity and surrender on the part of the subject in the face of someone over-powering but not really dangerous. It is of course an essential part of sex-play. Sexual tension in a woman finds a way of discharge through tickling and a markedly sexual woman or one sexually unsatisfied may behave in a manner almost as if to invite tickling; witness the alternating forwardness and withdrawal, the general sensitivity to the attentions of men and the frequent giggling of sexually mature but inexperienced adolescent girls. In such persons there appears to be a psychological set for tickling or ticklishness, and therefore a lowered threshold for it; and it is quite possible that quite apart from natural sexuality, femininity or age this set can be influenced and moulded by cultural influences. It is thus possible for latah patients to become susceptible to tickling in a culturally determined manner. We know indeed that many early cases of latah show a coquettishness and histrionic display as if they were peculiarly prone to tickling or other kinds of sexual stimulation and excitation.

Tickling, if prolonged, causes an accumulation of nervous tension in the individual which urgently demands discharge. The natural outcome of continued tickling is the wild movements of defence and repulsion, and the spasmodic movements of

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laughter. Laughter has been regarded by Herbert Spencer and by McDougall (1923) as primarily a form of emotional release. Sully (1902) thought that it resulted from a state of mind where the attention was exceptionally intense and concentrated, involving a special strain on the volitional processes. This psychological set was unstable and had to break up and the redundant energy then followed the direction of the " risible muscles," because no other commanding object for the attention presented itself at that moment. The exhilaration and euphoria of laughter are in direct contrast to the heightened mental tension and concentrated attention which is produced by the initial stimulus before its playful and non-harmful nature is recognized by the subject.

In extreme cases tickling may bring about clouding of consciousness, or even loss of consciousness. I was informed by a medical student in Singapore of a case he had seen of a young Indian who was one day mischievously held and tickled by his friends in order to elicit the latah reaction he was known to show, and who fell to the ground unconscious and frothing at the mouth. When the accumulation of tension is excessive and when it is in the process of being dissipated, the subject experiences a disturbance of consciousness. He is then incapable of adaptive behaviour; and terms like " the delightful psychosis " to describe acute laughter (Sully) refer to this peculiar condition of psychological disorganization. We thus find that, like fright, tickling brings about a weakening of the volitional processes, a disturbance of apperception and very probably a dissolution of Ego-boundaries; moreover, as we can see from the bodily weakness and helplessness which accompanies laughter, tickling also causes an impairment of motor activity. We might even go so far as to say that the higher functions of adaptation are thereby " suppressed."

In latah the stimulus of tickling is, however, not as effective as fright. When it is effective it brings about a state of giggling with echolalia and coprolalia. Typically patients who succumb to tickling do not seem to mind the experiment very much, and they show little fear or anxiety. It is quite probable that in these subjects there is present a large element of hysterical display.

Habituation, Ageing and Hysterical Gain.

There appears to be a positive correlation between the severity of the latah reaction and the age of the subject. In many cases the disease appears first in adolescence in minimal form and progressively becomes more severe. Advanced cases show echo-reactions with the greatest of ease without requiring a preceding fear or tickle stimulus (e.g., Case 7). The factor of facilitation by repetition cannot be ruled out here.

Apart from this, the factor of ageing must be considered. With advancing age there is a setting in of old reactions and habits, and increasing inability to take up new methods of thinking and working. The capacity to adjust to new situations is impaired and if the latah reaction results from the damage to the powers of adaptation of the subject by relatively excessive fright, as I have argued, it is clear that advancing age will have the effect of making him more liable to show it. In practice it is always difficult to estimate how much deterioration has taken place in a patient, since they are mostly illiterate, but many do show symptoms of senility like a looseness of memory, poorness of concentration and a garrulous levity.

The problem of habituation is linked up with that of a hysterical gain possibly arising from the development of the symptoms. It must be admitted that a person in the latah state is an unusual, interesting and even a funny sight, and will be bound to attract a great deal of attention and furnish much amusement. The Malays have a custom of inviting latah women to village weddings expecting them to perform a function like that of the clown in medieval festivities in Europe; needless to say, these will only be the milder cases. Shirokogoroff (*op. cit.*, p. 247) described how cases of *olonism* were regarded by the Tungus as sources of amusement (although attempts to elicit the reaction were not always welcomed by the patient). Moreover while young women were prohibited from saying certain words with sexual connotations, no one looked down upon them if they should say these during the latah reaction. It appeared that the taboo on these words did not apply to old women, and the latter not infrequently teased the younger women with these words knowing that they were not permitted to reply in kind. Under these circumstances the latah state conferred certain liberties on the younger women. Shirokogoroff also pointed

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out that the incidence of latah or *miryachit* was lower in the Manchus settled in Eastern Siberia compared with the Tungus, and suggested that this might be due to the fact that the former, being agriculturists instead of nomadic hunters, cultivated more of the civilized graces, and strongly discouraged in their young coprolalic expressions and other pre-latah behaviour like playful imitation. Winiarz and Wielawski (*ibid.*) mentioned that among the Ainus *imu* was held to be a privileged condition surrounded by a religious aura, so that whereas Ainu women were normally under the domination of their men-folk, they were permitted to scold and hit the men without retaliation when they were *imu*.

It is difficult without direct experience of the cultures in question to know how far all the above-mentioned circumstances do operate to constitute a hysterical gain for latah subjects, As far as the Malays are concerned, I am certain that factors such as these contribute directly to the onset of the disease in many young women. One frequently encounters young Malay females who affect latah-like mannerisms in a coquettish way, quite obviously pleased with the attention they thereby gain. A sudden and often repeated exclamation like " *O puchok*," accompanied by a touch of the bosom with a tremulous hand in a gesture of fear and helplessness, whenever they are the slightest bit surprised, is so fetching an exhibition of feminine weakness, passivity and timidity that it must appear very becoming to young women, and is therefore bound to be cultivated by some of them ; and to others it must exercise an insidious attraction. These stereotyped mannerisms are not a far cry from the confused word-play and echoing of latah when they are startled. Again, not a few girls (and boys) will play at being latah, and out of sheer mischief and daring revel at the opportunity it affords them of mouthing obscenities in an apparently pardonable setting. Latah is regarded so much as a matter of course among the rural Malays, and it is so usual to make play with people subject to it, that they have a word for the act of prodding them to bring on the reaction, viz., *Chokok* ; and sometimes this word is even used in " horse-play " with a non-susceptible person, expressing, as it were, a threat to go on until the subject is reduced to the helplessness and discomfiture of someone in the latah state.

XI. Latah and the Malay Ethos.

Aetiological Considerations.

The latah reaction under its various local names is found in culture complexes which are by comparison with modern civilizations, both East and West, little developed. The peoples showing it (not excluding the Jumpers) are peasants, grazers, hunters and fisher-folk and are naturally possessed of unsophisticated mentalities. The widespread distribution of the reaction (*vide* attached table), ranging from the arctic to the tropics and including the temperate zone of N. America at once disposes of the theory that extremes of climate are an important aetiological factor, as suggested by Czaplicka (*op. cit.*).

The theory has also been advanced that race as such is the essential factor in the aetiology. Czaplicka, although aware of the existence of the Jumpers, was however still inclined to the view that " Mongolic race-characters " were of significance, and thought that those Russian settlers who were affected themselves were often also of Mongolic stock like the Tungus and Yakut peoples, and came mostly from the East Ural region. The importance of race was also stressed by Galloway (1922), and by van Loon (1927, 1928) who declared in a paper otherwise sober that the disorder was " a psychosis of the Malay races, rooted in the oriental psyche." In his second paper he made much of the allegedly hedonistic and unstable nature of the Malays, who were prone, as he thought, to show primitive " protopathic-instinctive " reactions to fear and danger. McDougall (quoted by Czaplicka, *op. cit.*, p. 324, f.n.) also believed that it was peculiar to mongolian peoples. Repond (1940*a*), although confining his observations to the Sahara region, dubbed it an " oriental psychosis." Manson-Bahr (1950) still repeated the notion that oriental peoples were predisposed to it. Winiarcz and Wielawski (1936) were so much under the influence of this belief that in mentioning the Jumpers they referred to them as Red Indians!

It is of course only necessary to turn again to the example of the Jumpers, who were of Caucasian stock, and also to the so-called cases of " startle neurosis " of white Americans (*vide*, p. 41) to disprove the theory that the reaction is peculiar to " orientals " ; and the examples described in North Africa occurring among the

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Ethnic Distribution of the Latah Reaction.

Ethnic group.	Author and date of first important description.
Earlier American settlers of Caucasian stock	Beard, 1880.
Malays in Malaya	O'Brien, 1883.
Malays in Java	Van Brero, 1895.
Tagálogs in Philippine Islands	Musgrave and Sison, 1910.
Dayaks of Borneo	O'May, 1923.
Burmese	Bastian, 1867.
Siamese	Rasch, communicated to Scheube, 1903.
Tamils, Sikhs and Bengalis in Malaya	O'Brien, 1883.
Indians of " British India "	Van der Burg, 1897.
Hottentot half-castes	Scheben, 1900.
Kaffirs	Gilmour, 1902.
Berber-Negroids of French North Africa	Porot, 1912.
Hamitic-Negroids and Arab-Negroids of Somaliland and the Yemen	Penso, Sarnelli, 1934.
Senegalese of S. Sahara	Aubin, 1939.
Samoyedes (and other aboriginal Siberians)	Schrenck, 1850.
Laplanders	Högström, quoted by Scheube, 1903.
Ainus	Sakaki, 1903.

Semitic, Hamitic and Negroid peoples show that it is not confined to Mongolian peoples. There is, of course, also the difficulty of defining clearly what is meant by " Mongolian," just as it is not possible to define with any clarity the concept of " Aryan." It is always of dubious value to ascribe to " race " as such aetiological significance ; if it means anything at all, it can only mean that certain psychological traits acquired from the cultural environment long associated with the particular ethnic group are of importance in bringing about the disease.

It is from this point of view that we must interpret the fact that Chinese persons never show the reaction unless they have been brought up from childhood in a basically Malay cultural *milieu*. A similar observation is that of Nagai (quoted by Winiarcz and Wielawski), who noted that Japanese children never succumbed to *imu* unless they had been brought up from childhood by Ainu parents. These facts emphasize that the immediate social and cultural environment of the subjects are of great significance in the aetiology. Galloway (1922) boldly (but not quite accurately) stated that latah was never found in town-dwellers. Van Loon (1927) declared that most cases were of the maidservant type who, apart from being illiterate, were habituated to obedience before their masters. Similarly Palthy (1936) and Repond (1940) found that most of their cases came from the lowest social class. My cases were all illiterate, and though not all ignorant they were all drawn from the lower strata of society.

An important aetiological factor is that of sex. The great majority of cases of latah are female, and I have already suggested that certain female characteristics may easily merge into the milder degree of the reaction. A latah male may become somewhat feminine in demeanour with his nervousness, timidity and exaggerated reactions to ordinary stimulation. Indeed when in Malacca I saw briefly a case of a man, regarded as both homosexual and latah, who walked about with a decidedly feminine gait and cultivated feminine mannerisms. Beard's Jumpers, however, were mostly men ; but Beard himself pointed out that they were all quiet, and much lacking in push and aggression.

As regards age, most observers have pointed out that, while the reaction is best and most commonly seen in middle-aged women, it is also to be found in children. Abraham (1911) said it was commonest around puberty and the menopause ; Palthe said it was commonest in the aged, and so also did Winiarcz and Wielawski as regards *imu*. Fletcher (1938) said that latah could start as early as the age of 6, and Repond found that all his cases developed the illness in childhood. Two of Beard's cases were aged 4 or 5. My own cases varied from the ages of 40 to 70. It is entirely possible that many children consciously play at being latah, and that some of them who are predisposed later develop the illness.

This brings up the vexed problem of morbid constitution and inheritance. It is always difficult to distinguish in a disease of this type with a wide range of severity

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of the symptoms how much is organically and how much socially transmitted from parent to child. The fact that latah occurs in succeeding generations and has a tendency to cling round some families has been pointed out by many authors (Beard, van Brero, Gimlette, Galloway and Repond). Fletcher (1938) recorded its occurrence in three consecutive generations. All assumed a neuropathic inheritance though they did not consider it to be the sole and sufficient cause for the disorder. It seems to me that there is little point in pursuing this topic further since no genetic studies of the problem have as yet been made; and such studies will for a long time be impracticable because the low level of education of most latah patients do not permit them to give accurate family histories. The problem is moreover complicated by the fact that the severity of latah varies so greatly in different cases, and shades so imperceptibly into the normal that in many it will be difficult to identify as a pathological reaction. It would seem from the wide distribution of the disorder within a given ethnic group and from the important fact that the Chinese and the Japanese do not exhibit the reaction unless they have previously assimilated Malay and Ainu modes of living respectively that the environmental factor is alone sufficient to cause the disorder without the aid of either individual or racial morbid inheritance.

We may finally in discussing aetiology mention the toxic theory, e.g., Abraham's view that betel-nut chewing is responsible for latah, only to dismiss it.

Ego-development and Its Cultural Background.

In studying the relationship of the latah reaction to its cultural background, the most important problem is to arrive at an understanding of the reasons for the ease with which these subjects suffer a disorganization of their Ego when confronted with something fearful and sudden. The fact that the reaction is so common in the cultures in which it is found, and the existence in all cases of at least a tolerant attitude towards it not as a disease so much as an oddity of character and behaviour suggest that the reaction does not arise from any special hazard of adjustment in certain abnormal persons, but is rather a manifestation of aspects of the personality and Ego-organization common to the individuals comprising the group.

Personality is largely organized from a constellation of temperamental traits and attitudes. The whole constellation is dynamically held together and energized ultimately by the instinctual forces, and it undergoes not only development but also dissolution. The Ego-attitudes, largely derived from the cultural *milieu*, are superimposed on, and moulded by, a nexus of temperamental traits, which are to a great extent constitutionally determined. To what degree temperamental differences contribute to the break-down of the personality it is difficult to say, but there are certainly differences in the degree to which different Ego-attitudes participate in the formation of a personality, and in this may lie the reason why some personalities are more strongly organized than others.

Allport in his classic monograph (1949, p. 428) points out that if the scores on a series of tests of temperament and attitudes for an individual are correlated, there is a tendency for scores *above the median line to correlate positively* and those below the median line to correlate negatively with each other. This suggests (to Allport) that there is in fact such a thing as a " strong " pattern of personality, or a " weak " one. Thus it is found that *scores on tests for ascendance, expansion, persistence, extroversion, self-assurance, gregariousness, socialization (altruism) and tact (social intelligence) correlate highly*. These findings imply, according to Allport, that there is underlying all personality traits " a primordial matrix of temperament, vitality and intelligence," and that there exists a " principle of integration which tends to form ever more inclusive traits." The above traits are exactly those which impress us as being the qualities of a " strong " personality in real life. A " strong " personality therefore is precisely one which shows a good measure of the traits of ascendance, expansion, persistence, extroversion, self-assurance and possibly gregariousness, both individually, and collectively as a cluster of the traits. A " weak " personality is one which not only does not possess the above traits in abundance, but will not possess a large measure of the psychologically opposite traits together in a cluster (since scores below the median line correlate negatively); therefore a "weak" personality is not from this point of view one which is simply lacking in ascendance, submissive, uncertain of itself, etc., but is rather more nondescript and unpredictable. *It lacks the basic dominating trend expressed in the direction of ascendance,*

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expansion, persistence and extroversion, and is bound to be more erratic and less well-knit. It may be regarded as more poorly integrated.*

It is a striking fact that those who commonly become latah are not possessed of " strongly integrated " personalities, for they are usually females in cultures where they grow up to be, among other things, passive and submissive ; and we have also seen (p. 112) that feminine qualities (as we commonly understand them) probably have causal significance in latah. Can we say that the cultures which show the latah reaction, or sub-cultures within them, tend to produce such " weakly integrated " personalities ? For we are faced with the problem of explaining why it is that the incidence of latah decreases so faithfully with changes in such cultures towards the universal type best seen in the life of modern cities or as we consider the higher social and educational strata within a given culture. We have to explain the cultural background of latah.

It is not permissible to make a generalization and say that the cultures which exhibit latah all tend also to encourage the development of a common type of personality. We may say that certain common characteristics of these cultures (or sub-cultures) will very probably be significantly related to personality peculiarities only to be found in those prone to latah. The one undoubted feature common to all those cultures which show latah is that they are all at a low level of technological development and have not discovered or developed techniques to master their environment to the same extent that other civilizations have. I shall try to show that this exercises an effect on the peoples of these cultures by making them generally less secure in their own *milieu* and more liable to fright reactions. In other words, not only are they relatively lacking in those qualities which make a " strongly integrated " personality, but because they lack these they are more easily disorganized by fear. I shall confine further discussion on this point to the Malay culture complex, of which I have adequate personal knowledge, but I think my conclusions on the organization of the emotion of fear in latah Malays will also hold good for all the other peoples showing the reaction.

Latah occurs almost always in people of poor education and enlightenment, and with increasing education such as for instance goes hand-in-hand with the process of " urbanizing " peasant communities its incidence undoubtedly decreases. In Malaya it is generally true to say that the majority of the inhabitants of towns and cities are more sophisticated, if not more educated, in the narrowest sense of the latter word, than those outside them.

The untutored person in Malay society, especially in the case of females, is a shy, retiring, unaggressive, self-effacing changeable and colourless person, with little individuality, inasmuch as her whole life is spent within the confines of her family, and moulded by the monotonous demands of infancy, childhood, wedlock, and motherhood in a simple and static rural environment. Anyone who has had contact with peasant peoples, and not necessarily only the Malay villagers, will agree that the above generalization is not too far-fetched. It is not suggested, of course, that every rural Malay possesses a personality of this type. This kind of personality can be contrasted with the stubborn, independent, and sometimes devious and enigmatic personalities with wider interests so often found among city-folk, either because they are moulded by the competitive economic life of the city or because people with such personalities gravitate there. The former type of personality can be called " weakly integrated " and is commonly to be found among latah patients, especially female cases. The latter type naturally has close affinities with the " strongly integrated " personality with its characteristics of expansion, ascendance, self-assurance, etc.

We may examine in detail one particular aspect of personality in which these two types probably differ, viz., the trait of fearlessness or the attitude towards what is fearsome. The ignorant rural person tends on the whole to be a more timid person than the person who is brought up amidst the noise and rush of the city (if we do not take into account specific objects of fear). To be sure, the villager will probably be less afraid of the tiger than the townsman, just as the latter will be more afraid of the noises of the jungle than the former ; but I think it is true to say that the townsman possesses a general readiness to meet threatening

* Th. Ribot has given a powerful expression of the same idea in non-technical language : " The most perfect co-ordination is that of the highest wills, of the great men of action, whatever the order of their activity : Caesar, or Michael Angelo, or St. Vincent de Paul. It may be summed up in a few words : unity, stability, power."—*The Diseases of the Will*, Chicago, 1915, p. 128.

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situations, a consciousness of his powers of adaptation, if not of defence, a self-assurance springing from greater knowledge and understanding (generally) of his physical environment than the villager, who, apart from his special knowledge arising from crude experience of certain dangerous animals and objects, is oppressed to a rather greater degree by fears of magic forces, of maleficent spirits and supernatural powers to be conciliated and propitiated. Thus he may fear many objects which are in themselves innocuous (cp. the Ainu fear of worms, etc.), and his taboos usually carry with them the urgent threat of death or immediate disaster. Anyone who has lived among people with a low level of natural knowledge and technological attainment can readily realize how real and all-pervading is the fear of the supernatural and the unknown in such an environment. People who have grown up in metropolitan areas find it difficult to imagine such a psychological " atmosphere."

The timorousness of the villager is naturally associated with the greater possibilities that he has of meeting with crude physical danger, either from wild animals or men unrestrained by the inhibitions of urban existence. The fears arising from such situations are of course additional to those which he suffers along with the urban and educated person, viz., the fears of failure, disgrace and the like, which spring not so much from direct physical threats to life as from psychological threats to his self-respect from the social environment or from his internal needs. It is not possible to generalize and say that with the increase of civilization, or as I prefer to call it in this discussion, increase of urbanization, fears operate on an ever higher level from the physical to the psychological, since the cultural background of a " simple " people may be no less complex from the psychological point of view than that of any advanced people. There is however no doubt that urban peoples are unused to the threat of physical danger in their own *milieu*.

Is there any difference in the manner in which these two—for the sake of argument, opposing—types of persons will react to sudden physical danger? The urban or sophisticated person will not have the opportunity to meet with this without having in varying degree been trained or prepared for it. Even if, for example, he encounters dangerous animals, the probability is that he has himself sought this, and has developed a psychological set for it—a set moreover built on knowledge of his own technical superiority in coping with such dangers. On the other hand the villager or the jungle-dweller is not only conscious of his own relative inadequacy in the face of these dangers, but they are to him ever-present, always threatening, and can appear in many forms, the more so since he possesses no real knowledge which can enable him to distinguish between fact and fancy or superstition as regards these kinds of dangers. Under such circumstances, it is not possible to speak of his developing a set for danger, since a psychological set is basically a preparation for *action* to cope with something *expected* and not merely an omni-present and all-pervading danger. One can say that he will probably develop a generalized sensitivity to danger, which approximates to a certain timidity or the absence of all those traits which together form the " strong " type of personality. This is bound to be a less effective equipment for the task of coping with urgent external threat, hence the peasant will much more readily exhibit the fear-provoked disorganization of the Ego which is at the basis of latah.

The above considerations help us to understand the remarkable relationship of latah to the untutored and more " primitive " types of persons both within a given culture and also generally in those cultures embodying a low level of factual knowledge and technology. It does not appear to me probable, as it did to Repond (1940*a*), that the reason for these facts lies in a special primitive kind of mentality which is unable to deal with anxiety in the way that civilized people in Europe do. Whether or not the common mechanisms of Ego-defence are a prerogative only of " civilized " peoples is a problem open to speculation, but it is highly improbable that they in fact are. Repond failed to distinguish between anxiety arising essentially from intra-psychic causes, and that caused by immediate threat of trauma from the exterior, and he certainly over-estimated the " primitivity " of peoples who show this reaction.

Another fact of significance in the ethnological background of latah is the status and social environment of women. It is a reaction rather commoner among females, and especially is this so in the case of the Malays. I have already pointed out how the abortive form of the reaction is imperceptibly mingled with certain histrionic mannerisms shown by sexually excitable young women when surprised or playfully threatened. These are usually spontaneous and unaffected responses, though in some

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it will be more a matter of habit. This kind of behaviour can be understood from the psychological environment of the Malay girl, who is afforded little or no opportunity once she has reached adolescence of coming into social contact with the opposite sex. The society recognizes no such modes of social intercourse as birthday or other parties, " dating," or frank courtship, which is such an essential part of the life of young people in the universal modern culture both East and West. She does not go to school, and plays no games. If she belongs to the toiling classes, she will naturally encounter men in the course of her daily work, but that is not an occasion for the meeting of personalities and mutual discovery, except in the most superficial manner. If she belongs to a family of higher social status, she will be even more oppressed, for there is no need for her even to leave her home in the course of her daily round. In a like manner the Chinese-Malay *nonya*, who is brought up in a largely Malay environment, is very much forced to restrict her movements as well as her interests. It used to be customary to warn her off the hall and verandah after she had reached adolescence, and if she went out at all, she used to travel in a closed-up palaquin. She was never introduced to young men who might come to the house, and if she excitedly peeped through screens and curtains at the visitors, it was as much as she was allowed to do.

It is difficult to convey to someone who has not actually been to Malaya an adequate idea of the prevailing manners and customs of the different classes of people there. The picture that I have drawn above will not now be true of most parts of the country, especially near the large centres of population and economic activity, but it was, 30 or 40 years ago, certainly the state of affairs everywhere except in the townships, which have always been populated almost entirely by immigrant Chinese and have always retained a Chinese character. Manners and mode of living change very rapidly in such " plural " societies in spite of the familiar adage about the unchanging East, but even to-day it is possible to surmise the customs and mode of living of the early days when latah was extremely widespread and almost a culture trait itself.

The change in the mode of life of people in the direction of the universal modern technological civilization is responsible for the decreasing incidence of the reaction in Malaya. Parallel with this is the decreasing hold of the old Malay customs, and the gradual disappearance of the Malay-speaking *nonya* descended from Chinese immigrants.

It will not be amiss here to describe briefly the nature of the culture complex of the Malays. The Malays are a variant of a Proto-Malay racial group, with Indian, Arab and other mixtures, belonging to the Mongoloid division of mankind. The true Proto-Malays are the Jakun, Sakai, Orang laut, Semang and Pangang, who still exist as minor aboriginal tribes in the jungles of the Malay Peninsula. The latah reaction has not been described among them, but they have never been subjected to enquiry on this point. (It has been described among the Dyaks of Borneo.) The Malays proper have settled in the river estuaries, and they congregate in villages but have never been absorbed into the towns and cities, although they dwell in little settlements on the outskirts of these. Since the first century they have assimilated Hindu and Islam influences, and their religious practices are Islamic, although with the usual mixture of animism and the magic of Moslem and Hindu. Like the aboriginal Siberians they also have the institution of the Shaman, whom they call the *pawang*. No Malay manuscript or monumental record dating before the spread of Islam at the end of the 13th century exists. They use the Arabic script, and until recently their literature has been composed almost entirely of collections of proverbs, verses, novels based on Hindu and Muslim legends, works on Muslim theology, law, ethics and mysteries, and travel chronicles. Their speech is by no means unrefined, and there is a cultivated court diction.

One may generalize by saying that they are mostly a rural people, economically very backward, and with a high percentage of illiteracy. Their everyday life has been very well described by Clifford and Swettenham, and a recent account of their cultural history may be found in the volume by Winstedt (1947). They are by no means " primitive," and indeed an ever larger number of them are being drawn into the modern world-culture of radios, newspapers, nationalism and economic competition, and affected with the desire for material progress.

Latah and the Norm in Behaviour.

I have already pointed out that latah-like behaviour is so common among the Malays that most cases of latah are not considered abnormal. The latah person is

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never referred to as *gila* or mad. It is the same with *imu* and the nameless latah reaction of the Senegalese. Indeed there is reason to believe that Malay latah, *imu* and the " olonism " of the Tungus and Manchus may in a way be sought after by some people (*vide* pp. 106 f.). Czaplicka (*op. cit.*, p. 320) stated that arctic hysteria was regarded definitely as a disease so that even a Shaman, if he fell prey to it, had to give up his profession, or be ostracized. It is not clear which particular people in Siberia she was referring to. In any case she must have had in mind the fully developed and severe cases, which indeed are so incapacitating that they must appear to all an undoubted illness.

The question has been raised from the medico-legal point of view whether persons in the latah state can perform a criminal act. It is theoretically possible that a person in this state may impulsively wound somebody next to him, not so much like an epileptic falling in a *grand mal* fit as like the case reported by Czaplicka (*op. cit.*, p. 248) where a susceptible subject, suddenly frightened by a falling knife, seized at once the implement and stuck it into the child by his side. I am not aware of any such cases reported in Malaya, however. It has also been suggested that in the latah state, severely predisposed patients may be prevailed upon by persons taking advantage of their increased suggestibility to carry out criminal acts. Fletcher (1938) tested this possibility by ordering a woman in this condition to stab at a bolster ' dressed-up ' as a man in bed with a knife ; this she did in a half-confused, half-anxious manner. That such behaviour is possible there can be no doubt, and my case No. 7 was also reported to be capable of such actions. However, Fletcher with his long experience in Malaya did not record any such cases coming before the law, nor did my enquiries at the Central Mental Hospital at Tanjong Rambutan reveal any such cases known to the staff. Thus while it is theoretically possible, crimes committed in the latah state are extremely rare. This can be understood if we keep in mind the fact, as I have shown above, that the echo-reactions in the latah state are not simple reflex or mechanistic phenomena, but are exhibited only in a dynamic field structured both by the immediate needs of the subject as well as the demands from his environment. The great rarity of criminal complications from latah is in keeping with the prevailing social attitude taken towards it as, in the vast majority of cases, a harmless mannerism or at most a handicap falling more or less within the range of normal behaviour.

XII. *Nosology.*

Nosological speculations about the latah reaction have in the past been stultified by a failure to understand its psychodynamics as well as to define such explanatory concepts as hysteria, hypnotism, shock psychosis, etc. There has also been much futile theorizing about " race psychosis " while at the same time ethnological data of psychological significance have been ignored. Without a correct understanding of the nature of the reaction it was only to be expected that clinical types have been differentiated in chaotic profusion, ranging from the purely descriptive (e.g., mild chronic ; mimetic, paroxysmal) to those based on some explanatory principle (e.g., hypnotism, " fear-obsession "). The authors who attempted such classifications were Ellis (1897), Abraham (1912), Ballard (1912), Galloway (1922), Fletcher (1938) and Gimlette (1939).

Apart from clinical classifications, the reaction has been included under various nosological categories, as follows :—

(*a*) *As an organic disease or neurosis :* Ellis in 1897 thought it was *petit mal* epilepsy. Tourette (1884) first regarded it as convulsive tic, and similarly Musgrave and Sison (1910) regarded it as a degenerative tic. Van Brero (1895) first called it a hereditary cerebral neurosis, and was followed by Fitzgerald (1923) ; this point of view was quoted in Price's *Textbook of Medicine* as late as the 1941 edition. The falseness of this view I need not further stress.

(*b*) *As hypnotism :* Beard (1880) called the reaction simply a " transcoidal reflex " and it has continued to be regarded as trance or hypnotism by several authors. Gimlette (1897) thought it was self-hypnosis and so did Galloway (1922). Abraham (1936) called it a " hypnotic state with imitation," and as late as 1950 Manson-Bahr in his standard book on tropical diseases spoke of it as a " hypnotic-like trance." These authors have not appreciated the significance of the fright stimulus which is needed to produce the reaction in all but the severest cases and have been disproportionately swayed by reports that sometimes very outlandish and simple peoples

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who have never seen white men before may react to the sight of them with the immobility of fascination (van Loon, Repond). To say that the latah state is hypnosis throws light on certain features of this peculiar condition of Ego-disorganization, but it is at best a partial truth and is only a very superficial analysis of latah.

(*c*) *As hysteria :* Milne-Bramwell (1903) in his classic book on hypnotism related latah not only to hypnotism but also to hysteria. Later writers have more openly labelled it hysteria without defining their understanding of the latter term. Van Loon called it " monotonous hysteria," pointing out that it arose from fear and suggestibility reacting on a " primitive " Ego. Uchimura *et. al.* (1934) regarded the Ainu form of latah as " an ancestral form of hysteria."

Both Kraepelin and Bleuler have expressed views on the nature of latah. The former probably had no first-hand experience of it, and the latter certainly had none. Kraepelin (1909, p. 157) said that it stood " in close relationship with hysteria " and Bleuler (1936, p. 153) similarly regarded the " echopraxia of primitive peoples " (meaning latah) as involving a " hysteria-like mechanism." Van Wulften-Palthe (1936) took a similar position, recognizing it as hysteriform, but definitely not hysteria ; it was, he thought, largely based on a " susceptibility to fear," and was also moulded by cultural factors. Fletcher (1938) simply said that it was " akin to a kind of hysteria called suggestion neurosis," and Manson-Bahr (1950) " a hysterical trance like state."

I shall later examine in detail the possible relationship of latah to the hysteria.

(*d*) *As a fright reaction :* Gimlette (1897) and Gerrard (1904) both emphasised the significance of psychological shock in the genesis of latah. Van Loon (1928) who was the first psychiatrist probably to study it at first hand, called attention to it as a primitive kind of reaction to fear, like amok*. Winiarcz and his colleague (1936) held the same view with regard to *imu*. Van Wulften-Palthe, as has been pointed out above, also incriminated hypersensitiveness to fright as an important aetiological factor. No one, however, has seriously studied the reaction in connection with the commonly recognized traumatic neurosis.

(*e*) *As a special neurosis* per se : Repond (1940) concluded that latah was a primitive kind of psychoneurosis seen in peoples who, dominated by a pervading anxiety as a result of their lack of civilization, were unable to neutralize this anxiety in the way that the civilised neurotic can ; but apart from this the reaction also depended on a special constitution from infancy, a special temperament and social influences (e.g., the environment of lower classes). He denied its relation to hysteria, and took no account of its genesis from fear.

The present position may be summed up by saying that while various authors have separately stressed or attempted to stress the relevance to the reaction of hysterical mechanisms, fright, suggestibility, psychological immaturity, " primitiveness," " the oriental psyche " and social conditioning (often one of these to the exclusion of another), a coherent nosography of latah, with due consideration of the social-cultural as well as the individual-psychological factors in a dynamic context, is still wanting.

The essential features of the latah reaction may be briefly recapitulated. The patients, because of the insecurity of their primitive environment and their own lack of knowledge and undeveloped powers of mastery, have developed a general susceptibility to fear. They are therefore prone to react with fright to stimuli which are not from their nature or their physical characteristics in themselves nocuous, and in some cases these fears are culturally supported by folk-beliefs. Because of the sense of overwhelming hazard from their surroundings which cannot be organized

* The occurrence of both latah and amok among the Malays has prompted several authors to find for both a common explanation. Thus Abraham (1912) thought that amok was merely a paroxysmal form of latah ; Ballard (1912) believed that latah was a minor hysterical attack, as amok was a major one ; R. D. Gillespie in the book edited by McDowell (1927, p. 263) made the most unlikely suggestion that amok-latah was in fact a paranoid homicidal attack of schizophrenia ; Van Loon (1928) thought that both were " protopathic-instinctive " reactions arising from the " primitive " psyche, only that amok showed a much greater degree of " dissociation " than latah ; Codet (quoted by Repond, 1940*a*) asserted that amok was related to latah, but Repond insisted that whatever relationship latah had to amok was due to racial and biological factors, not psychological. The obscurity surrounding our knowledge of amok cannot be more clearly illustrated. It suffices to say that the amok reaction lacks the definitiveness and uniqueness of latah, and until we can identify it as a nosological entity all comparisons with latah are in vain.

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around any one object, they are unable to develop adequately their biological apparatus of mastery, and react to fear-stimuli by a disorganization of the Ego. This involves a dissolution of the body-Ego, an obliteration of its limits, and echo-phenomena are thereupon exhibited inasmuch as they are elementary attempts both at perceiving and exploring the environment as well as at regaining control of it. During this state consciousness is clouded and volitional processes are in abeyance, and the symptoms of echo-reactions as well as command automatism are moulded by forces in the total behavioural field which is structured both by the demands of the environment as well as the needs of the subject. When the latah reaction was first exhibited in the distant past, it was psychologically understandable, and might have been predicted in the light of our general knowledge concerning topological psychology, the psychology of fear and the conditions of primitive life. However, subsequent cultural development has tended in some respects to " capitalize " on it, so that most cases of the reaction are not looked upon as abnormal but as a type of behaviour allowing of the expression of certain psychological needs in many of the subjects, as well as a recognized source of amusement and play for other members of the group. Thus it comes about that a latah person may not only have the reaction " stamped in " by repetition and habituation, but may also be motivated unconsciously or semi-consciously in the development of this aberration by the mechanism of hysterical gain.

In what sense may it be regarded as hysteria, primitive hysteria, or hysteriform ? If we limit the connotation of hysteria to Kretschmer's fundamentally biological conception of it (*vide* pp. 48 f.), we may legitimately regard the characteristic echo-phenomena as examples of primitive, " pre-formed," and poorly organized psychological mechanisms beyond the control of the " purposive will," manifested during the hyponoic state following acute fright. This hyponoic state is characterized by a heightened suggestibility, which Kretschmer regards as responsible for negativism and automatic obedience in conditions of hyponoia and hypobulia. Like many hysterical symptoms the symptoms of latah may with repetition develop a certain autonomy of function beyond the control of the conscious discriminative will. Moreover the reaction may in a limited sense be considered to serve the subject in culturally recognized ways, although the " tendency to dissimulation " which Kretschmer insists on as a necessary element in hysteria will not be found except in some of the earlier, borderline and abortive cases. Thus in so far as there are present " reflex, instinctive or otherwise biologically preformed mechanisms " as well as (in some cases) a " tendency to dissimulation," we may reasonably call the latah reaction hysterical, or at least hysteriform.

We would not be justified, however, in saying that it is primitive or ancestral hysteria. The ordinary hysterical spasms and tremors utilize the same type of mechanisms, but we would gain nothing by calling them primitive. The reaction does not arise because of the undeveloped mentality of peoples showing it ; it is not due to a deficiency in psychic structure, but it arises directly from an abnormal hyponoic and hypobulic state, which is not peculiar to so-called primitive peoples. However the ease with which latah people can be precipitated into the hyponoic state must be admitted, and I have already suggested that this is due to a special organization of the emotion of fear, which involves a proneness to fright, due to the general insecurity associated with a low level of natural knowledge and inadequate technical prowess. Moreover, to say that latah is primitive hysteria would imply that it is the only type of hysteria seen among such peoples ; this cannot be true, in spite of the views of Uchimura (*ibid.*), for we have already pointed out that the primitive reactions of Kretschmer, which are in fact the most undifferentiated of all forms of hysteria, are very widely seen in the little-developed cultures, both those which show the latah reaction and those which do not (*vide* pp. 36 f. and *infra*). Latah on the contrary is a highly specialized form of hysteria, if we call it hysteria at all, inasmuch as it is only to be found among *some* of the many poorly developed or arrested cultures known to us.

To conceive of the reaction simply as hysteria, however, is to take a rather narrow view of it, and to ignore its fundamental relation to fear. We have seen how many of Sakaki's (1905) cases took their origin from a fright stimulus ; Gerrard's case (1904) followed a bite from a crocodile, and Van Loon (1927) mentioned a case which came on after waking from a frightening dream. Czaplicka (*op. cit.*, p. 310) quoted the case of a woman whose illness appeared after a mauling by a bear. One of my cases ascribed the real onset of his illness to what was virtually bodily assault (Case

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4) and another to psychological shock following the violent death of a daughter (Case 6). This association of latah with an original acute psychological shock, although it cannot be demonstrated or proved in every case, must have more than a simple illustrative significance; the latah reaction itself is indisputably a fright reaction with peculiar elaborations following a traumatic stimulus.

The question now faces us whether the reaction can be classed among the " primitive reactions " (i.e., primitive fright reaction), the fright or shock neuroses, or traumatic hysteria. I have already reviewed the present position with regard to these nosological categories (pp. 51, 54 f.). Kretschmer's " primitive reaction " is limited to those exaggerated simple affective reactions which are disproportionate to the strength of their stimuli but not in essentials qualitatively different from what might be expected from the nature of the stimulus. It is used by some authors (e.g., Bleuler) to include fright-neurosis, and clearly this is true as far as psychopathological considerations are concerned, but clinically the primitive reaction is of much shorter duration than the fright neurosis. The latah reaction, although basically an exaggerated fright reaction, runs a chronic and sometimes progressive course and cannot therefore be regarded as a primitive reaction as such.

Often the primitive fright reaction is complicated by hysterical utilization of the " instinctive, reflex or otherwise biologically preformed mechanisms " released in the course of the reaction itself, and as Kretschmer (1937) pointed out, it is extremely difficult in actual cases of illness following a traumatic shock to distinguish the symptoms of excessive fright, or fright neurosis, from those of hysteria, or traumatic hysteria. Because latah is not regarded as abnormal unless really advanced, because it may serve as a recognized mode of emotional expression as well as a culturally welcomed source of amusement, the necessary setting for dissimulation and secondary gain is there, and therefore latah can perhaps be looked upon as traumatic hysteria.

If we take note of the fact that some cases may be progressive and the patient become severely disabled without the possibility of any compensation, and that such cases are in fact considered by all to be ill, helpless and even dangerous, then the hysterical aspects of the reaction becomes insignificant. The whole explanation does not lie in hysterical " reflex-enforcement " or hysterical habituation. It will be more accurate to regard latah as essentially a fright neurosis, with minimal hysterical elaborations.

The fright neurosis according to Kardiner (*op. cit.*, p. 79) is " type of adaptation in which no complete restitution takes place but in which the individual continues with a reduction of resources or a contraction of the Ego." (We have seen that he uses instead of the term " fright neurosis " the expression " traumatic neurosis," which for reasons stated on p. 57 is unnecessarily confused and vague; the distinction between these two terms however is purely a verbal one and raises no questions of fact). The explanation for the progressive course of some cases, those which might well be called " degenerative," can only be that some permanent damage to the adaptive capacity of the subject has been done, whether this be due to excessive stimulation or some constitutional weakness. Only this indeed can explain the difference between the primitive fright reaction, which soon passes off without any abnormal sequelae, and the fright neurosis with its prolonged or chronic autonomic and psychic symptoms and its changes in personality.

Both in fright neurosis and in latah may be discerned a varying degree of anxiety; in the former it is known to express itself in irritability, distractibility and the inability to tolerate effort of any sort, in anxiety dreams and in episodic aggression and violence; in the latter, the anxiety, irritability and abnormal sensitivity to all sorts of stimuli can be seen in moderate and advanced cases, and a mild anxiety may also be discerned during the latah state itself in all genuine cases. It is the presence of this load of anxiety, not organized into phobias, obsessions, or tics and ceremonials protecting against the original trauma, but bringing about an impairment of the Ego-resources so that the original protective devices become repeatedly employed, that accounts for the lowered level of adaptability of the patients. Irritability, as Kardiner points out, is an index of the effectiveness of adaptation.

The overwhelming of the Ego in fright neurosis is due ot the excessively intense effect of the stimulation which does not permit the Ego to react by invoking the usual mechanisms of regression, substitution or displacement. It is the peculiar feature of fright neurosis that a re-adaptation making use of these mechanisms does not take place. The reasons for this are obscure, although we may legitimately

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point to the significance in this respect of the previous personality. Rado (1942) has emphasized that the main factor in the causation of this kind of reaction is an attitude of retreat and submission. It is highly probable that such " weakness " of personality integration or rather the lack of what might be called " strong " personality traits and the associated Ego-attitude of fearlessness (*vide* my treatment of this topic on p. 116) is an important factor, since this cannot but magnify for the subject the frightening or threatening quality of all manner of relatively innocuous stimuli, and also at the same time lower the threshold for stimulation that can disorganize the Ego. Not every case of fright neurosis will be found thus wanting in the characteristics of a " strongly integrated personality," although undoubtedly constitutional factors are important as a predisposing cause, since the other variable factor of intensity of stimulation must be taken into account. Where latah is concerned the stimuli which precipitate it are as a rule so comparatively trivial that one would expect to find among the subjects few who possess the " strongly integrated " type of personality.

The most striking clinical difference between latah on the one hand and the fright neurosis as commonly seen on the other lies not in its mode of onset or its course, but in the echoing and command automatism. On analysis, however, the difference is superficial, for these symptoms naturally arise from states of dissociation or disorganization of the Ego which are also to be seen in the stupors and the catalepsy and twilight-states of fright neurosis. That echo-reactions are exhibited in conditions of clouded consciousness due to various causes is well-known (Stengel, 1947). It will be noted, moreover, that some cases of fright neurosis run a course periodically punctuated by acute disturbances of consciousness due to sudden psychic stimulation (probably complex-determined). Kardiner recognized a type of Ego-organization in fright neurosis with a diminished level of function and showing " periodic contraction of the Ego."

We may sum up by saying that the latah reaction is a special form of fright neurosis, with minimal hysterical features, culturally maintained, and to be found only in persons whose powers of mastery and of defence are limited by the level of their own cultural development.

XIII. *Latah and Comparative Psychiatry.*

In a brief paper on comparative psychiatry (Yap, 1951), I concluded that mental diseases essentially different from those seen in countries where the structure of modern psychiatry has been erected do not occur, although the detailed symptomatology of the various psychiatric reactions may differ. I suggested that the concept of abnormality in modern psychiatric practice needed reconsideration when inter-cultural psychiatric studies were made, since beliefs and customs, conflicts and modes of resolving them differed widely ; but the theoretical apparatus of orthodox psychiatry, i.e., its explanatory concepts and principles, wherever divested of implicit reference to an arbitrary norm of behaviour, could usefully be employed to analyse the nature of unusual behaviour everywhere.

The latah reaction is not something unique, but has been shown to be understandable dynamically as a fright neurosis, and its peculiar symptomatology have been found to be explainable by the principles of topological psychology. What may be learnt from the comparison of latah with fright neurosis as commonly known ?

We may note that cultural influences can greatly distort the *form* of a fright neurosis : the latah reaction, so wide-spread in those communities where it has been described, provides a standard type on which abnormal fright reactions may pattern themselves ; it is this cultural effect which makes it so monotonous and so fixed, in comparison with the fright neuroses elsewhere.

If we then ask why such a form of fright neurosis should occur only in cultures of low technological level, we touch on a fundamental problem concerning cultural differences in the organization of emotions, in this case, fear. It has been stressed by Gorer (1950) that the expression and organization of emotions " common to members of a society " are culturally modified and transformed, in the same manner that physiological drives undergo cultural modification (a fact studied in detail by Malinowski, 1941). Once we depart from a purely biological discussion of fear we are faced with the need to determine for each culture the time, place and situation necessary for the expression of fear, its maximum and minimum limits of tolerance, and its consequences. The latah reaction furnishes an example of the psychiatric

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significance of this concept. Without taking into account the special fear organization of the peoples showing latah it is not possible to arrive at a basic understanding of it, with the result that it will be presented as a " special neurosis," etc. in the most superficial manner. That the organization of fear is distinctly different in cultures where latah is known can be accepted without difficulty, but whether it is also true that this kind of organization of fear is common to all cultures of low scientific and technological development (in the widest sense of the word), whose people have a greater sense of hazard from their surroundings owing to their deficient powers of mastery, is a problem for further elucidation. I have tried to suggest that this special fear organization consists in a susceptibility to react with fright to an unusually wide range of stimuli, and a fright reaction uncommonly intense, characterized by a tendency to Ego-disorganization ; and possibly there is in such a group showing this type of fear organization a comparative rarity of personalities with the traits of ascendance, expansion, self-assurance, persistence and the like.

Further investigations into the myths, folk-beliefs, proverbs, literature and drama (and in the case of the Malays also perhaps the cinema) of these ethnic groups in order to elucidate group-attitudes towards fear, violence, heroism and conquest could render more meaningful this concept of their fear organisation. Direct personality studies of peoples showing latah and those who do not would be difficult except on an impressionistic basis, but it should be possible to compare with objective methods the personality structure of latah patients and those not subject to it within a given culture. Further, whether or not latah occurs because the subjects are too primitive in their mentality to be able to convert or otherwise neutralize anxiety should be capable of solution by recording the incidence of the classical forms of psychoneurosis among them ; but this requires psychiatric observation which can be performed only through an established psychiatric clinic. These are possible lines for future research, but there may soon be little opportunity left to carry it out, since with the cult of modernization everywhere the latah reaction may, before we realize it, become a psychiatric curiosity of the past.

XIV. Summary.

A critical review of the literature on latah is given in Sections I and II, and the hitherto unsatisfactory treatment of the subject is pointed out. In Section III a full account is given of the Jumpers because of their importance as an example of the latah reaction occurring among people of Caucasian stock in a temperate climate. Sections IV and V deal with *miryachit* and *imu*, including a review of the relevant literature.

In Section VI the latah reaction is related to " sleep intoxication " and the so-called " startle neurosis," and differentiated from convulsive tics and " primitive hysteria." The meaning of the last is examined and it is suggested that the behaviour covered by it should be included under Kretschmer's " primitive reactions." The meaning of hysteria is discussed in Section VII and Kretschmer's analysis of it is regarded as the most adequate. It is suggested that where a morbid gain cannot be demonstrated hysteria should not be diagnosed even though " hysterical mechanisms " are involved ; but instead the case should be classed with fright neurosis or the psychosomatic organ neuroses. In Section VIII the term " fright neurosis " is shown to be preferable to " traumatic neurosis " and is distinguished clearly from organic post-concussion states, traumatic hysteria and the primitive reactions.

In Section IX cases observed personally by me in Malays are described, and two hitherto unnoticed symptoms as well as the general features of latah are discussed.

Section X is devoted to the pathodynamics of the reaction. The factors of fright, tickling, habituation, aging and hysterical gain are dealt with. Latah is considered to be essentially an intense fright reaction involving disorganization of the Ego and obliteration of the Ego-boundaries. A theory of automatic obedience and the echo-reactions is given : this states that fright provokes inhibitory processes which bring about " suppression " (Rivers) of perceptual activity ; impairment of the perception of local signature leads to a dissolution of the boundaries of the Ego as has been shown by Uexkull, so that the patient's behaviour becomes more directly determined by forces in the total behavioural field according to Gestalt principles ; this manifests itself in echo-phenomena and automatic obedience. Coprolalia is interpreted as a symbolic (verbal) defensive act. The affinities of the latah state to hypnosis and fascination are discussed.

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Section XI critically reviews such aetiological theories as have been put forward. A special modifying of personality and of the organization of fear in persons belonging to cultures of low technological level is suggested. The nosological position of latah is dealt with in Section XII, and it is concluded that latah is a specialized form of fright neurosis, with minimal hysterical features, culturally maintained, and found only in persons whose powers of mastery and of defence are limited by the level of their own cultural development.

In Section XIII it is pointed out that organization of the different emotions varies with the cultural *milieu* and that it is of great importance for comparative psychiatry to recognize this ; the usefulness of applying the concept of a special fear-organization to the analysis of latah is stressed. Finally, some suggestions for further research are given.

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