APPENDIX

ACCIDENT NEUROSIS*

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THE literature of accident neurosis is scanty, and it has received little attention from formal psychiatrists. Most papers on the subject are in the nature of occasional contributions, often more conspicuous as expressions of opinion than for their factual content. Indeed, the subject is so fraught with prejudice that it demands a conscious effort to maintain a clear distinction between fact and interpretation. This I will endeavour to do, and my material will fall into two parts—first, the presentation of clinical data derived from personal experience, and, secondly, a discussion of its possible medical and social significance.

The question of terminology is a vexed one, and the inelegant prefix of the title has been adopted reluctantly but advisedly. The term "traumatic neurosis" was coined by Oppenheim (1889), who attributed the condition to neuronal damage of a molecular nature. Whatever validity such a concept may have to the problem of cerebral concussion, it is clearly irrelevant in the present context: accident neurosis may arise quite independently of physical injury of any kind. Furthermore, the subsequent extension of Oppenheim's term to cover the results of so-called "psychic trauma" as well as physical injury has so far deprived it of any clear meaning that it is best discarded. The terms "compensation neurosis" or "litigation neurosis" have the virtue that litigation is a more constant feature of these cases than physical injury, but they prejudice the issue of aetiology.

The evidence presented here is based on personal experience of about 4,000 patients examined for medico-legal assessment after accidents during a dozen years of consultant practice. It includes an analysis of 200 cases of head injury recently examined for this purpose, and a follow-up study of 50 patients in whom gross

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neurotic symptoms after an accident had been found on examination more than three years previously.

Neurosis and Head Injury

The material under review in this connexion comprises 200 consecutive cases (152 male and 48 female) of head injury first referred for medico-legal examination between 1955 and 1957. The ages of these patients ranged from 2 to 84 years: 90 per cent, however, were between 20 and 60, the average being 42. All social strata were represented, from unskilled labourers to the peerage. The average interval between injury and first examination was 14 months. Ninety-four injuries were sustained in road and 106 in industrial accidents. The "industrial" group included a few patients injured in the course of non-industrial occupations. Of these 200 cases, 47 had gross and unequivocally psychoneurotic complaints.

In 22 other cases a post-concussional or post-contusional syndrome was complicated by psycho-neurotic features. In nine further patients a true depressive syndrome of "endogenous" pattern succeeded the injury; and in one instance traumatic delirium following brain injury merged imperceptibly into a schizophrenic illness, in a man whose elder brother was already an established schizophrenic. In 34 other cases organic impairment of personality or intellect was encountered: all except three of these patients had suffered prolonged unconsciousness extending over periods varying from several days to many months. The three exceptions comprised an arteriopath of 66 in whom gross dementia followed a closed head injury characterized by only 15 minutes' unconsciousness; and two cases in which severe fractures of the skull had been unassociated with any impairment of consciousness.

Differential Incidence of Neurosis

Our main concern here is with the 47 cases with indubitably psychoneurotic complaints. Such a development was twice as common after industrial (33 per cent) as after road accidents (16 per cent). It was more than twice as common in men (27 per cent) as in women (12·5 per cent). This difference might at first sight be regarded as partly related to the preponderance of road accidents amongst the female cases. It is true that only six of these resulted from occupational injuries, among which were two cases of gross psychoneurosis. On the other hand, 42 traffic

accidents in women yielded only four instances of neurosis, whereas 12 were encountered amongst the 52 men similarly involved.

It is a widespread clinical impression that accident neurosis is commoner in older subjects, but no evidence is forthcoming from this material which favours the view that age is of much importance in relation to the syndrome—except that it was not encountered in childhood. Almost exactly half of these patients were over 40. Among these the incidence of neurosis was 24 per cent, as against 21 per cent in the younger group.

Relationship to Severity of Injury

In whatever way the cases are broken down they demonstrate an inverse relationship of accident neurosis to the severity of the injury. Gross psychoneurosis occurred, for example, in 31 per cent of patients without radiological evidence of skull fracture, in 9 per cent of patients with simple fracture, and in only 2 out of 25 patients who suffered compound fractures of the skull. In one of these a gross hysterical reaction complicated organic deterioration of personality and intellect following a severe brain injury, and the other patient was already a lifelong hypochondriac. A similarly inverse relationship is shown between the incidence of gross psychoneurosis and the duration of unconsciousness. The incidence of psychoneurosis in patients who were never unconscious was 42 per cent. Amongst all unconscious patients the incidence was 14 per cent. Where the post-traumatic amnesia (P.T.A.) was less than 15 minutes the incidence was 37 per cent, and where it was more than this it was 10 per cent. Of 48 patients with P.T.A. of more than 72 hours, only three showed residual psychoneurosis. One was a mental defective, one the lifelong hypochondriac already mentioned, and one a patient with a long history of recurrent psychiatric disability before his accident.

Predisposing Factors

The incidence of accident neurosis is related to social status. In the industrial group most of those who developed gross neurotic sequelae were unskilled or semi-skilled workers. Cases from this social group showed an incidence of neurosis of twice the average (47 per cent). Amongst men, labourers, datal mine-workers, and the like furnished the bulk of cases. Amongst women, factory and office cleaners were conspicuous. More than half of the patients with accident neurosis came from the

Registrar-General's social classes IV and V (semi-skilled and unskilled workers), as against a 38 per cent representation of these social classes in the 200 cases reviewed, and 34 per cent in the population of Northumberland and Durham as a whole. Among patients above the level of under-foreman or charge-hand, neurotic symptoms or prolonged incapacity subsequent to industrial head injury occurred in only 18 per cent of cases.

The factor of social differential may also be related to the lower incidence of neurosis after road accidents, which cover a wider social range than the industrial group. Even here, however, a disproportionate number of cases occurred in those of lower social status, and the condition was distinctly rare among the professional or managerial patients examined. However, amongst the latter, one intelligent businessman and one professional man frankly admitted to making the most of their symptoms in the hope of turning a minor injury to financial advantage.

It has often been suggested that the nature of the accident is a material factor in influencing the subsequent development of neurosis. Some of the accidents in which the patients under discussion were involved were of the most alarming nature, but out of 17 such outstanding instances neurosis developed in only two, and indeed many of the most disabling functional sequelae followed trivial blows to the head sustained during the course of some routine occupation quite devoid of special danger. However, the nature of the employment is possibly of some importance. The condition appeared to be more frequent in the employees of large industrial organizations or nationalized industries than in those working in the more intimate *milieu* of small businesses or on farms. The series is not a large one, and allowance must be made for local factors. However, it would appear that underground mineworkers and steel erectors, especially in the labouring grades, furnished a higher-than-average proportion of cases: such work is of course dangerous, and widely known to be dangerous, while claims for compensation are an everyday matter in the industries concerned.

In relation to personal predisposition, it has been stressed in psychiatric circles that accident neurosis tends to occur especially in patients with a particular type of personality—dependent, insecure, craving sympathy, and at the same time exhibiting well-marked paranoid tendencies. This may be the case, and such features are indeed often conspicuous by the time the patient is seen with the developed syndrome. However, in view of the

absence of any valid parameter of personality, and of the fact that assessment of the patient prior to his accident is both subjective and retrospective, it can hardly be regarded as more than a clinical impression. Indeed, in response to direct questions few of these patients are prepared to admit to anything other than robust physical and mental health until the very day of the accident, while the collateral evidence of relatives and friends—so valuable in other psychiatric contexts—is often equally unreliable. Assessment of pre-accident personality therefore presents special difficulties, and depends to a greater degree than is usual on information from uncommitted sources such as the family doctor, and on the objective evidence of work and sickness records. Quotation of these often jogs the patient's memory for important events which—whether consciously or unwittingly—he had omitted from the most painstakingly elicited history.

With these qualifications, evidence of some significant predisposing factor or factors was found in 20 of these 47 cases in which gross neurosis had followed head injury. Because of the frequent tendency of these patients to conceal positive evidence in their pre-accident histories this figure is more likely to be an underestimate than an overestimate. However, the development of a major psychoneurosis of disabling severity in adult life (barring either a background of organic brain disease or camouflaged psychosis, or else a truly catastrophic emotional situation) usually implies a degree of predisposition hard to disguise even in the most cursory psychiatric history. The absence of any evidence whatever of predisposition to neurosis in more than half of these psychiatrically disabled patients is therefore a very striking feature.

Amongst the predisposing factors encountered in certain cases was below-average intelligence. In these cases, however, emotional stability was more significant: several stable dullards showed no neurotic developments after their head injuries. A past history of evident emotional instability, invalidism, hypochondriasis, or prolonged incapacity after previous minor injuries was an unfavourable feature, as was a shiftless work record. Concurrent menopausal nervous symptoms, coincident hypertension, and arteriosclerosis were occasional factors. Responsibility for the patient's prolonged absence from work was often laid firmly at the door of the doctor—"he won't let me go back"—but in fact convincing evidence of primary iatrogenesis was rare.

Occupational Disability

The average duration of absence from work in 31 patients with neurosis who had returned to their employment when they were seen was six months. This figure must be considered in relation to the severity of the head injuries involved. Only 4 of these 31 patients had sustained fractures of the skull. Sixteen never lost consciousness, and in nine further cases the P.T.A. was measured in minutes; only six patients had been unconscious for an hour or more. This compares with an average period of four months' loss of work in 58 patients who had sustained simple fractures of the skull uncomplicated by neurosis. Forty-six of these patients had been unconscious, 23 for more than five days and only nine for less than an hour.

The average of six months' occupational disability with neurosis may be compared also with that in patients who had sustained compound fractures of the skull. Of 22 such cases, five were permanently disabled by epilepsy, hemiplegia, or organic mental change; and two others were away from work for two and a half and four years respectively on this last account. In the remaining 15 cases, however, the average period of absence from work after compound fracture of the skull was a little less than 4·5 months. These encouraging figures for early return to work after severe head injury are very similar to those given by Ritchie Russell (1934) in a survey of consecutive cases drawn from hospital practice. He also convincingly demonstrated the effect of the compensation issue in prolonging incapacity. The present figures demonstrate that, even where this factor is uniformly operative, all but the most severe head injuries cause less occupation disablement than accident neurosis.

Post-Concussional Syndrome

In 36 of the 47 cases of gross neurosis described above the symptomatology was that of uncomplicated emotional illness, in which symptoms of organic pattern were entirely lacking. In the remaining 11 cases the actual disability at the time of the examination was predominantly and unequivocally neurotic in nature, but persisting post-concussional symptoms were also present. The consistency of the post-concussional syndrome of headache, postural dizziness, irritability, failure of concentration, and intolerance of noise argues a structural or at the least a pathological basis. However, such symptoms are by no means invariable, even after material closed head injury, and in most uncomplicated

cases the subjective disability is not of long duration. Unless the injury has been of some severity it is uncommon for a patient to be away from work for more than a few weeks after concussion sustained in sporting or other neutral circumstances.

In addition to the 11 cases in which gross neurosis complicated post-concussional symptoms, a post-concussional or post-contusional syndrome was also encountered in 73 other cases of closed head injury in the series, and also in 9 of the 22 patients who had suffered compound fractures of the skull. In none of the nine cases of compound fracture was it complicated by neurosis, but in 22 of the 73 other cases there was an admixture of emotional symptoms, such as sleeplessness, self-pity, depression, or frank anxiety, which were interpreted as indicating a neurotic superstructure. This view was usually also supported by the prolonged duration of the syndrome, its failure to improve, and the frequent claims of deterioration in a symptomatology which we know ordinarily tends to spontaneous improvement, and in which there is every logical reason to expect such a development.

Again, analysis reveals in these cases an adverse relationship between the severity of the injury and the development of neurotic symptoms. Of 49 patients in this series whose post-concussional syndromes followed head injuries associated with unconsciousness of more than five minutes duration, only three developed persistent neurotic complications, while these were encountered in no fewer than 19 of the 24 patients in whom post-concussional symptoms of similar "physical" pattern followed head injury without loss of consciousness. In the post-concussional group also, neurotic complications were more than three times as common in the absence of skull fracture as in its presence.

These figures indicate that in this series persistence and psychoneurotic elaboration of the post-concussional syndrome bore an adverse relation to the severity of brain injury similar to that observed in the case of frank neurosis. They suggest that in this context at any rate the psychoneurotic component was an expression of whatever situational factors are responsible for accident neurosis in general, and not a function of structural damage.

In other ways also these 22 patients with psychoneurotically complicated post-concussional syndromes were comparable with the 47 examples of neurosis previously presented. By comparison with the 51 instances in which a post-concussional syndrome was uncomplicated by neurosis there was no difference in age incid-

ence (the averages being 42 and 41·5 respectively) and evidence of neurotic predisposition was again found in less than half. Once more also, the neurotic complications showed a higher incidence in the lower social groups.

Depressive Illness Following Head Injury

The nine patients in whom depressive illness followed head injury stand out from the neurotic cases in many ways. In eight the depression was of classical endogenous type and in only one instance did real diagnostic difficulty arise. Seven depressive patients were over 40, the averge being 51. The head injuries were material in all but one instance: one patient had a fractured skull and six had been unconscious. Four patients had a previous history of depressive illness, and three others showed significant predisposing factors in the form of severe hypertension and arteriosclerosis, antecedent menopausal symptoms, and a long history of obsessional neurosis respectively. Two patients were suicidal. Five had been or were subsequently treated with electric convulsion therapy. In each instance improvement followed, even though the compensation issue remained unresolved. These were in fact the only patients in the whole series who exhibited a favourable response of psychiatric symptoms to treatment.

Clinical Features of Accident Neurosis

This syndrome is one of the most stereotyped in medicine. Sometimes the fright of the accident merges imperceptibly into a continuing complaint of nervous symptoms with an anxiety-depressive cast. More often, and especially where the symptoms have a frankly hysterical flavour, the condition develops after a latent period of weeks or even months. The general symptoms are remarkably constant, and amount to head pains (usually described as "terrible", "terrific", or "agonizing"), exertional or postural dizziness, irritability, failure of concentration, and restlessness. Sleeplessness is volunteered in rather less than half, but in reply to leading questions the patient will usually claim insomnia of psychoneurotic pattern (difficulty in getting off to sleep), restless sleep, and often nightmares related to his accident. Where there has been physical injury, complaints of intractable pain or other disability in the injured part are common, and these may be associated with motor weakness easily improved on persuasion, or anatomically incongruous sensory loss.

Objective signs of anxiety such as tachycardia, tremor, and

axillary hyperhidrosis are, however, relatively uncommon, and have been found in less than 15 per cent of personal cases. Gross dramatization of symptoms was recorded in more than half. On examination this may be evident in the way the patient shies away from the ophthalmoscope; by the groaning and quivering which ensues when forward spinal flexion is tested; by a flaccid grip easily strengthened by distraction or encouragement; or by the patient's slumping forward with head in hands during the consultation, requesting a glass of water. I had long regarded this last as a pathognomonic sign of accident neurosis, but I understand that it is often seen in women requesting termination of pregnancy on psychiatric grounds.

The behaviour of the patient with accident neurosis at the consultation is characteristic. If he is being examined at the request of the insurance company he frequently arrives late. He is invariably accompanied, often by a member of his family, who does not wait to be invited into the consulting-room, but who resolutely enters with him, and more often than not takes an active part in the consultation, speaking for him, prompting him, and reminding him of symptoms that may for the moment have slipped his memory. The patient's attitude is one of martyred gloom, but he is also very much on the defensive, and exudes hostility, especially at any suggestion that his condition may be improving. It is almost impossible to conjure up a smile to relax his appearance of preoccupied tension. His complaint of amnesia is often at variance with the circumstantial detail which invests his account of the events that led up to the accident many months ago. At some stage he will often insist that the cause of this was absolutely outside his control and that it was entirely due to someone else's fault. The "someone else" is rarely specified, but is usually "they"—in some vague way identified with the employing organization—or the unknown other motorist.

The most consistent clinical feature is the subject's unshakable conviction of unfitness for work, a conviction quite unrelated to overt disability even if his symptomatology is accepted at its face value. At a later stage the patient will declare his fitness for light work, which is often not available. The logic of prescribing light duties rather than his customary employment for the rehabilitation of the neurotic worker may appear obscure, but the reason why such a recommendation is often made by the general practitioner and echoed in consultant reports is clear: light work is better than no work at all, and it is generally appreciated that

unless the doctor goes half-way to meet him—and especially if he provokes actual hostility—the patient's complaints will be intensified and disability further prolonged. The equanimity with which these patients will accept the tedium of months or even years of idleness, apparently unmitigated by any pleasurable diversion, is remarkable.

Another cardinal feature is an absolute refusal to admit any degree of symptomatic improvement. With the exception of a few well-defined conditions such as traumatic arthritis and causalgia, there are no physical results of injury the discomforts of which do not in the course of time become somewhat less intense. Far from accepting the suggestion of such improvement, these patients often make the improbable claim that pain at the site of injury has steadily become more severe over a period of months or years.

Equally characteristic is the patient's attitude to medical attention and treatment. In industrial cases periodic attendance on the general practitioner is necessary in order to obtain successive certificates of unfitness for work, but in other instances it is remarkable that the patient will complain bitterly of disabling nervous symptoms lasting for many months—for which he has never once sought medical treatment. In a number of personal cases the aid of the general practitioner was invoked only after searching questions about such treatment had been asked during a consultation for medico-legal purposes.

The Case History

A case history synthesized from several hundred personally recorded would read somewhat as follows. An unskilled labourer, either with an uneventful previous history or who had perhaps suffered earlier accidents in which minor injury was followed by disproportionately long disablement, sustains a bruise when he trips over a piece of wood carelessly left on the factory floor. Although similar occurrences in his home have never been met with anything more than an expletive, he goes straight to the works ambulance-room, where a dressing is applied and the incident duly recorded in the accident book. The injury is trivial. He completes his shift and possibly puts in two or three further days' work. He discusses the incident with his friends, and consults a union official, who encourages him to formulate a claim "just in case the injury should give trouble at a later date." The union official cannot be blamed for such advice. Official posters

exhort the workman to report even trivial accidents at once—and in any case a late claim is always suspect.

The man stays away from work to visit his doctor, who knows his job is heavy and acquiesces in his suggestion of a week's rest. During this week at home he develops headaches, sleeplessness, nervousness, and loss of appetite: he is irritable and easily startled.

It is easy to feel in retrospect that robust handling by the doctor at this stage might have got the man back to work. Sometimes this is true: everyone knows that for one reason or another some doctors abet scroungers, and there are many more who acquiesce in the lay conception that absence from work is in itself a form of medical treatment. But in this connexion the difficulties should not be minimized: there is often another doctor around the corner who may be more compliant.

At any rate, a process has now been initiated which may lead to months or even years of disablement. Some of this time is spent—unfortunately with tacit professional support—in pointless attendance at the physiotherapy department of a local hospital, where his now normal limb is rubbed, heated, and exposed to coloured lights. Such occupation alternates with aimless wandering about the streets, watching television, and sitting moodily in the house. It is punctuated by lengthy periods in an industrial convalescent home in the country—a residential club where he can compare notes with a handful of fellow sufferers.

Throughout this whole period he sees little of his own doctor and a good deal of solicitors, union officials, and medical consultants to whom he is referred for assessment. From his practitioner he merely accepts certificates of unfitness for work; there is by now a tacit understanding between them that no kind of treatment will influence his symptoms at the present juncture. This view is likely to be confirmed by any psychiatrist to whom the patient is referred, and if the doctor does in fact make some well-intentioned attempt to help him by prescribing a sedative or ataractic the patient will tell subsequent inquirers that these were quite useless, and that he has had "no treatment, only some tablets." With repeated examinations and interrogations the familiar syndrome gradually assumes its usual florid form. The case involves an allegation of negligence under common law, and is ultimately put down for hearing at the next assize court; but because the civil list is too full—mainly of similar proceedings—or for some other reason, it is adjourned, and ultimately comes to trial months later and several years after the accident. In

the interim it is clearly against the man's financial interest to return to any kind of work, or to admit the faintest improvement, while a claim of deterioration can react only to his pecuniary benefit.

Finally the case comes to trial. Even at this stage eleventh-hour settlement after hard bargaining is the likeliest outcome. Once in court the issue of negligence may be unproven and the case may collapse, leaving the man without even the solace of financial benefit. More often, however, it is easy to prove a technical breach of a minor regulation, and an award of some kind is made—perhaps a few hundred or even sometimes a few thousand pounds. In the course of the case the counsel for the employer or the insurance company expresses confidence that once it is settled rapid improvement will occur. Counsel for the man enters the caveat that this is not invariable, and that many such patients suffer persisting disablement long after settlement, and sometimes permanently. Neither they nor their expert witnesses, nor the judge who must assess damages, can give a reliable prognosis or even a valid assessment of statistical probabilities.

It is remarkable that in a country where industrial accidents cause 800,000 new insurance claims and the loss of 16,000,000 working days annually, where there are more than 250,000 road injuries in a similar period, and where three-quarters of all accidental injuries occur under conditions where compensation is potentially payable, no proper inquiry has ever been conducted into the fate of patients with this well-defined syndrome after they leave court. The barrister's interest ceases the moment judgment is given. The insurance company is licking its wounds and wondering whether it might not have been cheaper to settle —or not to settle. The medical witnesses' interest, already vitiated by the unpredictable dislocation of a busy professional schedule, has evaporated. The only person in a position to know what happens next is the general practitioner—and his part in the case has so far been negligible.

Prognosis of Accident Neurosis

There are several indications that the prognosis of this condition is more favourable than the apparent severity of symptoms at the time of settlement would suggest. The first is that, amongst a number of patients personally seen in this or some other connexion who had previously suffered from and been compensated for a similar condition, not one has ever admitted to any psy-

chiatric disability remaining from the first accident. The second is that, although the syndrome is a very common one in an industrial area, patients with this disorder in whom the legal issue has been resolved are conspicuously rare amongst the thousands who seek treatment for functional nervous disorders. Thirdly, it is significant that of the many ex-Service men who were drawing pensions for the rather similar condition of war neurosis at the end of the second world war, in the vast majority of cases symptoms cleared up within a few years of demobilization. In my experience of these ex-Service cases symptoms persisted only in those heavily predisposed to neurosis; in patients with very inadequate personalities; and in a very small group of patients, apparently previously normal, who had been subjected to prolonged and overwhelming stress, not infrequently occurring in situations which evoked feelings of guilt about the fate of their comrades. Even where psychoneurotic symptoms persisted or persist to the present day, material disablement from the occupational point of view is extremely rare.

The paucity of reliable figures in this connexion stimulated me to follow up 50 consecutive cases of accident neurosis personally examined between three and four years ago.

Follow-up Study of 50 Cases of Accident Neurosis After Settlement

At the time of the first examination and at the time of settlement of their claims for compensation, each of these 50 patients (41 men and 9 women) complained of disabling nervous symptoms occuring after accidents. In 31 the accident had been industrial, in 18 a traffic accident. The ages of the patients ranged from 22 to 70, the average being 42.

Twenty-four of these patients were labourers or unskilled or semi-skilled workers falling into the Registrar-General's social classes IV and V—a proportion much higher than that found in the population at risk. Fifteen were skilled workmen, three were (untrained) nurses. Other occupations represented were housewife, clerk, shop assistant, university student, haulage contractor, building contractor, and company director.

In three cases there had been no physical injury whatever, while in 35 it had been trivial—head injury without impairment of consciousness (13 cases) or with only momentarary concussion (4), general shaking and bruising (10), minor back injury (4), lacerations of face and arm, and bruising of hand; in two further

cases a finger was fractured. In the remaining 12 patients injuries were more severe—major fractures, multiple general injuries, or head injury with prolonged unconsciousness (30 minutes to four days).

In 36 of the 50 cases the psychiatric picture was typical of "accident neurosis," with conspicuous depression, restless sleep, hypochondriacal invalidism, disgruntlement, and self-pity in varying proportions. In 21 of these 36 cases there were positive physical or psychiatric signs of a hysterical reaction. In another five, phobic symptoms were related to the circumstances of the accident or to the occupation generally.

In four other cases a post-concussional syndrome after trivial head injury was elaborated and prolonged for more than two years, with positive evidence of hysteria. In four patients constant intractable disabling pain at the site of injury was the main symptom. In all three patients with hand injuries (two with fractured fingers, one merely bruised) a similar complaint was complicated by hysterical contracture of one or more fingers. There were two patients in whom depressive and psychoneurotic features were inextricably mixed, and one unusual instance in which a patient subjected to a particularly terrifying experience developed an anxiety state of great severity which rapidly responded to psychiatric treatment—after which he abandoned his claim for compensation.

Personal predisposition to neurosis was evident in the previous histories of only 15 of these 50 cases. Six of the predisposed patients were chronic neurotics, well known to their general practitioners over many years. One was a previous subject of depressive illness. In three other patients the history revealed earlier episodes of neurotic response to stress—for example, invaliding from the Army with intractable headaches which cleared up after discharge. Of the remaining five, four were inadequate or immature presonalities with shiftless work records (one being an alcoholic) and one was a dullard.

Of these 50 cases, 42 had been settled by negotiation out of court, and in four the claims had been withdrawn or abandoned. The four remaining cases all came to trial, and in each instance the claim for compensation was rejected. In two instances the complainant failed to prove liability. In one the judge gave it as his opinion that the patient was malingering, and in the other that his chronic neurotic symptoms were not due to the accident. The average delay between accident and settlement was 26

months. Damages negotiated ranged from £20 to nearly £5,000, and averaged £454. In some instances, however, this represented an assessment based on the sum of physical and psychiatric disabilities, and in a few it was made on the basis of only partial liability. In a group of cases where physical injury was trivial and residual disability unequivocally psychiatric the average award was only £152 (£181 in men, £83 in women).

The average interval between settlement and re-examination was a little over two years. Only two of the patients had undergone psychiatric treatment for their nervous symptoms (Cases 34 and 36, see below). All but four of the 45 previously employed had returned to their own or similar work. One of the four was in hospital undergoing plastic surgical treatment for his severe general injuries. One was a married woman who had not resumed her part-time occupation because of domestic commitments.

Illustrative Cases

Two of the 50 patients were occupationally disabled by psychiatric symptoms at the time of re-examination.

Both these disabled patients were under regular medical treatment from their general practitioners. Of the remaining 48 patients, only five were in receipt of any form of medical treatment. The first of these was the severely injured man previously mentioned, whose marked hypochondrial-depressive reaction had cleared up rapidly after a substantial financial settlement for his injuries. The second (heavily predisposed) patient, whose psychoneurotically patterned sequelae of minor head injury gave no trouble for two years after he had been compensated to the tune of £400, was suffering from a recurrence of anxiety symptoms in relation to the stress of several months' unemployment because of redundancy. In three others psychoneurotic symptoms had persisted since the accident but were not causing occupational disability.

In summary, only 2 of these 50 unselected patients with accident neurosis were still disabled by their psychiatric symptoms on re-examination two years after settlement. Both instances were characterized by diagnostic confusion, substantial lump-sum payments, and continuing National Insurance pensions for the results of the accident. In three other cases psychiatric symptoms persisted without occupational disablement: in each instance similar symptoms had been present for many years before the accident. Symptomatic recovery in the remaining 45 patients was as com-

plete as their subsequent medical and occupational records indicated. The most they could muster were a few trivial residual symptoms of which "a queer feeling as I turn on the vacuum cleaner" and "some nervousness on overtaking in traffic" are fair examples. Of special interest was the disappearance of contractures in three cases of hand injury: two of these patients claimed some local discomfort in cold weather. Occupational phobias (for work at heights, driving heavy vehicles, and underground work) had also cleared up, and all five of these patients had returned to their previous employment.

Of 15 patients predisposed to neurosis, 11 had recovered after settlement; of 35 without predisposition all but one had recovered completely.

In subjecting this material to critical scrutiny the first question may well be, how far is there such a thing as accident neurosis? Is this anything more than a convenient label of the kind often employed to spare the investigator further thought about a difficult clinical problem—in this instance the behaviour of a heterogeneous minority of people injured or otherwise involved in accidents? It was with considerable scepticism on this score that I began the present study several years ago. The reader must judge how far the evidence already presented supports my conclusion that, after patients suffering from other definable psychiatric disorders have been excluded, the behaviour of a minority of those involved in accidents is sufficiently characteristic and predictable to justify the acceptance of accident neurosis as a clinical entity. The condition probably affects between a quarter and a third of the victims of accidents which fulfil two conditions. First, the accident must be due to someone else's fault, at any rate in the patient's estimation. Secondly, it must have occurred in circumstances where the payment of financial compensation is potentially involved.

Cursory mention is made in the psychiatric literature of cases in which the syndrome is said to have followed accidents which satisfied the first but not the second of these criteria. Depressive illnesses of endogenous pattern may certainly follow accidents innocent of any financial implications, and very occasionally frank neuroses of anxiety type have been similarly encountered after frightening accidents to predisposed patients, limited in duration and responsive to therapy. It is possible that the florid syndrome of accident neurosis outlined above, with its disproportionate disability and absolute resistiveness to treatment, occasionally

occurs after accidents occurring under emotionally loaded circumstances in which no question of financial compensation is concerned, but such cases have not been personally encountered.

Whatever the cause of accident neurosis, it is not the result of physical injury. It may develop without any injury at all, it is comparatively uncommon where injury has been severe, and it is characteristically a complication of minor or trivial injury. Indeed, the inverse relationship to the severity of injury clearly evident in the material described above is crucial to its understanding, and makes nonsense of some "explanations" of the condition.

It is difficult to believe, for example, that any form of constitutional difference between those severely and those trivially injured can account for the apparently "protective" effect of severe trauma against the development of neurosis in these patients, most of whose injuries are sustained in similar industrial circumstances, equally subject to whatever emotional loading is implicit in the employee-employer relationship in such situations. Another interpretation is that the genuinely injured patient, reasonably confident of justice in the matter of compensation, does not need a neurosis, while the grazed or frightened workman develops neurotic symptoms which inflate his trivial or non-existent physical disability to dimensions justifying financial compensation.

But why do only a third of those involved in minor accidents succumb to accident neurosis? The only factual evidence is that such a development is favoured by a low social and occupational status, and that its relationship to a history of psychoneurotic predisposition is surprisingly inconstant—a feature which distinguishes it from almost every other disabling neurosis beginning during adult life, and one which must be regarded as highly significant in any consideration of the nature of the syndrome.

The occurrence of accident neurosis in predisposed subjects is anything but surprising, and the role of predisposition in the persistence of disability after settlement has been demonstrated in the figures already given: of the five patients in whom the condition persisted, four were grossly predisposed to neurosis. However, many patients with accident neurosis have carried on their work for many years before the accident without any trace of psychiatric disability and with little loss of time. Indeed, this feature is often quoted in court to support the genuineness of the patient's complaints. Why do a minority of such patients develop

this disabling syndrome? An orthodox psychiatric explanation is that the trivial injury, or the concatenation of circumstances surrounding it, implies devastating stress for the individual concerned, because of some hidden constitutional vulnerability. Like many such hypotheses, this view is plausible but unsupported by positive evidence. An alternative interpretation is that accident neurosis represents a unique psychiatric disorder or a very special pattern of behaviour.

The differential class incidence of accident neurosis suggests that predisposition to its development might perhaps be conceived in social rather than in formal psychiatric terms. Again, however, this social gradient is open to several interpretations. Some observers endow the economic insecurity of patients in the lower-income groups with a central role in the aetiology of accident neurosis, which they consider in essence a result of anxiety concerning who will accept liability for the care of the patient's dependants during his disablement—a view which also gains some support from the sex incidence of the condition. However, there is a good deal of evidence against it.

Even in social classes IV and V, accident neurosis is not seen after similar injuries sustained where the question of compensation does not arise, though its occurrence under such circumstances might reasonably be expected if the causal anxiety were primary and without motivation. Secondly, it is hardly compatible with the categorical refusal of many of these patients to return to work—a step which would immediately remedy the allegedly causal economic situation—even when their own doctors have repeatedly urged them to do so and when they are palpably fit for employment by any but their own standards. Thirdly, acceptance of liability for the accident at an early stage in negotiation is rarely if ever followed by recovery, though it reduces the outstanding issue to a simple one of "how much?" Finally, a flood of common-law claims continues despite the basic security afforded by the industrial injury provisions of universal National Insurance.

An equivalent explanation of the class gradient relates to the question of social responsibility. It encounters the initial difficulty that little reliable information is available about the social attitudes of these patients before their accidents, and it relies chiefly on the suggestion that the attitude of patients with the established syndrome to work and society is so abnormal that it seems more likely to represent an inherent orientation than

merely the symptom of an acquired neurosis. It must be admitted that an egocentric denial of social obligations is not unknown in other forms of chronic phychoneurosis.

The relation of accident neurosis to a lack of social responsibility is supported by its infrequency in workers who take pride in an important job, and its predilection for those human cogs in the industrial machine whose employments afford little opportunity for any kind of satisfaction or self-fulfilment.

Clearly recognizable malingering is rare, but the condition is still more rarely diagnosed. Many of those intimately concerned with compensation work—and I refer here to trade union and insurance officials as well as to judges, barristers, and solicitors—are convinced that it is far from uncommon in these cases, and deplore the inability of doctors to recognize the condition or their hesitancy in expressing an opinion in this connexion to which they will freely admit in private conversation. Except in connexion with criminal offences or in the presence of outspoken psychopathy, accident neurosis is the only context in which frank simulation has been personally encountered on more than a few occasions. It was seen in three of the head injury cases described in the first lecture—a "hysterical" gait which disappeared as soon as the patient left the consulting-room; tell-tale nicotine stains on the fingers of a limb allegedly the site of flaccid paralysis; and a puzzling aphasia after a trivial blow on the head, correctly diagnosed only by the private detective who heard the patient's clarion call for "tea and muffins" ring out across a crowded tearoom within half an hour of an inconclusive consultation. Such instances encourage little confidence in one's ability to recognize similarly motivated simulation in the large majority of cases where the symptomatology is entirely subjective.

Whatever the true position in the case of malingering, gross exaggeration of disability is a common feature of accident neurosis.

Whether such exaggeration is conscious or unconscious is a question often debated between lawyers and psychiatrists in court. To many psychiatrists it presents no problems, and they authenticate the complainant's unawareness of motivation with a confidence that seems impressive—until one reflects that differentiation between conscious and unconscious purpose is quite insusceptible to any form of scientific inquiry, and that it depends on nothing more infallible than one man's assessment of what is probably going on in another man's mind. To me the question

is unanswerable in general and answerable only by guesswork in the individual patient. Its implication is, of course, that the unconsciousness or subconsciousness of the mental processes involved is a touchstone of "genuineness" and therefore of compensability. But does this uncertain and arbitrary differentiation merit the central place accorded to it in medico-legal thinking? Whether exaggeration and simulation are "conscious" or "unconscious," their only purpose is to make the observer believe that the disability is greater than it really is. To compensate a man financially because he is stated to be deceiving himself as well as trying to deceive others is strange equity and stranger logic.

Nature of Accident Neurosis

It may be because accident neurosis is more commonly dealt with by orthopaedic surgeons and solicitors than by psychiatrists that it has been the subject of so little systematic psychiatric study; for example, only 7 of the 50 cases followed up here were ever seen by a psychiatrist. It is in textbook contributions rather than in original papers that formal psychiatric appraisals of the disorder must be sought, and with a few outstanding exceptions such a search reveals little that is enlightening or realistic. The studies of neurologists have been more numerous but equally fragmentary.

Most writers accept the consistent relationship of the syndrome to the compensation issue, the hopelessness of treatment, and its usual tendency to recover after settlement—though in the last connexion many psychiatrists make more of the occasional exceptions. In general, neurologists have approached the problem pragmatically, attributing a central aetiological role to the inescapable factor of compensation, and regarding the syndrome as motivated by a hope of financial gain which few of them are prepared to accept as exclusively unconscious. Most psychiatrists have considered such an interpretation too unsubtle, and the relation between neurosis and compensation as obscure if not actually questionable. Such views lean heavily on the distinction between conscious and unconscious motivation, the difficulties of which have been mentioned.

One such psychiatric interpretation allows a secondary contribution of compensation to the causation of accident neurosis, in that it is supposed to furnish the patient with the leisure and opportunity to "play out" his pre-existing latent emotional conflicts in the form of a nervous illness. This view almost certainly

originated under the circumstances of the old Workmen's Compensation Acts, where continuing payments were often made throughout disablement, and it seems even less credible under current conditions, where present financial sacrifice is apparently sustained by nothing more than the hope of ultimate financial redress. Nor is it compatible with the relationship demonstrated between severity of the injury and incidence of neurosis; severer injury would surely afford a more sustained opportunity for the emotional indulgence postulated.

Other psychiatrists stress the aetiological contributions of immature behaviour-patterns, previously suppressed longings for sympathy and attention, or masochistic desires to experience pain and misery. It is difficult to feel that such facile verbalizations do more than describe the patient's symptomatology in terms of the observer's articles of belief. Physicians of the phychoanalytic persuasion, always alive to the emotional significance of money, have accorded it a more important part in the present context, regarding financial compensation as perpetuating disability by the mechanism of "secondary gain". In this way it is allotted a subordinate aetiological role, the primary cause of this as of other neurosis being "avoidance of the Oedipus situation . . . activating one's infantile sado-masochism or one's castration-anxiety, or both" (Fenichel, 1932). Until the victim of accident neurosis struck his head a smart blow on a low beam in the mine he was presumably coping with these knotty problems, at any rate to his own satisfaction.

Some psychiatric conjectures about accident neurosis seem indeed to signify little more than a refusal to concede a connexion between the nervous disorder and the prospect of compensation which is implicit in the facts of the case. Such an attitude may owe simething to that addiction to obliquity of thought which is an occupational risk of the psychiatrist's calling, but probably more to a natural reluctance of the mind trained in recognizing deeper motives to the acceptance of a psycopathology so superficial and so banal, however cogently sustained by the natural history of the syndrome.

My formulation of the problem, conceived within the framework of the clinical facts outlined above, is necessarily tentative, and begins indeed with a reservation. For what it is worth as a clinical entity, accident neurosis represents what is left of the nervous sequelae of accidents when other organic complications such as intellectual and personality changes and occasional frank

psychoses—especially though not exclusively depressive—have been excluded. I would also feel bound to exclude a small but important group of outspoken anxiety states, accompanied by appropriate somatic and autonomic signs, which sometimes follow a terrifying experience. Such syndromes usually affect predisposed subjects, and the general flavour of the case as well as the presence of objective signs and the absence of hysterical features bespeaks an acute psychiatric illness of real severity. Like most such illnesses these usually show a prompt response to treatment.

It will be seen that the diagnosis of accident neurosis is not always as easy as may have been suggested above. There is indeed a further complication. In this clinical situation the prognosis of organic deficit, depressive illness, or authentic anxiety state is less predictable than when similar illnesses occur under other conditions: such syndromes may be unduly prolonged and elaborated by the mechanisms which are responsible for accident neurosis itself.

If the clinical findings described above are fairly representative of the problem as a whole—and there is no dearth of clinical material available to confirm or refute them—then it seems clear that accident neurosis is not a function of the accident itself, but of the setting in which this occurred. In my opinion it is not a result of the accident but a concomitant of the compensation situation and a manifestation of the hope of financial gain. The condition is not encountered where this hope does not exist or where it has been finally satisfied or dissipated. There is no feature in the natural history of the disorder which is incompatible with this view, and there are many which can hardly be accounted for by any other. Nevertheless—and despite the rather stereotyped symptomatology of the syndrome, which can reasonably be described as representing the layman's idea of a "nervous breakdown"—accident neurosis is not an entirely homogenous syndrome, but presents a spectrum ranging from gross conversion hysteria at one end of the scale to frank malingering at the other.

To accept these cases uncritically as instances of hysteria is to concede a general unconsciousness of motivation which strains my credulity. Indeed, what "evidence" is available on this issue points rather in the opposite direction. If the question of financial compensation is tactfully discussed with the subject of accident neurosis its significance is in most instances freely admitted: quite often, indeed, it is revealed as an all-absorbing obsession. Intriguing variants of this common reaction are represented by the

patient who begins the consultation with an unsolicited protestation of his utter disinterest in the compensation issue; and by the occasional claimant who avows entire ignorance of the reason for his examination and expresses surprise at its connexion with a claim for damages which had entirely slipped his memory.

Legal Aspects

The legal issues, both of principle and of expediency, involved in a consideration of accident neurosis have been summarized by MacMillan (Buzzard *et. al.,* 1928) and more extensively presented in a well-documented review from the United States by Smith and Solomon (1943).

The first and crucial legal question is: Can accident neurosis (or traumatic, compensation, or litigation neurosis, which, as Smith and Solomon point out, are all alternative terms used to describe the same familiar clinical syndrome) reasonably be regarded in law as directly resulting from the accident? From the purely judicial point of view there is nothing special about this question. Such issues of causation are of course "the daily business of the judge . . . to discriminate between those things which were and those things which were not, the direct consequence of a wrong or tort" (MacMillan). Judges are, of course, equally familiar with the common tendency of litigants to exaggerate the wrong done to them, to introduce illegitimate items of claim, and to extend the hypothesis of causation beyond what is probable and reasonable.

In deciding such issues, two legal principles are often invoked. First, the question of remoteness. The damages claimed as the direct result of an accident must be in respect of the "natural and probable consequences" of the occurrence—an apparently simple concept, but one often difficult of application. If the sequel claimed is too indirect, too remote in time or in the chain of causality, damages may be disallowed. Secondly, the directness of the relationship between occurrence and sequel may be interrupted by what is know in law as a *novus actus interveniens* —the intervention of a new cause operating to produce the end-result: for instance, a motorist liable for fracturing the plaintiff's arm will probably not be held legally responsible for permanent disability which subsequently results from negligent surgery; this amounts to a *novus actus.*

Several arguments of principle have been adduced in favour of regarding accident neurosis as a result of the accident to be

accepted and compensated at its face value as relevant cause of disablement. First, it is impossible to maintain that the plaintiff would be in his present condition if there had never been an accident, and therefore, however trivial the physical or mental trauma involved may appear to the observer, it must be accepted as having wreaked disproportionate havoc in this special instance. Secondly, since courts of law, at any rate in Great Britain and the United States, have gradually come to accept as axiomatic the current view that mental suffering is every bit as real and distressing as that which results from physical injury, such suffering is surely equally worthy of financial compensation. Thirdly, whatever predisposition or undue vulnerability of the personality to neurosis may be postulated retrospectively, the employer took his employee, or the bus company its passenger, as it found him, and if this particular employee or passenger develops disabling neurosis after a trivial accident the employer or the company cannot at this late stage evade responsibility by pleading psychoneurotic predisposition in mitigation of damages, any more than by pleading the pre-existence of a thin skull in the case of a fracture.

The legal arguments which have been put forward against the eligibility of the condition for financial compensation have centred chiefly round the question of how far neurosis can be regarded as a "natural and probable consequence" of the accident. Since such a sequel ensues in only a minority of otherwise similar accidents, and since it usually follows minor injury, it is argued that some other causal factor must be operative, probably some form of constitutional vulnerability. The analogy of the "cracked vase" has been used, in which a previously invisible fault begins to leak water after an insignificant impact, and it is suggested that, since the accident can be held only partly responsible for such a sequel, the condition cannot logically or equitably be regarded as compensable in its entirety, and that the defendant should only be held responsible for such disability as a normal person might be expected to suffer as a result of a similar occurrence. Where previous neurotic disability or evidence of significant predisposition can be proved such a view seems often to be tacitly accepted in court; but we have seen that no such evidence is found in more than half the cases under consideration, and the courts show a natural reluctance to accept a "crack in the vase" which is merely inferential.

There is, however, another serious practical difficulty involved

in compensating neurosis, which is unrelated to the more theoretical questions of aetiology. In assessing the nature and severity of such a disability the assessor—whether medical or judicial—is almost entirely dependant on the patient's own description of his subjective sufferings, and even in the last resort on his own assessment of their severity. Minimization of symptoms is by no means unknown after serious injury—for example, to the brain—but it is rare in any form of psychoneurosis, and its presence has certainly never been described as a feature of the condition under discussion. Indeed, in these cases, where the patient is engaged in making out a case for proportionate financial redress, some degree of exaggeration of disability might be regarded as no more than an anticipated human failing. That such a plaintiff is also the main witness regarding the degree of disability is clearly paradoxical; it precludes any objective basis for judicial assessment, and renders this almost entirely dependent on subjective considerations.

Since these disproportionate results of trivial injury are not seen except where financial compensation is in question, since they are often claimed by subjects in whom there is no evidence of special psychiatric vulnerability, and since there has often been an appreciable latent period between the accident and the onset of nervous symptoms, it is perhaps surprising that the doctrines of remoteness and of the *novus actus interveniens* (in this instance the hope of compensation) have not more often been invoked in trial of such cases.

In general, however, the law favours the plaintiff. Most cases are settled, and no claim is too ludicrous to lack a certain nuisance value in cash. Once in court the judicial assessment sometimes seems to be based on little more than the axiom that but for the accident the man would not have been in his present condition—a statement unexceptionable in itself, but a convenient oversimplification of a complicated relationship. Its acceptance implies that subsequent absence from work must also be regarded as fully attributable to the accident—though to the doctor it may clearly be disinclination rather than incapacity which automatically pushes up the "special damages" by a thousand pounds.

But this is only one of many discrepancies between the approaches of the doctor and of the lawyer in this common field. In the matter of aetiology, for example, the doctor is unwilling to commit himself categorically without objective evidence, and even then his answer can rarely be couched in the "either-or"

terms inevitably demanded as the basis of a clear-cut judicial decision: on the other hand, the more realistic concept of multiple causation is difficult to translate into terms of legal settlement. Again, doctor and lawyer are sometimes at cross-purposes over the question of settlement, the lawyer insisting that there should be no settlement without clinical finality, the doctor that there can be no clinical finality without settlement.

Prevention

That the situation outlined above is unsatisfactory goes without saying. Despite the millions of words that have been written on the subject, the nature of psychoneurosis remains obscure, but in a general sense there would be wide agreement that hysteria at any rate represents some form of biological protection against stress or danger—an escape from or a protection against reality. Without prejudice to the vexed issue of conscious or unconscious motivation, it must be conceded that to endow such a condition with the added attraction of secondary financial gain is to ask for its persistence for as long as it yields benefit—which in my view is exactly what happens in the syndrome under consideration. That a disability motivated by the hope of financial gain is regularly thus rewarded can hardly be considered desirable from any point of view. Nevertheless it is much easier to see what is wrong than how to remedy it.

The function of the trade union official is to pursue what he regards as his member's interest; that of the solicitor to press his client's case, such as it is, to the best of his ability. It would be unrealistic to hope that either will discourage compensation claims for neurosis, all but the most outrageous of which will end in some degree of pecuniary benefit to the party he represents. The conscientious doctor who tries to keep his patient at work despite his minor injury is pitting himself single-handed against powerful social and economic forces all of which press in the opposite direction. It seems certain that effective prevention would demand far-reaching social readjustments rather than purely medical measures.

It is said, for example, that some large business concerns in the United States have successfully employed a system of rehabilitation through work rather than compensation, the injured worker being provided with first-class medical treatment and drawing his pre-accident earnings while he is nursed back through an early return to light duties and gradually to his old job. A

somewhat similar approach characterizes the management of industrial injuries in Communist countries, and it clearly has much to recommend it. In Britain and elsewhere, however, it encounters the immediate difficulty that the widespread application of the insurance principle absolves the employer from his direct responsibility for the injured workman, and that he is under little obligation to find any interim employment for a man who is now the insurance company's liability. There seems to be little doubt that in certain industries this shifting of responsibility militates similarly against the general adoption of effective but expensive measures for the prevention of accidents.

From a purely medical point of view a strong case can be made out for regarding neurosis as a non-compensable disability. For practical purposes this appears to be the position in France, but, however justifiable such a step might appear from the point of view of social prophylaxis, the chances of its legal acceptance in Great Britain seem slender. Not only would it make compensation crucially dependent on a diagnostic differentiation between psychoneurosis and psychosis—a field in which not even the most expert would claim infallibility; it would also imply the unconditional rejection of a number of claims which would be fairly generally regarded as perfectly genuine.

Mention must be made of the marked improvement in the situation with regard to industrial injury which has followed the supersession of the old Workmen's Compensation Acts by the industrial injuries provisions of the National Insurance Act of 1946. Under the new Act, medical assessment has been vested in medical boards (composed of experienced doctors usually also engaged in independent practice) and, on appeal, in medical appeal tribunals (constituted by senior consultant surgeons and physicians sitting under the chairmanship of an experienced lawyer). In difficult cases either body can request examination by an independent specialist. This arrangement has greatly reduced the delay and expense inseparable from the more formal legal proceedings by which such cases used to be dealt with in the county courts, and it appears to be reasonably satisfactory to all parties concerned.

The fact that disablement caused by industrial injury is compensated at a higher rate than that resulting from illness is a relic of the old Act which seems hardly logical under present circumstances, and this is probably the main cause of a large number of pettifogging claims for trivial injuries which are also

encouraged by the ease and informality of procedure. Such claims are, however, easily disposed of. The inclusion of psychiatric with physical sequelae of injury in the assessment of disability is specifically allowed for under the Act. However, a procedure in which doctors rather than lawyers play a major part in assessing disability has led to a reduction both in number and in the monetary value of awards for functional nervous disorders. Indeed, it is my experience that severe disability from accident neurosis is hardly ever encountered in these instances unless there is a concurrent claim at Common Law.

Why can this efficient and economical arrangement not be extended to cover the minority of industrial injury claims which are still sent to the courts to be dealt with under Common Law, because of an allegation of negligence or failure to observe a statutory obligation? The first reason for this is that the medical aspect of such cases is often overshadowed by other features which may involve complex technical and legal problems quite beyond the competence of a medical tribunal. Secondly, damages in Common Law are final and irrevocable lump-sum settlements, which cannot subsequently be revised in relation to the patient's condition, as can pensions paid under the National Insurance Scheme. Such damages must take account of social and domestic factors independent of the purely clinical issue of disability—to say nothing of the financial evaluation of pain and suffering. Finally, while it may be questionable how far the average plaintiff himself would resent being deprived of the full panoply of trial by an assize judge, it is unlikely that the legal profession would willingly relinquish more of its traditional responsibility to yet another administrative body.

The frequently made recommendation that the judge in such cases should sit with a medical assessor to advise him also has obvious attractions, but it is open to similar criticism. Most medical experts would certainly prefer to be called as witnesses by the court, instead of on behalf of the plaintiff or the defendant. On the other hand, few would relish a situation which arbitrarily elevated one of their number to a quasi-judicial capacity. There is no certainty in medicine, and with all its faults the judge's weighing of evidence brought out by cross-examination of two experts, often of somewhat different outlooks, is less likely to leave relevant medical considerations undisclosed and arguments unheard than a statement of opinion by a single expert, however authoritative.

There is, however, one measure which I would strongly urge as certain to affect an appreciable reduction in the human and economic wastage inherent in the present situation, and one which would almost certainly be widely acceptable. There can be little doubt that the law's delays are a potent factor in increasing the total sum of disablement caused by accident neurosis, and that a separate trial of the issue of liability within six months of the accident would minimize its effects, at any rate in those cases where liability is not proved. Equally the medical issues involved should be similarly decided once and for all at the end of a rather longer but fixed interval of time. From a medical point of view the patient's interests are certainly better served by an early settlement than by one that is delayed, even though delay may imply some degree of financial advantage.

What the doctor himself can do is limited. It is clearly incumbent on him to encourage a robust attitude to minor injury. Although accident neurosis is a motivated illness, its occurrence is far from invariable even where the motivational background is consistent, and there can be no doubt that the "tough" person is less likely to claim. This may be in part because he does not develop the minor neurotic nucleus around which the predisposed subject builds his edifice of disability, but we have seen that predisposition is far from invariable, and the influence of social attitudes is almost certainly more potent.

There are many middle-class patients who sustain real physical injuries under conditions which would thoroughly justify claims for compensation, but who flatly refuse to claim. They may press most vigorously for restitution of damage to their cars, and may indeed exhibit a remarkable lack of scruple in describing the condition of the vehicle before the accident—but they feel that to make a fuss of minor personal disability or to attempt to turn it to financial advantage represents a socially unacceptable standard of behaviour.

It has been argued that the "toughness" of the injured steeplechaser, in contrast to the "tenderness" (in the Jamesian sense) of the injured workman, is innate. This deterministic view can hardly be wholly applicable in a fluid society. Genetic or early influences no doubt play a part in determining such patterns of behaviour, but these are predominantly cultural, and vastly affected by environment and example, as, for instance, of school or regiment. I have been struck by a group of patients, not predisposed to neurosis, who had survived the hazards of operational

war service psychiatrically unscathed, but who broke down with gross hysterical disability after minor injuries sustained under industrial conditions where serious risk was remote. Why had these patients not succumbed with a hysterical reaction to the infinitely more stressful circumstances of aircrew, tank, or submarine service? Age and the acquisition of family responsibilities may have played a part, but it is also true that while such breakdown under Service conditions would have achieved its primary purpose of ensuring the withdrawal of its victim from danger, it was socially unacceptable, and implied rejection from the group of which he was a member. Incidentally it would also have involved financial sacrifice rather than the possibility of financial gain. Neither disadvantage obtains under current industrial conditions.

Conclusions

Like its causation, the prevention of accident neurosis can be realistically conceived only in social terms. Consideration of its epidemiology and clinical features allows little doubt that the condition could be prevented, and its prevention would certainly make a significant contribution to the national economy. But the minor measures discussed above would hardly do more than scratch the surface of a problem which is more properly the concern of politics than of medicine. A Milroy lecturer need make no apology—and may perhaps even be excused the customary invocation of Virchow—if he seeks in conclusion to outline his own tentative view of the aetiological background of the syndrome in political terms.

To say that our society is in a state of transition is to utter a platitude. All societies have always been in states of transition. That the conflicts between different concepts of social organization seem especially acute in our own day may be due to nothing more than the fact that they are close at hand. In any case, however, they constitute powerful determinants of human behaviour, and in my view their operation is clearly evident in the clinical situation under discussion.

In practically every civilized country the past half-century has witnessed the socialization of considerable sections of economic and public activity. The process has been uneven. In some countries this development has occurred explosively and more or less completely, in others piecemeal. Among countries not formally committed to Socialism, Britain lies to the left of centre

in a spectrum which has the United States at one end and some of the Scandinavian countries at the other. In Britain large sections of public activity are fully socialized. Side by side with such developments, however, the institutions and many of the attitudes of capitalism persist—to say nothing of those archaic but virile remnants of feudalism which intrigue many foreign visitors to our country.

Our present fluid social compromise of welfare capitalism includes a comprehensive scheme of insurance which affords the sick or injured workman and his family a degree of financial security comparable with that which obtains in most Socialist countries. What our society has signally failed to provide is the industrial discipline which is inherent in Socialism, or the industrial morale to which it aspires. The average industrial worker—and here I literally mean the average worker and not a member of the politically sophisticated minority—either turns a deaf ear to the perennial pleas of politicians and leader-writers for "a sense of partnership in industry," or for "co-operation in management," or regards them with frank and sometimes even ribald cynicism. Unconvinced that a wider distribution of consumer goods has changed the basic structure of society, he continues to nourish a strong awareness of the antithesis between "us" and "them," between worker and employer (with whom salaried management above a certain level is tacitly equated). It is fashionable to deprecate the role of such class antagonisms in contemporary society, but a glance at the recent history of labour relations in several of our more prosperous industries lends little support to such complacency.

This, then, is the social setting in which accident neurosis flourishes. The exploitation of his injury represents one of the few weapons available to the unskilled worker to acquire a larger share—or indeed a share of any kind—in the national capital. Its possible yield may not bear comparison with the weekly recurring fantasy of a win in the pools, but it is more clearly within his grasp, and it may yet endow him with a capital sum such as he could never have saved during a lifetime of unremitting labour. The employer or his representative, the insurance company, is fair game. To question the moral issues of the situation would seem hardly more relevant to the claimant than to argue the ethics of unearned income, capital appreciation, or the take-over bid—phenomena which manifest the operation of similar motives at

other levels of what he accepts without question as a ruthlessly acquisitive society.

How far has the socialization of large sectors of our economy influenced this situation and these attitudes? It can be said with some confidence, for example, that nationalization of the industry has radically affected the orientation of the coal-miner to his employing organization. The hatred of the miner for the coal-owner had its roots deep in history, and was felt with a passion unknown in other fields of industry. The miner of today grumbles with his fellows about bureaucracy, but he will defend the Coal Board vehemently against outside criticism. I think it would be an exaggeration to claim that he feels a close sense of identification with it. The chain of command is still too indirect for such identification to permeate the lowest levels of the industry. Nevertheless, the miner of today feels that in general the Board's interests are his own and that in the last resort their collaboration is vital to the survival of the industry and of the curiously individual pattern of society which it sustains.

The conception of accident neurosis outlined in these lectures would be strengthened if it were possible to claim that the incidence of the condition had been reduced by this change of ownership and attitude in the coal industry. No figures are available in this connexion, but the attitudes of the injured miner in the matter of claims for compensation do not appear to differ in any obvious way from those of workers employed by the larger private firms. Like other nationalized industries the Coal Board runs its own insurance scheme, generously administered and continuing a long tradition of settling nearly every case round the conference table. It is my impression that this scheme works better than where the responsibility has been handed over to an insurance company. Within the limitations of the industry, management makes great efforts to furnish light employment as soon as practicable, medical referees are often asked to adjudicate on conflicting medical reports, and the inevitable delays of litigation are avoided. But the successful operation of the scheme owes more to the responsibility of the men's representatives than to that of the claimants themselves. The best of these are men of the highest calibre and integrity who have spent a lifetime in the industry and who have too great a sense of social responsibility to have any patience with dishonesty or exaggeration.

If such information were available a third lecture could be written on the epidemiology of accident neurosis and its differ-

ential incidence in countries with different forms of political, judicial, and administrative organization. Personal experience suggests, for example, that it is probably a less conspicuous and ubiquitous problem in Eastern than in Western Europe. But he would be a bold man who ascribed any such apparent reduction in incidence to a change in ethos, rather than to the deliberate formulation of administrative policies which have rendered the disorder unprofitable and therefore without purpose.

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Bibliography

Textbook of Psychiatry. E. Bleuler. Macmillan, New York. 1924.
Proc. roy Soc. Med. 35, 302. W. R. Brain. 1942.
Sir Farquhar Buzzard, H. P. Macmillan, J. Purves-Stewart, S. Sharpe, W. A. Brend, R. Russell, and W. Fillcox. 21, 353. 1928.
Fraud in Medico-Legal Practice. Sir John Collie. Arnold, London. 1932.
N.Y. St. J. Med. 39, 238. P. G. Denker. 1939.
Mschr. Psychiat. Neurol. 121, 51. O. Eichorn and N. Moschik de Reya. 1951
Psychoanal. Quart. 1, 157, 572. O. Fenichel. 1932.
Introductory Lectures on Psycho-analysis. S. Freud. Allen and Unwin, London. 1922.
Neb. St. med. J. 19, 248. G. Neuhaus. 1934.
Die Traumatischen Neurosen. H. Oppenheim. Hirschwald, Berlin. 1889.
Arch. industr. Hyg. 8, 547. A. D. Pokorny and F. J. More. 1953.
An Enquiry into the Prognosis in the Neurosis. T. A. Ross. Cambirdge Univ. Press, London. 1936.
Trans. med.-chir. Soc. Edinb., 48, 129. W. R. Russell. 1934.
Virginia Law Rev. 30, 87. H. W. Smith and H. C. Solomon. 1943.
Med. Press, 239, 493 Sir Francis Walshe. 1958.