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The syndrome of accident proneness (*Unfallneigung*): why psychiatrists did not adopt and medicalize it

JOHN C. BURNHAM*
Ohio State University

In the World War I period, psychologists in Britain and Germany independently and simultaneously originated the idea of accident proneness (Unfallneigung). This distinctive syndrome of suffering a series of accidents was logically attractive for psychiatrists and psychoanalysts, especially as a pattern of unconsciously motivated deviant and self-destructive behaviour. Yet except for some mid-twentieth-century interest by psychosomatics specialists, psychiatrists did not systematically embrace the syndrome except occasionally as a symptom of other psychiatric conditions, thus showing that there were limits to the extent to which twentieth-century psychiatrists would medicalize patterns of behaviour.

Keywords: *accident proneness; accidents; medicalization; psychiatry; psychology; safety movement*

The syndrome of accident proneness, in which a person repeatedly suffers accidents, was first described during the World War I era and subsequently became well known on the popular level during most of the twentieth century. Repeatedly having accidents was a pattern of deviant behaviour that, curiously, was never medicalized. Typically, psychiatrists would have acted as the agents for medicalizing accident proneness (Conrad and Schneider, 1992). Yet they did not, in the end, categorize the syndrome as a psychiatric phenomenon.¹

Physicians, and psychiatrists in particular, had medicalized other patterns of behaviour, such as alcoholism and much juvenile misbehaviour, not to mention mental retardation and hysteria – and even some phenomena that were probably not deviant, such as childbirth, menopause and sexuality. Some commentators

* Address for correspondence: Department of History, Ohio State University, 230 W. 17th Avenue, Columbus, OH 43210-1367, USA. Email: Burnham.2@osu.edu

accused psychiatrists, again in particular, of expanding their domain to an extreme and thus medicalizing many areas of human existence.² The case of accident proneness, then, is a negative instance in which psychiatrists did not effectively extend their professional and cultural authority over an area of human difficulty.

Accident proneness therefore raises the question of where psychiatrists would draw the line at what they considered a medical condition. It also raises the question of who else might step in and utilize the syndrome. Indeed it was the case that psychologists competed successfully against psychiatrists for possession of accident proneness. This story therefore also raises questions about what was and was not a disease entity (see, for example, Duffin, 2005).

Origins of the idea of accident proneness

In 1926 two major publications described the new syndrome. One was a British report by two psychologists, Eric Farmer and E. G. Chambers (1926), and they named the syndrome 'accident proneness'. The other was a monograph by a pre-eminent German psychologist, Karl Marbe (1926), who settled on the term '*Unfallneigung*', or inclination to accident. What is remarkable is that these publications appeared totally independently and simultaneously. Each grew out of work and thinking that began in the World War I period quite separately in the two national cultures.

By the middle of the twentieth century, accident proneness was a concept that was widely known and utilized in the Western world. Mentions of the syndrome appeared in medical publications, which should have constituted a step in medicalizing it. That is, a few psychiatrists and some other physicians wrote descriptive articles or applied the concept to their particular areas of activity (see, for example, Kalez and Hovde, 1945). But accident proneness did not become an integral part of psychiatry or medicine.

Accident proneness originated not with physicians but with psychologists. Marbe, a very pure experimentalist, had, along with some of his students, been moving towards work in applied psychology, when he noticed in insurance statistics the fact that some workers suffered accidents and some did not: the *Unfälle* and the *Nichtunfälle* or those who had accidents and those who did not. By the early 1920s, his investigations had extended the idea to production errors, and he wrote about the potential for management in separating out from some factory tasks those workers inclined to suffer accidents. He used the terms 'disposition' or 'attraction to accident' at first, before he turned to *Neigung*, or inclination. In either case, he characterized the syndrome as an aspect of personality, a concept that was emerging in psychology at the time (Marbe, 1926).³

The British ideas developed out of work with women workers in munitions factories during the war. Two medical statisticians, following a purely theoretical interest, noticed that a very small number of workers accounted for

the bulk of the accidents in the factory, where careful records were kept (Greenwood, 1927). A group of experts on the problem of fatigue took up the topic, and psychologists, particularly Eric Farmer, confirmed the skewed distribution of accidents and were also attempting to find psychological tests that might predict when an individual had a disproportionate chance of suffering accidents relative to other workers in the same circumstances.

In 1927 the British and Marbe became aware of each other's work (Farmer, 1927). For decades afterwards, the idea spread throughout the Westernized world that some individuals had a greater-than-average disposition, inclination or proneness to suffer injuries and to account disproportionately for unintentional production errors in the factory or elsewhere. Naturally, if accident prone people or people inclined to accidents were a very small part of a general population, they could represent a deviant group; McCandless and Strauss (1943) noticed this potential. Moreover, a number of concerned professionals could attempt, first, to identify personality configurations that carried the aberrant syndrome and, second, to find the cause of the deviance – a deviance that had a great deal of social importance, for example, in operators of cars, trams, trains and planes, not to mention factory machinery.

The attractiveness of the idea

Accident proneness appeared not only during the period when applied psychology was developing but also at precisely the time when psychiatrists were moving out into society to deal with non-institutionalized people who were deviant. Neurologists had first dominated the realm of the neuroses, but psychiatrists joined them in the early twentieth century. Regardless of formal specialization, as part of the mental hygiene movement a number of physicians specializing in nervous and mental diseases were working to understand, prevent, treat and cure behavioural deviations.

Obviously, psychiatrists could find accident proneness of interest on several counts.⁴ First, the syndrome might serve as a sign or symptom of some disease that affected nervous system functioning. Second, work with mental illnesses might provide concepts that would make the trait of accident proneness understandable. Finally, psychiatric treatment, especially psychotherapy, might offer a means to cure a person of his or her tendency to suffer injuries and make errors.

At the time of World War I, of course, there were already some specialists who had an explanation for why people made errors. These were the psychoanalysts, who were largely physicians working clinically and theoretically with disabling and damaging personality traits. Indeed, in his monograph Marbe himself (1926: 63) cited Sigmund Freud's *Psychopathology of Everyday Life* (1960) as authority to suggest that dreams could put a person in a frame of mind to have an accident, just as, Marbe thought, suggestion and fatigue could.⁵

Industrial mental health

At the same time, a number of physicians were drawn into thinking about accidents through the public health concern with preventing accidents. This concern brought them into the safety movement, which originated particularly with industrialists who recognized that reducing the number of accidents could greatly reduce the costs of production.⁶ But physicians who acted as part of the safety movement had an institutional and social orientation that differentiated them from their colleagues whose interest was in individual patients who initiated accidental injuries and damage.

Beginning in the 1920s, a few medical specialists began writing about what they called industrial psychiatry. They distinguished industrial psychiatry from psychology precisely because of the clinical focus of psychiatrists – as opposed to the psychologists' use of mental testing to classify employees into general categories, or psychologists' experiments on the general effects of working conditions on productivity (Ray, 1927). That is, unlike psychologists, psychiatrists proposed to solve problems by working with individual workers who had mental problems or mental diseases.

Psychiatrists in industry saw cases that were no different from those that would be seen in an ordinary dispensary. In that sense, industrial psychiatrists had no special role other than, as for any physician, general maintenance of the health of the workforce. In the early years of the new concept of accident proneness, that concept simply did not penetrate into industrial psychiatry to any significant extent. In 1927, for example, Millais Culpin, a British psychiatrist who wrote about adjustment and other dynamic approaches, actually collaborated with Eric Farmer. One of the symptoms Culpin noticed in patients was that some repeatedly had accidents, but only in the context of many other signs of psychoneurosis.⁷ The director of the Mental Health Clinic in Pittsburgh, psychiatrist Edward E. Mayer, as early as 1930 expressed special concern about accident proneness in a context of safety programmes: 'Recently I asked a mill surgeon what happened to a workman whom he recognized as accident-prone. His answer was that he had the man discharged. His organization makes no attempt to fit a man for another job or to adjust him to his work' (Mayer, 1930: esp. 46, 49). Other firms, Mayer continued, used industrial psychiatry and psychology to improve conditions. He cited the Cleveland rapid transit system, which reported 'how accidents can be reduced and employees made efficient, even if they have been repeaters in accidents and seem to be accident-prone'. But, again, Mayer was emphasizing safety programmes, not any general problem of accident proneness.

So, despite their awareness, psychiatrists were operating under a competitive disadvantage. Where psychologists could speak very specifically about matching the employee to the job, nervous and mental disease specialists in medicine talked about the employee's 'mental status'. Where an employee's negligence was blamed for an accident, noted one physician (Price, 1931),

‘might we not find the responsibility to be partly on the part of the employer in not having predetermined the right type of work for the man’s particular mental capacity?’ But since predetermination of suitability of the worker already lay primarily in the hands of psychologists, who had tests for vocational abilities, vague individual psychiatric assessment of idiosyncratic workers did not offer an effective leverage to keep accident proneness in the realm of psychiatry and medicine.

It was possible, of course, for a psychiatrist to use the psychologists’ tests within the physician’s clinical examination. Such was particularly the approach of V. V. Anderson, the author of a widely cited pioneer work, *Psychiatry in Industry* (1929: chap. IX, 278, 292). Anderson was a physician for the Macy department store in New York, and he wrote about vocational fitness and personality traits that would be suitable or unsuitable for various jobs – mostly clerical in nature. Anderson did, however, pick up on the tendency of some employees in one area to have accidents: drivers of motor vehicles. He wrote extensively about this particular problem. But what he had to say could mostly have been said, and had been said, by psychologists or by executives of transportation companies – such statements as: ‘In one sample of 200 men ... in the service of a certain company, half the accidents happened to only one-fifth of the drivers.’ Anderson also reported his own studies. He tested drivers’ vision and reaction times, but he went on to note that emotional and personality factors were also very important: ‘Some operators of cars, because of constitutional factors not altogether within their own control, are specially liable to have accidents.’ In several passages he wrote about drivers who ‘showed a definite accident proneness – were inclined to be repeaters’. But, despite his phrasing, Anderson did not use these employees as paradigmatic examples of the general problem, an individual tendency to incur accidents.

Psychiatrists like Anderson could, therefore, handle competition with psychologists and still include as subordinate to psychiatry the psychologists’ work introducing accident proneness. Over a decade earlier another New York psychiatrist, Pearce Bailey (1917), had characterized psychology as ‘one of the medical sciences’ in the context of industrial psychology. Anderson (1929: 3), following this view of the relations between psychiatry and psychology, wrote about:

how valuable psychological measures [tests] are as an aid in enabling the diagnostician to gain certain sidelights on his case. But never in any instance do we believe they can be trusted to select and place people for us – a program involving the diagnosis and understanding of the total personality, and the adjustment possibilities of the whole individual.

Moreover, psychiatrists were at a disadvantage relative to psychologists in another way. Psychiatrists could talk about the misfits in industry who would make errors and have accidents, but they often characterized lack of fitness, or lack of adjustment, as part of a person’s personality. The problem was

that psychologists of the interwar period were effectively making the idea of personality part of psychology. In fact, personality was, as I have noted, exactly the concept that Marbe, in particular, used to frame accident proneness.

The models that many psychiatrists were using at that time did lead them to sort people into general personality groups or even types. The German psychiatrist, Eugen Kahn, for example, in the 1920s (Kahn, 1931) wrote that both constitutional factors and developmental and environmental influences went into the formation of a person's personality. The personality therefore consisted of a number of *Anlage* or dispositions towards types of actions. He was not thinking of having accidents, however, but rather of more general patterns of behaviour so that the psychiatrist would have to deal with the abnormal versions of the anxious, the excitable, the affectively cold, the impulsive and many other kinds of people. When Kahn (1925) did write about accidents, he wrote about psychiatric problems that followed the accident, and he believed that neuroses after an injury depended on personality and pre-existing, underlying psychopathology.

A happy and efficient work force

It was possible, as I have suggested, to write about patients whose deviance manifested itself as maladjustment to work. A Johns Hopkins psychiatrist, Esther Loring Richards (1934), wrote in general terms about people who were personally unsuited to their vocational positions and who consequently developed mental problems. But it was also possible for a psychiatrist to function in the interest of economic efficiency or, more directly, in the interest of increasing production by managing workers in the workplace.

In the 1920s, output, worker turnover, strikes, and dissatisfaction were managerial concerns to which psychiatry might be applied. Indeed, such major concerns tended to distract physicians' attention away from the question of accidents and the people who had accidents. Instead, psychiatrists wrote about general mental hygiene among workers as a means of creating a happy workforce (Cobb, 1919). If they did mention accident proneness, there was the undercurrent that was present in any discussion of accident proneness: how could managers, advised by psychiatrists, deal with workers whose deviance took the form of having accidents and making errors? Often in this time period, as I have noted, discharge of such workers was taken for granted – but not necessarily by psychiatrists. One early writer (Ball, 1922), for example, did not advocate weeding deviants out of the workforce but, rather, treating or in some way adjusting them. In his one brief mention of accidents, he noted that: 'Epileptics are always a menace to themselves and others. Should be carefully watched and kept at work in a place where he will not increase the accident hazard of his fellow workmen.' Clearly the potential for discharge was present when psychiatrists, working with individuals, identified problem workers to management.

Despite this potential, possibly interested psychiatrists did not in fact set about identifying accident prone workers for treatment or transfer or discharge. Nor did psychiatric writers take up the syndrome, as they might have in other contexts. That is, they could take some interest in accident prevention, but with very few exceptions they just did not write about people who repeatedly had accidents.

Self-destructive behaviour

There was a category of patients whom physicians had long claimed, one that might have served as a model for psychiatrists to investigate accident prone people: individuals who injured their own bodies apparently deliberately rather than unintentionally. Suicide tended to be a special category, but for centuries physicians had also reported with remarkable (if not morbid) interest cases in which patients swallowed bizarre objects and substances or mutilated themselves. A Bristol surgeon, A. Rendle Short (1921), reported the case of a woman of 18 whose behaviour was unfathomable; for two years she could:

inflict such injuries upon herself as to push a thin bone needle from the right iliac fossa into the bladder, simply to escape work or to excite sympathy (of which she got very little ...), seems hard to believe, yet the only evidence to be found of unsoundness of mind is furnished by these actions. Her behaviour and conversation were otherwise normal.

Moreover, such cases were marked by repeated, rather than single, instances of self-mutilating or damaging actions – hence over the years in medical publications the fascinating depictions of collections of objects removed, for example, from stomachs (e.g., Nicoll, 1908).

Sometimes physicians speculated about motivation in such cases as, in the case just quoted, perhaps attempting to ‘excite sympathy’. ‘A form of self-mutilation of the penis in young boys’ (Kellock, 1915), for instance, carried an implicit suggestion as to why a habit persisted. But for psychiatrists, anything beyond manipulative malingering could be included under a general self-defining term such as ‘pathological impulse’ or psychopathic behaviour, as was suggested by another writer on the subject, a physician from the state hospital at Görlitz in Germany (Hagedorn, 1916). Such thinking, as I shall explain, did in fact eventually lead a few psychiatrists to consider accident proneness.

Psychiatrists who recognized accident repeaters

By the 1930s, then, physicians, and psychiatrists in particular, who became aware of the problem of accident proneness had two basic ways of approaching the syndrome: that of the psychologists with their tests, and that of the psychoanalysts. In each case, however, physicians ultimately focused on individual patients so that any wisdom or treatment was clinical and individual in nature,

rather than greatly advancing ideas about the phenomenon of people who repeatedly made errors and suffered injuries.

For example, Otto Löwenstein, who was director of the Rheinischen Provinzial-Kinderheilanstalt für Seelisch Abnorme and the Pathopsychologischen Institut der Universität Bonn in 1933, directly addressed the problem of 'individual accident proneness' from the point of view of neurologists and psychiatrists (Löwenstein, 1934). He noted that there was 'no considerable literature on the subject', and so he reported on his own work on the topic. This was oriented towards industrial accidents, and he used psychological and physical tests to try to determine what would cause an individual to have repeated accidents when others had different 'psycho-physiological qualities' and did not suffer repeated accidents. Löwenstein traced the problem to 'individual differences' in 'muscular tone', and he devised instruments to measure this psycho-physiological quality, using means that were identical to those which psychologists had been using for some time. Among his subjects was a painter who kept falling off his ladder and a young mechanic who had a series of 'serious accidents'.

Löwenstein concluded that accident proneness could be detected, whether or not the cause was constitutional or a disease or incipient disease. In any case, he wrote, the 'diagnosis and treatment are matters for the doctor'. And whether or not therapeutic measures would help depended upon the individual patient. He concluded that accident proneness was a matter not only for medicine but specifically for neurological/psychiatric study and treatment. Löwenstein, however, was almost unique as a physician who took up the subject, and his work did not attract the attention of his colleagues.

In the mid-1930s an American psychiatrist who was becoming part of the Freudian community in the USA, Karl Menninger, wrote about the theme of mysterious self-destructive actions, and he came close to making the case for accident proneness as a standard element in psychoanalysis. He made clear the steps in his thinking. He had first published a paper on suicide, showing how suicidal people had unconscious (dynamic) motives that mobilized impulses to kill and to be killed as they turned guilt and hatred back upon themselves (Menninger, 1933). Then in a second paper (Menninger, 1934), he dealt with reports of self-mutilation – the phenomenon that, as I have noted, continually fascinated physicians. As an emerging psychoanalyst, Menninger contended that acts of self-mutilation were psychologically meaningful. The motives for self-mutilation, he wrote, were unconscious and symbolic and, in that form, the actions could be understood as the person's punishing himself or herself.

Menninger noted that Western patients frequently injured their genitalia as a punishment for actually or in fantasy having committed some forbidden sexual act. Another common version of the same theme was patients who damaged their hands because they had masturbated with those hands – but were unaware of the connection between the impulse to mutilate the hand and ideas of guilt connected to the fingers that had carried out the dreaded act. In another case

a woman in a psychotic state had murdered her baby with a hammer and had later had escaped from the hospital and arranged to be run over by a train in such a way that the forearm and hand that committed the murder were cut off on the train track – after which the woman recovered.

Psychoanalysis of the single accident

It was therefore but a small step to thinking that people who suffered injuries which appeared to them and others to be without meaning, injuries produced simply by chance or ‘bad luck’, were in fact carrying out unconscious symbolic actions. Menninger (1936) in his third paper directly confronted such so-called accidents, ‘which upon analysis prove to have been unconsciously purposive’, and he wrote of ‘the paradox of a *purposive accident*’ (original italics).

Menninger’s paper on accidents had two important aspects. First, he was claiming a special place for psychoanalysis in understanding why accidents happen, that is, they are unconsciously symbolic actions. Second, as an aggressive and enthusiastic analyst, he was claiming the phenomenon of accidents not only for medicine and psychiatry but also for psychoanalysis. At the end of the paper, Menninger (1936: 15–16) quite incidentally observed that the motive for an accident could continue and cause a person to have additional accidents. Even then, however, Menninger did not refer to the by-then common idea of accident proneness. His focus was on the motive that caused a person to have any accident.

Menninger traced the idea of purposeful accident to Sigmund Freud’s *The Psychopathology of Everyday Life*, the first edition of which appeared in 1901 (Freud, 1960: especially 174, 180). Freud made the case that all human actions have determining causes that psychoanalytic investigations can uncover, whether or not the human is conscious of his or her motives:

Anyone who believes in the occurrence of half-intentional self-*injury* ... will be prepared also to assume that in addition to consciously intentional suicide there is such a thing as half-intentional self-*destruction* (self-destruction with an unconscious intention) ... [original italics]

Freud differentiated between bungled actions (clumsiness), including ‘falling, stumbling and slipping’, and chance actions. Chance actions have no avowed reason – they just happen, ‘accidentally’. And errors, Freud added, could fall under the same category as injuries. Having already established mistakes in speaking – slips of the tongue – as motivated actions, Freud simply extended the concept to human activities of all kinds.⁸

Freud (1960: 162, ch. VIII in general, also ch. V, ch. IX) drew on the work of Rudolf Meringer and Karl Mayer (1895) on lapses in language and slips of the tongue, which Freud believed could be explained by motivated interruptions of mental association processes. He wrote, ‘If slips in speaking – which is clearly a motor function – can be thought of in this way, it is a short step to

extend the same expectation to mistakes in our other motor activities.' And he therefore included motivated breakages along with slips and accidents. But Freud's successors such as Menninger did not usually pursue all Freud's psychological fine points.⁹

Accident proneness disregarded in psychoanalysis

What is striking is that, even though he could quote Freud, Menninger had great difficulty in finding cases in the psychoanalytic literature to illustrate his contentions about motivated accidents. Clearly, before Menninger, analysts were not actively claiming the realm of injury or industrial breakage for psychoanalysis. Even Freud focused on instances from everyday life.¹⁰

Menninger did find a case reported by the early German psychoanalyst, Karl Abraham (1927: 56–62, esp. 61), of a young woman who suffered so many self-injuries that she raised suspicion that they were not mere accidents. Abraham gave other instances of unconsciously motivated injuries, and he tied them to instances of indirect sexual gratification by means of a variety of psychological and physical traumas. Such incidents, in Abraham's view, were secondary symptoms of more primary psychological processes. What he found most striking was the fact that such experiences often happened to patients not just once but repeatedly: 'frequent traumatic experiences (not only of a sexual kind)', thus distinguishing these individuals, even beyond those who made claims for a pension, because: 'It is not uncommon for persons who have just had an accident to meet with another ...'. Yet Abraham did not pursue this line of thinking further, and it lay fallow in the psychoanalytic literature.¹¹

Menninger (1936) explicitly tied three cases of unconsciously motivated accidents, which he was reporting, to self-mutilation. Altogether, Menninger had clearly opened the subject of motivated, 'purposive' accidents, labelled as such, in the psychoanalytic literature. He prefaced his discussion of motivated self-injuries with a personal account:

I recall that I was once seated at a formal dinner by a woman for whom I had some dislike, which, however, I resolved to blanket completely so as not to spoil the conviviality of the party. I believe I succeeded quite well until an unfortunate piece of clever clumsiness on my part resulted in upsetting a glass of water over her gown into her lap.

And Menninger's dismay was intensified because he knew that the lady also believed that accidents are unconsciously motivated.

In the foregoing incident and in the instances that Menninger and others cited, they were able to trace single accidents to a particular set of motives. Yet they did not explicitly show that a series or pattern of accidents or injuries came from the continuing influence of that set of motives. In short, they were all writing about accidents, not about accident proneness. Abraham (1927: 62), for example, wrote that 'the very frequent anxiety-dreams of persons injured

accidentally fall into line with Freud's theory of wish-fulfillment. The unconscious is untiring in its efforts to give expression to a complex.' It made no difference to Abraham that the accident was repeated in a dream, not real life. He, like other analysts, was focusing on the motive.¹²

It still remained, therefore, for a psychoanalyst or a dynamic psychiatrist to put together the idea of a motivated injury and the new concept, from the 1920s, of accident proneness – and thus claim the idea for medicine. One problem, of course, was that psychologists, as well as physicians, could use dynamic constructions of the causation of injuries and errors, repeated or not. Another problem was that, as in the cases of Abraham and Menninger, the search for motive, which might be useful in therapy, obscured any pattern of a repeated behaviour – essential for a concept of accident proneness. From a dynamic point of view, an accident could constitute just another psychopathological phenomenon, like accidents of speech or clumsy actions. Multiple or repeated accidents did not constitute a category.¹³ At best, dynamic psychiatry thinkers simply wrote about accidents as isolated phenomena (see, for example, Tramer, 1929).

If, typically, dynamic psychiatrists did not write about multiple accidents as a category, yet the potential was always there. An industrial psychiatrist with the Metropolitan Life Insurance Company wrote: 'I have come to believe that an accident is a telltale symptom of emotional illness' (Giberson, 1940). She discussed dynamic and medical factors in industrial accidents, but only by-the-way and near the end of her article did she show that she assumed the idea of accident proneness. At that point, she suggested targeting accident repeaters as such, as opposed to looking at the psychological circumstances of each individual accident. Again, this was an isolated passage without noticeable effect in the literature.

Dunbar, psychosomatic medicine, and types

The potential for a dynamic approach to accident proneness ultimately worked out, however, in an unexpected area. In the mid-1930s, when Helen Flanders Dunbar (1902–59) was doing the work that established her as the most obvious originator of psychosomatic medicine, she and her collaborators studied a very large group of cardiac and diabetic patients who were hospitalized. For a control group, they chose fracture patients, who, colleagues assured her team, were the most 'normal' patients available. The investigators found – obviously without any intention – that their control group manifested strong psychological determinants of their injuries and in addition a psychoneurotic tendency to have more than one accident. As alert scientists, they connected their findings with some of the literature on accident proneness. Accident proneness thus became a significant stream in the literature on psychosomatic medicine and, by this means, in a small way in psychiatry (Dunbar, Wolfe and Rioch, 1936; Dunbar, Wolfe, Tauber and Brush, 1939).¹⁴

Dunbar, in the midst of her other activities, thereafter published repeatedly on the subject of accident proneness, usually as another example of the way in which dynamic psychiatry could assist in the treatment of organic illnesses such as ulcer and diabetes. She was now able to include the standard organic affliction of injuries from 'accidents'. By 1939, Dunbar *et al.* were citing not only major statements from proponents of the idea of accident proneness but Menninger's article on purposeful accidents. During World War II, Dunbar published specifically on the subject of accident prone people, to whom she now extended a tendency to make errors. Such people manifested, she wrote, the 'syndrome of accident proneness' (Dunbar, 1943a: 164), and continued: 'In the older terminology the syndrome was called "accident habit", which is really more accurate, because a person may be occasionally accident prone as a result of a specific situational and neurotic crisis without having an accident habit'.¹⁵ The use of the term 'habit' of course permitted Dunbar to include accident proneness unambiguously in the personality, for habit was traditionally an essential part of the idea of personality. So in psychosomatic medicine Dunbar and others pointed out how personality factors could be very important in the development of apparently organic diseases. As Robert C. Powell (1977, 1978) observes, Dunbar represented a holistic approach to psychosomatic medicine. Although she passed at the time for a psychoanalyst, she traced diseases to personality types.¹⁶

Dunbar (1943b) set out a full case for the accident habit and personality as factors in fractures – and, by inference, other accidents. In a long chapter in a book on psychosomatic diagnosis, she described how dynamic factors set up patterns of having accidents. Dunbar was clearly suggesting that having accidents was parallel to the process by which other patients transformed psychological conflicts into persistent somatic symptoms, as in hysteria (see, e.g., Rawson, 1944).

Dunbar (1943b: 188–90) divided the patients with accident habit into four groups. The first group consisted of those who kept suffering injuries to the 'same member, whether by burning, cutting, or fracturing'. The second group 'showed a definite predilection for *accidents of a specific type*, such, for example, as automobile accidents whether as driver or pedestrian' (original italics). A third group were those described as careless, unlucky or 'all thumbs', incurring a wide variety of injuries. And the fourth group consisted of those who had a history of falling and of taking risks: they might claim that they had fallen down stairs 'twenty-five times before and never got hurt till now'. Dunbar (1943b: 225, 246–7) then noted that although generally well adjusted, for example socially and sexually, nevertheless these patients had personality patterns and neuroses that translated into an accident habit.

Dunbar continued for years to popularize the idea of accident prone people (Dunbar, 1947, 1959: ch. 4). Her writings also appeared in translation in many languages. The editors of *Science Digest*, a magazine of science popularization, ran an excerpt from her new general book on psychosomatics, including

an account of Nick, an accident prone dog (Dunbar, 1948). Colleagues in psychiatry and other medical specialties cited Dunbar's work and her ideas about accident prone people, sometimes using her term 'accident habit' (see, e.g., Anon., 1949). In the realm of psychoanalysis proper, for instance, the authoritative handbook for the orthodox, Otto Fenichel's *The Psychoanalytic Theory of Neurosis* (1945: 506), carried a noncommittal one-sentence paragraph in the section on character disorders: 'Accident-prone patients have been studied by Dunbar as a specific type of personality.'

One other possibility for the idea of type to carry accident proneness into psychiatry in the 1930s and 1940s came through the interest of Alexandra Adler (1934, 1941a, 1941b) in the subject. Adler was a chief advocate of the variety of dynamic psychiatry originated by her father, Alfred Adler. He had, she noted, 'as early as 1907 ... discussed the case of a person who had suffered repeated accidents, with injuries to his eyes. He pointed to the possibility that an organ inferiority [dynamically interpreted] may be used under certain conditions for the production of a neurotic symptom.' But other than giving the term accident proneness more circulation, Adler's publications on accident prone people did not affect psychiatry in any perceptible way.

Thus, despite the efforts of dynamic psychiatrists, typological or otherwise, the syndrome of accident proneness still did not find a home in psychiatry. As Powell (1977, 1978) points out, by 1945 Dunbar's approach to psychosomatic medicine was being superseded by a non-holistic psychosomatics based on specific aetiology of individual cases – in the mode of most psychoanalysts. Writers cited Dunbar for the general idea of accident proneness and the existence of the phenomenon, but not usually for any detailed content or interpretation.

Absence of the syndrome from psychiatry

After mid-century, the term accident proneness, and the general idea, continued to appear occasionally in psychiatric writings. More often, however, it was missing.¹⁷ At the very least, as a syndrome, accident proneness might have appeared in the second half of the twentieth century in standard medical descriptions of symptoms and illnesses, but it did not. That was a good indicator of the failure of the idea to penetrate into the specialty.

The World Health Organization's *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death* (1948) did not list the syndrome of accident proneness. Accidents *per se* were classified by either the agent of the injury (like an automobile or carbon monoxide) or the nature of the injury (to the arm, to the bronchi). Psychiatric categories in the manual included various psychoneuroses, including character and behavioural disorders, but not a behavioural pattern of 'inclined to have accidents'. The 1965 revision had more general headings under personality disorders, but accident proneness was not specifically mentioned. The 1975 revision, even where there were much

more detailed descriptions of personality disorders, did not include accident proneness under that heading or anywhere else.

The situation was similar in the *Diagnostic and Statistical Manual* of the American Psychiatric Association (1952: 13), editions of which came to be widely used. The category 'personality disorders' could easily have included accident proneness: 'cases in which the personality utilizes primarily a pattern of action or behavior in its adjustment struggle, rather than symptoms in the mental, somatic, or emotional sphere'.¹⁸ This dynamic formulation, however, did not generate a mention of accident repeaters as such.

DSM-II in 1968 included a category 'inadequate personality' that, likewise, could have included accident proneness – but accident proneness was again not specified. The potential was clearly there. One stipulated disorder in the paediatric section, for example, was a behavioural pattern, 'runaway reaction of childhood'. *DSM-III* (1980), however, moved away from dynamic formulations, and it would have been harder to find a home for accident proneness in this new psychiatric nosology, which tended to be descriptive rather than pathological.¹⁹

So, in none of the standard psychiatric classifications did accident proneness appear as a pathological syndrome. Moreover, it did not even appear as a sign or symptom of some other disease classification.

Why accident proneness faded out of psychiatric writings

For decades after about 1950, the patterns that had been established before mid-century persisted. The main area of psychiatric and medical literature in which accident proneness appeared was one fading branch of psychosomatic medicine. A number of holistic thinkers in medicine did mention the idea, at least as a phenomenon and as a condition for which practitioners should watch. Some paediatricians, especially, wrote with concern about accident repeaters among the young.²⁰ Occasionally other dynamic psychiatrists would mention the subject, especially those working in industrial psychiatry.²¹

Discussion of accident proneness thus became quantitatively less and less significant in psychiatry and medicine. This shrinkage partly reflected the remarkable increase in psychiatric publications, so that a considerable number of articles could represent only a very slight visibility. However, the subject diminished absolutely, even for those interested. By 1981, Joseph Connolly of Westminster Medical School in London could comment as an eyewitness: 'The literature in English about the subject [of accident proneness] has been quiet for approximately a decade.' My own survey confirms the obvious decline, beginning by the 1970s.

One reason for the decreasing amount of attention was the fact that the mid-century popularity of dynamic psychology-psychiatry itself began to fade. The romance of Americans with Freud came to an end. Opponents of dynamic thinking came to flourish everywhere. An Italian scholar (Timpanero,

1974/1976), for example, denied the validity of the very concept of the Freudian slip and explained errors in terms of linguistics and various kinds of forgetting, not personality patterns. In psychiatric practice, as in the theoretical and clinical literature, accident proneness had little place in the new styles of treatment that dominated the concerns of specialists.

Tests for a syndrome

As Allan Young (1995: 104–5) points out, by the time *DSM-III* was published in 1980, psychiatrists were using a hierarchy of tests of disease classification. The lowest in the hierarchy of tests was *face validity*, when the disease entity would fit ‘the clinical impressions and experiences of experts’. The next step up in the hierarchy was the *predictive validity* of the description, if and when the disorder developed in a particular pattern that could be foretold. The third was *independent validity*, which came when a cause (such as a specific bacterium) for the disease could be demonstrated. In this hierarchy, accident proneness did not by any means have a cause established, for even dynamic explanations were idiosyncratic for each patient. Moreover, the personality traits that psychologists established and tested were, of course, not unique to psychiatry and anyway did not receive general acceptance.

The question of predictability turned out to be particularly problematic. By definition, accident repeaters could be predicted to have more accidents. But by the 1940s statisticians had begun to show that one could not predict that a particular individual would have an accident; early papers on the subject included those by Arbous and Kerrich (1953), Burke (1951), Mintz and Blum (1949) and Webb and Jones (1953). The most that could be predicted was a statistical aggregation in a group. These statisticians’ publications caused a substantial decline in attention to accident proneness among psychologists, a discouraging factor that carried over to well-informed psychiatrists (e.g., MacIver, 1959).

Still another problem for psychiatrists was that accident proneness was not easily amenable to treatment other than discharging or transferring workers or denying driving licences to motorists. In an age in which medicine in general became distinctively more technological, no applicable technology appeared that would fit accident proneness, not even a chemical such as those that were applied to psychotic and then some neurotic patients in the 1950s and after. Franz Alexander (1949: 362), a psychoanalyst and pioneer psychosomaticist with a different approach from Dunbar’s, pointed out the difficulty:

The psychiatric interview, conducted by an expert, which reveals the whole previous life history of a person is the most, if not the only reliable method. The accident habit develops early in life and manifests itself in the youngster in a noticeable inclination to contract physical injuries, even if only minor. Also, the combination of excessive resentment and guilt manifests itself in early childhood in various ways familiar to the trained psychiatrist. To alter

such an ingrained emotional pattern as is characteristic for the accident-prone individual by psychotherapy is a major therapeutic task. It requires prolonged treatment and is, therefore, in the present state of psychiatric facilities, of no practical significance.

Explicitly denying accident proneness

This harsh, if pragmatic, judgement was shared by other physicians, especially after dynamically-oriented practitioners lost out to other kinds of psychiatrists. Two California public health physicians (Waller and Mitchell, 1965) asked bluntly: 'Is "accident proneness" a useful concept for medical practice?' The concept was altogether too popular and general to be practical, they concluded. Tellingly, they pointed out that because of the difficulties, 'another term, "accident susceptible", has been coined to recognize the concept of excessive accident experience, but to avoid the psychiatric overtones' of motivated misfortunes. In fact, even that term seldom appeared in the literature.

Since physicians were not claiming accident proneness, psychologists were relatively free to continue to work on accident proneness as an aspect of personality. They could also devise tests and advise parents and the rest of the public about the phenomenon of accident repeaters. Even the question 'Are psychotics accident prone?' was answered, not by psychiatrists but by psychologists (Brennan and Ekdahl, 1963).

Yet in the closing decades of the twentieth century, accident proneness had a ghostly afterlife in psychiatry. As late as 1979, a textbook on child psychiatry included a full chapter explicitly on accident proneness. The author, Raymond Sobel (1979), states at the outset:

It is important to distinguish among accident proneness, a classical psychoanalytic concept that describes a persistent self-destructive personality; accident liability, a statistical concept of increased risk of accident from multiple causes; and accident repetitiveness, a behavioral pattern of variable duration.

Sobel ended up by accepting all the factors suggested for accidents except genetics and recommended that clinicians should look into all possible psychological and social elements in any case of injury.²²

In the psychiatric and especially psychoanalytic literature, accident proneness continued to appear as part of a description of a person's behaviour. But it was unclear what any writer meant by the expression. The general idea and the term were well known on a popular level; to say that a child became 'mobile and accident-prone', for example, as did two clinicians (Kennedy and Moran, 1984: 197), did not involve a technical use of either term. Rather they were general descriptors. A 1985 US survey of paediatricians and psychiatrists included the question, 'Do you manage children who are seriously accident prone?' The presumption was that all respondents would understand the

term and the phenomenon, regardless of theoretical approach (Fine, McIntire and Fain, 1986).

The end of the story

In the last part of the twentieth century, members of another profession – engineering, rather than psychiatrists or psychologists – implicitly took up the problem of people who, without meaning to, repeatedly caused injuries and errors. Engineers designed technologies that resisted the tendency of any human to do damage in an accident. In factories, dangerous machines acquired more safety shields and safety switches. Automobiles were redesigned, with seat belts and crash-resistant frames, so that even very dangerous drivers were causing much less injury. Engineering, in short, greatly reduced the role that accident prone people could play as a collective social problem. In 1965 the author of a World Health Organization report on domestic accidents (Backett, 1965), for example, stipulated that population groups who were vulnerable to accidents, such as the elderly, could be protected by the application of ‘engineering skills’ to devising protective devices.²³ The usefulness, and demand for, a concept of accident proneness was in this way greatly diminished, but, as I have shown, the psychiatrists had already left the field.²⁴

For psychiatrists, the problem with accident proneness went beyond their professional competition with psychologists. The syndrome consisted of a series of happenings over a period of time. It therefore did not fit into the descriptive conventions that, as German Berrios (1994) has pointed out, tended to exclude the time factor from psychiatric nosology. (Hyperactivity, for example, which was at least partially medicalized, can be observed in the clinic in a way that a history of accidents cannot.) Even dynamic psychiatrists tended to use conventional nosologies, but when they went beyond them, such thinkers combined current mental content with the form of the patient’s behaviour (see: Ernst, 1995; Sass and Herpertz, 1995).

Nor did accident proneness fit into the older standard categories based on faculty and association psychology. A developmental model was possible in the hands of dynamic psychiatrists and psychoanalysts, but with the exception of advocates of psychosomatic medicine, dynamic thinkers did not accommodate their individual motivational analyses to a statistical phenomenon: repeated accidents (Berrios, 1996: 424–36).

Trying to fit accident proneness into the category of personality disorder led medical writers to think in terms of types and traits. Accident prone people could, of course, be thought of in terms of types, as did Dunbar – once one accepted the phenomenon of accident repeater. The most promising category for accident proneness was as a personality trait. But in psychiatric discourse, personality disorders had a framework different from a single behavioural deviation, much less one established by statistical observation. Personality disorders – particularly the mid-twentieth-century diagnosis of psychopathic

personality – were based on a social perception that the patient had antisocial motives. The whole point of accident proneness was that if the victim had a detectable motive, it was unconsciously to harm oneself, not to act out anti-social ‘psychopathic’ tendencies. Also, as I have noted, the broad category of personality disorder in *DSM-III* did not include accident proneness among the possible signs, symptoms and categories (Berrios, 1996: 424–36).

In the end, one major explanation for why psychiatrists did not pay attention to accident proneness was simply that the idea did not fit into psychiatric and medical discourse as it developed in the 1920s and after. Even without the professional competition from psychologists, psychiatrists were not set to adopt, explain and, as Franz Alexander noted long ago, treat accident proneness. Later in the twentieth century, accident proneness did not show up in reports from technologies for visualizing the nervous system. In addition, there continued to be no pharmaceutical specifics for accident proneness that could confirm that such an entity existed.

Popular wisdom still holds that there is such a problem as a person who is accident prone, that the observation that Marbe and Farmer and Chambers shared has a basis in reality. For generations, many or most physicians were on some level aware of the idea of accident proneness,²⁵ but it was a phenomenon that psychiatrists, at least, were not explaining or classifying. Perhaps if psychiatrists had defined their disease entities or symptoms differently, accident proneness could have been medicalized. But they did not.

Thinking in terms of individual’s neuroses bypassed generalization. In psychiatric discourse, personality disorders had a framework wholly different from a single type of behavioural deviation. Psychopathic behaviour represented a more global and persistent drive than did the occasional incidents that added up to having a series of accidents.

That mainstream psychiatrists as professionals and specialists did not in the twentieth century attend to the phenomenon of the person who suffered repeated injuries and made repeated errors suggests one conclusion, however: contrary to the claims of anti-medical alarmists, there were definite limits to what psychiatrists, at least, could medicalize in the twentieth century.

Notes

1. Syndrome is a better term than symptom. A single accident is a symptom; a series of accidents, i.e., symptoms, collected and connected together would constitute a syndrome, but not a disease (see, e.g., King, 1982: 162). The chief historical works on accidents are: Cooter and Luckin, 1997; Green, 1997.
2. Probably the most scholarly historical explication is by Lunbeck, 1994. A historiographic discussion is in Petrina, 2006.
3. The definitive work on Marbe is by Mülberger Rogele, 1995.
4. There was another interest that psychiatrists might have in accidents: the accidents that befell patients and workers in psychiatric hospitals. This interest did not stimulate any substantial attention to accident proneness as such; see, e.g., Vicary, 1941.

5. In his footnote, Marbe noted the possibility suggested by Freud's evidence that an accident could eventuate from guilt factors outside of consciousness.
6. Aldrich (1997) and Green (1997) provide a general history of the safety movement; one example was: Anon. (1937).
7. In subsequent psychiatric writings, Culpin did not mention accident proneness, even though for years he continued to collaborate with members of the team who had worked on the subject at some point.
8. Not all physicians, even dynamic psychiatrists, agreed with Freud's approach; see Tannenbaum (1922), who denied the plausibility of the motives that Freud attributed to patients who had accidents.
9. Mayer was Professor of Psychiatry and Nervous Pathology at the University of Innsbruck. Freud drew as well, and explicitly, on the work of Wilhelm Wundt and his associates on involuntary abnormal associations.
10. In 1905 Freud did give an account, cited by Menninger, of a man who 'allowed himself to be knocked down by a car[t]', which Freud interpreted as 'an interesting contribution to the problem of indirect attempt[s] at suicide'. The use of either German or English concordances to Freud's works does not yield relevant material beyond that cited by Menninger and other writers.
11. Menninger also cited in a note a case of a motivated accident, showing that the unconscious motivation was primary and the accident a merely secondary phenomenon; from Alexander, 1930: esp. 30.
12. 'When ... a person has lost all pleasure in life, and the thought is obviously present in his mind that it would be better to die than go on living under such conditions; and when that person meets with an accident under circumstances which suggest that it might have been avoided, then I consider that we are justified in assuming there is an unconscious intention of suicide'; Abraham, 1927: 59.
13. Conceivably the idea of a 'repetition compulsion' (from Freud) could have attached itself to the 'accident habit'. In some thinkers, as Kubie (1939) pointed out, a compulsion to repeat was just another version of the idea of habit. In any event, psychoanalytic thinkers did not make the connection to accidents.
14. She summarized the findings in Dunbar (1942: 888): of the fracture patients, 'Eighty per cent two or more accidents, majority three or more. Accident habit especially frequent in decade 15-25. Mainly the result of falls and traffic accidents. Many childhood accidents.'
15. The idea that the phrase 'accident habit' was in common use in medicine years before does not find confirmation in the medical literature, although Dunbar used it herself (Dunbar *et al.*, 1939). It is entirely possible that she projected her own use onto the past or, more intriguingly, she was quoting some medical folklore that recognized as common sense that there were patients who repeatedly had accidents.
16. For an understanding of psychosomatic medicine, I am drawing heavily upon Powell, 1977, 1978. An incisive description of the general framework is in Theodore M. Brown, 'The Rise and Fall of American Psychosomatic Medicine', see: <http://human-nature.com/free-associations/riseandfall.html>.
17. For example, psychiatrist Philip J. Moorad (1947), in his article, 'Human factors in accident liability', has a subtitle, 'With special reference to accident repeaters'. Yet the text covers accident prone workers in only one place, while most of the exposition is devoted to general factors such as age and physical disability. Jerome M. Kummer (1963), 'A psychiatrist looks at problem drivers', did not use the term or, apparently, the idea of accident proneness at all.

18. There is a substantial historical literature on changes in the *DSM*, including: Grob, 1991; Rogler, 1997.
19. See especially: Mayes and Horowitz, 2005; Wilson, 1993. Historians who emphasize the political factors in the *DSM* can probably argue that accident proneness had no advocacy group in psychiatry and so failed to be included.
20. Husband (1973: 336–8) gave a history of how accident proneness entered the field of paediatrics. He confirmed the existence of accident repeaters, but like the psychiatrists he concluded that treatment should be on an individual basis for each patient – and in paediatrics a broad psychosocial approach was needed. An earlier paper very often cited for years afterwards was Bakwin and Bakwin (1948), alerting paediatricians to look for accident proneness.
21. My generalizations are based on a very extensive survey of all the literature. One broad survey that includes some Continental literature is that of Schultz, 1956.
22. In neurology, late in the twentieth century accident proneness did show up in a very different context as a diagnostic sign in Asperger's disease, and rehabilitation workers included accident proneness under other types of disorders and in the form of 'clumsiness' in developmental clinical disciplines. This latter was not a psychiatric context as such, however, and the term 'clumsiness' came out of popular, rather than medical, discourse. See: Peters, Barnett and Henderson, 2001; also Peters, 2006, which contains a substantial historical review.
23. An explicit discussion of engineering as a substitute for responsibility in safety is given by Burnham, 1996.
24. Moore and Jefferson (1996) is a random negative example from later years, with not a hint or an approach to accident proneness.
25. Petheri Pietikäinen (2005: 15–16) has offered a category that may fit the place of accident proneness in medical history. It might be what he calls an 'infectious diagnosis', a diagnosis 'that becomes relatively popular in the medical community within a fairly short period of time (ca. 10 years), and which is also accepted or even embraced by (certain segments of) the general population.' Pietikäinen notes that infectious diagnoses are close to Ian Hacking's 'transient mental illnesses' and Edward Shorter's 'shifting maladies'. Many examples occur in medical history and in the history of psychiatry, such as neurasthenia. Another possible viewpoint might be offered by the idea of partial or contested medicalization as explained in Tracy, 2005.

References

- Abraham, K. (1927) *Selected Papers*, trans. D. Bryan and A. Strachey (New York: Brunner/Mazel; 1979 reprint).
- Adler, A. (1934) Beitrag zum Problem der Unfallshäufung. *Wiener medizinische Wochenschrift*, 84, 293–5.
- Adler, A. (1941a) Accidents traced to personality. *Science Digest*, (July), 20–3.
- Adler, A. (1941b) The psychology of repeated accidents in industry. *American Journal of Psychiatry*, 98, 99–100.
- Aldrich, M. (1997) *Safety First: Technology, Labor, and Business in the Building of American Work Safety, 1870–1939* (Baltimore: Johns Hopkins University Press).
- Alexander, F. (1930) *The Psychoanalysis of the Total Personality: The Application of Freud's Theory of the Ego to the Neuroses*, trans. B. Glueck and B. D. Lewin (New York: Nervous and Mental Disease Publishing Co.).
- Alexander, F. (1949) The accident-prone individual. *Public Health Reports*, 64, 362.
- American Psychiatric Association (1952) *Diagnostic and Statistical Manual of Mental Disorders* (Washington: APA, Mental Hospital Service); also later editions: II, 1968; III, 1980.

- Anderson, V. V. (1929) *Psychiatry in Industry* (New York: Harper & Brothers).
- Anonymous (1937) Accident prevention: A public health function. *Canadian Public Health Journal*, 28, 394.
- Anonymous (1949) The accident-prone individual. *American Journal of Public Health*, 39, 1036–8.
- Arbous, A. G. and Kerrich, J. E. (1953) The phenomenon of accident proneness. *Industrial Medicine and Surgery*, 22, 141–8.
- Backett, E. M. (1965) *Domestic Accidents* (Geneva: World Health Organization).
- Bailey, P. (1917) Efficiency and inefficiency – a problem in medicine. *Mental Hygiene*, 1, 197.
- Bakwin, R. M. and Bakwin, H. (1948) Accident proneness. *Journal of Pediatrics*, 32, 749–52.
- Ball, J. D. (1922) Industrial psychiatry. *American Journal of Psychiatry*, 1 (new series), 639–77.
- Berrios, G. E. (1994) The history of descriptive psychopathology. In J. E. Mezzich, M. R. Jorge and I. M. Salloum (eds), *Psychiatric Epidemiology: Assessment Concepts and Methods* (Baltimore: Johns Hopkins University Press), 47–68.
- Berrios, G. E. (1996) *The History of Mental Symptoms: Descriptive Psychopathology Since the Nineteenth Century* (Cambridge: Cambridge University Press).
- Brennan, J. J. and Ekdahl, A. G. (1963) Are psychotics accident prone? *American Journal of Psychiatry*, 120, 175–6.
- Burke, C. J. (1951) A chi-square test for ‘proneness’ in accident data. *Psychological Bulletin*, 48, 497–504.
- Burnham, J. C. (1996) Why did the infants and toddlers die? Shifts in Americans’ ideas of responsibility for accidents – from blaming Mom to engineering. *Journal of Social History*, 29, 817–37.
- Cobb, S. (1919) Applications of psychiatry to industrial hygiene. *Journal of Industrial Hygiene*, 1, 343–7.
- Connolly, J. (1981) Accident proneness. *British Journal of Hospital Medicine*, 26, 470.
- Conrad, P. and Schneider, J. W. (1992) *Deviance and Medicalization: From Badness to Sicknes*, 2nd edn (Philadelphia: Temple University Press).
- Cooter, R. and Luckin, B. (eds) (1997) *Accidents in History: Injuries, Fatalities and Social Relations* (Amsterdam: Rodopi).
- Culpin, M. (1927) A study of the incidence of the minor psychoses – their clinical and industrial importance. *Proceedings of the Royal Society of Medicine*, 21, 419–30.
- Duffin, J. (2005) *Lovers and Livers: Disease Concepts in History* (Toronto: University of Toronto Press).
- Dunbar, F. (1942) The relationship between anxiety states and organic disease. *Clinics*, 1, 888.
- Dunbar, F. (1943a) Medical aspects of accidents and mistakes in the industrial army and in the armed forces. *War Medicine*, 4, 161–75.
- Dunbar, F. (1943b) *Psychosomatic Diagnosis* (New York: Paul B. Hoeber).
- Dunbar, F. (1947) *Mind and Body: Psychosomatic Medicine* (New York: Random House).
- Dunbar, F. (1948) Do you have the accident habit? *Science Digest*, (Feb.), 7–10.
- Dunbar, F. (1959) *Psychiatry in the Medical Specialties* (New York: McGraw-Hill Book Company).
- Dunbar, H. F., Wolfe, T. P. and Rioch, J. M. (1936) The psychic component of the disease process (including convalescence), in cardiac, diabetic, and fracture patients. *American Journal of Psychiatry*, 93, 649–72.
- Dunbar, H. F., Wolfe, T. P., Tauber, E. S. and Brush, A. L. (1939) The psychic component of the disease process (including convalescence), in cardiac, diabetic, and fracture patients. Part II. *American Journal of Psychiatry*, 95, 1319–42.
- Ernst, W. (1995) Personality disorders: social section. In G. E. Berrios and R. Porter (eds), *A History of Clinical Psychiatry: The Origin and History of Psychiatric Disorders* (London: The Athlone Press), 633–55.

- Farmer, E. (1927) The study of personal differences in accident liability. *Journal of the National Institute of Industrial Psychology*, 3, 436n.
- Farmer, E. and Chambers, E. G. (1926) *A Psychological Study of Individual Differences in Accident Rates* (Report No. 38, Medical Research Council, Industrial Fatigue Research Board, London: HMSO).
- Fenichel, O. (1945) *The Psychoanalytic Theory of Neuroses* (New York: W. W. Norton).
- Fine, P., McIntire, M. S. and Fain, P. R. (1986) Early indicators of self-destruction in childhood and adolescence: a survey of pediatricians and psychiatrists. *Pediatrics*, 77, 557–68.
- Freud, S. (1960) *The Psychopathology of Everyday Life*. Vol. VI of *The Standard Edition of the Complete Psychological Works of Sigmund Freud* (London: The Hogarth Press); first published in German in 1901.
- Giberson, L. G. (1940) Emotional first aid. *National Safety News*, (Feb.), 10–11, 56, 80–4.
- Green, J. (1997) *Risk and Misfortune: A Social Construction of Accidents* (London: UCL Press).
- Greenwood, M. (1927) Quoted in *Royal Statistical Society Journal*, 90, 536–7.
- Grob, G. N. (1991) Origins of DSM-I: a study in appearances and reality. *American Journal of Psychiatry*, 148, 421–31.
- Hagedorn [no initials] (1916) Abnorme Selbstbeschädigungen. *Zeitschrift für Chirurgie*, 137, 125–32.
- Husband, P. (1973) The accident-prone child. *Practitioner*, 211, 335–44.
- Kahn, E. (1925) Unfallereignis und Unfallerlebnis. *Münchener medizinische Wochenschrift*, 72, 1458–9.
- Kahn, E. (1931) *Psychopathic Personalities*, trans. H. F. Dunbar (New Haven: Yale University Press); originally published in German in 1928.
- Kalez, M. M. and Hovde, R. C. (1945) Pilots with repeated ‘pilot-inaptitude’ accidents. *Aviation Medicine*, 16, 370–5.
- Kellock, T. H. (1915) A form of self-mutilation of the penis in young boys. *British Journal of Children’s Diseases*, 12, 209–12.
- Kennedy, H. and Moran, G. S. (1984) The developmental roots of self-injury and response to pain in a 4-year-old boy. *Psychoanalytic Study of the Child*, 39, 195–212.
- King, L. S. (1982) *Medical Thinking: A Historical Preface* (Princeton: Princeton University Press).
- Kubie, L. S. (1939) A critical analysis of a repetition compulsion. *International Journal of Psycho-Analysis*, 20, 390–402.
- Kummer, J. M. (1963) A psychiatrist looks at problem drivers. *Medical Times*, 91, 160–4.
- Löwenstein, O. (1934) The nature of individual accident proneness. *Industrial Safety Survey*, 10, 1–9.
- Lunbeck, E. (1994) *The Psychiatric Persuasion: Knowledge, Gender, and Power in Modern America* (Princeton: Princeton University Press).
- MacIver, J. (1959) Psychological aspects of accident causation. *Industrial Medicine and Surgery*, 28, 231.
- Marbe, K. (1926) *Praktische Psychologie der Unfälle und Betriebsschäden* (München: R. Oldenbourg).
- Mayer, E. E. (1930) Accidents and the mind. *Safety Engineering*, 60, 45–50.
- Mayes, R. and Horowitz, A. V. (2005) DSM-III and the revolution in the classification of mental illness. *Journal of the History of the Behavioral Sciences*, 41, 249–67.
- McCandless, B. R. and Strauss, A. A. (1943) Objective criteria diagnostic of deviant personality: an exploratory study. *Journal of Mental Deficiency*, 47, 445–9.
- Menninger, K. A. (1933) Psychoanalytic aspects of suicide. *International Journal of Psycho-Analysis*, 14, 376–90.

- Menninger, Karl A. (1934) A psychoanalytic study of the significance of self-mutilation. *Psychoanalytic Quarterly*, 4, 408–66.
- Menninger, K. A. (1936) Purposive accidents as an expression of self-destructive tendencies. *International Journal of Psycho-Analysis*, 17, 6–16.
- Meringer, R. and Mayer, K. (1895) *Versprechen und Verlesen: Eine psychologisch-linguistische Studie* (Stuttgart: G. J. Göschen'sche Verlagshandlung); reprinted, ed. A. Cutler and D. Fay (Amsterdam: John Benjamins, 1978).
- Mintz, A. and Blum, M. L. (1949) A re-examination of the accident proneness concept. *Journal of Applied Psychology*, 33, 195–211.
- Moorad, P. J. (1947) Human factors in accident liability. *Industrial Medicine*, 16, 494–8.
- Moore, D. P. and Jefferson, J. W. (1996) *Handbook of Medical Psychiatry* (St. Louis: Mosby).
- Mülberger Rogele, A. (1995) *La aportación de Karl Marbe a la psicología: Un enfoque crítico*. (Tesi Doctoral) (Bellaterra, Spain: Publicaciones de la Universitat Autònoma de Barcelona).
- Nicoll, A. (1908) A remarkable case of persistent ingestion of needles and their removal from different parts of the body, especially from the organs of the abdominal cavity, by laparotomy several times repeated. *Lancet*, (14 Mar.), 772–8.
- Peters, J. M. (2006) Developmental Coordination Disorder (DCD) as a distinct syndrome: a conceptual and empirical investigation. PhD thesis, University of London.
- Peters, J. M., Barnett, A. L. and Henderson, S. E. (2001) Clumsiness, dyspraxia and developmental coordination disorder: how do health and educational professionals in the UK define the terms? *Child: Care, Health and Development*, 27, 399–412.
- Petrina, S. (2006) The medicalization of education: a historiographic synthesis. *History of Education Quarterly*, 46, 503–31.
- Pietikäinen, P. (2005) Neurosis and the theory of infectious diagnoses. In P. Pietikäinen (ed.), *Modernity and its Discontents: Sceptical Essays on the Psychomedical Management of Malaise* (Stockholm: Axel and Margaret Ax:son Johnson Foundation), 3–43.
- Powell, R. C. (1977) Helen Flanders Dunbar (1902–1959) and a holistic approach to psychosomatic problems. I. The rise and fall of a medical philosophy. *Psychiatric Quarterly*, 49, 133–52.
- Powell, R. C. (1978) Helen Flanders Dunbar (1902–1959) and a holistic approach to psychosomatic problems. II. The role of Dunbar's nonmedical background. *Psychiatric Quarterly*, 50, 144–57.
- Price, R. H. (1931) Quoted in *Seventeenth Annual Meeting of the International Association of Industrial Accident Boards and Commissions* (USBLS Bulletin 536, Washington: U.S. Bureau of Labor Statistics), 279.
- Rawson, A. J. (1944) Accident proneness. *Psychosomatic Medicine*, 6, 88–94.
- Ray, E. L. (1927) The psychological versus the psychiatric method in industry. *Mental Hygiene*, 11, 140–7.
- Richards, E. L. (1934) All men are not equal. *National Safety News*, (Mar.), 13–16.
- Rogler, L. H. (1997) Making sense of historical changes in the Diagnostic and Statistical Manual of Mental Disorders: five propositions. *Journal of Health and Social Behavior*, 38, 9–20.
- Sass, H. and Herpertz, S. (1995) Personality disorders: clinical section. In G. E. Berrios and R. Porter (eds), *A History of Clinical Psychiatry: The Origin and History of Psychiatric Disorders* (London: The Athlone Press), 633–655.
- Schultz, J. H. (1956) Unfall und Psychoanalyse. *Zentralblatt für Verkehrs-Medizin*, 1, 259–66.
- Short, A. R. (1921) Self-inflicted injuries in civilian practice. *British Medical Journal*, 1 (26 Feb.), 298.
- Sobel, R. (1979) Accident proneness. In J. D. Noshpitz (ed.), *Basic Handbook of Child Psychiatry*, Vol. 2 (New York: Basic Books), 637–43.

- Tannenbaum, S. A. (1922) Accidents and symptomatic actions. *Psyche and Eros*, 3, 129–50.
- Timpanaro, S. (1976) *The Freudian Slip: Psychoanalysis and Textual Criticism*, trans. K. Soper (London: NLB); originally published in Italian in 1974.
- Tracy, S. W. (2005) *Alcoholism in America: From Reconstruction to Prohibition* (Baltimore: Johns Hopkins University Press).
- Tramer, M. (1929) Kausistisches zur Frage der psychogenen Unfallkonstellation. *Schweizerische medicinische Wochenschrift*, 59, 1398.
- Vicary, W. H. (1941) An analysis of accidents at a hospital for psychiatric patients. *Medical Bulletin of the Veterans' Administration*, 18, 292–6.
- Waller, J. A. and Mitchell, H. W. (1965) Is 'accident proneness' a useful concept for medical practice? *Medical Times*, 93, 36–9.
- Webb, W. B. and Jones, E. R. (1953) Some relations between two statistical approaches to accident proneness. *Psychological Bulletin*, 50, 133–6.
- Wilson, M. (1993) DSM-III and the transformation of American psychiatry: a history. *American Journal of Psychiatry*, 150, 399–410.
- World Health Organization (1948) *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death* (Geneva: WHO); also 1965 and 1975 revisions.
- Young, A. (1995) *The Harmony of Illusions: Inventing Post-Traumatic Stress Disorder* (Princeton, Princeton University Press).