Nosology of Paranoid Schizophrenia and Other Paranoid Psychoses

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Abstract

The history of nosologic approaches to paranoid schizophrenia and the other paranoid psychoses is traced from the time of Kraepelin. Kraepelin, emphasizing the course of illness, proposed a narrow definition for paranoid dementia praecox (paranoid schizophrenia). He created the entity of paraphrenia for cases with symptoms similar to those in paranoid dementia praecox but without a deteriorating course. Bleuler, emphasizing underlying psychological mechanisms, broadened the concept of paranoid schizophrenia to include nearly all delusional functional psychotic states. After Bleuler, the controversy continued as to whether the paranoid psychoses belonged within or separate from the schizophrenic disorders. Emerging from these historical controversies, current nosologic approaches to paranoid schizophrenia and paranoid psychosis differ substantially. Approaches to paranoid schizophrenia range from broad global criteria, which include patients with thought disorder and affective deterioration (e.g., ICD–9), to narrow criteria such as those proposed by Tsuang and Winokur (1974), which specifically exclude such patients. While some criteria for paranoid psychosis exclude patients with hallucinations or other than persecutory or jealous delusions (e.g., *DSM–III*), other criteria include such patients.

After describing a new subtype of paranoid psychotic disorders, Emil Kraepelin, the chief architect of the current psychiatric nosologic system, wrote (original 1909, reprint 1971):

> The [diagnostic] grouping of these paranoid attacks, as well as their delimitation from other similar states, presents the greatest possible difficulties. We know indeed that isolated morbid phenomena themselves only furnish us with very unreliable means of delimiting forms of disease. It can here, therefore, only be a case of a first tentative attempt to break up the various paranoid types into groups. [p. 283]

Kraepelin's words have proven prophetic. More than 70 years later, the nosologic status of the paranoid psychotic disorders continues to generate controversy.

The term "paranoid psychotic disorders" is used here to describe that group pf psychoses, characterized by prominent delusions, that are due neither to organic factors nor to an underlying affective disturbance. The traditional diagnostic categories subsumed under this term are paranoid schizophrenia, paranoid state or paranoid psychosis, and paranoia. Although the paranoid psychoses of late life fall within this group of disorders, they are not dealt with here in detail. Nonpsychotic conditions dominated by suspiciousness (i.e., paranoid personality) are not considered.

Nosologic History of the Paranoid Psychotic Disorders

Kraepelinian Criteria. The history of the paranoid psychotic disorder properly begins with the writings of Emil Kraepelin, who is the major architect of the current psychi-

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atric diagnostic system. In the 5th edition of his textbook (1896), Kraepelin for the first time used the term "dementia paranoides." This entity, together with catatonia and what he then termed dementia praecox (hebephrenia), was incorporated into the category of mental degeneration processes. Kraepelin described "dementia paranoides" as

> a preliminary term . . . to describe a small group of patients who after rapidly developing nonsensical and incoherent persecutory and grandiose delusions tend to quickly progress from slight agitation into permanent confusion. [p. 463]

He gives the following case history as an example of this new diagnostic category:

> A young officer, only a few months after his first symptoms were noticed, was convinced that a doctor had cut his head off, opened his body, removed his intestines and given him the legs of a horse. At night, devilish vapors were let into his room, his blood was drained and he was given injections . . . His nerves were torn out, his rectum picked at, his muscles torn off his body. People could read his mind, distort his face and take pictures of him secretly. Magic was practiced on him and there was poison in his food. . . .[pp. 463–464]

The clinical picture of dementia paranoides was dominated by multiple bizarre delusions nearly always accompanied by hallucinations. The delusions were poorly organized and frequently changing. After months to years, the disorder inevitably led to dementia with prominent thought disorder and personality and affective deterioration.

The second major diagnostic category Kraepelin delineated within the paranoid psychotic disorders, paranoia, did not emerge in its present form until the 6th edition of Kraepelin's textbook (originally published in 1899). Kraepelin (1904) there wrote:

> Paranoia is a chronic, progressive psychosis . . . characterized by the gradual development of a stable progressive system of delusions, without marked mental deterioration, clouding of consciousness or involvement of the coherence of thought. [p. 316]

In this edition, Kraepelin first used the term "dementia praecox" to describe the group of dementing disorders consisting of hebephrenic, catatonic, and paranoid subtypes. In comparing the delusions of paranoia to those seen in dementia praecox, he wrote:

> The delusions in dementia praecox are extremely fantastic, changing beyond all reason, with an absence of system and a failure to harmonize them with events of their past life; while in paranoia the delusions are largely confined to morbid interpretations of real events, are woven together into a coherent whole, gradually becoming extended to include even events of recent date, and contradictions and objections are apprehended and explained. [p. 199]

The delusions in paranoia were not bizarre and were well systematized. Despite the usual chronic course of the disorder, formal thought disorder and personality deterioration were absent. In this edition of his textbook Kraepelin stated that auditory hallucinations, though rarely prominent, were nonetheless frequently found in paranoia.

The diagnosis of paranoid dementia praecox was first used by Kraepelin in the sixth edition of his textbook. Kraepelin divided this new diagnostic entity into two groups. The first was made up of the patients previously described under dementia paranoides. These patients were characterized by numerous incoherent, fantastic delusions and hallucinations with a rapid progression into dementia. The second group of patients with paranoid dementia praecox had delusions that were somewhat better organized. The progression into dementia of these patients might take a number of years.

In this edition Kraepelin also described a delusional psychosis, characterized by an age of onset over 55, called "presenile delusional insanity." This disorder was categorized by Kraepelin, along with involutional melancholia and the senile dementias, into the class of psychoses with onset in late adult life. Although organic symptoms were absent, the delusions in presenile delusional insanity were poorly systematized and usually fantastic. Hallucinations were infrequent. According to Kraepelin, this disorder could be distinguished from dementia praecox both by its late age of onset and the absence, even in advanced cases, of incoherence and marked mental deterioration.

The seventh edition of Kraepelin's textbook (1923, originally published 1903–04) saw only one major change in his diagnostic viewpoint on paranoid psychotic disorders. Kraepelin now noted that among those patients described in the second milder group of paranoid dementia praecox, there could be found some who, despite long-term followup, never developed dementia. Although such patients sometimes after many years developed a mild "loss of characteristic energy," the pro-

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found affective deterioration and incoherence so characteristic of the end stages of dementia praecox was absent. These patients, he noted, were often employable and could even be industrious workers.

Kraepelin had been criticized by his contemporaries for including within dementia praecox the paranoid subgroup (Serbski 1902; Hecht 1905). Their objections had focused on the question of whether patients described by Kraepelin within the paranoid subgroup always developed the signs of dementia that Kraepelin regarded as pathognomonic of dementia praecox. As an honest clinical observor, Kraepelin apparently came to agree with his critics. His resolution of this dilemma occurred in his eighth edition, the last edition that he wrote completely himself.

In his eighth edition, originally published in four volumes from 1909 to 1913, Kraepelin formalized his division of paranoid dementia praecox into a severe and milder form. The former he termed "paranoid dementia gravis" and the latter "paranoid dementia mitis." The difference between these two forms was chiefly the rapidity and severity of the invariably occurring dementia.

The major change in this edition in Kraepelin's nosologic approach was his delineation of the new diagnostic category of paraphrenia. Patients in this category, although they presented fantasic and bizarre delusions usually accompanied by hallucinations, never developed significant thought disorder or personality deterioration. Kraepelin described four subtypes of paraphrenia: systematica, expansiva, confabulans, and phantastica. We will here concentrate on his description of paraphrenia systematica as it was the most common and the best delineated subgroup.

According to Kraepelin, paraphrenics could be differentiated from patients with dementia praecox by the ". . . far slighter development of the disorders of emotion and volition. . . . The loss of inner unity is essentially limited to certain intellectual faculties (1971, p. 283)." Although the delusions of paraphrenics might be similar in content to those seen in cases of paranoid dementia praecox, paraphrenics could be distinguished by the

> detailed mental elaboration of the delusions, liveliness and passionateness of emotional reaction, absence of independent disorders of volition, preservation of sense and reasonableness in behavior and action with delusions that are already advanced. [1971, p. 300]

Except when discussing their delusions, patients with paraphrenia "give information in a connected and comprehensible way."

Kraepelin made two changes in his conception of paranoia in his eighth edition. First, he clarified the distinction between paranoia and paraphrenia by stating that in paranoia "genuine hallucinations do not occur." In so doing, he placed within paraphrenia all paranoid hallucinatory syndromes that were free of symptoms of dementia praecox. Second, Kraepelin stated that curable forms of paranoia existed. Previously, acute forms of delusional psychosis had always been placed by Kraepelin in other categories. Many, he felt, were forms of manic-depressive insanity, and others belonged to a special group of psychoses that were stress-induced (such as prison-psychosis). Since Kraepelin's original delineation of the syndrome of paranoia, several of his contemporaries, especially Gierlich (1908) and Friedmann (1908), described acute, curable forms of the disorder. Since these cases presented a symptomatic picture indistinguishable from classic paranoia, Kraepelin apparently saw no objection to classifying them with the chronic forms of the disorder. He stated, however, that such patients should still be thought of as having a chronic illness because they have the "permanent tendency to delusion formation (which presents itself) with isolated attacks of delusions" (1976, p. 267). Paranoia became the only paranoid psychotic disorder which, according to Kraepelin, could end in full remission.

Aside from the small group of patients with "presenile delusions of insanity," Kraepelin concluded that the paranoid psychotic disorders were divisible into three main groups: paranoid dementia praecox, paraphrenia, and paranoia. The major differences in these three syndromes are summarized in table 1.

Kraepelin outlined the relative frequency of the three forms as follows:

> If a considerable number of cases which are accompanied by permanent delusions are examined carefully, and if the alcoholic and syphilitic forms are excluded, it will always be found that a very considerable part of these, according to my experience about 40 per cent, within a few years exhibit the characteristics of dementia praecox. A further somewhat larger part falls to the paraphrenic forms . . . the rest essentially to real paranoia. [1971, pp. 283–284]

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Table 1. Summary of the characteristics of the three major paranoid psychotic syndromes delineated by Kraepelin: Paranoid dementia praecox, paraphrenia, and paranoia

Dimension	Paranoid dementia praecox	Paraphrenia	Paranoia
Bizarre delusions	Present	Present	Absent
Systematization of delusions	Poorly systematized	Usually partly systematized	Well systematized
Hallucinations	Almost always present	Almost always present	Usually absent
Thought disorder	Always develops	Usually absent	Absent
Personality deterioration	Always develops	Absent or mild	Absent
Course	Chronic—leading to dementia	Chronic—not leading to dementia	Usually chronic—not leading to dementia, acute forms occur

After Kraepelin, the controversy over the nosology of the paranoid psychotic disorders focused almost entirely on the relationship of these disorders to dementia praecox (or schizophrenia). However, in 1901 a German psychiatrist, Specht, stated that since all delusions in paranoia could be understood as emerging from a disordered affect, paranoia should be considered a subtype of manic-depressive insanity. Until the recent increased interest in so-called "schizoaffective" psychoses (a subject that will not be further discussed here), Specht's hypothesis had little impact on later psychiatric thought.

Bleulerian Criteria. Since Kraepelin, Eugen Bleuler has most significantly influenced current thinking about the paranoid psychotic disorders. Bleuler, who is best known for having changed the term "dementia praecox" to "schizophrenia," emphasized much less than had Kraepelin the course of illness as the fundamental variable upon which to base a psychiatric nosology. Instead, Bleuler emphasized cross-sectional symptoms, especially underlying psychological variables. Bleuler's concept of schizophrenia was much broader than the dementia praecox of Kraepelin. As described by his contemporary August Hoch (1912):

> what Bleuler means by schizophrenia . . . comprises a great deal more than the group of dementia praecox. . . . It contains all paranoic states which are not the typical Kraepelinian paranoia . . . (including) the transitory hallucinatory and paranoic states. . . . [pp. 259–260]

Bleuler rejected Kraepelin's position that paraphrenia was a disorder separable from schizophrenia. Regarding paraphrenia, he wrote, "Our investigations . . . show the definite relationship of most, if not all these cases to the schizophrenias" (1924, p. 437). Bleuler felt that Kraepelin's cases of presenile delusional insanity were also schizophrenic. He wrote, "According to my experience, Kraepelin's presenile delusions especially belong to dementia praecox" (1924, p. 279). While Bleuler recognized the existence of paranoia as defined by Kraepelin as a separate entity, he considered seriously the possibility that this disorder also was a form of schizophrenia. He stated:

> our present methods of investigation show that in paranoia the mechanism of the construction of the delusion is identical with that of schizophrenia; thus it may be possible that paranoia is an entirely chronic schizophrenia which is so mild that it could just about lead to delusional ideas. . . .[1950, p. 281]

According to Bleuler, nearly all of the paranoid psychotic disorders belong within the group of schizophrenias.

Not only did Bleuler have a broad view of schizophrenia, but his view of paranoid schizophrenia was also broad. Bleuler (1924) wrote that in all cases of schizophrenia in which "delusions and hallucinations are . . . in the foreground, one speaks of the paranoid type" (p. 413). To illustrate the breadth of Bleuler's concept of paranoid schizophrenia, the following case is presented which Bleuler used in his textbook of psychiatry as an example of paranoid schizophrenia:

Bleuler describes as a "schizophrenic litigious woman" the case of a woman with good premorbid functioning who in her thirties developed the delusion that a doctor for whom she had worked as a

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housekeeper was in love with her and had promised to marry her. When the physician married, she began first to harass him, demanding "her rights or a good payment." Getting no response, she began a series of court actions. These continued for 4 years during which time "she had worked regularly and had spoken sensibly about indifferent matters." She, however, vilified in profane language the doctor and all the legal personnel who of course rejected all her legal actions. No hallucinations were observed. She was hospitalized for 6 months after creating a scene in a police station, but was then discharged with her delusions unchanged and now vilifying the psychiatrists as well. When discussing her delusions, "she became confused, excited and hard to understand" (1924, pp. 415–417).

The delusions in this case were not bizarre and were well organized. There were no hallucinations. When discussing neutral subjects, she apparently displayed no thought disorder. Her behavior was organized enough for her to mount a continued, though hopeless, legal battle. There was no evidence of dementia. Thus, this case demonstrates none of the major clinical features of paranoid dementia praecox as outlined by Kraepelin. It is even doubtful whether Kraepelin would have considered this case as a paraphrenic psychosis. Most likely, this case would have been classified as paranoia. That this was not an isolated example of Bleuler's thinking is indicated by the following statement where the term "paranoids" is used as an abbreviation for "paranoid schizophrenia": "There are also paranoids without hallucinations; these people have merely false self-reference which can be elaborated in delusional ideas" (1950, p. 229).

Kraepelin, in the delineation of the paranoid psychotic disorders, as in all his nosologic work, focused on the course of illness as the main criterion by which to categorize psychiatric syndromes. Bleuler however, emphasized cross-sectional symptomatology and underlying psychological mechanisms. Since delusion formation, the chief symptom in *paranoid schizophrenia*, is such a common occurrence in any psychotic process, it is not difficult to understand why Bleuler's approach resulted in a broadening of the boundaries of paranoid schizophrenia to include not only all cases of paranoid dementia praecox as defined by Kraepelin, but also all cases of paraphrenia, presenile delusional insanity, most cases of acute delusional psychoses, and many cases of paranoia. With a shift in emphasis from course of illness to underlying psychological mechanisms as the basis for psychiatric nosology, paranoid schizophrenia had changed from a narrowly defined group of deteriorative delusional psychoses to a disorder that included, except for the small group of narrowly defined cases of paranoia and delusional manic-depressive insanity, nearly all cases of delusional functional psychosis.

Other European Criteria. After Bleuler, two divergent viewpoints on the nosology of the paranoid psychotic disorders emerged in continental psychiatry. The first—an extension of Bleuler's viewpoint—was that all or nearly all cases of paranoid psychotic disorder properly belong within schizophrenia. The second—an extension of Kraepelin's view—was that a substantial proportion of paranoid psychotic disorders did not belong with the schizophrenic disorders. Two influential empirical investigations that provided support for the first position appeared between the world wars. Wilhelm Mayer (1921) published a followup study of 78 cases of paraphrenia diagnosed in Kraepelin's clinic in Munich. Of these, 30 developed definite symptoms of *dementia praecox* including marked thought disorders and personality deterioration. After long-term followup, 28 cases had disease courses completely consistent with Kraepelin's concept of paraphrenia. The remaining cases were diagnosed as suffering from paranoia, "circular psychosis," organic dementia, manic-depressive illness or "undiagnosed psychiatric disorders." Mayer also noted that in three cases of true paraphrenia there was evidence of schizophrenia in their relatives. Mayer concluded paraphrenia is a form of schizophrenia that takes a mild course because of constitutional resistance to the disease.

In 1931, Kurt Kolle published "Die Primare Verrucktheit" (primary paranoia), in which he described a family study and followup investigation of 66 cases of paranoia. The family study revealed a small but definite increased prevalence of schizophrenia in the families of the patients. On the basis of this family data, as well as the results of his followup study, Kolle concluded that paranoia was in reality only a mild form of schizophrenia.

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Not all European psychiatrists accepted the concept that all paranoid psychotic disorders were in reality forms of schizophrenia. One of the most influential exponents of the viewpoint that certain forms of paranoid psychotic disorders were separable from schizophrenia was Ernst Kretschmer. In his monograph, *The Sensitive Delusion of Reference,* first published in 1927, Kretschmer (1974) stated that in many cases of paranoid psychosis the development of the delusions was comprehensible from a psychological perspective. Kretschmer believed that in true schizophrenia the development of the delusions was always bizarre and psychologically incomprehensible. The cases of paranoid psychosis with comprehensible delusions invariably occurred in individuals rendered vulnerable by a certain personality constitution. When such individuals were subjected to specific kinds of stress, usually involving crucial areas of self-esteem, delusional formation could occur. The famous paranoiac mass-murderer, Wagner, who was extensively studied by Kretschmer's teacher Gaupp (1974), served as a classic example of this type of delusion formation. Wagner, as in most cases of "sensitive delusions of reference," had well-systematized nonbizarre delusions without hallucinations, and thus represented classic Kraepelinian paranoia. However, in several of Kretschmer's cases, bizarre delusions and hallucinations were evident. Kretschmer did not emphasize a specific symptomatology but rather the whole psychological development that differentiated these cases from schizophrenics. In later editions of his work, Kretschmer reported followup investigations of patients with sensitive delusions of reference and found that, in general, they had a benign course without the emergence of schizophrenic deterioration.

The emphasis of the role of stressful events in the etiology of paranoid psychotic disorders was further developed by Scandinavian psychiatrists. Influenced by Karl Jaspers (1963), the Scandinavian school of psychiatric nosologists emphasized the group of "reactive" or "psychogenic" psychoses (Strömgren 1974). Of the various types of reactive psychosis, paranoid psychoses were among the most common. Paranoid reactive psychoses could be distinguished from schizophrenia because the psychosis represented an "understandable" reaction to life events in certain personality types. Unlike schizophrenics, such patients, although their symptoms were commonly chronic, did not develop schizophrenic deterioration. Not infrequently, patients with such forms as the mild, curable paranoia described by Kraepelin would reach complete remission of psychotic symptoms. The diagnosis of paranoid reactive psychosis has in the last several decades become very common in Scandinavia; this form actually outnumbers patients with manic-depressive illness in one large series (Noreik 1970). The popularity of the diagnosis of paranoid reactive psychoses is apparently largely due to the hesitancy of Scandinavian psychiatrists to diagnose schizophrenia in the absence of clear deterioration.

The most extreme position on the relationship between paranoid psychotic disorders and schizophrenia was taken by the British psychiatrists Henderson and Gillespie. In their textbook on psychiatry (1944), they recommended that "all paranoid conditions should be completely severed from the schizophrenic group" (p. 331). They classified paranoia, paranoid state, and paranoid schizophrenia into the group of paranoid conditions. In addition to affective disorders and schizophrenia (now containing only the "nonparanoid" forms), paranoid conditions made up a third major group of functional psychoses.

American Diagnostic Criteria. The development of the diagnosis of the paranoid psychotic disorders in the American psychiatric community is reflected in the official nosologic manuals of the American Psychiatric Association. In 1918, the then American-Medico-Psychological Association issued its first *Statistical Manual for the Use of Institutions for the Insane.* The manual contained two categories of paranoid psychotic disorders: "paranoid type of dementia praecox" and "paranoia or paranoic conditions." The paranoid type of dementia praecox was defined by "the prominence of delusions . . . often connectedly elaborated, and hallucinations in various fields." "Paranoia or paranoic conditions" were characterized by the absence of deterioration, fixed and logically elaborated delusions, "formally correct conduct, adequate emotional reactions, clearness and coherence of the train of thought." This manual expresses a nosologic view of the paranoid psychotic disorders similar to that which Kraepelin delineated in the sixth and seventh editions of his textbook.

The manual remained essentially

unchanged through the fifth edition. The sixth edition of 1934 (issued by the American Psychiatric Association) incorporated the changes Kraepelin suggested in the last edition of his text. Paranoid psychotic disorders were divided into three main groups: paranoid dementia praecox, paranoia, and paranoid conditions. The description of paranoid dementia praecox is similar to earlier editions of the manual except that the inevitability of deterioration is given more emphasis. Paranoia is also little changed in its description. It is now specifically stated that if hallucinations are present at all in this condition, then they "are not prominent." Paranoid conditions, which closely resemble Kraepelin's entity of paraphrenia, were defined as follows:

> Cases in this group lie between the paranoia and paranoid dementia praecox groups in respect to the preservation of their personalities, coherence of their thinking and abnormalities in behavior. In this group should be classified those cases showing predominantly delusions, usually of a persecutory nature, with an inclination more toward illogical thinking and misinterpretation. Hallucinations may be prominent. Such conditions may exist for many years with little, if any deterioration in general interests and with better preservation of the emotional reactions than in the paranoid form of dementia praecox (1934).

The sixth edition of the statistical manual also added the diagnosis of paranoid involutional psychosis, which was apparently a reformulation of Kraepelin's entity of "presenile delusional insanity." This disorder was defined as an acute or chronic delusional psychosis with first onset in the involutional period.

The sixth edition of the American Psychiatric Association's statistical manual, reissued unchanged in later editions (1945), reflected the official psychiatric nosology in the United States until the publication of the first edition of the *Diagnostic and Statistical Manual (DSM-I)* in 1952. It was not until this document that "schizophrenia" was officially adopted in the place of "dementia praecox" in American psychiatry. Not surprisingly, Bleulerian concepts were given substantial emphasis in the description of schizophrenia in *DSM-I*. It was specifically stated that a "tendency to 'deterioration' is present only in some cases of 'Schizophrenic reactions.' "Schizophrenic reaction, paranoid type" was defined as follows:

> This type of reaction is characterized by autistic, unrealistic thinking, with mental content composed chiefly of delusions of persecution, and/or of grandeur, ideas of reference, and often hallucinations.

Paranoid involutional psychosis was combined with involutional melancholia to form the diagnostic category of involutional psychotic reaction. "Paranoid reactions," which contained the two subtypes of paranoia and paranoid state, was defined in *DSM-I* as follows:

> In this group are to be classified those cases showing persistent delusions, generally persecutory or grandiose, ordinarily without hallucinations. The emotional responses and behavior are consistent with the ideas held. Intelligence is well preserved.

Two types of paranoid reactions were described. The description of paranoia, which was termed "extremely rare," was similar to that of earlier manuals, except that more stress was placed on the "intricate, complex, and slowly developing" nature of the delusional system. The description of "paranoid state" was as follows:

> This type of paranoid disorder is characterized by paranoid delusions. It lacks the logical nature of systematization seen in paranoia; yet it does not manifest the bizarre fragmentation and deterioration of the schizophrenic reactions.

The elimination of hallucinatory states from the nonschizophrenic paranoid psychotic disorders and the broadening of the conception of schizophrenia resulted in a shift in diagnostic orientation in the *DSM-I* away from the Kraepelinian view of the late editions of the APA statistical manual (1934, 1945) toward a more Bleulerian approach to the diagnosis of the paranoid psychotic disorders.

The nosologic approach toward the paranoid psychotic disorders underwent yet another major transformation in *DSM-II* issued in 1968. Again, a Bleulerian approach to schizophrenia predominated. The paranoid type of the disorder was described as being

> characterized primarily by the presence of persecutory or grandiose delusions, often associated with hallucinations. . . . In general the disorder does not manifest the gross personality deterioration of the hebephrenic and catatonic types. . . .

All other paranoid psychotic disorders in *DSM-II* were grouped under paranoid states, which were defined as follows:

> These are psychotic disorders in which a delusion, generally persecutory or grandiose, is the essential abnormality. Disturbances in mood, behavior and thinking (including hallucinations) are derived from this delusion.

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Hallucinatory states are thus again allowed within the nonschizophrenic paranoid psychoses. What exactly was meant by disturbances in thinking and hallucinations that were "derived" from a delusion was not further specified. The ambivalence of the nosologists about this diagnostic entity was revealed in their next statement:

> Most authorities, however, question whether disorders in this group are distinct clinical entities and not merely variants of schizophrenia or paranoid personality.

Three subtypes of paranoid states were listed in *DSM-II*. Paranoia, again described as an "extremely rare condition," was little changed from *DSM-I* except that the portion in the *DSM-I* description stating the absence of hallucinations was omitted from the *DSM-II* description. The second subtype, involutional paranoid state, was similar to the descriptions for this diagnosis in the later editions of the statistical manual. The *DSM-II* added the following: "The absence of conspicuous thought disorders typical of schizophrenia distinguishes it from that group." The third and most common subtype of the paranoid state was the "other paranoid state," which was simply defined as a residual category. Despite the questions about the separate existence of this diagnosis, the category of nonschizophrenic paranoid psychoses was broadened in *DSM-II* compared to *DSM-I*. Although the difference in definitions makes comparison difficult between the diagnostic approach in *DSM-II* and the APA statistical manual (1934, 1945), it is probable, given the different orientation to schizophrenia in the two manuals, that the nonschizophrenic paranoid disorders were a broader group in the early manuals than in *DSM-II*.

Summary. Before the current nosologic approaches to the paranoid psychotic disorders are considered, it is useful to outline, at the risk of oversimplification, the main historical viewpoints on the paranoid psychotic disorders. Four major viewpoints can be articulated:

1. As expressed by Kolle (1931), virtually all paranoid psychotic disorders are forms of schizophrenia.

2. As expressed by Bleuler (1924, 1950), all paranoid psychotic disorders, with the exception of the small group of patients with classic paranoia, are forms of schizophrenia. According to this position, all hallucinatory paranoid psychotic disorders belong within schizophrenia.

3. As articulated by Kraepelin in the last edition of his textbook (1971, 1976), only the deteriorating paranoid psychotic disorders belong within schizophrenia (dementia praecox). The delusions in these cases are bizarre and fragmented, and during the course of the disorder incoherence and personality deterioration always develop. The nonschizophrenic paranoid psychotic disorders can be divided into two major groups. The first, classic paranoia, is a nonhallucinatory syndrome with nonbizarre, well-organized delusions and the absence of development of thought disorder or substantial personality deterioration. The second, which Kraepelin termed paraphrenia, is a broader group characterized by bizarre and fantastic delusions usually with hallucinations. Unlike paranoid dementia praecox, however, these cases never demonstrate significant thought disorders or personality deterioration.

4. As expressed by Henderson and Gillespie (1944), all paranoid psychotic disorders, including what was termed paranoid schizophrenia, should be separated from the nonparanoid schizophrenic disorders.

Current Nosologic Viewpoints

This section examines current nosologic perspectives on the paranoid psychotic disorders. The emphasis is on the nosologic approach to these disorders in the two complete psychiatric nosologic systems currently in widespread use in the English-speaking world: the *DSM-III* (American Psychiatric Association 1980) and the ICD-9 (World Health Organization 1978).

Paranoid Schizophrenia. The diagnosis of schizophrenia in *DSM-III* requires, among other criteria, an illness of 6 months' duration with "deterioration from a previous level of functioning" and the presence of at least one of six specified symptoms, three of which directly involve delusions. The subtypes of schizophrenia in *DSM-III* are described as "cross-sectional clinical syndromes." The criteria for paranoid schizophrenia are based only on the clinical dominance of persecutory, grandiose, or jealous delusions or hallucinations with similar themes. By specifically listing these three types of delusions, schizophrenics with prominent erotic delusions (erotomania) or somatic delusions must be classified as undifferentiated

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schizophrenics. The *DSM–III* does not clearly specify whether thought disorder or affective deterioration can occur in paranoid schizophrenics. Although absence of systematized delusions is a criterion for the disorganized subtype of schizophrenia, it is not clear if the delusions in the paranoid subtype need be well systematized. The criteria for undifferentiated type imply that if the thought disorder is as clinically prominent as the delusions, then the undifferentiated subtype is the appropriate diagnosis. No guidelines are given to determine clinical "prominence."

The ICD–9 manual, like *DSM–I* and *DSM–II*, contains clinical descriptions and not specific operational criteria. The criteria for paranoid schizophrenia are as follows:

> The form of schizophrenia in which relatively stable delusions, which may be accompanied by hallucinations, dominate the clinical picture. The delusions are frequently of persecution but may take other forms. Hallucinations and erratic behavior may occur; in some cases conduct is seriously disturbed from the outset, though disorder may be gross and affective flattening with fragmentary delusions and hallucinations may develop.

Unlike the *DSM–III*, the ICD–9 requires neither a 6 months' course of illness nor evidence of deterioration. The criteria for paranoid schizophrenia are longitudinal and not cross-sectional in nature. Although generally stable delusions dominate the clinical picture, marked thought disorder and affective flattening may also be seen, particularly as the disorder progresses. The delusions may also become fragmentary.

Of the major research criteria, the description of paranoid schizophrenia in the Research Diagnostic Criteria of Spitzer, Endicott, and Robins (1977) is essentially identical to that found in *DSM–III*. Tsuang and Winokur (1974) proposed criteria for the subtyping of schizophrenia designed to accompany the diagnostic criteria of Feighner et al. (1972) (table 2). Unlike other diagnostic criteria, those of Tsuang and Winokur (hereafter called T-W) require demographic characteristics which they found distinguished paranoid from nonparanoid schizophrenics. Symptomatically, only the T-W criteria contain specific exclusion criteria. Substantial thought disorder or affective or behavioral disturbances are exclusion criteria for paranoid schizophrenia in their criteria. Furthermore, the delusions, in addition to being clinically dominant, must be "well organized" in paranoid schizophrenia.

Forrest and Hay (1973) proposed criteria for "paranoid psychosis of middle life," which they considered to be a subtype of schizophrenia. Their criteria are without parallel in other systems. The patients needed to demonstrate specific precipitating factors, as well as to fall within a certain age range. Furthermore, the symptomatic inclusion criteria are described only very sketchily, and no exclusion criteria are mentioned. Since their diagnostic system has not been frequently used, it will not be further discussed here.

A comparison of the criteria for paranoid schizophrenia in *DSM–III*, ICD–9, and T-W can be seen in table 3. The differences are striking, particularly between the ICD–9 and T-W criteria. While the former specifically includes cases with thought disorder, affective deterioration, and fragmented delusions, the latter specifically excluded such patients. The relative paucity of criteria provided by the *DSM–III* for important parameters of symptoms in the paranoid subtype of schizophrenia is evident.

From a historical perspective, the ICD–9 criteria would include the paranoid dementia praecox patients of Kraepelin. The T-W criteria, however, define a population of patients similar to what

Table 2. Tsuang and Winokur's (1974) diagnostic criteria for paranoid subtype of schizophrenia

A through C must be present:

A. Age of onset and sociofamilial data (one of the following):
   1. Age of onset after 25 years
   2. Married or employed
   3. Absence of family history of schizophrenia

B. Exclusion criteria
   1. Disorganized thought must be absent or of mild degree, such that speech is intelligible
   2. Affective and behavioral symptoms, as described in hebephrenia (i.e., inappropriate or flat affect, hebephrenic or catatonic motor symptoms), must be absent or of mild degree

C. Preoccupation with extensive, well-organized delusions or hallucinations

Table 3. Comparison of the three major diagnostic criteria sets for the diagnosis of paranoid schizophrenia

Dimension	*DSM-III*	ICD-9	Tsuang-Winokur
Bizarre delusions	Permitted	Permitted	Permitted
Systematization of delusions	N.C.	May be poorly systematized	Must be well systematized
Hallucinations	Permitted	Permitted	Permitted
Thought disorder	N.C.[1]	May be severe	Must be absent or mild
Personality deterioration	N.C.[1]	May be present	Must be absent or mild

N.C. = not commented on.

[1] If delusions are poorly systematized, and if affective deterioration and thought disorder are present, then correct subtype diagnosis would be undifferentiated, even if delusions are prominent.

Kraepelin called paraphrenia; the paranoid dementia praecox patients of Kraepelin would be excluded by the T-W criteria because of the presence of fragmented delusions frequently accompanied by thought disorder and affective deterioration. Within the confines of the narrow definition of schizophrenia, *DSM-III* takes a Bleulerian approach to the diagnosis of paranoid schizophrenia, simply requiring that the clinical picture be "dominated" by the delusional or hallucinatory symptomatology.

Unlike the other two systems, the ICD-9 approaches the diagnosis of paranoid schizophrenia from a longitudinal perspective. The ICD-9 criteria suggest that in patients with paranoid schizophrenia the disease picture can change from one dominated by organized delusions to a state with fragmented delusions, marked formal thought disorder, and affective flattening. This approach to paranoid schizophrenia parallels that of Kraepelin, who first noted the frequent progression of symptomatology in his patients with paranoid dementia praecox. With the *DSM-III* or T-W criteria, which approach the diagnosis of paranoid schizophrenia from a cross-sectional perspective, patients whose symptomatology changed from one dominated by delusions to one dominated by thought disorder and affective symptoms would change subtypes from paranoid to one of the forms of nonparanoid schizophrenia.

An empirical comparison of several subclassificatory systems for schizophrenia is currently being carried out (Gruenberg, Kendler, and Tsuang, in preparation). Four subclassificatory systems are being compared: ICD-9 (World Health Organization 1978), the Research Diagnostic Criteria of Spitzer, Endicott, and Robins (1977), *DSM-III* (American Psychiatric Association 1980), and the T-W criteria (Tsuang and Winokur 1974). The index admission charts of the 200 schizophrenics—diagnosed by the criteria of Feighner et al. (1972)—from the Iowa 500 study (Morrison et al. 1972; Tsuang and Winokur 1975; Tsuang et al. 1979) are being examined. Preliminary results suggest that adequate reliability can be obtained using these systems. On 30 cases blindly and independently diagnosed by two raters, agreement in subtype was found in 73 to 83 percent of the cases depending on the system. The corresponding kappa values ranged from .58 to .72 (table 4). The reliability was highest with the T-W criteria (83 percent agreement, kappa = .72), which contain the most specific inclusion and exclusion criteria.

The frequency of paranoid schizophrenia in the 200 schizophrenics differed substantially depending on the subclassification system used. Paranoid schizophrenia as defined by the ICD-9 was the most common, being diagnosed in 51.5 percent of the schizophrenics. Paranoid schizophrenia as defined

Table 4. Reliability of subtyping systems for schizophrenia (n = 30)

Criteria	Agreement (%)	Kappa	Z	p
Tsuang-Winokur	83	.72	6.3	<.001
DSM-III	80	.70	5.8	<.001
RDC	73	.61	5.2	<.001
ICD-9	77	.58	4.2	<.001

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by the *DSM–III* (and the Research Diagnostic Criteria) was diagnosed in 36.5 percent of the schizophrenics. Only 19 percent of the schizophrenics were diagnosed as paranoid schizophrenia according to the T-W criteria. These results provide empirical evidence that paranoid schizophrenia, as defined by different criteria, differs considerably. By the broadest criteria, paranoid schizophrenia is diagnosed more than two and a half times more frequently than it is by the narrowest criteria.

Only 3 percent of the schizophrenics diagnosed as paranoid subtype by either the *DSM–III* or T-W criteria were not also diagnosed paranoid schizophrenia by the ICD–9 criteria. Of the patients diagnosed as paranoid schizophrenia by the T-W criteria, only 11 percent were not similarly diagnosed by the *DSM–III* criteria. The narrower diagnostic criteria for paranoid schizophrenia apparently define a population of patients that is almost entirely a subset of the population defined by the broader diagnostic criteria for paranoid schizophrenia.

Nonschizophrenic Paranoid Psychotic Disorders. The *DSM–III* has one major category for the nonschizophrenic paranoid psychotic disorders: paranoid disorder. Though this category has three specific and one miscellaneous subtype, all the subtypes must first meet the criteria for paranoid disorder (table 5). Two of the criteria, the absence of affective or organic symptoms, have been implicit in all other definitions of paranoid psychotic disorders. One criterion requires only a brief period of illness for the diagnosis. One of the subtypes of paranoid disorder, called "acute," is simply defined as anyone meeting the overall criteria and having a course of illness less than 6 months. There are therefore two symptomatic inclusion criteria. First, the patient must suffer from persistent persecutory or jealousy delusions. Although previous diagnostic descriptions have mentioned the most common types of delusions that occur in nonschizophrenic paranoid psychotic disorders (usually persecutory and grandiose delusions), this is the first set of criteria that specify the kind of delusion permitted in this disorder. The criteria for the subtype of paranoia require, in addition to an illness of over 6 months' duration, a stable persecutory delusional system. The second symptomatic criterion requires that the patient's emotions and behavior be consistent with the delusional system. This would exclude patients with markedly abnormal affects (e.g., flattened or inappropriate).

Lastly, there are two symptomatic exclusion criteria. The first lists any of the six symptomatic inclusion criteria for schizophrenia as exclusion criteria for paranoid disorder. Any significant thought disorder or bizarre delusion would thus be an exclusion criterion for

Table 5. *DSM-III* diagnostic criteria for paranoid disorder

Paranoid disorder

A. Persistent persecutory delusions or delusional jealousy
B. Emotion and behavior appropriate to the content of the delusional system
C. Duration of illness of at least 1 week
D. None of the symptoms of criterion A of schizophrenia such as bizarre delusions, incoherence, or marked loosening of associations
E. No prominent hallucinations
F. The full depressive or manic syndrome is either not present, developed after any psychotic symptoms, or was brief in duration relative to the duration of the psychotic symptoms
G. Not due to an organic mental disorder

Paranoia

A. Meets the criteria for paranoid disorder
B. A chronic and stable persecutory delusional system of at least 6 months' duration
C. Does not meet the criteria for shared paranoid disorder (i.e., delusional system develops as a result of a close relationship with another person with established persecutory delusions)

Shared paranoid disorder

A. Meets the criteria for paranoid disorder
B. Delusional system develops as a result of a close relationship with another person or persons who have an established disorder with persecutory delusions

Acute paranoid disorder

A. Meets the criteria for paranoid disorder
B. Duration of less than 6 months

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paranoid disorder. The second criterion excludes from the category of paranoid disorders all patients demonstrating prominent hallucinations.

ICD–9 describes five forms of nonschizophrenic paranoid disorders. Three of these are listed under the paranoid state (table 6). Simple paranoid state is defined as a psychotic state in which systematized delusions are the prominent symptom. The type of delusion is not specified, and at least one "bizarre" delusion, delusions of influence, is specifically mentioned as occurring in this disorder. Paranoia is described as a chronic psychosis without hallucinations or thought disorder. The type of delusion is not specified, but is described most frequently as grandiose, persecutory, or somatic. Paraphrenia, unlike other paranoid states, presents prominent hallucinations. It is implied that mild disordered thinking is also permitted.

The other two forms of nonschizophrenic paranoid disorder in ICD–9 are listed under "other nonorganic psychoses." The first, acute paranoid reaction, describes a paranoid state provoked by an "emotional stress." No further description is given. The second, psychogenic paranoid psychosis, is apparently the paranoid reactive psychosis of the Scandinavian school. It is described only as a reactive paranoid psychosis lasting longer than the "acute paranoid reactions." Since so little symptomatic description is given of these two forms of paranoid psychotic disorders, further discussion of the ICD–9 concentrates on the three forms of the disorder described under paranoid state.

Winokur (1977) proposed a set of criteria for what he termed paranoia or delusional disorder (table 7). The inclusion criterion for this diagnosis is the presence of nonbizarre delusions for any period of time. Exclusion criteria include the presence of an affective or organic disorder, and the presence of inappropriate affect, bizarre delusions, and hallucinations. Onset of illness after age 60 is also an exclusion criterion.

Kendler (1980*b*) proposed three changes in Winokur's criteria (table 8). First, the delusions had to be present for 2 weeks. Second, thought disorder was added as an exclusion criterion. Third, after Werner (1891), delusional disorder was divided into two forms: simple delusional disorder in which hallucinations were absent; hallucinatory delusional disorder in which hallucinations, except those regarded by Schneider (1959) as

Table 6. ICD-9 diagnostic criteria for paranoid states

Paranoid state, simple
A psychosis, acute, or chronic, not classifiable as schizophrenia or affective psychosis, in which delusions, especially of being influenced, persecuted, or treated in some special way, are the main symptoms. The delusions are of a fairly fixed, elaborate, and systematized kind

Paranoia
A rare chronic psychosis in which logically constructed systematized delusions have developed gradually without concomitant hallucinations or the schizophrenic type of disordered thinking. The delusions are mostly of grandeur, persecution, or somatic abnormality

Paraphrenia
Paranoid psychosis in which there are conspicuous hallucinations, often in several modalities. Affective symptoms and disordered thinking, if present, do not dominate the clinical picture, and the personality is well preserved

Table 7. Winokur's (1977) diagnostic criteria for delusional disorder (paranoia)

1. All patients have to exhibit an unequivocal delusion
2. Such a delusion or delusions could have been present for any length of time
3. The delusions have to be related to events that were possible, however implausible
4. Does not meet any of the following exclusion criteria:
   a. The presence or suggestion of the presence of any hallucinations at any time
   b. Bizarre or fantastic delusions at any time
   c. Evidence of organic brain syndrome
   d. Illness beginning after the age of 60
   e. Meeting clear criteria for depression or mania
   f. Inappropriateness or marked flattening of affect

specific for schizophrenia, were present.

A comparison of the four proposed criteria sets for nonschizophrenic paranoid psychotic disorders appears in table 9. A number of differences between the four sets of criteria are worthy of comment. First, the ICD-9 criteria, unlike the others, permits the presence of at least one kind of bizarre delusion, i.e., delusions of influence. In the *DSM-III* these delusions are symptomatic inclusion criteria for schizophrenia. Second, the ICD-9 paranoid states (specifically paraphrenia) and the hallucinatory subtype of delusional disorders of Kendler permit hallucinations; hallucinatory states are excluded from the *DSM-III* and Winokur criteria. The fate of hallucinatory syndromes in relationship to the nonschizophrenic paranoid psychotic disorders has now come full circle in the nosologic manuals of the APA. Hallucinatory states were permitted in the nonschizophrenic paranoid disorders in the later editions of the APA statistical manual (1934, 1942), excluded in *DSM-I* (1952), included in *DSM-II* (1968), and excluded again in *DSM-III* (1980). Third, only the *DSM-III* specifically limits the type of delusion in nonschizophrenic paranoid disorders. This nosologic approach is historically unprecedented. Kraepelin (1976) specifically stated that grandiose, religious, erotic, and possibly somatic delusions could occur in paranoia in addition to the persecutory and jealous delusions permitted by *DSM-III*. Grandiose delusions are noted to be frequent in paranoia in the early editions of the APA statistical manual (4th edition, 1927), in paranoid reactions in *DSM-I* (1952), and in paranoid states in *DSM-II* (1968). As reviewed by Kendler (1980*a*), a small number of studies have examined whether the type of delusion predicts schizophrenic outcome in patients with a paranoid psychosis. The type of delusion was found in these studies to have no predictive power, which argues against the distinction in *DSM-III* between persecutory and jealousy delusions and all other kinds of delusions.

Symptomatically, the *DSM-III*

Table 8. Kendler's diagnostic criteria for delusional disorder (paranoid psychosis)

Simple delusional disorder
1. Onset of illness before age 60
2. Nonbizarre delusions of any type and/or persistent, pervasive ideas of reference lasting at least 2 weeks
3. A full affective syndrome, either depressed or manic, was absent when the patient was delusional
4. There were no symptoms suggestive of schizophrenia, including prominent thought disorder, inappropriate affect, patently bizarre delusions, or Schneiderian symptoms
5. Symptoms suggestive of an acute or chronic brain syndrome are absent
6. Absence of persistent hallucinations of any kind

Hallucinatory delusional disorder
1. Meets criteria 1–5 for simple delusional disorder
2. Presence of hallucinations of any kind except those described by Schneider as indicative of schizophrenia (i.e., voices commenting, discussing patient, or repeating patient's thoughts)

Delusional disorder
Meets criteria for simple or hallucinatory delusional disorder

Table 9. Comparison of criteria for nonschizophrenic paranoid disorders

Dimension	*DSM-III* paranoid disorder	ICD-9 paranoid states	Winokur delusional disorder	Kendler delusional disorder
Bizarre delusions	Excluded	Delusions of influence permitted	Excluded	Excluded
Hallucinations	Excluded	Permitted	Excluded	Permitted[1]
Type of delusion	Persecutory and jealousy	Any	Any	Any
Thought disorder	Excluded	Must be absent or mild	N.C.	Excluded

N.C. = not commented on.

[1] Permitted in subtype-hallucinatory delusional disorder.

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and Winokur criteria for paranoid disorders approach the criteria that Kraepelin set out for paranoia. The ICD–9 criteria for paranoid disorders on the other hand more closely resemble Kraepelin's criteria for paranoia and paraphrenia together. Kendler's criteria fall in between these two groups of criteria in terms of relative narrowness. Interestingly, the ICD–9 criteria for paraphrenia closely resemble the T-W criteria for paranoid schizophrenia. Except for the criteria for nonschizophrenic paranoid psychotic disorders in the early APA statistical manuals (1918, 1927, i.e., before the addition of the category of paranoid condition), the *DSM–III* criteria for this disorder are narrower than any in previous official American nosology. It is not entirely clear into what diagnostic category patients with paraphrenia as defined by Kraepelin would be placed in *DSM–III*. If the "deterioration" criteria for schizophrenia in *DSM–III* are broadly interpreted, most of these cases would then be diagnosed as schizophrenic (or schizophreniform if the duration was less than 6 months). If the criteria for "deterioration" are strictly interpreted, then most cases of paraphrenia would be diagnosed as atypical psychosis.

Stability of Diagnosis. It is not possible to conclude a discussion of the nosology of the paranoid psychotic disorders without examining the question of the stability of the various paranoid psychotic disorders over time. If individual patients over the course of their illness were to display symptoms of all the different paranoid psychotic syndromes in apparently random order, any attempt to ascertain a valid subclassificatory system for these disorders would be difficult, if not impossible. If, at the other extreme, all patients from the onset of their disorder displayed the same symptoms, this would make the nosologist's job much easier. However, if there was, in a subgroup of patients, a systematic development of symptoms over the course of the illness, such a variable—although initially making a diagnostic classification more difficult—might ultimately be an important aid to differential diagnosis.

Kraepelin stated that in one subgroup of paranoid psychotic disorders a systematic development of symptoms did occur. In his diagnostic entity of paranoid dementia praecox, which he felt constituted approximately 40 percent of chronic paranoid psychotic disorders, Kraepelin observed a predictable symptomatic course. Such patients would initially present with multiple, bizarre delusions and would then develop, over months to years, symptoms generally considered indicative of nonparanoid schizophrenia such as gross thought disorder and deteriorated affect. Since Kraepelin, four studies have examined the question of the symptomatic outcome of broadly defined paranoid psychotic disorders.

Mayer (1921) followed up from 1 to 15 years later cases of paraphrenia defined by Kraepelin. He found that 38 percent had developed classic symptoms of dementia praecox, including prominent thought disorder and personality deterioration. A minimum 5-year followup of very broadly diagnosed "paranoid reactive psychosis" at the Gaustad Hospital (Noreik 1970) revealed that 36 percent of the cases had developed clear-cut "schizophrenic deterioration." In a 10-year followup using only hospital diagnoses, Depue and Woodburn (1975) found that 50 percent of patients initially diagnosed as paranoid schizophrenics were diagnosed as some form of nonparanoid schizophrenia on later admissions. In the best methodologic examination of this question to date, Tsuang et al. (1981) found that on blind 30- to 40-year followup, 41 percent of cases initially diagnosed as having paranoid schizophrenia were rediagnosed as suffering from nonparanoid schizophrenia.

Kendler (1980*b*) reviewed four studies which examined the stability over time of narrowly defined nonhallucinatory paranoia. Unlike the more broadly defined paranoid psychotic disorders, the narrowly defined syndrome was fairly stable over time. Over a variable followup period, only 3 to 22 percent of these patients developed symptoms of schizophrenia.

The instability of symptoms over time in the paranoid psychotic disorders has implications for future research. Investigators interested in examining a syndrome with good temporal stability should probably use criteria similar to those proposed by Winokur (1977) or Kendler (1980*b*). If a broader syndrome is studied, it should be anticipated in the experimental design that a substantial proportion of such patients will over time develop prominent "nonparanoid" symptoms. Such research could begin to address the important problem of determining whether at the onset of their disorder those broadly defined paranoid psychotic patients who go on to develop

thought disorder and affective deterioration can in any way be distinguished from those who do not develop such symptoms.

The followup results in general support Kraepelin's division of the paranoid psychotic disorders into three groups. Narrowly defined paranoia seems to be rather stable over time. Of those paranoid psychotic patients with bizarre delusions and/or hallucinations, about half go on to develop symptoms of thought disorder and personality deterioration (i.e., Kraepelin's paranoid dementia praecox) and half never develop such symptoms (i.e., Kraepelin's paraphrenia).

Conclusion

In the past, substantial disagreements have existed as to the proper nosologic classification of the paranoid psychotic disorders. A review of current diagnostic systems shows that this disagreement persists to the present day. However, this essay will have failed its purpose if the reader concludes that there is only confusion among diagnostic viewpoints on the paranoid psychotic disorders. Although our current ability to choose intelligently between the various nosologic approaches to the paranoid psychotic disorder is limited, several points are worth emphasizing.

First, consistent themes are evident in the history of the nosologic approaches to the paranoid psychotic disorders since the time of Kraepelin. With the exception of a few investigators, it has been generally accepted that those paranoid psychotic disorders characterized by bizarre, fragmented delusions associated with the emergence of thought disorder and affective deterioration belong within the group of schizophrenic disorders. Also, most workers in the field have assumed that paranoid psychotic disorders with nonbizarre, well-systematized delusions without hallucinations, thought disorder, or affective deterioration are probably a disorder distinct from schizophrenia. However, opinion has not been unanimous on this point, since some serious investigators contend that such states represent only mild forms of schizophrenia. Most of the controversy regarding the nosologic divisions of paranoid psychotic disorders have concentrated on those patients who display symptomatic pictures in between the two syndromes just outlined. Some nosologists have followed Bleuler and considered the great majority of such patients to be suffering from schizophrenia.

Others, following Kraepelin's later diagnostic formulations, have felt that most of such patients suffer from a nonschizophrenic disorder. Of the two widely used current diagnostic systems, the position of *DSM-III* on paranoid psychotic disorders resembles that of Bleuler while the ICD-9 approach is similar to Kraepelin's.

Part of the controversy can be understood as involving specific symptoms. In the diagnosis of paranoid schizophrenia, the controversy has focused on thought disorder and affective deterioration. While all diagnostic systems agree on the prominence of delusional symptoms in this disorder, there is disagreement about the diagnostic assignment of patients who in addition to their delusions also display thought disorder and/or markedly flat or inappropriate affect. Some diagnostic systems would consider such patients as paranoid schizophrenics, while other systems would classify them as nonparanoid schizophrenics. Similarly, some systems require that the delusions in paranoid schizophrenia be well organized, while others permit delusions to be fragmented. In the nonschizophrenic paranoid psychoses, hallucinations have been a focus of disagreement. Some diagnostic systems exclude hallucinatory patients from the paranoid psychoses while others include them. The *DSM-III* has raised the question of whether the type of delusion should be considered in determining whether a psychosis is to be diagnosed as paranoid disorder.

Part of the past and current disagreements in nosologic approaches to the paranoid psychotic disorders can also be understood as emerging from the difference of a longitudinal versus cross-sectional approach to psychiatric diagnosis. While Kraepelin used the longitudinal approach in formulating his nosologic system, this perspective has received little recent attention. Since a significant proportion of some forms of paranoid psychotic disorders are not symptomatically stable over time, the differences introduced by a longitudinal versus cross-sectional diagnostic approach are likely to be substantial.

Second, future investigations in the paranoid psychotic disorders, regardless of theoretical orientation, will need to define carefully the patient populations being studied. If nothing else, this review has indicated that diagnostic terms such as "paranoid schizophrenia," "paranoid psychosis," or "paranoia" have multiple possi-

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ble meanings. Only by carefully specifying the exact nature of the patients being studied can the investigator assure the reader of a correct interpretation and show future investigators how to replicate the results.

Third, the development of empirical methods for determining the validity of the various nosologic approaches to the paranoid psychotic disorders is essential for true progress in our understanding of this group of psychoses. Robins and Guze (1970) originally proposed a set of criteria for validating psychiatric diagnoses. Their criteria were recently expanded by Kendler (1980*b*) and applied to one form of the paranoid psychotic disorder, paranoia. Only by the application of such criteria in well-controlled empirical investigations can psychiatric nosology hope to develop a truly scientific basis.

That approach is being applied to test the predictive validity of subtyping criteria for paranoid schizophrenia using the 30- to 40-year field followup information on the schizophrenics of the Iowa 500 study (Tsuang, Woolson, and Fleming 1979; Kendler, Gruenberg, and Tsuang, in preparation). The subtyping has been carried out blind to all outcome data. Preliminary results suggest that the various criteria for paranoid schizophrenia differ substantially when measured by psychiatric, occupational, and residential outcomes. By all criteria, the outcome of paranoid schizophrenics is better than that of hebephrenics. Moreover, the paranoid schizophrenics identified by the T-W criteria have, on the average, a much better outcome than those identified by *DSM-III* or ICD-9.

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