European Long-Term Followup Studies of Schizophrenia

by Jules Angst

Abstract

This article focuses on the variability of diagnostic concepts and their impact on the results of European followup studies. Continental European and Scandinavian definitions of schizophrenia are considered along with other factors such as age of onset, change of symptoms with time, development of defects, the effects of aging, treatment, and study methodology. The concepts of schizophrenia are regarded as too diverse to allow meaningful comparisons of course and outcome among studies. Multiaxial or multidimensional description of patients offers a solution to this conundrum.

The European followup studies show impressively that the results obtained depend less on the methods for assessing course and outcome but more on diverging diagnostic concepts. American investigators selecting patients by the diagnostic criteria of Feighner et al. (1972), Research Diagnostic Criteria (RDC; Spitzer et al. 1978), or DSM-III (American Psychiatric Association 1968) or the one presently used in the Soviet Union, but it is much wider than the DSM-III diagnosis of schizophrenia. The continental diagnosis is mainly based on symptoms excluding cases with toxic or other organic origin. The diagnosis is only made in the presence of a clear psychosis but not in mild prepsychotic stages. The length of the previous psychiatric history or age of onset is not taken into account. A major point of this traditional concept is the inclusion of psychoses with depressive or maniform syndromes occurring before, simultaneously with, or after schizophrenic syndromes. Affective syndromes are subsumed hierarchically under the diagnosis of schizophrenia (Jaspers 1913). It would be

The European (Excluding the Scandinavian) Concept of Schizophrenia for Followup Studies

The more recent large European followup studies were carried out by M. Bleuler (1972), Hinterhuber (1973), Ciompi and Müller (1976), and Huber et al. (1979). Their diagnoses of schizophrenia follow Emil Kraepelin (1913), Eugen Bleuler (1911), and Kurt Schneider (1959). This broader diagnosis of schizophrenia, mainly based on Schneiderian first-rank symptoms (Schneider 1959), also is reflected in the diagnostic concept of Wing (1974; the Catego classification) and the World Health Organization (1973) definition of schizophrenia for multicenter transcultural studies. This concept is definitely narrower than that of DSM-II (American Psychiatric Association 1968) or the one presently used in the Soviet Union, but it is much wider than the DSM-III diagnosis of schizophrenia. The continental diagnosis is mainly based on symptoms excluding cases with toxic or other organic origin. The diagnosis is only made in the presence of a clear psychosis but not in mild prepsychotic stages. The length of the previous psychiatric history or age of onset is not taken into account. A major point of this traditional concept is the inclusion of psychoses with depressive or maniform syndromes occurring before, simultaneously with, or after schizophrenic syndromes. Affective syndromes are subsumed hierarchically under the diagnosis of schizophrenia (Jaspers 1913). It would be

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wrong to assume that affective syndromes were excluded from the original concept of schizophrenia. Hecker (1871), who created in his classical monograph the subtype of chronic hebephrenia, stressed how frequently the disorder starts with clear symptoms of melancholia that can be differentiated by their development from true melancholia (which was called genuine dysphyma at that time). Kraepelin, Eugen Bleuler, and Kurt Schneider followed Jaspers' hierarchy. Therefore, in European studies (excluding Scandinavia) these cases have been subsumed under schizophrenia, whereas in the United States many of them would be classified as affective psychoses with mood-incongruent psychotic features. The European (excluding the Scandinavian) concept furthermore includes all schizophasiiform psychoses defined by Langfeldt's (1937) or by DSM-III criteria, and finally some of the Scandinavian reactive psychoses.

It is not surprising that based on this broad concept the classical followup studies of Bleuler (1972), Huber et al. (1979), and Huber (1980) over decades show roughly the same results summarized by both groups of authors (Bleuler et al. 1976). The long-term outcome includes about 25 percent symptom-free recovery based on the psychological assessment and the social adaptation. More than half of the psychoses take a recurrent course, some of them with a complete remission during the intervals. But, still, the majority of schizophrenic patients defined in this way develop residual states, whereas the most severe outcome of schizophrenic dementia is found only in about 10 percent. Thus, schizophrenia is considered to be a disorder with very different outcomes, and the prognosis is better than described in many textbooks. Also the World Health Organization's International Pilot Study of Schizophrenia found high recovery rates, especially in developing countries (Sartorius et al. 1986).

The subgroup of patients with depression during the course of their schizophrenic illness was intensively analyzed by Gross and Huber (1980). They found not only a transition from depressive to schizophrenic syndromes in 13.1 percent but also a reverse change from a schizophrenic to a depressive syndrome in 12 percent (sample size 375). The early manifestation of depressive syndromes correlated with a favorable long-term prognosis. In a recent analysis, Gross and Huber (1986) found that acute onset, endogenomorphic depressive symptoms, and psychoreactivity were prognostically favorable.

It is a matter of principle whether one should use a broad or a narrow definition of schizophrenia. The question has been dealt with in detail by Jablensky (1981). Shifting the boundary of the dichotomy between schizophrenia and affective disorder doesn't solve the problem of the schizophreniform, atypical, and schizoaffective cases in between. The creation of a new third psychosis doesn't solve the problem either because it includes heterogeneous subgroups of doubtful origin. "Micronosological" entities (Jablensky 1981) cannot help us—for instance, the numerous subgroups of Kleist and Leonhard, and among them, the cycloid psychoses taken up again by Perris (1974).

Very narrow definitions of schizophrenia tend to move psychotic patients with affective disturbance away from schizophrenia into the affective disorders. However, a strong argument in favor of a wider concept of schizophrenia is based on the family studies of Manfred Bleuler (1972) and the new study of Kendler et al. (1986). The latter authors come to the following conclusion:

[The propensity towards psychoses can be transmitted within families of schizophrenics, accompanied by the chronicity and psychosocial disability normally associated with schizophrenia. The family link between schizophrenia and at least a subgroup of schizoaffective disorders argues that the presence of prominent affective features, both depressive and manic, during the course of a chronic "schizophrenic-like" illness need not be indicative of a familial predisposition to affective illness.

In Switzerland, the attempt to isolate a subgroup of "schizophrenic reactions" as a separate entity failed. An early study under Manfred Bleuler carried out by Rohr (1961) initially found evidence for a better outcome of those cases compared to the other schizophrenic cases. But a second followup of 28 cases 20 years later (Scharfetter et al. 1979) at age 50-64 showed that the prognosis of this subgroup was no better than that of other schizophrenic cases. Of patients with clearcut schizophrenic symptoms, 16 of 19 and 3 in the remaining group without clearcut diagnoses had relapsed and/or showed residual symptoms. Furthermore, the morbid risk of first-degree relatives did not differ from that of typical schizophrenic cases. Obviously, the results do not support the concept of a "schizophrenic reaction," and this study is critical for the Scandinavian concept of a schizophreniform reactive psychosis.
Scandinavian Concepts of Schizophrenia and Schizophreniform Disorders and Reactive Psychoses

Schizophreniform Psychoses. This concept was created by Langfeldt in three monographs (1937, 1939, 1956). Unlike DSM-III, which defines a schizophreniform psychosis by a duration of less than 6 months, Langfeldt’s concept is not based on length of illness but on psychopathology. The symptoms are similar to those of schizophrenia, but most frequently very rich with many pathoplastic trends (influence of intelligence, personality, body build) (Langfeldt 1956) and occasionally mixed with trends from other forms of psychosis and schizophrenia (Langfeldt 1961). The schizophreniform psychosis also includes affective paraphrenias, cycloid psychoses (Kleist, Leonhard), oneiroid states (Maya-Gross), oneirophrenia (Meduna), periodic catatonia, pseudoneurotic schizophrenia (Hoch), schizoaffective states, schizomania (Claude), schizophrenia (Kraepelin), and twilight states (E. Bleuler). Langfeldt (1956) stresses that the schizophreniform psychoses include a number of cases with uncertain diagnoses and often with mixed symptomatology, and that some of these cases will turn out to be true schizophrenia and/or belong to other nosological groups.

A major point in diagnosing schizophrenia is the type of onset—acute, insidious, or chronic. Langfeldt (1939) was well aware of the problem and tried to separate time of onset from symptoms and their consequences for the prognosis. Table 7 of his second monograph summarizes the acute cases from two monographs. Dealing with cases which all had an onset duration under 6 months, he compared typical schizophrenic and schizophreniform patients and found a highly significant difference in outcome. This led him to conclude that it is not time but symptomatology that is really predictive.

Langfeldt’s analysis has the disadvantage that the typology was based on the followup diagnosis and not on the original one at admission. It is not discussed whether the structure of symptomatology is a function of the acuity of the onset. It is not implausible that an insidious onset leads to a more organized, less emotional type of psychosis than a very acute one. A very acute psychotic process may have more dramatic, fluctuating symptoms, with more affective components (anxiety, depression, excitation, elation) than psychoses with an insidious onset. At variance with Langfeldt’s conclusion, there is little doubt about the correlation of an acute onset and a good prognosis (Muller 1935; Gerloff 1937; Chase and Silverman 1941). Furthermore, the finding of precipitating or psychogenic factors is not independent of time either. In the case of an insidious onset, it may be more difficult to find significant events lying further back.

The prognostic value of the concept of schizophreniform psychoses with a good prognosis is well established by many Scandinavian studies (e.g., Holmboe and Astrup 1957; Welner and Strömgren 1958; Eitingon 1959; Achte 1961; Astrup et al. 1963; Retterstøl 1966, 1970; Noreik et al. 1967). All authors agree that patients with typical schizophrenic psychosis may recover in a minority of cases and that only a few schizophreniform psychoses become chronic and turn out to be typical schizophrenias.

Reactive Psychoses. The concept of reactive psychoses is widely used in Scandinavia. According to Retterstøl (1978), about 15–20 percent of the first-admission psychoses in Danish psychiatric hospitals are diagnosed as reactive psychoses; in Norway, the percentage is still higher. The concept goes back to Jaspers (1913) and was developed in Denmark mainly by Wimmer (1916), Strømgren (1940), and Faergeman (1945, 1963), followed by the Norwegian work of Langfeldt (1937, 1939), Noreik (1970), and Retterstøl (1966, 1970). An excellent update of the concept is provided by Strømgren (1986). This group of psychoses consists of emotional reactions (about 65 percent of the cases), paranoid reactions (20 percent), and disorders of consciousness (15 percent). The paranoid reactions last several weeks or months, and their good prognosis has been confirmed by all Scandinavian studies.

The Scandinavian psychiatrists complain about the instruction in ICD-9 (World Health Organization 1978) that “reactive psychosis” (ICD 298) “should be restricted to a small group of psychotic conditions that are largely or entirely attributable to recent life experience. They should not be used for the wider range of psychoses in which environmental factors play some (but not the major) part in etiology.” The same criticism applies to DSM-III’s instruction that “brief reactive psychosis” (298.8) should only be applied to cases with schizophrenic symptoms lasting less than 2 weeks.

Why didn’t this widely used Scandinavian concept spread more over the past decades? Strømgren (1986) has tabulated not less than 15 ICD-9 categories and 12 DSM-III categories that fit the concept of
reactive psychosis. This clearly shows that the failure to accept the Scandinavian view is not because these psychoses do not exist but because they are otherwise classified. Whereas Scandinavian psychiatry stresses the reactive origin, ICD-9 and DSM-III give precedence to the psychopathological picture. There is a new international trend to return from etiological to phenomenological classification.

Recently, Retterstel (1986) summarized once more the Scandinavian view and how it differs from DSM-III and ICD-9. Reactive psychoses are considered to be reactions to external stresses. The psychic trauma must be considered of such significance that the psychosis would not have appeared in its absence; there must be a temporal connection between the trauma and the onset of the psychosis; and the content of the psychotic symptoms must reflect a traumatic experience. In most cases, the patient regains a normal level of functioning after weeks or months.

Obviously, it is difficult to define a trauma, especially if it is highly individual as in the case of the Scandinavian concept. The question of a temporal connection is difficult too. Would the Scandinavian dissatisfaction with the 2-week criterion of DSM-III, in principle, be changed if it were 4 weeks or 12 weeks? Time is a continuum and probably best assessed in quantities, not in categories.

The critical problem lies in the concept that assumes a special predisposition or sensitivity of the patient to trauma or stress, which is defined as a catathymic predisposition (Maier 1912), a concept originally based on Erewd’s psychoanalytic view. The assessment of the event has to take into account the special vulnerability of the individual and, therefore, very specific conflicts are relevant. In a hypersensitive subject, a tiny but specific situational agent may be a trigger. Faergeman (1963, p. 37) says, for instance, “the psychogenic potential is characterized by its quantitative and its qualitative readiness to respond, the first mainly being dependent on constitutional factors, the second on catathymic variants.” Therefore, the trauma and the predisposition are interrelated, which makes an operationalized definition almost impossible.

All Scandinavian studies show a relatively good outcome of reactive psychosis paranoid subtype compared to schizophrenia, confirmed again by Opjordsmoen (1986) over a period of 22 to 37 years. Another strength of the concept is based on genetic studies performed by Faergeman (1945), Langfeldt (1937, 1939), Labhardt (1963), and more recently, McCabe (1975, 1976).

**Age of Onset**

Forrest and Hay (1973) stress that the symptoms of schizophrenia are dependent on the age of onset. This factor is probably not always sufficiently taken into account. Childhood psychoses are characterized by language impairment, motor mannerism, obsessional attachment to objects, and organic features. In adolescents and young adults (16–35 years), there is a relative absence of organic and toxic factors, but family conflicts suggest the importance of work role attainment and separation from the nuclear family. Finally, in psychoses of later life (age 35–64), paranoid psychoses are much more common, and toxic factors (alcohol, drugs), evidence of brain damage, social isolation, and cultural dislocation are notable factors. There is evidence that hebephrenic and catatonic syndromes predominate in early-onset cases, whereas paranoid psychoses (delusional disorders) become more frequent with increasing age of onset. For followup studies, it seems plausible that the schizophrenic process attacking the personality at a later stage of life has a milder impact, and therefore also a better social prognosis despite a chronic course.

Numerous Soviet studies are devoted to long-term followup of schizophrenic patients with an onset in adolescence. Tsutsulkovskaya et al. (1982a, 1982b) followed 248 patients with juvenile schizophrenia with a length of illness of more than 10 years and concentrated especially on 79 patients with malignant schizophrenia for 10 years and longer. Two findings are particularly interesting: in 96.5 percent of the cases, the diagnosis turned out to be correct. At variance with the common opinion that schizophrenia with onset in adolescence usually has an unfavorable outcome, it was found that 80.7 percent of the patients had been released from the hospital and were under outpatient observation and that 40 percent were working at ordinary jobs (Tsutsulkovskaya 1979).

In contrast to juvenile schizophrenia, late-onset schizophrenia has a much better prognosis. The classical study comes from Manfred Bleuler (1943). He defined the group by age of onset after 40 and excluded all cases with organic brain syndromes and those with symptoms secondary to a somatic disorder. He estimated that about 15 percent of all cases of schizophrenia belong to the late-onset group, females more frequently than males. There is no special symptomatology; the course of the illness is often chronic without great exacerbations. A mild defect is very frequent, but severe...
dementia is rare. The relatively favorable prognosis was confirmed by the studies of Gabriel (1978).

There is a wide literature devoted to the question of whether paranoid psychoses which are usually characterized by late onset should be subsumed under schizophrenia or form a separate entity. In Europe, there is no agreement on this question which has been dealt with extensively by Kendler and Tsuang (1981). Retterstöl (1966, 1970), after having carried out extensive followup studies, was originally one of the exponents of the separation of paranoid and reactive psychoses from schizophrenia. In followup studies of 5–18 years of a large series of delusional patients, he showed that 80 percent had a good clinical and social outcome, whereas in the case of schizophrenic patients, the corresponding figure was only 18–30 percent. However, in a further followup of the same sample over 21–34 years by Opjordsmoen (1986), the differences were reduced considerably. Retterstöl (1986) therefore concludes “perhaps it will be just as fruitful to consider all the functional psychoses as reaction types or combinations of biology, traumas and personalities, whether they are labeled schizophrenia or affective psychosis, and only use the symptomatological phenomena as differentiation criteria” (pp. 11–12).

Change of Symptoms During the Long-Term Course

A few studies are devoted to the question of whether predominant symptoms persist over decades or whether the clinical picture changes over time, so that one subform becomes converted to another as mentioned, for instance, by Janzarik (1968) and Sarwer-Foner (1985). Originally, both Kraepelin (1913) and Bleuler (1911) stressed a consistency of symptom patterns in recurrent relapses. A high stability of the catatonic syndrome was observed in five cases of infantile schizophrenia followed over 25 years by Albert (1980). In a followup study over 15 years or more of 1,461 patients with recurrent schizophrenia by Shmaonova (1983), the syndromes remained on the whole very stable. But, in general, more recent research fails to support distinctiveness of the four classical subtypes of schizophrenia and finds that the subtypes do not have predictive validity (Carpenter and Stephens 1979).

There is converging evidence that over the long-term course, productive schizophrenic symptoms diminish in favor of affective symptoms, mainly depression. This was shown in the studies of Gross and Huber (1980) over 22 years, Rzewuska and Angst (1982) over 14–17 years (a minimum of 5 years prospectively), and Winokur et al. (1985) and Shmaonova et al. (1982) over 15 years. In Munich, Möller et al. (1982) and Möller and von Zerssen (1986a) found that the initial depressive symptomatology which frequently characterizes an acute schizophrenic episode can often be seen again during recovery at a later stage of the illness. Confirming Hecker (1971) and the prospective International Pilot Study of Schizophrenia over 5 years (Carpenter et al. 1978), they have also shown that over 5 years these initial affective symptoms have no prognostic value, in contrast to many expectations.

Long-term Development and Schizophrenic Defects

Bleuler (1972) found that the schizophrenic defect state didn’t change markedly after the first 5 years of the illness, a statement confirmed by Huber et al. (Bleuler et al. 1976). On the basis of prospective data, Angst et al. (1981) reported that after four recurrences, schizophrenic patients do not show a further decline in their defect state. At present, there are no convincing data that schizophrenia is really progressive over decades; it is more probable that it burns out into a residual state. Typical schizophrenic residual states described 5 years after onset by Janzarik (1959, 1963) showed an improvement 12 years after onset; the patients became more interested, had more modulated affect, and were less withdrawn. Similar observations were made by Bleuler (1972) and Ciompi and Müller (1976).

The largest studies of the schizophrenic defect state were carried out in Germany by Huber (1957) and carefully described in a monograph (Huber et al. 1979; Huber 1980). Of 758 schizophrenic patients hospitalized during 1945–59, they personally interviewed 502 of them in their homes between 1967 and 1973. The diagnosis was based on Kurt Schneider’s first-rank symptoms in 78.5 percent and second-rank symptoms in the remaining 21.5 percent. One of the main results is a typology of residual or defect states which consist—simplified—of “typical schizophrenic residual defects” on the one hand and what they call “pure defect” states on the other; in between, there are mixtures of both. The pure defect is not considered to be specific to schizophrenic psychoses at all; it can also occur after major depression and in minor organic brain syndromes. After an average followup of 22.4 years, about 40 percent pure residual syndromes were found. It was this type of defect that was described by Huber (1957) as correlating with an
Schizophrenia in Old Age

Medvedev et al. (1982) studied 437 schizophrenic patients of age 60 or older, as well as 1,020 subjects selected at random from the general population. Schizophrenic patients exhibited organic brain syndrome resembling mild forms of senile dementia more frequently than the controls. There was a positive correlation between the severity of the schizophrenic disorder and the age of onset. Kontsevoy and Sudareva (1979) followed up 146 patients to old age. In the recurrent form of schizophrenia, the exacerbations seem to disappear in old age.

The studies from Lausanne (Switzerland) of Müller (1959), Ciompi and Muller (1976), and Gabriel (1974) show an attenuation of schizophrenic symptoms correlated with the development of a mild organic brain syndrome. The further development of delusions doesn’t seem to be changed by the organic brain syndrome. A decrease of a recurrent course of schizophrenia in old age is also described by Kontsevoy and Sudareva (1979). It is not clear yet whether the 10–20 percent of schizophrenic cases who develop senile or vascular dementia in old age show this phenomenon more often than controls.

Long-Term Outcome of Treatment in Different Cohorts

A number of studies compare long-term outcome of different cohorts of schizophrenic patients. They generally agree that the prognosis improved over the decades of this century. Two studies describe cohorts of the first half of the century (Stenberg 1948; Müller 1951). Müller reported an increase of recovery from 12 to 20 percent. Stenberg finds a more or less equal recovery of both sexes (males 23 percent, females 18 percent). Kroiss (1960) compared a cohort of the years 1925–29 with another one of 1955–58 and showed a definite improvement in outcome too. This is in agreement with another study of Gerard (1981) from Poland comparing a cohort of 1917–18 with a cohort of 1967–68. Bleuler (1972) and Achte’s group (Achte 1961; Niskanen and Achte 1972; Achte et al. 1986) conclude that the increase of the recovery rate and the decrease of severe mental deterioration due to schizophrenia antedates the introduction of the neuroleptic drugs. Over 5 years, only 20 percent of first admissions were rehospitalized in the 1960’s (Niskanen and Achte 1972). These authors do not see any change of the length of hospitalization since the introduction of antipsychotic drugs, whereas Marinow (1974) in Bulgaria, comparing a cohort of the 1950’s with one of the 1960’s, clearly finds a shortening of length of hospitalization and an increase of discharged patients from one-third to two-thirds.

In the Bonn study of Huber et al. (1979) there was a subsample hospitalized before the introduction of neuroleptic drugs and not treated at all. The patients without treatment showed significantly less full remission (15 percent) than treated patients (28 percent). Groups on drugs, electroconvulsive therapy/insulin shock treatment, or both together did not differ very much in outcome. The cohort hospitalized before the drug era showed full remissions in only 17 percent of cases; the patients hospitalized during 1951–59, in 26 percent. The drug-treated group also less frequently developed “characteristic residual syndromes,” which are mainly schizophrenic symptoms. On the other hand, both groups showed the same frequency of “uncharacteristic residual syndromes” (44 percent) (described in Huber et al. 1980). The latter do not respond too well to neuroleptic drugs (sometimes they do to antidepressants). The results of this study suggest that drug treatment given during the first psychotic manifestations may improve the prognosis.

Another question is whether drugs given over decades continue
to exert a positive influence. Studies that indicate an improvement of the prognosis of patients on long-term medication come from Berlin (Gaebel et al. 1981; Pietzcker et al. 1981) and from Sweden (Dencker et al. 1981). Whereas the first studies suggest that low-dose maintenance therapy is beneficial, the second group of authors point to the beneficial effect of high doses of neuroleptics. The studies of Huber et al. (1979) would suggest that only more characteristic schizophrenic symptoms going into the direction of positive symptoms may be treated with drugs. Consistent with a certain trend to improvement of chronic schizophrenia is the study of Flekkoy (1975). He studied the original sample of Astrup (1962) 16 years later with a number of psychological tests. He found a tendency toward associative normalization and an improvement of speed that would coincide with Bleuler's (1972) observation of an improvement of schizophrenia.

Methodological Developments

Prospective studies, by their nature, comprise shorter followup periods, up to now usually 5 years (Möller and von Zerssen 1986b; Schubart et al. 1986). In association with this type of study, more sophisticated methods have been developed and applied. The World Health Organization undertook a multicenter study focused on the measurement of disability using a concept developed by Wing (1976). For this purpose, a new Disability Assessment Schedule (DAS) and a Psychologic Impairments Rating Schedule (PIRS) were developed. Disability and schizophrenic symptoms at followup after 2 years were significantly associated with sex (females did better) and with social class independently (Schubart et al. 1986). Another study of Möller and von Zerssen (1986b) clearly showed that it makes sense to assess outcome with different instruments because different aspects of outcome are associated with different predictors. Repeated measurements of psychopathology by rating scales and self-assessment methods show that it is very important to disentangle true predictors from findings that are a consequence of the course. It has been shown that clinical symptoms assessed at hospital admission are not at all predictive, whereas those assessed at discharge are predictive. The latter already reflect an initial stage of the long-term course. In particular, depressive-apathetic symptoms at discharge—but not at admission—were significantly associated with poor outcome over 5 years (Möller et al. 1981). Psychopathology alone at admission does not seem to be predictive at all, whereas premorbid adjustment is of great relevance. A considerable amount of social disability and even symptoms of a defect state (including negative symptoms) may develop before the first treatment and be strongly predictive. In this context, the development of a new Premorbid Adjustment Scale (PAS) by Morice et al. (1985) is of interest. Finally, the Bonn Scale for the Assessment of Basic Symptoms (Gross 1986) may represent an important advance in facilitating the more detailed assessment of chronic symptoms.

In studies of the long-term course, it is important to apply multivariate methods—for example, multiple regression models (Astrup and Noreik 1966), loglinear models (Schubart et al. 1986), and multidimensional scaling linked with cluster analysis. The last method was used for the analysis of symptom change over several episodes of illness (Angst et al. 1981, 1983).

Conclusions

The diagnostic concepts of schizophrenia are too controversial to provide us with valid and generalizable data on course and outcome. The diagnostic controversies cannot be solved by compromises between different views. Both the DSM-III and ICD-9 include a number of sub-classes of schizophrenic or schizophreniform disorders, which are somewhat ill-defined, being based on a mixture of qualitatively different criteria that take into account onset, age of onset, presumed etiology, symptoms, course, and outcome. The result is a categorical classification that neither satisfies the needs of the different clinical schools nor the needs of researchers. Despite all the efforts undertaken to standardize psychiatric diagnoses, major differences persist between the various countries in diagnosing schizophrenia.

In the United States, the St. Louis school (Robins and Guze 1970) introduced strict diagnostic criteria (e.g., Feighner et al. 1972) that proved influential in DSM-III. Originally, these criteria were intended to be used for research purposes to select homogeneous groups of schizophrenic patients. In this respect, it makes sense to introduce the duration criterion of 6 months for the diagnosis and selection of a more chronic form of schizophrenia. This, however, does not exclude the existence of recurrent forms of the psychosis with a relatively good prognosis. These are usually labeled "schizophreniform psychoses." The question whether schizophrenic and schizophreniform psychoses differ in their etiology is still unanswered. The European (excluding the Scandinavian) con-
concept of schizophrenia is rather broad and goes back to E. Bleuler (1911) and K. Schneider (1959). It is based on symptoms but not on course. M. Bleuler (1972) stresses the fact that it doesn’t make sense to include course into the definition and then use the course again as a validator. The best predictor of course and outcome is the previous course. Results based on selections of schizophrenic patients by the previous course are considered to be self-fulfilling prophecies—for instance, if we use the 6-month criterion to define schizophrenia.

Scandinavian psychiatry originally developed the concept of “schizophreniform psychosis” (Langfeldt 1937, 1939, 1956) and separated this group from “true schizophrenia.” In contrast to the American view, Langfeldt was well aware of the importance of separating time course and symptoms in analyzing prognosis. The distinction he proposed is not based on the 6-month criterion but on symptomatology. But, here again, it was not possible to disentangle time course and symptoms completely. Slowly developing psychoses show other symptoms than do cases with a very acute onset. The more dramatic symptoms used for the diagnosis of the schizophreniform psychoses might just be a consequence of the very acute onset.

Another Scandinavian concept, that of “reactive psychosis” (e.g., Wimmer 1916; Strömgren 1940), also has its disadvantages in that it unites acute psychoses of heterogeneous psychopathology (emotional reactions, paranoid reactions, and disorders of consciousness). It is difficult to understand how these different subtypes could form an entity. Reactive psychoses are considered to be reactions to external stress, which makes sense, but the concept of the psychic trauma is so complex that it has been impossible to operationalize it for diagnostic purposes.

Yet another unsolved problem is the nosological position of paranoid psychosis. Its independence of schizophrenia is even less convincing and, in addition, it also includes a subgroup of reactive psychoses.

The use of such a variety of vaguely defined diagnostic concepts for schizophrenia and schizophreniform or reactive psychoses must inevitably lead to major differences in the results of the various studies of course and outcome. Limiting the diagnosis of schizophrenia to the chronic cases is highly questionable from the European point of view. Psychoses can occur with manifold courses. Affective disorders, for instance, usually take a recurrent course but can also become chronic or develop residual states in between episodes. Until now, no one has proposed a dichotomy in this field dividing affective disorders into “true chronic” versus “remitting” states. Why should the situation be wholly different in schizophrenia?

It is a vain hope that long-term followup studies could provide clues for the diagnosis and classification of schizophrenia, because their results entirely depend on the case selection based on the diagnostic concepts used, as this review of the literature shows. In fact, followup studies have not, so far, contributed to the classification of schizophrenia to a useful degree.

It is obvious that many of the studies using course and outcome as criteria for the validation of a diagnostic concept have not succeeded in escaping circular reasoning. In many diagnostic concepts, course is an element of the definition. The previous course of a disorder is the strongest predictor for its future course. This is a non-specific predictor that is valid for psychiatric disorders in general, and therefore cannot be used to support a specific diagnostic concept.

All these arguments lead to the conclusion that followup studies cannot contribute and should not even be used for the revision of diagnostic concepts such as the DSM-III or the ICD-9. Neither can this review give any specific advice in the sense of refining the groups or their definitions. In face of the unbridgeable gaps between the current diagnostic concepts of schizophrenia, one should return to a more descriptive approach that would disentangle syndromes, time course, assumed etiology, and other factors—that is, a multiaxial or multidimensional description as has, for instance, been elaborated on by Helmchen (1975). He proposes an independent descriptive assessment of five “axes”: (1) symptomatology, (2) time (e.g., age of onset, speed of onset, duration), (3) “etiology” (e.g., familial and personality disposition, somatic, psychic precipitation), (4) intensity (severity), and (5) certainty. A similar multiaxial approach would provide us with a much better description of the patients and allow classificatory concepts to be tested in many new ways. As long as we use categorical, arbitrary definitions of subclasses of schizophrenia, the results of followup studies cannot become better, more relevant, or more comparable. What we need at the present stage are not more, or modified, diagnostic concepts but more and better data to support the ones we have.

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Announcement

The second International Congress on Schizophrenia Research will be held April 1–5, 1989, at the Hotel del Coronado, Coronado, California. The meeting will host leading scientists actively working on basic and/or clinical research, who will present their work in paper or poster sessions. There has been a great increase in the enthusiasm of schizophrenia researchers recently, and the International Congress will provide a setting for both formal presentation of current research and informal discussion by attendees. In addition, NIMH will sponsor a Young Investigators Program so that investigators early in their careers can be supported to attend the meeting and present their work. The meeting is being organized by Drs. Charles Schulz of NIMH and Carol Tamminga of the University of Maryland. For further information about the meeting contact:

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