The American Concept of Schizophrenia

by Nancy C. Andreasen

Abstract

The American concept of schizophrenia is built primarily upon concepts advanced by Kraepelin, Bleuler, and Schneider. Because of the influence of major research studies such as the International Pilot Study of Schizophrenia and the U.S./U.K. study, emphasis has been placed on developing reliable descriptions of symptoms and a precise definition of the disorder. This research also led to a recognition that the American concept of schizophrenia was relatively broad in comparison with that used in the rest of the world. This led to a critical reappraisal of American diagnostic practices during the 1970's, culminating in the narrower definition of schizophrenia in the third edition of the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-III). This definition requires the presence of psychotic features, established chronicity, evidence of deterioration, and the exclusion of affective and "organic" features. In comparison with this definition, the Soviet concept appears to be much broader and to include non-psychotic forms. Treatment implications of these differences are discussed.

The American concept of schizophrenia cannot be summarized simply, because the concept has changed and evolved since its development at the beginning of this century. Not only has it changed over time, but it has changed spatially as well, with the boundaries of the concept expanding and contracting and subsequently expanding again. These changes have occurred because the concept of schizophrenia has continuously been studied and reassessed in the light of new developments in research and clinical care. Until we have captured the complexity of schizophrenia by defining its pathophysiology and etiology (which are probably multiple, just as schizophrenia itself is probably a heterogeneous group of disorders), the concept of schizophrenia is likely to continue to be changed and revised as new information and insights emerge. Thus, when we speak of the current American concept of schizophrenia, it must be seen as dynamic and evolving, best understood in the context of both the past and the future as well as the present.

Historical Background

The current American concept of schizophrenia must also be seen in the context of the American approach to nosology in general. Before World War II there was no national nosology in the United States, although preliminary attempts to develop one had begun. The World War II experience, which brought together psychiatrists from all over the United States from a diversity of backgrounds, made it clear that a common language was needed to achieve consistency in diagnostic thinking and to facilitate communication. The Veterans Administration (VA) took the initiative after the war and developed the first standard national nosology. Veterans and VA hospital psychiatrists represent only a subset of patients and physicians, however, and so subse-

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quently the American Psychiatric Association convened a group of leading clinicians who formulated a standard national nomenclature in 1952, called the *Diagnostic and Statistical Manual* of the American Psychiatric Association (now referred to as DSM-I). This was revised in 1968 to make the American system as similar as possible to the *International Classification of Diseases* (ICD; World Health Organization 1967), leading to DSM-II. DSM-III, published in 1980, represented a major revision, since it attempted to base changes on empirical research data and introduced diagnostic criteria. DSM-III has been influential worldwide; it typically provides the nomenclature for international scientific research, since it has introduced objectivity and precision to the diagnostic process through the development of diagnostic criteria. Relatively minor changes were made in its subsequent (1987) revision, DSM-III-R. A more comprehensive review, again based on scrutiny of empirical research data whenever possible, and also attempting to harmonize as well as possible with ICD-10, will appear as DSM-IV in 1992 or 1993.

Thus, the postwar American approach to nosology incorporates a number of characteristics that also shape the American concept of schizophrenia: regular and periodic review that has often led to modification and change in response to new knowledge, a central national system that seeks to achieve uniformity and consistency, the development with DSM-III of an emphasis on objectivity and precision, a system designed to serve both clinicians and researchers, and a conviction that judgments about nosology should be based on empirical research data whenever possible.

Before World War II, the concept of schizophrenia was relatively narrow. The major responsibility for the care of the seriously mentally ill was in the hands of hospital psychiatrists. Their orientation was largely Germanic, influenced at least partially by the Munich school of Kraepelin (1919, 1921), the group that first developed the concept of schizophrenia by delimiting it from manic-depressive psychosis. This construct of schizophrenia stressed that it was a severe chronic psychotic illness leading to deterioration. The concept of schizophrenia that evolved after World War II and was embodied in DSM-I and DSM-II was heavily influenced by the thinking of Eugen Bleuler. An English translation of his book, *Dementia Praecox or the Group of Schizophrenias*, appeared in 1950 and was widely read.

Bleuler took a much broader view of schizophrenia than Kraepelin. Consequently, the American concept began to broaden. The interest in Bleulerian thinking coincided with another important development in American psychiatry, the growing interest in psychoanalysis and psychodynamic thinking that occurred after World War II. As a consequence, the province of psychiatry in general broadened, as psychiatrists began to treat more and more outpatients and to try to assist patients with relatively milder conditions ranging from neuroses to problems in daily living. Psychodynamic thinking was applied to psychosis as well, as psychiatrists attempted to interpret the bizarre “primary process thinking” that they saw in psychotic patients. The boundaries of schizophrenia expanded to include Bleuler’s nonpsychotic simple schizophrenia, Kasanin’s (1933) schizoaffective disorder, Hoch and Polatin’s (1949) pseudoneurotic schizophrenia, good-prognosis schizophrenia, and even latent schizophrenia (Langfeldt 1956; Vaillant 1962, 1964; Stephens et al. 1966; McCabe 1976; Stephens 1978). Because Bleuler had emphasized that psychotic symptoms such as delusions and hallucinations were not “fundamental,” but rather simply “accessory,” nonpsychotic symptoms became the defining features of schizophrenia: Bleuler’s “four As” (associative loosening, affective blunting, ambivalence, and autism) were more or less consistently agreed on as hallmarks of schizophrenia. Since most of these symptoms are on a continuum with normality, it was easy for at least some clinicians to see “a touch of schizophrenia” in many of their patients.

**The Influence of Research**

While the majority of American psychiatrists were exploring psychodynamic thinking in the 1950’s and 1960’s, however, other perspectives were also beginning to emerge. British psychiatry, rooted in national philosophical traditions of empiricism as well as Germanic phenomenology, began to stress the importance of defining symptoms and disorders as objectively as possible. A spate of articles were written stressing the poor reliability of psychiatric diagnoses (Kreitman et al. 1961; Beck et al. 1962; Sandifer et al. 1964, 1968). These criticisms were obviously sound and had to be taken seriously.

An interest in determining the nature, severity, and outcome of schizophrenia in a worldwide setting led to the development of the International Pilot Study of Schizo-
phasis on psychotic symptoms went hand in hand, since psychotic symp-
toms have an “all or none” quality and are relatively easily delimited
from normality.

The cross-national studies had a second impact as well. As the data
comparing diagnostic practices around the world became available,
it was clear that the United States (and the Soviet Union as well) were
employing concepts of schizophrenia somewhat different from those
prevailing elsewhere in the world. Specifically, their concepts were
broader (Kendell et al. 1971; Cooper et al. 1972; Wing et al. 1974; Kazanetz
1979). The recognition that the American concept of schizophrenia
was probably too broad, and certainly out of step with the rest of
the world, led to a reappraisal of its boundaries, summarized in a series
of articles deriving originally from the Washington University group
and presenting the first relatively narrow set of diagnostic criteria to
be written for schizophrenia (Robins and Guze 1970; Feighner et al. 1972).

These developments in basic neuroscience were coupled with
clinical observations of how the drugs acted in different groups of
patients. As lithium and antidepres-
sants became available, they were
used on “treatment-refractory
schizophrenic” patients who had not
responded well to neuroleptic
medications. Clinicians observed
that these “schizophrenic” patients
responded to medications designed
for affective illness, eventually
leading to a recognition that these
patients were probably originally
misdiagnosed and, in fact, represented forms of affective illness
rather than schizophrenia. The
implications of these clinical observa-
tions are obvious: the evidence from

The Influence of Clinical
Experience

In addition to these various forces
arising from the research communi-
ty, a set of forces began to grow
from clinical experience as well, also
converging toward the conclusion
that the American concept of
schizophrenia must be narrowed.
The introduction of neuroleptic
drugs, and later tricyclic antidepres-
sants and lithium carbonate, has
had a major impact on American	nosology. Once drugs that ameli-
orated or reduced prominent and
debilitating symptoms of schizo-
phrenia, mania, or depression
became available, hypotheses were
formulated about the underlying
neurochemical abnormalities in the
brain that might produce these conditions. Medications were seen as
a means of developing a “pharmaco-
logical dissection” of the boundaries
between disorders. The dopamine
hypothesis of schizophrenia was
developed, and the related
noradrenergic hypothesis followed
shortly, both relying heavily on the
differential mechanisms by which
specific medications affect the proc-
ess of neural transmission (Carlsson
et al. 1963; Schildkraut 1965;
Creese et al. 1976; Seeman et al.
1976).

These developments in basic
neuroscience were coupled with
c cross-national research such
phrenia (IPSS; Wing et al. 1974) and
and the United States-United Kingdom
study (Kendell et al. 1971). Multi-
center collaborative research can be
very useful for increasing sample
sizes and enhancing diversity of
perspective, but when well done, it
also necessitates the design of stan-
dardized assessment instruments.
The IPSS led, as one of its major
spinoffs, to the development of the
Present State Examination (PSE) and
to a computerized system for mak-
ing diagnoses (CATEGO) (Hare and
Wing 1970; Wing et al. 1974; Wing
and Nixon 1975). For the first time,
standard descriptions of symptoms
and definitions of disorders were
available internationally.

The content and emphasis of the
PSE, developed largely by John
Wing and others at the Maudsley
Hospital in London, placed strong
emphasis on the importance of an
alternative to the Bleulerian ap-
proach: the first rank symptoms of
Kurt Schneider (Schneider 1959;
Whereas Bleuler deemphasized
positive or psychotic symptoms in
favor of his fundamental symptoms,
Kurt Schneider argued that the
pathognomonic symptoms of
schizophrenia were in fact the very
delusions and hallucinations that
Bleuler considered accessory.
Schneiderian first rank symptoms
are particular types of delusions and
hallucinations that Schneider believ-
ed to occur only in patients suffering
from schizophrenia.

Thus, cross-national research such
as the IPSS and the U.S.-U.K. study
led to the development of structured
interviews, standardized approaches
to diagnosis, and a reemphasis on
the importance of psychotic symp-
toms as the characteristic defining
features of schizophrenia. The con-
cern about reliability and the em-
the U.S.-U.K. study and the IPSS that American psychiatrists were overdiagnosing schizophrenia now began to receive clinical and research support and to suggest that the overdiagnosis of schizophrenia might be doing a disservice to the patients. In addition, it became steadily clearer that neuroleptics often were not efficacious for affective illness, especially depression, and sometimes worsened it. Clinicians began to realize that there was a serious risk involved in misdiagnosing an affectively ill patient as having schizophrenia, because he might be doomed to long-term treatment on medications that not only would not reduce his affective symptoms, but would add on a variety of extrapyramidal symptoms that could mimic many of the symptoms of schizophrenia such as affective blunting. As the risks for tardive dyskinesia were recognized, still greater support was added to the notion that neuroleptic medications should be used carefully and selectively, targeted primarily to patients with a relatively narrowly defined form of schizophrenia, and not used for illnesses that lacked florid psychotic symptoms such as delusions or hallucinations.

Development of the DSM-III Concept of Schizophrenia

Thus, by the early to mid-1970's, in the United States there was a growing body of evidence both from research and from clinical experience indicating that the diagnosis of schizophrenia should be defined narrowly and used conservatively. The research evidence, based on the various cross-national studies and the emphasis on identifying highly predictive symptoms that could be defined reliably, led to a reemphasis of the importance of florid psychotic or positive symptoms in formulating such definitions, since these symptoms clearly could be defined reliably. The clinical evidence indicated that psychiatrists must be very sensitive to discriminating various forms of psychosis, must exercise considerable care in deciding to treat with neuroleptics versus lithium or antidepressants, and should err on the side of conservatism and treat for affective illness whenever in doubt. This approach would ensure that whenever the differential diagnosis was difficult, the patient would be assigned to a “good prognosis” category, from which he could be removed relatively easily if the prediction were wrong, and would avoid the alternative approach of erroneously assigning him to a poor prognosis category, which would create a self-fulfilling prophecy of bad outcome with no opportunity to produce disconfirmation through treatment since the neuroleptics would not improve depressive symptoms and instead would exacerbate them and even create the clinical appearance of schizophrenia.

The task force to develop DSM-III was appointed in 1972 and developed its formulation of criteria for schizophrenia in the light of this clinical and research evidence. The definition of schizophrenia did not change substantially between DSM-III and DSM-III-R, and the DSM-III-R definition therefore can easily be used to illustrate the principles embodied in the DSM-III definition.

A simplified summary of the DSM-III-R criteria appears in table 1. The first criterion lists the characteristic symptoms of the disorder. As the schematic summary indicates, prominent weight is given to florid psychotic or positive symptoms, such as delusions, hallucinations, or positive formal thought disorder. Among the Bleulerian or negative symptoms, only affective flattening is included, and negative symptoms alone are not sufficient to make a diagnosis of schizophrenia. Schneiderian symptoms are given some prominence, but are not made the preeminent features used to define the disorder. The second criterion introduces the Kraepelienian notion that the patient should show some deterioration in functioning. A third criterion excludes patients who have a full affective syndrome from the diagnosis of schizophrenia. With this criterion, all patients previously called schizoaffective have been removed from the category, as have manic and depressive patients with prominent psychotic features even when they are not congruent with mood. This effectively removes a substantial number of patients previously called “good prognosis” schizophrenia. The fourth criterion further narrows the category by requiring chronicity. Brief psychotic episodes are excluded by the requirement that some features of the illness must be present for at least 6 months. The final criterion excludes patients who have some type of “organic” factor that could initiate or maintain the disorder, such as the intake of drugs that precipitate psychotic symptoms (e.g., LSD or amphetamines) or the occurrence of some focal lesion such as a tumor.

The conceptual core of the American concept of schizophrenia is summarized in table 2: requirements of psychotic features, established chronicity, and evidence of deterioration, coupled with the exclusion of affective and “organic” features. This definition is relatively
Table 1. DSM-III-R criteria for schizophrenia—Simplified summary

A. Characteristic symptoms

At least two:
1. Delusions of any type
2. Hallucinations of any type
3. Disorganized speech
4. Catatonic behavior
5. Affective flattening or inappropriateness

Or one of the following:
1. Bizarre delusions (e.g., Schneiderian)
2. Nonaffective auditory hallucinations or Schneiderian hallucinations (voices commenting or conversing)

B. Deterioration in functioning

C. Affective disorder excluded

D. Duration of at least 6 months (including both florid and prodromal symptoms)

E. "Organic" factors excluded (e.g., substance abuse) that could initiate or maintain the disorder

"Boundary Disorders" of Schizophrenia

Since the DSM-III and DSM-III-R definition of schizophrenia changed the concept by resetting boundaries, it is useful to reexamine and evaluate the relationship of the disorders not included in this core concept of schizophrenia. These fall into two broad categories: psychotic disorders on the boundary with schizophrenia, and nonpsychotic disorders on the boundary with schizophrenia.

Psychotic "Boundary Disorders."
The psychotic disorders that are on the boundary with schizophrenia are summarized in table 3. They include four disorders that share many phenomenological characteristics with schizophrenia and therefore are considered relatively closely related to it. Schizophreniform disorder is defined by precisely the same symptomatology as schizophrenia and differs from it only in having a briefer duration. Delusional or paranoid disorder is differentiated from schizophrenia by having an absence of a deteriorating course; the delusions may be similar in content but cannot be bizarre. The symptomatic criteria for brief reactive psychosis are somewhat different, but in addition, the necessity for identifiable precipitating factors is specified, and the duration is relatively brief (i.e., < 2 weeks).

Schizoaffective disorder shares the defining symptomatic features of schizophrenia with the defining symptomatic features of affective disorder, but is defined longitudinally; in DSM-III-R, schizoaffective disorder is considered to be present in those cases when psychotic symptoms persist after affective symptoms have cleared.

Schizoaffective disorder is one of the most controversial among the diagnoses included in DSM-III and DSM-III-R. In the American nomenclature a variety of alternate definitions are also used, especially for research. The Research Diagnostic Criteria (RDC; Spitzer et al. 1978), for example, define schizoaffective disorder purely cross-sectionally and

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Table 2. Conceptual core of schizophrenia

Psychotic features invariably present
Established chronicity
Evidence of deterioration
Affective features excluded
"Organic" features excluded
Table 3. "Boundary disorders" of schizophrenia: Psychotic disorders

**Other psychoses related to schizophrenia:**
- Schizophreniform disorder (same definition, duration <6 months)
- Delusional (paranoid) disorder (no deterioration)
- Brief reactive psychosis (precipitating factors, brief duration)
- Schizoaffective disorder (persistence of psychotic symptoms without affective ones)

**Other psychoses related to affective disorder:**
- Mood incongruent psychotic mania or depression
- Mood congruent psychotic mania or depression

For the historical reasons described above, the American concept of schizophrenia has held apart psychotic illnesses with prominent affective features and classified many of them under the major heading of affective illness. Clinicians all over the world have, of course, recognized for many years that affective disorders are often characterized by prominent psychotic symptoms. Indeed, this was the reason that Bleuler considered psychotic symptoms to be "accessory" and not in any sense specific to or pathognomonic of schizophrenia. Nevertheless, clinicians have also believed that some types of psychotic symptoms are more likely to be associated with schizophrenia than affective illness. Schneiderian first rank symptoms represent an attempt to identify such psychotic symptoms, a point of view that was very influential in developing the PSE and therefore could not be considered pathognomonic of schizophrenia (Taylor 1972; Carpenter et al. 1973; Abrams et al. 1974; Taylor and Abrams 1975; Pope and Lipinski 1978). These studies had a major impact on the DSM-III definitions and categories, leading eventually to the development of a subcategorization of psychotic mania and depression into those with mood congruent psychotic features and those with mood incongruent psychotic features. Mood incongruent psychotic features are characterized by themes consistent with an abnormality in mood, such as delusions of high position in mania. Incongruent features include Schneiderian symptoms as well as others that are clearly mood incongruent, such as delusions of morbid bodily dysfunction in patients with mania. This broadening of affective illness with mood incongruent symptoms to include severe psychotic illness was decided upon partly for the reasons of clinical utility described above, partly because of the recognition that pathognomonic phenomenology could not be identified, and partly because of studies indicating good treatment response and outcome in cases of severe psychotic mania and depression. It is a relatively arbitrary distinction involving a difficult clinical boundary, and one that will be subjected to continual scrutiny and review, as is currently being done in the development of DSM-IV.

Nonpsychotic "Boundary Disorders." In addition to "boundary disorders" that share psychotic features with schizophrenia, there is another group of "boundary disorders" that are nonpsychotic. These are summarized in table 4. Just as the concept of schizophrenia was
narrowed in *DSM-III* by removing those disorders with prominent affective features and placing them under the affective heading, it was further narrowed by removing nonpsychotic disorders and placing them under the heading of personality disorders. Simple schizophrenia, a nonpsychotic form of schizophrenia characterized by prominent negative symptoms, was removed altogether because little evidence appeared to support either its validity or clinical utility. Pseudoneurotic schizophrenia and latent schizophrenia met the same fate, and for the same reasons. Other spectrum disorders were retained, although typically with new names or definitions, reflecting the evolution in research concepts that had occurred during the 1970's. Schizotypal, paranoid, and schizoid personality disorders are potentially within the overall spectrum of schizophrenia and its related disorders, while borderline, cyclothymic, and dysthymic personalities are considered to be conceptually related to affective illness.

It is important to review the evolution in thinking behind these divisions, because the literature of the 1950's and 1960's tends to blur and mix together these various spectrum conditions, often using interchangeably terms such as schizotypal, schizoid, borderline, latent, or pseudoneurotic. Adding to the confusion is the fact that the very research literature that was used to split schizotypal and borderline disorders apart from schizophrenia, and ultimately to see schizotypal disorder as related to schizophrenia and borderline disorder to affective illness, itself uses the terms interchangeably at times (Kety et al. 1971; Rosenthal et al. 1971).

The history of the existing American definitions of borderline and schizotypal personality disorders has been summarized by Spitzer et al. (1979). Briefly, the items used to define schizotypal personality were developed in consultation with Kety, Rosenthal, and Wender, who had used these terms in their landmark adoption and family studies (1971). These investigators provided the DSM group with the list of cues that they had used in order to identify those cases whom they referred to in their adoption studies as borderline schizophrenia. These were subjected to a variety of statistical analyses, as well as a comprehensive review of 36 family study records diagnosed as borderline schizophrenia, leading eventually to the identification of 17 items thought to be potentially useful in identifying this concept. In an independent process, the defining features for borderline personality (at that time referred to as unstable personality) were gleaned through the psychoanalytic literature, particularly emphasizing the work of Kernberg (1967), Grinker et al. (1968), Gunderson and Singer (1975), and Stone (1978). This yielded a group of nine items. After these item sets were identified, the total of 22 items were mixed and submitted to practicing American psychiatrists, who were asked to relate these items to patients whom they knew clinically and who had a diagnosis of either borderline personality, borderline personality organization, or borderline schizophrenia. The resulting 808 questionnaires were subjected to factor analysis and discriminant function analysis to identify which were most useful in categorizing patients as having borderline schizophrenia versus the unstable or borderline personality condition. The items useful in this differentiation are summarized in tables 5 and 6. The number of items required to diagnose either of these two disorders as present or absent was also determined, using different cutoff thresholds and analyzing the sensitivity and specificity. Cutoff thresholds in the 4–5 range produced sensitivity and specificity estimates in the 80–90 percent range.

This work provided relatively strong support for the notion that the concept of “borderline” was not unitary but rather represented two different subgroups of patients with nonpsychotic personality syndromes. Ultimately, the term “unstable” was dropped to refer to one subtype, and the term “borderline” substituted instead. Thus, the two major constructs were designated as schizotypal and as borderline. The schizotypal group has many characteristics that align it phenomenologically to the concept of schizophrenia, such as abnormalities in affect, odd behavior, or odd communication. Essentially, the concept of schizotypal personality represents a disorder characterized by many negative symptoms.

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**Table 4. "Boundary disorders" of schizophrenia: Nonpsychotic disorders**

<table>
<thead>
<tr>
<th>Schizophrenia &quot;spectrum&quot; disorders</th>
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<tr>
<td>Schizophreniform personality</td>
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<tr>
<td>Paranoid personality</td>
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<td>Schizoid personality</td>
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<table>
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<th>Affective &quot;spectrum&quot; disorders</th>
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<tr>
<td>Borderline personality</td>
</tr>
<tr>
<td>Cyclothymic disorder</td>
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<td>Dysthymic disorder</td>
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</table>
Table 5. DSM-III-R symptoms of schizotypal personality

At least 5:
Ideas of reference
Excessive social anxiety
Odd beliefs or magical thinking
Unusual perceptual experiences
Odd or eccentric behavior or appearance
Asociality
Odd speech
Inappropriate or constricted affect
Suspiciousness or paranoid ideation

Table 6. DSM-III-R symptoms of borderline personality

At least 5:
Unstable and intense interpersonal relationships
Impulsiveness
Affective instability
Inappropriate, intense, or uncontrolled anger
Recurrent suicidal threats, gestures, or behavior
Marked and persistent identity disturbance
Chronic feelings of emptiness and boredom
Frantic efforts to avoid real or imagined abandonment

Table 7. Treatment implications

Psychotic disorders
Schizophrenia
Hospitalization, neuroleptics
Affective disorders
Hospitalization, lithium, tegretol, antidepressants
Nonpsychotic disorders
Nonpsychotic schizophrenia spectrum disorder
Outpatient psychotherapy for difficult cases
Medications rarely used
Many never seen psychiatrically
Nonpsychotic affective spectrum disorders
Outpatient psychotherapy for difficult cases
Medications rarely used
Some subclinical cases

Subsequent work exploring the validity of these disorders has supported both their discreteness from one another and their differential relationship to core schizophrenia and affective disorders. Family and genetic studies have been particularly useful in this regard (Akiskal 1981; Akiskal et al. 1978, 1985). In accordance with the original adoption literature, subsequent family studies have indicated that features of schizotypal disorder are relatively more common among first-degree relatives suffering from schizophrenia than patients from affective illness or some other conditions (Siever and Gunderson 1979; Kendler et al. 1981, 1984; Baron et al. 1983; Torgersen 1984, 1985). The relationship of borderline personality to affective disorder is similarly closely linked familiarly and perhaps genetically (Stone 1979).

Treatment Implications. Within American nosology, these distinctions between the psychotic and nonpsychotic disorders, between schizophrenia and affective disorders, and between nonpsychotic schizophrenia spectrum and affective spectrum disorders are considered to be important because they have major treatment implications. In an oversimplified and schematic way, these treatment implications are summarized in table 7.

Schizophrenia and the psychotic forms of affective illness are both considered to be serious conditions and typically to require hospitalization. Within the hospital, however, the mode of treatment differs. Neuroleptic drugs are the first-line treatment for schizophrenia, while lithium, tegretol, and antidepressants are first-line treatments for affective illness. Neuroleptics are used as needed for psychiatric affective

coupled with mild "positive-like" symptoms that do not reach full psychotic intensity, such as odd perceptions or odd speech. Borderline personality, on the other hand, has many features in common with affective illness, such as affective instability, feelings of emptiness and loneliness, and suicide attempts.
illness, particularly in psychotic mania, but attempts are made to use them as parsimoniously as possible, for the shortest time intervals, and only if florid psychotic symptoms are severe and persistent.

The nonpsychotic disorders, on the other hand, are typically treated on an outpatient basis, and medications are rarely used. Many patients with these conditions, in fact, are absorbed within society, viewed as representing mild eccentricities, and not seen within the health care system. This is especially true of patients with the nonpsychotic schizophrenia spectrum conditions, particularly schizoid personality. Borderline personality, on the other hand, which is the most commonly diagnosed among the affective spectrum conditions, is characterized by sufficient interpersonal and affective instability that treatment is often required. In this instance, however, outpatient psychotherapy is the preferred treatment, and medications are also rarely used. These patients are considered to be quite difficult to manage, and to require relatively intensive psychotherapy.

Relationship Between American and Soviet Nosology

Few, if any, Americans can speak with expertise on the Soviet approach to the diagnosis of schizophrenia and related conditions. The Soviet concepts of schizophrenia are summarized in the corresponding article in this issue by Smulevitch (1989). Nevertheless, some tentative comparisons and contrasts, based on existing descriptions in English, are useful in understanding the similarities and differences between the two national systems, each of which exists within the general framework of the ICD but has its own national characteristics. The discussion that follows depends heavily on the description of the Soviet approaches developed by Holland and Shakhmatova-Pavlova, which appeared in 1977.

The Soviet approach to classification relies on the work of Snezhnevsky (1968). Schizophrenia is considered to be a lifelong illness and to be genetically based, at least to some degree. Although the course may sometimes involve exacerbations and remissions, even during periods of remission the disease is considered to be present in subclinical form. Three major subtypes are recognized: continuous, shiftlike, and periodic.

The continuous form is characterized by an unremitting downward course of deterioration. Within the continuous form, different types are recognized which are based on the rate of progression. The malignant form is characterized by relatively severe positive symptoms and a rapid rate of deterioration. The moderate form shows somewhat less severe symptoms, such as delusional thinking, and resembles the American or Kraepelinian concept of paranoid schizophrenia. The mild or sluggish form is a subpsychotic form in which personality changes are prominent. These may include hysterical symptoms, grandiosity, hypochondriacal symptoms, depersonalization, and ideas of reference.

The periodic form of schizophrenia is at the opposite extreme from the continuous form. Patients with this type of schizophrenia have attacks of psychosis which are often characterized by affective symptoms, but they function normally between attacks with a full restitutio ad integrum; thus, this form of schizophrenia is considered to be without progression.

The shiftlike form of schizophrenia is intermediate between continuous and periodic forms. Patients are considered to have some indices of poor premorbid functioning before the onset of the full-blown attack. The shiftlike forms of schizophrenia are subdivided into severe, moderate, and mild. The severe forms have discrete periods of psychosis with some detectable symptoms, such as delusions, occurring even during periods of remission, and there is a steady tendency to develop emotional defect states as well. The moderate form is also characterized by periods of psychosis; affective symptoms may be quite prominent, and some mild residual symptoms tend to remain present between attacks. The mild form is characterized by similar persecutory ideation and affective symptoms during an attack, with relatively mild symptoms between attacks, such as pseudoneurotic symptoms (obsessions, hypochondriasis, or depersonalization).

The Soviet concept of schizophrenia is clearly considerably broader than the American one. The two major features that differentiate the American concept from the Soviet one are the requirement of psychotic symptoms and the exclusion of patients with prominent affective features. The relationship between the two systems, using the current American nosology, is shown schematically in table 8. The moderate and malignant forms of continuous schizophrenia appear to be nearly identical to the American concept of core schizophrenia, but sluggish schizophrenia more closely resembles disorders that the American system places within either the schizophrenia spectrum or affective spectrum: schizotypal personality disorder or borderline personality disorder. The severe
Table 8. Comparison of the American and Soviet approaches to classification

<table>
<thead>
<tr>
<th>Schizophrenia and related psychoses</th>
<th>Schizophrenia spectrum</th>
<th>Affective psychosis</th>
<th>Affective spectrum</th>
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<tbody>
<tr>
<td><strong>Continuous</strong></td>
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<td>Malignant</td>
<td>S</td>
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<td>Moderate</td>
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<tr>
<td>Sluggish</td>
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<td>ST</td>
<td>B</td>
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<td><strong>Shiftlike</strong></td>
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<tr>
<td>Severe</td>
<td>S</td>
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<tr>
<td>Moderate</td>
<td>S</td>
<td>PAD</td>
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<td>Mild</td>
<td>S</td>
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<td>B</td>
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<tr>
<td><strong>Periodic</strong></td>
<td>SPH, BRP</td>
<td>PAD</td>
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</table>

Note.—S = schizophrenia, SPH = schizophreniform, BRP = brief reactive psychosis, ST = schizotypal, PAD = psychotic affective disorder, B = borderline.

Form of shiftlike schizophrenia is also identical to American schizophrenia, but the moderate form may include some patients with psychotic affective illnesses, and the mild form would almost certainly include some patients with psychotic affective illness and possibly some borderline patients as well. Given the fact that the DSM approach to schizophrenia requires evidence of deterioration, while the periodic forms of schizophrenia in the Soviet Union permit a *restitutio ad integrum*, the periodic forms are quite different from American schizophrenia. The majority of cases diagnosed as having periodic schizophrenia in the Soviet Union would probably be diagnosed as having schizophreniform disorder, brief reactive psychosis, or psychotic affective disorders in the United States.

In spite of their differences, the American and Soviet approaches to nosology have many things in common. Both countries perceive schizophrenia to be a major mental health problem that should be a primary focus of interest for research psychiatrists and clinicians. Both stress the importance of observing not only cross-sectional phenomenology, but also the long-term course of the illness and its effects on personality. Both recognize that schizophrenia has a genetic component and that ultimately this disease must be understood and defined through its pathophysiological mechanisms. Soviet psychiatry is buttressed by the great behavioral conditioning tradition of Pavlov (1941) and the great neurobehavioral tradition of Luria (1932), both of which represent perspectives on the study of psychopathology to which many American psychiatrists are sympathetic. Psychiatrists whose interests focus on schizophrenia are particularly appreciative of the careful clinical and descriptive work of Luria, with its emphasis on understanding clinical phenomena through neural localization. Thus, a positive foundation exists for improved communication and research exchange between the countries.

Future Directions in American Diagnostic Thinking

As the earlier review indicates, American diagnostic thinking is not static. It is steadily evolving as our knowledge about mental illnesses grows. American diagnostic thinking is currently undergoing a systematic reappraisal as a new task force and specialized work groups prepare a comprehensive revision of the American diagnostic system, which will ultimately be embodied in *DSM-IV*. Every effort is being made to place decisionmaking concerning revisions in the hands of work groups, which are composed of five individuals with recognized clinical and research expertise in the specific categories under their domain.

The schizophrenia work group has identified a number of issues that need continued scrutiny and evaluation, so that the category of schizophrenia and its related conditions can be revised in ways that are as constructive as possible. The schizophrenia work group, like all other DSM work groups, will shape its revisions under the constraints of several major sets of guidelines. First and foremost, any revisions that are made must be based on sound research evidence, insofar as this is possible; the major validators for diagnostic categories are agreed to be prognosis, treatment response, genetic and family studies, and neurobiological measures that may
assist in the identification of the pathophysiology and etiology of disorders. A second major guideline is the importance of working closely with the World Health Organization on the simultaneous development of DSM-IV and ICD-10, with the goal that American and international systems will be as similar as possible, so that international communication and research can be facilitated.

Many of the areas currently under study by the schizophrenia work group emphasize exploring the boundaries of schizophrenia in relation to other disorders. Within the psychotic conditions, the boundaries with affective disorder are under examination, with emphasis on the definition and relationship of schizoaffective disorder and mood incongruent affective disorder. Among the nonpsychotic conditions, the placement of schizotypal disorder in particular is under examination, and the possibility is being explored as to whether it should be classified within schizophrenia and related conditions or should remain on Axis II with the personality disorders.

The defining features of schizophrenia are a second major area of investigation. The 6-month duration criterion, instituted to define schizophrenia first by the St. Louis group in 1972 (Feighner et al. 1972) and later by DSM-III in 1980, is currently being reexamined, largely because ICD-10 requires only 1 month of symptoms. Also under review are the defining symptoms of schizophrenia. Given the resurgence of interest in negative symptoms in the 1980’s, many investigators are wondering whether greater emphasis should be placed on these symptoms as important characteristic and defining features of schizophrenia. A corollary concern is the diagnosis of simple schizophrenia, since it has historically been defined as a nonpsychotic form of schizophrenia characterized by prominent negative symptoms; this subtype is present in ICD-10, has historical importance, and cannot be studied in any adequate way in research if the category is excluded from the nomenclature.

A final issue under review is the overall approach to subtyping, with an ongoing reevaluation of the usefulness of the traditional Kraepelinian subtypes (i.e., hebephrenic, catatonic, paranoid, and undifferentiated) and a systematic exploration for other approaches that may have greater predictive validity. The process of reevaluating these issues and designing DSM-IV has only just begun. Definitive resolution can only occur after systematic reappraisal of the existing literature.

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References


Spitzer, R.L.; Endicott, J.; and Gibson, M. Crossing the border into borderline personality and borderline schizophrenia. Archives of General Psychiatry, 36:17–24, 1979.


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