Closing Comments

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Closing comments, by the very nature of their temporal placement, are intended not to summarize the rich harvest of the symposium but to pick off the most luscious fruit and display them for their brilliance and excellence.

I wish I had been worthy of such a task. Unfortunately it would have taken a renaissance man to accomplish it. Instead, I have undertaken a more modest if perhaps more imaginative task. I have asked my colleagues to climb down from the shoulders of the giants on which we have stood during the last 3 days. The trouble with sitting on their shoulders is that you can’t see them or speak to them. We need to look them straight in the eye and inquire what they thought of our attempts to pursue the causes of schizophrenia into the lair of the still unknown. It is a risky business on this hallowed ground, but it may provide an opportunity to observe what progress we have made through the eyes of the founders of the schizophrenia syndrome. I would thus like to present an interview with each of our three giants.

Interviewer: Emil Kraepelin, you have sat through our sessions, burdened with the weight of our considerations. Was there anything that you could be happy about?

Emil: Well, I am very happy about the progress you report on the revival and standardization of diagnosis of schizophrenia. We now have at least a reliable system if not yet a valid one. I wonder, however, why you call the method neo-Kraepelinian. It seems to me that after some wandering and loosening of the diagnostic schema following the efforts of Eugen Bleuler to assimilate psychoanalysis into the diagnostic fold, you have returned to the original Kraepelin system.

Interviewer: Do you approve of the more rigorous limitations on the diagnosis?

Emil: Well, I do, but I am somewhat perplexed by the extreme rigor you have applied. I am afraid this rigor may lead to rigor mortis for schizophrenia, since even I found that some 13% of my patients recovered, something which your definitions do not allow for.

Interviewer: Why did you generally lean in the direction of a dire outcome even though your own data were somewhat benign in outcome?

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Emil: I always had the suspicion that those who improved were not really "echte" schizophrenics. Besides, as some of you have pointed out, I dealt probably with a biased sample of only very severe long-term cases for the most part, since the milder cases that my good friend Eugen's son, Manfred, dealt with either never came to me or did not leave a deep impression on me because of their disappearance from my clinic. Besides, I may have been unconsciously (to borrow a Freudian term) influenced by the powerful folk belief in the Degeneration Theory, which, though I disavowed it, may have led me to believe in the deteriorating quality in the families of schizophrenics. This persistent zeitgeist in the folk lore may be responsible for the fear which schizophrenia still arouses in family members of a patient.

Interviewer: What about the report on the state of the dopamine hypothesis and the discovery of the role of brain anatomy?

Emil: I had for a long time looked for the toxin of schizophrenia which I thought should be found in somewhat the same way that the spirochete of syphilis was found for general paresis. I had almost given up hope of finding it and was gladdened to hear of the dopamine hypothesis status reported here as well as the anatomical findings and the infectious viral hypothesis. It makes me feel that regarding schizophrenia as a disease may have some validity, and that my attempts to induce psychosis-like states by chemical means may have been on the right track.

Interviewer: In one of your papers you intimated that we could probably find, in groups of normal persons, individuals who would be at the extreme ends of the distribution on psychological tests and that these individuals might be at high risk of, or vulnerable to, schizophrenia. This idea has been followed up by the biometric approach to psychopathology and has led to the development of the "marker" movement for identifying vulnerability to schizophrenia. What led you to consider the importance of psychological tests as vulnerability markers?

Emil: Well, as I have indicated in my Lebenseininnerungen (my autobiography, which is soon to appear in English translation) I was a devoted disciple of Wilhelm Wundt, the founder of modern experimental psychology, and my original career ambition was to follow in his footsteps. One day Wundt noticed that I was wearing a new ring on my finger and inquired "Bist du verlobt?" I admitted that I was in love and was planning to get married. He looked at me with some astonishment and said "You know, Emil, I cannot guarantee you a chair as Professor of Philosophy, and I wonder whether you are not undertaking new responsibilities which you may find difficult to carry out." Well, after this warning I felt compelled to accept a post in the clinic when the next offer came. Thus not logic, but love, as it should, made the career decision for me. I, of course, carried into the clinic the experimental methods I learned from my master, Wundt, but I often muse as to what might have happened if I remained a psychologist? Perhaps we would have been further ahead with your markers and laboratory experiments, but what would have happened to diagnosis? Without improved diagnosis we could not have made much headway.

Interviewer: What do you think of the WHO cross-cultural studies?
Emil: I had tried to do cross-cultural comparisons myself, as you will remember during my visit to the East Indies. That is why I am very happy to see the tremendous effort in the cross-cultural direction. I still believe that schizophrenia defies cultural boundaries, but whether it has a constant incidence of 0.1% may be debatable.

Interviewer: Why does it take so long to make progress in the field of schizophrenia?

Emil: Well, it may be the case that we “knew” more in the early part of this century than we “know” now. In the USA I once heard someone say “It ain’t ignorance that causes all the trouble. It’s knowing things that ain’t so!” Perhaps we had to unlearn the false knowledge before we could advance to the new, cut down the underbrush before the new plants could thrive.

Interviewer: Thank you Emil, for sharing your thought with us. Now we shall turn to your colleague Karl Jaspers. Karl, how did you come to write such a wonderful book on general psychopathology when you had so little personal experience with mental patients?

Karl: Well, one day, my Director, Franz Nissl, informed me that Springer-Verlag had asked him to write a new Textbook and asked me whether I would be willing to undertake it. I agreed, and began to delve into the case histories of patients in the clinic. These records were rich in the exact description of psychopathology and provided me with the individual case material on which the phenomenology of psychopathology was based.

Interviewer: How do you feel about the impact that the book has had?

Karl: I had never thought that the book would have such an impact in Europe, but apparently it did not have a great impact in the USA until very recently.

Interviewer: Yes, its translation into English came much later than its original appearance. However, it has been screened for its content in the making of the systematic interviews such as the PSE, the SADS, and the other instruments now in vogue.

Karl: I am surprised to hear you say that, because as I see these interviews, they can hardly reveal the rich phenomenology which patients experience.

Interviewer: You are quite right. Some of these interviews, and the diagnoses they yield, do not reflect the rich inner life of the patient; they are also influenced by factors other than those which would lead to truth and scientific value. Some of the questions and their assessment are dictated not by science and truth, but by political and market-place considerations such as the use of diagnoses for third-party insurance payments and other economic and social considerations. Even those who were the originators of these interviews and diagnostic schemas feel like the Zauberlehrling who cannot stop the flood of new techniques that are threatening to engulf diagnosis. We must return to reading your phenomenology and record what we observe in patients in addition to going through the motions of formal diagnoses needed for economic record keeping.
Karl: I have looked through axis II in DSM-III dealing with personality disorders. These classifications do not seem to relate to my own assessment of personality disorders.

Interviewer: No, they do not, and it is quite apparent that they fail to present a basic rationale for making the distinction needed to separate functional disorders like schizophrenia and depression from functional personality disorders. The former are essentially states, waxing and waning with the episode, while the latter are traits, more or less personality characteristics, which remain relatively permanent though they can undergo exacerbation or diminution in intensity. You are known for your clinical and phenomenological contributions. Do you find any use for the biometric approach to psychopathology?

Karl: Why yes, very often. I have indicated in my book that “The biometric methods give us more than figures and correlations. They foster clarity in all fields in which biometric variations can be established. Moreover, through the application of these methods we have concrete experiences which we would never have had without them…”

Interviewer: Thank you, Karl, for your willingness to share your opinions. We shall now turn to Kurt Schneider. Kurt, how do you feel about the way your first-rank symptoms were dealt with by the symposium.

Kurt: I was surprised to note that they did not turn out to be as specific to schizophrenia as I had hoped, and that they seemed to be unrelated to heredity, but I am encouraged to see that the WHO study seems to suggest that the first-rank symptoms could be viewed as measures of severity.

I have heard several references to vulnerability theory. Can you explain these new trends in the field of schizophrenia?

Interviewer: The vulnerability theory goes back to Griesinger\(^1\), who wrote:

If one considers the extraordinary frequency of all the noxious influences which are mentioned as causes for mental illnesses and, at the same time, considers the relatively infrequent emergence of this illness which follows those influences, one necessarily reaches the assumption that certain predisposing (preparatory) circumstances are necessary that cause the appearance of the illness and specifically this illness; that a certain susceptibility and disposition for illnesses cooperate with the triggering causes, even though they are sometimes not even very strong.

Some of Emil’s early writings, as I indicated before, also referred to vulnerability, and even Freud made some reference to it, when he pointed out that repression is not causally sufficient for neurosis but that hereditary vulnerability is causally relevant [1].

In its modern garb the theory states that schizophrenia represents a state of vulnerability which may remain latent or express itself phenotypically in the form of an episode when sufficient stress is brought to bear on the vulnerable individ-

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\(^1\) After this statement was set in print I received a letter from Professor Dr. C. Scharfetter indicating that priority for the use of the “vulnerability” concept belongs to Karl Friedrich C. Constatt (1807–1850). For fuller discussion of the development of the vulnerability concept see: Zubin J. Schizophrenia: chronicity vs. vulnerability in Handbook of Schizophrenia. Volume 3. Nosology Epidemiology and Genetics. Ming T. Tsuang, Editor. (General Series Editor Henry A. Nassarallah). London: Elsevier Science Publishers, Biomedical Division, in press.
ual. The episode is finally dissipated and the individual returns more or less to his premorbid level. The trigger necessary to elicit the episode could be either a dramatic life event, like a death in the family, or the effect of a long-enduring toxic environment which finally causes the accumulation of sufficient stress to elicit an episode. However, not all vulnerable individuals inevitably develop episodes under stress. If the social network, ecological niche, or premorbid personality (with its coping skills) can absorb the stress produced, the episode can be aborted.

One may wish to know how the vulnerability model differs from the prevalent medical model. The essential difference between the medical model and the vulnerability model consists of the following:

- According to the medical model a person diagnosed as suffering with schizophrenia is essentially a sick person who for longer or shorter periods may appear to be well (in remission).
- According to the vulnerability model, the person is essentially well, and would remain so were it not for the exigencies of living that induce stressors which elicit the vulnerability, producing longer or shorter episodes of illness. These episodes are not permanent irreversible states, but eventually disappear, though they may leave scarring.

Kurt: How do you know who is vulnerable?

Interviewer: In order to determine who is vulnerable, a search for markers of vulnerability has been launched. The first attempt was to determine whether the available clinical research tools could serve as markers. They turned out to be unsuitable for either diagnosis or prognosis. The second attempt was to apply the finding of experimental psychology to the problems of psychopathology, a process which Emil initiated. The paradigm of information processing was recently chosen and attempts made to tap the integrity of information processing procedures in the brain of schizophrenics as compared to normals. The first step was to limit the techniques to those in which the response occurred not later than 1000 ms following stimulation. Among such techniques were cross-modality reaction time, ERP, pupillography, heart rate, and critical duration for visual and auditory stimulations. It was thought that a response occurring within the first 1000 ms would be relatively free of artifacts and perhaps also less dependent on culture. A second generation of markers has recently arisen, consisting of CPT, span of apprehension, SPEM, crossover reaction time, etc.

It has become apparent that the claim that schizophrenia must have a clear sensorium is no longer tenable. Objective indicators of differences between patients and controls with regard to thresholds, reaction time, etc. lead us to conclude that the sensorium of the schizophrenic is not as clear of deviations as had been thought, and that these deviations could lay the foundation for markers.

Your work on psychopathic personality was a landmark in the classification of the nonpsychotic disorders. How do you feel about its current status?

Kurt: Since the publication of my work on psychopathic personality several new trends in personality disorders have emerged. Among these are the pseudo-neurotic schizophrenias, borderline cases, and schizotypic personalities. The at-

In summary, our three giants and their contemporary colleagues would have been very happy with our proceedings. Even though the progress viewed retrospectively would have gladdened their hearts, our own hearts become heavy when
we see prospectively how much further we still have to go before our problem can be solved. Some of us leave with a heavy heart and in great confusion, but it is confusion on a higher level of discourse than the simple confusion of the first half of this century. Let us hope that out of this confusion some new ideas will emerge and that we will not have to wait for the Twelfth Centennial of Heidelberg before schizophrenia is conquered.

Reference