Home

(Towards education)

October 29, 2015

Thomas A. Ban: Towards education in the history of neuropsychopharmacology. Part 5. Fundamentals of the Wernicke-Kleist-Leonhard tradition.

Thomas A. Ban's reply to Ernst Franzek's comment

I share your belief that only "close interaction between neuroscience and clinical psychiatry" and "not discussion about disease entities" can revive the major impact the introduction of psychotropic drugs had on psychiatry in the 1950s. It is pointless to quibble about disease entities in relationship to mental illness, as in psychiatry "diseases" are "open" diagnostic concepts, derived by different nosologic organizing principles for which closure will only be attained when fundamental issues of their etiology and pathogenesis are resolved (Ban 2013; Jablensky 2007; Meehl 1985).

I appreciate your concern that it should not be dismissed that Carl Wernicke (1900 a, b) conceptualized mental illness as *disturbance of brain function irrespective of its cause*, whereas Emil Kraepelin (1913, 1915) conceptualized mental illness as *a manifestation of endogenous toxic agents*. I can see that this difference in conceptualization led to debates in the early years of the 20th century. I can also see that Wernicke with his research contributions and with his conceptualization of mental pathology was instrumental for setting the foundation of a psychiatry that strives to become an integral part of the neurosciences. Yet, in a historical perspective the essential difference between Kraepelin's and Wernicke's tradition in psychiatry is that Kraepelin (1899) diagnosed patients with endogenous psychoses primarily on the basis of the "course" and "outcome" of their clinical manifestations and classified them with consideration of Thomas Sydenham's (1741) "disease model", whereas Wernicke (1899) diagnosed patients on the basis

of their "elementary symptoms" (Ban 2015a; Krahl 2000; Wernicke 1893; Wernicke 1895a,b) and classified them with consideration of Wilhelm Griesinger's (1843) "psychic reflex" model. The lack of recognition that these two approaches are complementing each other has had a negative impact on the development of psychiatry.

I think you are correct that it is virtually forgotten that Karl Kleist (1925, 1934) attributed different clinical pictures in psychiatry to "definite functional centers and regulatory loops" in the brain (Teichmann 1990). This might still be the most interesting way to look at psychiatric illnesses with respect to the results of modern neuroscience, as you suggest and some believe (Cuthbert and Insel 2019; Insel et al 2010). Yet, Kleist's (1934) important findings in brain research found their place in neurology and they were. his contributions to the foundation of the "bipolar-unipolar dichotomy" (Kleist 1911, 1928; Neele 1949), that stimulated research in psychiatry. His diagnostic concept of "cycloid psychoses" (Kleist 1925, 1928) was also further elaborated (Leonhard 1957).

In so far as I know, we do not have conclusive evidence so far that would support your contention that Leonhard's (1999) notion ("theoretical background") that "each clinical picture has its own genetic background" is wrong (Rutten and Mill 2009). It might be correct to say that some researchers in neuropsychopharmacology and molecular genetics in psychiatry operate as if there would be no need for more discrete clinical end points. It is a moot question whether this is the case, but one should not ignore the possibility that in the impasse in the development of psychotropic drugs and molecular genetics of mental illness, the pharmacological heterogeneity of the populations studied, has played a role (Ban 1987 2002).

I think your discovery that the "cycloïd psychoses" are "a spectrum of stress induced psychoses based on special genetic and/or neurodevelopmental predisposition" (Franzek and Beckmann 1999; Franzek and Musalek 2011; Franzek et al 1996, 2004; Pfuhlman et al 2004) implies only that Leonhards's conceptualization of the place of "cycloid psychoses" between the "phasic psychoses" and "unsystematic schizophrenias" is wrong. As I see it, it does necessarily imply that the diagnostic concept of "cycloid psychosis" as a research and clinical end-point is wrong. Arguably, it was Leonhard's (1957) separation of "cycloid psychoses" from the "phasic psychoses" and "unsystematic schizophrenias" that provided the clinical end-point to discover that this population is different from the other two populations in that it can be induced by stress. Pursuing the same argument further, perceiving this population as a "spectrum of psychoses"

(Akiskal 1983) in the tradition of Kretschmer (1921), will leave one hanging in air, whereas perceiving this population in the tradition of Wernicke (1899) and dividing this population on the basis of Griesinger's (1843) "psychic reflex" model into three diagnoses, i.e., "excited - inhibited confusion psychosis", "anxiety- happiness psychosis" and "hyperkinetic - akinetic motility psychosis", as Leonhard (1957) did, will provide one with clinical end-points for linking the different forms and sub-forms of "cycloid psychosis" to specific genetic and/or developmental predispositions.

I understand that in addition to the discovery that the "cycloid psychoses" are stress-induced psychoses, you observed that in clinical practice, patients who would have been diagnosed by Leonhard (1957) as one or another forms of "systematic catatonia" are mostly diagnosed as disorders of the "autistic spectrum" and patients who would have been diagnosed by Leonhard (1957) as one or another form of "systematic hebephrenia" are diagnosed as "severe personality disorders not otherwise specified". Moreover, you noted that many of those patients with a diagnosis of "severe personality disorder" could be found in addiction care units. (Franzek and Elsenaar 2008). Again, in my opinion, your observations don't indicate that those populations Leonhard described don't exist. For me, all they suggest is that in terms of psychiatric diagnoses, they are differently conceptualized in current consensus based classifications. Yet, even if some patients who would have been diagnosed as one or another forms of "systematic catatonia" or "hebephrenia" by Leonhard (1957), wind up with a different diagnosis based on current classifications, in a multinational survey on "chronic hospitalized schizophrenia" we conducted in the 1980s, we found patients with all the different forms and sub-forms of "systematic catatonia" and "hebephrenia" that Leonhard (1957) described, albeit with a different distribution than in prior samples (Ban, Guy and Wilson 1984a). We also found that patients diagnosed with different forms/subforms of schizophrenia are treated with different doses of neuroleptics (Ban, Guy and Wilson 1984b). Based on these findings and some further observation of patients taken off their treatment with neuroleptics, we questioned the need for maintenance neuroleptic treatment in "shallow hebephrenia" (Ban 1990; Kelwala and Ban 1981).

While your findings and observations challenge the place (conceptualization) of some of the psychiatric diagnoses derived in the Wernicke-Kleist-Leonhard (W-K-L) tradition among psychiatric disorders, a current report by Jules Angst and Christoffel Grobber (2015) is in favor of the validity of "unipolar mania", one of the contested diagnoses that has its roots in the W-K-

L tradition. The arguments against “unipolar mania” were sufficiently strong that the DSM-5 of the American Psychiatric Association (2014), doesn’t recognize “unipolar mania”, and classifies patients with recurrent mania without any depressive episode, in Kraepelin’s tradition, as “bipolar disorder”. Based on a review of literature and their own data, Angst and Grobber (2015) provided support for the diagnostic concept of “unipolar mania”. Of particular importance in this respect, are the epidemiological-genetic findings of Merikangas and associates (2014) and of Vandeleur and associates (2014) which indicate the genetic independence of mania from depression (Hickig 2014). Important also are findings in pharmacological treatment studies which indicate that patients with unipolar mania are different from patients with bipolar mania in that they require more antipsychotics (Grobber and his associates 2012) and are less responsive to lithium salts (Yazici and Cakir 2012).

REFERENCES:

Akiskal H. The bipolar spectrum: new concepts in classification and diagnosis. In Greenspoon L; editor. Psychiatry Update: the American Psychiatric Association Annual Review. Volume 2. Washington: American Psychiatric Press; 1983, pp. 271-92.

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (5th edition). Washington: American Psychiatric Press: 2014.

Angst J, Grobler C. Unipolar mania: a necessary diagnostic concept. Eur Arch Psychiatry Clin Neurol 2015; 265: 273-90.

Ban TA. Prolegomenon to the clinical prerequisite..Psychopharmacology and the classification of mental disorders. Progress jn Neuro-Psychopharmacology and Biological Psychiatry 1987; 11: 527-380.

Ban TA. Clinical psychopharmacology and the classification of endogenous psychoses. Psychopathology 1990: 23; 331-8.

Ban TA. Neuropsychopharmacology the interface between genes and neuropsychopharmacology. In Lerer B, editor. Pharmacogenetics of Psychotropic Drugs. Cambridge: Cambridge University Press; 2002, pp. 36-56.

Ban TA. Neuropsychopharmacology and the Forgotten Language of Psychiatry. INHN E-Books .14.11.2013.

BanTA. Elementary symptom. INHN Dictionary 17.08.2015.

Ban TA, Guy W, Wilson W. Description and the distribution of the subtypes of schizophrenia based on Leonhard's classification. Psychiatric Development 1984a; 3: 179-99.

Ban TA, Guy W, Wilson W. Pharmacotheapy of chronic hospitalized schizophrenics: Diagnosis and treatment. Psychiat J Univ Ottawa 1984b; 9: 191-5.

Cuthbert BN, Insel T. Toward new approaches to psychotic disorders. The NIMH Research Domain Criteria project. Schizophrenia Bulletin 2010; 36: 1061-2.

Franzek E, Becker T, Hofmann E, Flöhl W, Stöber G, Beckmann H. Is computerized tomography ventricular abnormality related to cycloid psychosis? Biol Psychiatry 1996; 40: 1255- 66.

Franzek E, Beckmann H. Psychoses of the schizophrenic spectrum in twins, A discussion of the nature-nurture debate in the etiology of "endogenous psychoses". Vienna/New York: Springer; 1999.

Franzek E, Elsenaar IC. Cocaïne addiction and psychotic disorders. Eur Psychiatry 2008; 23: 8.

Franzek EJ, Musalek M. Advances in psychopathology, classification and diagnosis of psychosis and its clinical implications. Minerva Psychiatr 2011; 52:171-85.

Griesinger W. Über psychische Reflexactionen. Archiv für Physiologische Heilkunde 1843; 2: 76-112.

Grobber C, Roos JL, Bekker P. Unipolar mania reconsidered evidence from a South African study. Afr J Psychiatry 2014; 17: 473-91.

Hickie IB. Independence of mania and depression. Evidence for separate inheritance of mania and depression challenges current concept of bipolar mood disorder. Mol Psyciatry 2014; 19: 153-5.

Insel T, Cuthbert B, Garvey M, Heinssen R, Pine DS, Quinn K, Sanislow C, Wang P. Research domain criteria (RDoC): Toward a new classification framework for research on mental disorders. Am J Psychiatry 2010; 167: 748-51.

Jablensky A. Does psychiatry need an overarching concept of mental disorder. World Psychiatry 2007; 6: 157-8.

Kelwala S, Ban TA. Is maintenance neuroleptic therapy necessary in shallow hebephrenia? J Clin Psychiatry 1981; 42:12.

Kleist K. Üeber Streitfrage der akuten Paranoia. Ein Beitrag zur Kritik des manisch- depressiven Irreseins. Z Ges Neurol Psychiatrie 1911; 5: 366-87.

Kleist K. Die gegenwärtigen Strömungen in der Psychiatrie. Berlin/Leipzig: De Gruyter, 1925.e

Kleist K. Über zykloide, paranoide und epileptoide psychosen und über die Frage der autochtonous degenerationpsychosen. Z gen Neurol Psychiat 1928; 69: 1-11.

Kleist K. Gehirnpathologie. Leipzig: Barth; 1934..

Kraepelin E. Psychiatrie. 6. Auflage. Leipzig: Barth; 1899.

Kraepelin E. Psychiatrie.III. Band, 8. Auflage. Leipzig: Barth; 1913.

Kraepelin E. Psychiatrie. IV.. Band, 9. Auflage. Leipzig: Barth; 1915.

Krahl A. Carl Wernicke's elementary symptom (Elementarsymptom). In: Franzek E, Ungvari GS, Ruther E, Beckmann H, editors. Progress in Differentiated Psychopathology. Wurzburg: International Wernicke-Kleist-Leonhard Society; 2000, pp. 43-8.

Kretschmer E. Körperbau und Character. Untersuchungen zum Konstituzionspropblem und zum Lehre von den Temperamenten. Band I. Berlin: Springer; 1921.

Leonhard K. Aufteilung der endogenen Psychosen. Berlin: Akademie Verlag; 1957.

Leonhard K. Classification of Endogenous Psychoses and their Differentiated Etiology. Revised and enlarged edition. Vienna/New York: Springer; 1999.

Meehl PE. Diagnostic taxa as open concepts: meta-theoretical and statistical questions about reliability and construct validity in the grand strategy of nosological revision. In: Millon T, Klerman GL, editors. Contemporary directions in psychopathology: towards the DSM-IV. New York: Guilford; 1986. pp. 215–231.

Merikangas KR, Cui L, Heaton I, Nakamura E, Ross C, Ding J, Qin H, Guo W, Yao-Shugart Y, Zarate C, Angst J. Independence of familial transmission of mania and depression: results of the NIMH family study of affective spectrum disorders. Mol Psychiatry 2014; 19: 214-9.

Neele E. Die phasischen psychosen nach ihren Erscheinungs und Erbbild. Leipzig: Johann Ambrosius BarthVerlag; 1948.

Pfuhlmann B, Jabs B, Althaus G, Schmidtke A, Bartsch A, Stöber G, Beckmann H, Franzek E. Cycloid psychoses are not part of a bipolar affective spectrum. Results of a controlled family study. J Affective Dis 2004; 83: 11-9.

Rutten BP, Mill J. Epigenetic mediation of environmental influences in major psychotic disorders. Schizophrenia Bull 2009; 35: 1045-56.

Sydenham T. Opera Universa Media. London:Sydenham Society; 1741.

TeichmannG. The influence of Karl Kleist on the nosology of Karl Leonhard. Psychopathology 1990; 23/4: 267-76.

Vandeleur CL, Merikangas KR, Strippoli MP, Castelao E, Preisig M. Specificity of psychosis ,mania and major depression in a contemporary family study. Mol Psychiatry 2014; 19: 209-13.

Wernicke C. Diskussionsbeitrag auf dem 59. Treffen des Vereins ostdeutscher Irrenarzte. Leubus, 19. Juni 1892. Allgemeine Zeitschrift fur Psychiatrie und psychisch-gerichtliche Medizin 1893: 486-9.

Wernicke C. Bemerkungen anlaslich des 62. Treffen des Vereins ostdeutscher Irrenarzte. Sorau, 25. Juni 1893. Allgemeine Zeitschrift fur Psychiatrie und psychisch-gerichtliche Medizin 1895a: 206.

Wernicke C. Fallbeschreibungen anlaslich des 66. Treffen des Vereins ostdeutscher Irrenarzte. Breslau. 24. November 1894. Allgemeine Zeitschrift fur Psychiatrie und psychisch-gerichtliche Medizin 1895b: 1016-21.

Wernicke C. Über die Klassifikation der Psychosen. Breslau: Schletter; 1899.

Wernicke C. Grundriss der Psychiatrien in klinischen Vorlesungen. Leipzig: Barth; 1900a.

Wernicke C. Klassifikation der Psychosen. Breslau: Schlettersche Buchhandlung; 1900b.

Yazici O, Cakir S. Unipolar mania :a distinct entity or characteristic of manic prepondeace? Turk Psikyatri Derg 2012; 23: 201-5.

Thomas A. Ban

October 29, 2015