# Richard von Krafft-Ebing's views on the etiology of major psychiatric illness

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While best known in the anglophonic world for his work on sexual deviations and his advocacy for degeneration theory, Richard Krafft-Ebing (RKE) (1840-1902) was a major figure in late-19th century European psychiatry and author of the most widely read German psychiatric textbook of that era. With the goal of (re-)introducing his work to an anglophonic audience, we review and provide an historical context for RKE's etiologic theory of major psychiatric illness. RKE saw psychiatric disorders as multifactorial, arising from two sets of etiologic factors: predisposing and exciting. Exciting causes were either psychological or physical, while predisposing causes were either general (e.g. sex, occupation, age) or individual-specific. Three major individual-specific risk factors were of particular importance: heredity, personality and education/rearing. Hereditary factors were typically the most important but were usually non-specific in their effect with the forms of psychiatric illness often differing in close relatives. He emphasized the importance of the 'neuropathic personality,' which rendered affected individuals sensitive to the pathogenic effects of various exciting influences. Poor rearing could also substantially increase risk for major mental illness. RKE saw the influences of hereditary and rearing factors on psychiatric illness as often mediated through a neuropathic personality. While RKE believed in degeneration theory and emphasized the potential etiologic importance of masturbation in psychiatric illness, his clinical writings were otherwise characterized by a broadminded and sensible approach that lacked the narrowness of the strongly brain-based or psychoanalytic psychiatric schools which were very influential during and shortly after his life.

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# Introduction

A major figure in European neuropsychiatry (Breathnach, 1986; Sigusch, 2004) and the author of a widely read German textbook of psychiatry (Engstrom, 2003a, p. 242), Richard Krafft-Ebing (RKE) (14 August 1840-22 December 1902) has long been a fixture in the history of late-19th century psychiatry. While some scholars have stressed his advocacy of the theory of degeneration (Shorter, 1997), most have turned their attention to his work on human sexuality (e.g. Money, 2003; Amidon, 2008; Makari, 2008; Savoia, 2010). Whereas his use of Latin as well as the prurient themes addressed in his work have often caused him to be seen as an exemplar of Victorian prudery and double standards, historians have begun re-examining RKE's writings on sexual pathology and excavating a far more subtle picture of his work. In the

Given this historical re-evaluation of RKE's work as a sexual pathologist, it is worth reassessing his views on psychopathology more generally, and specifically on the etiology of psychiatric illness. RKE lived and worked during a critical period in the history of psychiatry. He was a student of Griesinger, worked as both an alienist and neurologist, became professor of psychiatry, first at the University of Strasbourg from 1869 to 1873, and then in Graz, where he headed the psychiatric asylum from 1873 to 1889. The first edition of his psychiatric textbook appeared in 1879. In 1889, he was called to Vienna and given the position of 'Full Professor of Psychiatry and Brain Pathology' – one of the two chairs of Psychiatry at the University of

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process, they have found a distinct shift in psychiatric explanations of sexual pathology from a biomedical to a psychological understanding of sexual instincts. For example, in his study of RKE, the Dutch historian Harry Oosterhuis argues that RKE 'steered the medical discussion away from explaining sexuality as a series of interrelated physiological phenomena' and that, even before Freud, there emerged a 'new psychiatric style of reasoning' that brought psychological explanations to the fore (Oosterhuis, 2000).

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Vienna. In 1892, he succeeded Theodor Meynert to the second and more prestigious of these chairs, which included the position of Director of the Psychiatric Clinic at the University of Vienna. He published nearly 400 articles covering a wide array of medical, neurological and psychiatric topics, and was an avid supporter of a university and research-based vision of psychiatry. His special interests included sexual behavior, forensic psychiatry, hypnosis, and menstrual psychosis. In addition to Griesinger, major professional influences included Pinel, Esquirol, Morel, Wundt, and Fechner (Peterson, 1903).

His general psychiatry writings have been largely over-shadowed in the anglophonic world by those of his younger contemporary, Emil Kraepelin (15 February 1856-7 October 1926). We are fortunate to have a well-translated English version of the last edition of his widely read psychiatric textbook published in Germany (Krafft-Ebing, 1903a) as Lehrbuch der Psychiatrie auf Klinischer Grundlage für Praktische Ärzte und Studirende and in translation in the United States in 1903 (Krafft-Ebing, 1903b) as Text-Book of Insanity Based on Clinical Observations for Practitioners and Students of Medicine. This English translation is currently easily available in inexpensive reprinted form. While sharing much of the worldview of Kraepelin, RKE represents a distinct 'voice' from a critical historical period, the views from which still heavily influence the practice of psychiatry to this day. RKE sets the nature and tone of this text in its preface:

the author's text-book is intended to be a useful guide in the difficult domain of psychiatric study and science. For the attainment of this object, the important points that have been kept in view are: clear, comprehensible terms; avoidance, as far as possible, of theories and hypotheses; emphasis on all that may be regarded as more of less certain in the science of psychiatry; and systematic arrangement of the scientific material.

The focus of this report is on RKE's theory of mental illness as expounded in this last edition of his textbook. Our task is to summarize his views succinctly, place them in their historical context, and comment on them. A note on terminology - this essay derives largely from a section in RKE's text titled 'Die Ursachen des Irreseins'-literally the etiology or causes of insanity. In the quotes we use, Irresein is translated as 'insanity'. In our essay, we prefer to use the term 'major psychiatric illness' (or 'psychiatric illness' for short) to indicate that RKE was largely interested in the more severe of psychiatric disorders though in a broader group of syndromes than would now be covered by the term 'insanity' or its rough modern equivalent of 'psychosis'.

# Multifactorial nature of major psychiatric illness

In the large majority of cases, RKE believed that multiple risk factors are needed for the development of psychiatric illness. In describing the problems of understanding the etiology of 'major psychiatric illness', he writes: 'The difficulties are, in the first place, due to the fact that, as a rule, a number of causal factors work together to induce the resultant insanity' (p. 136).

It is, however, very difficult to identify unambiguously each of the individual causes of major psychiatric illness. He writes: 'To determine each one of these [causal] factors, and especially the value [i.e. the importance] of each, is scarcely possible, owing to the lack of clearness of knowledge concerning pathogenesis' (p. 136).

In considering the wide diversity of risk factors for psychiatric illness, RKE divides them (what he calls 'causal elements') into two broad groups: 'predisposing' and 'exciting'. The predisposing causes of illness tend to be chronic in nature while the 'exciting' are often acute and 'accidental'. He judges the predisposing class of causes to be generally more crucial in most cases when he writes 'experience teaches that predisposing influences are of much greater importance than accidental causes, and are of themselves sufficient to induce insanity' (p. 138).

# Exciting causes of major psychiatric illness

RKE considers two major groups of exciting causes: psychic (or psychological) and physical (largely medical illness and injury). With respect to 'psychic causes', he notes that 'without doubt emotions may give rise to insanity' (p. 165). However, he argues that this connection can be over-exaggerated. He writes in a noteworthy passage

The idea of the laity, especially dramatists and novelists who represent insanity as arising out of powerful passions and affects without anything else is, at least, one-sided ... There are cases in which violent affects ... have immediately induced insanity; but ... there always exists in such cases a considerable predisposition (neuropathic, principally hereditary) (p. 165).

In discussing the most potent environmental adversities, he notes differences between the sexes. In women, he notes that rape, unhappy marriage, and the sickness and death of children are especially pathogenic. For men, he notes that 'loss of occupation, injured pride and financial ruin' are particularly common in precipitating insanity.

RKE gives a long list of physical causes of insanity including meningitis, influenza, syphilis, and head injury as well as pregnancy and 'sexual excesses'.

He also has a short section on 'Insanity due to Intoxication' in which he reviews the adverse effects of alcohol, opium, and a range of poisons.

# Predisposing causes of major psychiatric illness

RKE proposes two important predisposing causes of psychiatric illness. The first, which he terms general, includes a wide range of background factors such as civilization, nationality, sex, occupation, and age. The second, on which we will spend more time, are individual predisposing causes of which he specifies only three: heredity, personality and 'education'.

# Heredity

In many places in his text, RKE emphasizes that the most important individual predisposing cause of major psychiatric illness is heredity. He writes: 'By far the most important cause of insanity is transmissibility of psychopathic dispositions or cerebral infirmities by way of heredity ... there is scarcely any form of disease in which heredity makes itself so powerfully felt [as insanity].'

According to RKE, most of the hereditary risk for psychiatric illness is non-specific. Writing before the rediscovery of Mendelian genetics, he notes

It is exceptional that one and the same disease in progenitors and descendants develops as a result of hereditary transmission of abnormal disposition. On the contrary, there is a remarkable changeableness of the disease-pictures that has almost the significance of a law (p. 158).

He goes on to argue for what we would now term the non-specificity of hereditary risk for psychiatric illness.

The most various neuroses and psychoses appear in families affected with heredity, side by side and one after another, through generations; and they teach us that from a biological standpoint they are branches of but one and the same pathologic tree (p. 158).

RKE also suggested that the impact of hereditary risk could vary widely in severity. He writes 'The injurious hereditary factor may express itself in descendants merely in a neuropathic constitution, in a neurosis or in some psychosis' (p. 159).

# Personality

The second major individual predisposing causes of mental illness is, according to RKE, 'neuropathic constitution'. Here is the key passage

Next to hereditary predisposition, the most important predisposing factor in the individual is that peculiar condition of the nervous system that has been called neuropathic, the essential element of which lies in the fact that the equilibrium of the functions is very delicately established, and under the influence of slight causes is lost; and further, in the fact that reaction to irritation of any kind is extremely intense and extensive (p. 163).

The impact of the neuropathic personality was to render the individual very sensitive to the effects of various 'exciting' causes.

This condition of 'irritable weakness' makes it possible for stimuli to exercise an influence which on individuals that are not neuropathic would exert no effect at all. ... Thus is explained the readiness with which disease results from the slightest injurious influence (p. 163).

A neuropathic constitution itself arises, according to RKE, in two ways. Either it is 'congenital' or acquired. Most congenital forms of neuropathy arise from heredity, but he also notes the possibility of intrauterine effects. Acquired neuropathy arises either from child-hood medical diseases, emotional disturbances or 'sexual excesses' especially masturbation and poor 'education'.

#### Education

By 'education', RKE means something akin to what we would call 'rearing'. He writes broadly about the sources of individual differences in human personality as follows: 'Next to his brain organization, man owes most to the nature and manner of his education as affecting the peculiarity of his mental character' (p. 164). Sometimes, he notes, brain 'organization and education act together in the production of psychopathic disposition'.

He notes that parents can influence risk of psychiatric illness in their children in two ways

Not only by way of heredity [can parents pass on] an unfortunate organized constitution, but also, through consequent abnormal passions, defects of morals and force of bad example and defective education (p. 164).

He describes various forms of harmful parenting emphasizing both too strict treatment of the sensitive child who is 'so much in need of loving care' as well as parenting which is 'too solicitous' producing 'defective self-control'. He concludes this section on defective 'education' with the following warning: 'In this way, a neuropathic constitution may be acquired and thus the foundation laid for later insanity.'

# Difficulty in distinguishing between predisposing and exciting causes

RKE realized that his dichotomization of the causes of psychiatric illness into predisposing and exciting categories was problematic because the former could often lead to the latter. He writes

A sharp distinction of these two classes [of causes of 'insanity'] in the concrete case, however, is not always possible since a predisposing cause may also be at the same time the exciting cause, in that it leads to affects, passions and perverse manner of life, which cause the ultimate outbreak of insanity (p. 137).

He notes that unsophisticated individuals sometimes will blame the onset of illness on an 'exciting' event or situation which in reality was a product of early phases of the illness.

Only too frequently does it happen that the laity and inexperienced physicians regard the last and striking link in the chain of causes as the only cause ... Loss of business, emotions, and the like are looked upon as causes when actually scientific investigation shows that the hereditary and weakening diseases were the true etiologic factors upon which the former acted, and thus were effective in bringing about the catastrophe (p. 136).

# Historical contexts and the reception

To assess the significance RKE's views on etiology, it is helpful to step back from his textbook and interpret it in the context of 19th-century German psychiatry, especially alienism. For in many ways, RKE's views and his career trajectory were shaped by the attitudes governing asylum practice in the 1860s and 1870s. He received his psychiatric training in the 1860s under the tutelage of Christian Friedrich Roller at the asylum in Illenau, at that time arguably Germany's most important and didactically influential psychiatric asylum. The alienist science cultivated in Illenau was an institutionally based moral science. Today it has become difficult to comprehend just what kind of applied science this was and even more difficult to understand the truth-claims and plausibilities that it generated. But in essence its aim was the reconstitution of patients' somatic, mental, social and moral/ spiritual well-being. Like Eugen Bleuler after him, RKE hailed from this tradition of psychiatric practitioners once labeled as 'bearded psychiatrists' (Bartpsychiater), i.e. old-school alienists with years of experience living and working with patients in large asylums (Hoche, 1934, p. 120). At the time, the buzzword for their approach was 'anthropological' and it infused the therapeutic culture and justifications for institutional care throughout a good part of the 19th century (Benzenhofer, 1993). In RKE's work we find strong echoes of this asylum-based, clinically oriented 'anthropological' psychiatry.

But after the 1860s, this alienist tradition came under intense criticism by practitioners who, often hailing from positions in academia, were more heavily invested in materialistic worldviews and the methodologies of the natural sciences, less amenable to non-somatic causalities, committed to unlocking the pathoanatomic structures and physiological processes of the brain, and eager to see psychiatry ensconced as an academic specialty. Two of the more prominent figures of this anti-alienist tradition were Wilhelm Griesinger and Theodor Meynert, both of whom can be understood as representing a new trend toward 'brain psychiatry' (Schott & Tolle, 2006, pp. 85f). Meynert and other neuropathologists, inspired by Griesinger's conviction that all mental illness was brain disease, were hostile to alienist science and believed – as Emil Kraepelin would later lament – that psychiatry was 'nothing more than a branch of medicine' and a science of the 'diseases of the anterior brain' (Kraepelin, 2005).

RKE was neither as truculently opposed to academic medicine, nor as skeptical of the somatic ambitions of brain psychiatry as some older alienists like Roller or Kahlbaum were. But RKE's textbook, first published in 1879, nevertheless drew heavily on his alienist training and experience and can profitably be interpreted as an alienist response to the rising influence of pathoanatomic and physiological research in psychiatry as represented by Meynert and Griesinger. Indeed, in many respects, it reflects an attempt to narrow the growing divide between alienism and 'natural scientific psychiatry' (Samt, 1874) by revamping the credentials of alienist science - firmly embedding it in somatic postulates of brain psychiatry without at the same time reducing it to neuropathology or abandoning psychological causality.

Degeneration theory seemed to provide a way of doing just that. RKE stressed the importance of degeneration largely because of a lack of sound contemporary evidence for organic lesions. In other words, it was the failure of somatic theories of localization and the therapeutically meager yield of pathological anatomy that prompted him to stress the congenital nature of psychological disorders (Oosterhuis, 2000, p. 103). Furthermore, as many authors have noted, degeneration theory's flexibility and vagueness made it, for a time, amenable to the task of engendering professional consensus and enhancing psychiatry's social legitimacy by providing it with a language for talking about numerous sociopolitical problems such as crime and alcoholism (Bruckner, 2007, p. 98).

Degeneration theory's pervasiveness in RKE's influential textbook is therefore especially noteworthy. RKE's alienist training coincided with the broad reception of Darwinian ideas in Germany from the 1860s onward and he drew heavily on both Darwinian and Morelian notions of heredity in his psychiatric

theorizing (Leibbrand & Wettley, 1961, pp. 538–540; Janzarik, 1979, pp. 54–55). RKE's strong emphasis on mental degeneration (*psychische Entartungen*) and the important place of the 'hereditarily diminished brain' is indicative of this. It is thus hardly surprising that his textbook was dedicated to and broadly influenced by his colleague and Roller's successor in Illenau, Heinrich Schüle, a monist and prominent advocate of degeneration theory in Germany (Leibbrand & Wettley, 1961, p. 537). And so rightly enough, albeit by rote, RKE's work has been heavily cited as an example of the influence of degeneration theory in psychiatry.

But as Harry Oosterhuis has argued, although somatic and degenerationist in his theorizing, RKE was far more eclectic in his clinical approach (Oosterhuis, 2000). His training as an alienist had instilled in him an appreciation for psychopathology and for the need to examine each patient's case history and their personality in minute detail. So it seems that when it came to actually treating patients, degeneration theory never effectively subverted RKE's scientific commitments to empirical observation and inductive methods (Oosterhuis, 2000, p. 116; Engstrom, 2003 a, pp. 22–23).

This is clearly reflected in the contemporary scholarly reviews of his textbook. While one such review, published in Germany's pre-eminent psychiatric journal, the Allgemeine Zeitschrift für Psychiatrie, praised RKE for the 'anthropological dimensions (Heredity, Degeneration, etc.)' (Kirn, 1881, p. 300) of his views on etiology, it also stressed that his etiological principles could be applied to only very few psychiatric conditions. Far from damning criticism, this observation was voiced in support of the fact that RKE had abstained from a 'unified nosological principle' and instead opted for a 'mixed, etiological-clinical classification' (Kirn, 1881, p. 301). Indeed, it was precisely his emphasis on causal diversity that warranted explicit praise. The same alienist reviewer commended RKE's textbook for its balance of psychological and anatomic concerns. Granting that 'elementary disorders of brain function' formed the basis for all of psychiatry, RKE had 'proceeded cautiously, fortuitously avoiding [the dangers of overemphasizing either anatomic or psychological factors] by presenting both mental and somatic disorders as equivalent symptoms, evolving in parallel and rooted in common changes of the brain' (Kirn, 1881, p. 299). Above all, RKE was lauded for his rich experience as an alienist and his deft sifting of clinical evidence. His firm 'grounding in empirical psychology' protected him from 'entirely arbitrary, purely theoretical beliefs that often confuse early symptoms with causes' (Kirn, 1881, pp. 299f).

Another prominent alienist reviewer distilled the essence of RKE's writings down to the notion that

psychiatry was more than a mere medical specialty 'because man was not just a digesting, breathing, secreting machine, but a psychological personality (geistige Persönlichkeit), whose mental functions are afflicted by different bodily disease processes'. The reviewer went on to stress that physicians had to respect and be cognisant of this 'mental component of morbid conditions' (Pelman, 1891, p. 693). And elsewhere RKE's work was praised for recognizing that psychiatry involved patients' 'entire physical and mental personality' (Eickholt, 1893), suggesting that RKE's understanding of personality was far more expansive than our notion of it has become.

None other than Kraepelin himself would have agreed resoundingly. Like RKE, Kraepelin too was an advocate of degeneration theory and far more rooted in alienist traditions than we have generally come to believe (Kraepelin, 2005, 2007; Hoff, 2008). More so than RKE, however, Kraepelin was decidedly critical of the overreach of neuropathology and brain research within psychiatric discourse. In reference to Meynert and Schüle, Kraepelin lamented the fact that many psychiatric textbooks 'hardly get beyond laying the anatomic, physiological and molecular-mechanic groundwork' and he criticized his colleagues for 'virtually abandoning the scientific cultivation of alienist labor' (Kraepelin, 2005, pp. 354f). Kraepelin rejected the notion that the scientific reputation of psychiatrists could rest solely on pathological anatomy and insisted categorically that less attention be paid to the study of anatomic, physiological and pathoanatomic phenomenon, and much more to 'mental phenomena'. Indeed, to abandon the principle of parallelism between 'corporal and mental events' would be to 'abandon the science of psychiatry altogether' and the interrelationship of those events could not be 'reduced to the assumption that it is governed by a simple causal relationship', as Griesinger incorrectly did in his famous dictum 'mental illness is brain disease' (Kraepelin, 2005, p. 358).

But critically and unlike RKE, Kraepelin adopted the 'new psychology' (i.e. experimental psychology) of the 1880s and worked tirelessly to introduce it into psychiatry (Engstrom, 2003b, c; Ash, 2005). Far more so than RKE, Kraepelin was committed to psychophysical parallelism and to experimental psychological methodologies designed delineate the laws of mental process. The influence of the new psychology profoundly influenced not just his clinical research, but also his notion of what constituted psychiatric science, likely enabling him to be far more critical of neuropathology and 'brain psychiatry' than RKE ever was. Accordingly, Kraepelin's textbook was sometimes chided as being 'psychiatry without the brain' (Psychiatrie ohne Hirn) (Weygandt, 1927,

p. 449) – a criticism that could never have been leveled at RKE  $\,$ 

Although respecting RKE's 'enormous experience', Kraepelin found him to be rather 'pedantic' and his judgments 'uninspiring' and 'conventional' (Kraepelin, 1983, p. 58). This view seems to have been confirmed by Carl Pelman, who reviewed the sixth and last edition of RKE's textbook in 1897. Pelman believed that RKE's textbook was 'still the best, or at least the most useful' textbook available. But comparing it with Kraepelin's textbook, Pelman described it as the more staid, comprehensive and sober expression of professional consensus:

In Krafft[-Ebing] we may miss the tingling stimulation of the latest research, like that of Kraepelin and his surprisingly audacious claims that often enough provoke objection. But in Krafft-Ebing's work the current of science flows quietly and steadily. Nothing has been overlooked, everything has been accounted for. And even though he himself emphasizes that psychiatric textbooks are to some degree naturally subjective, throughout his work we encounter, as though facing a mirror, the clear, systematic and eminently practical didactic talent of the author (Pelman, 1896, p. 126).

The professional consensus evoked by RKE's textbook made it one of the most influential of the 1880s and early 1890s. But its influence waned from the mid-1890s as what can perhaps best be described as a psychological turn in psychiatry gathered pace. Nevertheless, RKE made significant contributions to this turn – a contribution that has been largely ignored in the historical literature.

# Discussion

Reflecting more generally on RKE's resonance today, we find that many of his views on the etiology of major psychiatric illness have a decidedly modern ring to them. While echoes of the diathesis-stress model can be found in other earlier writings (Monroe & Simons, 1991) including those of Oxford don Richard Burton (Burton, 1932) in the 17th century and the American psychiatrist, George Beard (Beard, 1881), in the mid-19th century, this perspective plays an especially prominent role in RKE's etiologic framework for psychiatric illness. His emphasis on the importance of hereditary factors may sound modern in the context of contemporary psychiatric genetics, but was actually also quite in keeping with both degeneration theory and the increasing influence of classical Darwinian thought. Interestingly, in his textbook, RKE emphasizes the non-specificity of hereditary risk for psychiatric disorders but does not fully endorse Morel's view that the progressive nature of the 'degenerative taint' becomes more severe with each generation leading finally to idiocy and sterility (Werlinder, 1978). At several points in the text, it is not clear that RKE, in keeping with the broad thrust of degeneration theory, distinguished cleanly between what we would call genetic transmission *versus* the transmission of acquired characteristics. There would, however, be some genuine cause for confusion in that two syndromes common to asylum psychiatry in the late 19th century – congenitally transmitted syphilis and fetal alcohol syndrome – in fact demonstrated a non-genetic form of parent–child transmission. RKE clearly appreciates the degree to which hereditary factors can render an individual more sensitive to the pathogenic effects of environmental stressors.

Surprisingly, however, a central tenet of classic degeneration theory – namely the view that degeneration could be diagnosed through physical stigmata (Werlinder, 1978) – is largely absent from RKE's text. Only in selected case reports are there sometimes statements such as

The patient is tall, stately, without anatomic signs of degeneration (p. 381) ... signs of degeneration are not present (p. 465) ... neuropathic habitus (p. 471) ... the patient ... is of exquisite neuropathic appearance (p. 391).

Instead, RKE tends to emphasize the central role of personality in risk for major psychiatric disorders. In several passages, his description of the emotional imbalance and stress-sensitivity of the neuropathic personality is quite reminiscent of our modern concept of neuroticism/emotional instability. In modern parlance, RKE sees personality as an important mediator on the pathway from genetic risk to psychiatric illness. Here too, RKE demonstrates keen clinical insight into the common tendency to assume simple causal relationships between environmental stressors and psychopathology, although upon closer examination those relationships are often ambiguous and/or bidirectional.

Perhaps most jarring to modern sensibilities is the frequent mention in RKE's text of masturbation as an important environmental risk factor for a wide variety of psychiatric disorders. While RKE was in good company in this belief, as it was shared by many leading French and German psychiatrists in the 19th century (Malamud & Palmer, 1932; Hare, 1962), more recent empirical work has demonstrated (e.g. Laumann et al. 1994) the near universality of masturbation in men and its high frequency in women, and has failed to support its association with psychiatric disorders. Indeed, the association between masturbation and insanity has been used as an example of faulty scientific inference that, once accepted by an authority figure, is quite difficult to dislodge (Hare, 1962).

In summary, there is always the legitimate concern of reading into the past our present point of view. With that caveat, it is of interest to see the broadminded approach to the etiology of psychiatric disorders taken by RKE, a leading continental psychiatrist at the end of the 19th century. We do not find in his writing a narrow brain-based view of psychiatric illness, nor any demonstrable interest in psychoanalytic theory that was gaining influence in the last years of his life.

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#### **Declaration of Interest**

None.

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