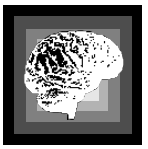

Article

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Race, alcohol and general paralysis: Emil Kraepelin's comparative psychiatry and his trips to Java (1904) and North America (1925)

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Abstract
This article examines Emil Kraepelin's notion of comparative psychiatry and relates it to the clinical research he conducted at psychiatric hospitals in South-East Asia (1904) and the USA (1925). It argues that his research fits awkwardly within the common historiographic narratives of colonial psychiatry. It also disputes claims that his work can be interpreted meaningfully as the *fons et origio* of transcultural psychiatry. Instead, it argues that his comparative psychiatry was part of a larger neo-Lamarckian project of clinical epidemiology and was thus primarily a reflection of his own long-standing diagnostic practices and research agendas. However, the hospitals in Java and America exposed the institutional constraints and limitations of those practices and agendas.

Keywords
Clinical epidemiology, colonial psychiatry, comparative psychiatry, degeneration theory, Emil Kraepelin, transcultural psychiatry

Introduction[1]

Writing in his memoirs about his research trip to Java in 1904, Emil Kraepelin (1983: 132) remarked:

> I was able to make a number of observations about the specific manifestation of well-known clinical forms in Javanese patients – observations that seemed to be very important for an understanding of the relationship

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> between ethnicity [*Volksart*] and mental disorder … . Based on my experiences, I became convinced that my attempt to prepare the way for a comparative psychiatry might well bear fruit and intended to pursue it further as soon as possible.

Kraepelin's comparative psychiatry, however, was not the same as the discipline that emerged in response to the mental illnesses of other cultures. Instead, his efforts were more directly related to his own clinical research agendas, to his concerns about the degeneration of the German people, and to his efforts to ameliorate the prevalence of general paralysis and alcoholism. Kraepelin's visits to numerous asylums around the world in the first decades of the twentieth century were undertaken with these aims, in mind. Far from endorsing a view that Kraepelin inaugurated a new field of comparative psychiatry, we intend to relate his activities to the specific contexts of his clinical research agendas – particularly to the limitations of the asylums where he was conducting his research and to the intellectual commitments that guided his work outside Germany.

Adopting this perspective might be construed as downplaying the day-to-day operations of (colonial or domestic) asylums and, as such, following a trend in the historiography of psychiatry. Narratives that focus strictly on carceral institutions are increasingly losing their persuasive force as historians shift their attention away from psychiatric hospitals and towards the extramural dimensions of psychiatric work and experience. These developments have prompted one commentator to speak of the need to 'deinstitutionalize' psychiatric historiography (Eghigian, 2011). Similarly, growing interest in transnational psychiatry seems to be eclipsing institutional psychiatric historiography. In moving beyond nation-centred narratives, many recent studies explore how psychiatric ideas and practices were put to use in different cultural contexts (Digby, Ernst and Muhkarji, 2010; Ernst and Müller, 2010; Jain, 2006; Keller, 2007; Mahone and Vaughan, 2007; Roelcke, Weindling and Westwood, 2010). Whether tracking the global spread of psychiatric diagnoses or the interplay of metropolitan psychiatrists and their indigenous colleagues, these works have stressed differences in the culturally-laden meanings associated with madness and have paid considerably less attention to psychiatric hospitals.

But at the same time, as Waltraud Ernst has recently argued, much scholarship on colonial medicine and psychiatry has tended to focus too narrowly on hegemonic narratives and to 'reify the ideology of colonialism', while neglecting mental hospitals as sites of care and medicalization (Ernst, 2011, 2012). Her example of the Ranchi Indian Mental Hospital demonstrates that so-called colonial psychiatry was rooted in local institutions where scientific theories and treatment paradigms from around the world were tested and appropriated. As Ernst demonstrates, colonial institutions were the sites in which transnational objects were inflected, negotiated, put into practice, or discarded as unworkable.[2]

In this vein, the present article still emphasizes psychiatric institutions as important nodes of clinical research and practice, but it adopts a rather different approach from other studies. For Emil Kraepelin's experiences abroad fit uneasily within common frameworks of colonial psychiatry. He never visited German colonial asylums and his research trips abroad lasted only a few weeks or months. He was not a colonial psychiatrist and, as such, exerted no direct influence on the treatment of either indigenous patients or Europeans living abroad. Rather, we interpret Kraepelin's research in Dutch and British colonial mental hospitals as an extension of his already established, yet continually evolving, research agenda.

Kraepelin's relationship to the field of transcultural psychiatry is, therefore, an unusual one that has occasionally distracted historians who are seeking origins for the field. Several scholars have understood the publication of Kraepelin's 'Vergleichende Psychiatrie' as a story of origins, taking it to mean transcultural rather than comparative psychiatry. Psychiatrist Wolfgang Jilek referred to Kraepelin as: 'the inaugurator of systematic investigation into culture-dependent differences in

psychopathology' and lauded his 1904 paper on 'Vergleichende Psychiatrie' as 'the proclamation of a new discipline of *comparative psychiatry* focused on ethnic and sociocultural aspects of the human mind in health and disease' (Jilek, 1995: 231, original italics). Jilek's colleague Alexander Boroffka described Kraepelin as 'an outstanding pioneer of transcultural psychiatry' (Boroffka, 1990: 228). But such hagiographic accolades, casting Kraepelin as a 'founder' of transcultural psychiatry, have been forcefully rebutted (Oda, Banzato and Dalgalarrondo, 2005).

At the same time, however, the historiography on Emil Kraepelin has not generally recognized him as a comparative psychiatrist. Instead, he is best known for his diagnostic delineation of manic-depressive illness and what came to be known as schizophrenia. But he was much more than just that. He was also an experimental psychologist, a determined advocate of the alcoholic abstinence movement in Germany, a strong supporter of Ernst Rüdin's research on racial hygiene, a powerful advocate of psychiatry's professional interests, a founder and fund raiser for the Germany's first psychiatric research institute, a staunch opponent of Freudian psychoanalysis, and an inspiration to the architects of the third *Diagnostic and Statistical Manual* (DSM-III). Beyond all that, he was also a psychiatric globetrotter who, over the course of his career, visited and conducted clinical research on paralysis in numerous asylums around the world.[3]

Drawing on Kraepelin's visits to asylums in Java (1904) and the USA (1925), this article will argue that his interest in comparative psychiatry can be explained best in terms of an extension of his own institutionally-grounded research and public health agendas. Although he certainly explored specific manifestations of psychiatric illness in indigenous populations, his aim was to refine his diagnostic techniques and to isolate universally conceived categories of mental illness rather than ethnically or racially specific disorders. This research was in the service of Kraepelin's efforts to determine whether 'the forces of degeneration or those of sustainability and progressive development' had the upper hand in the future evolution of the German people (Kraepelin, 1908: 750).

Degeneration theory

Historians of psychiatry have long recognized a deep affinity between Kraepelin's nosology and Morellian degeneration theory in its more secular derivatives (Hoff, 2008; Roelcke, 1997; Wettley, 1959). This Morellian influence can be found throughout much of his scientific work and it became a focal point of much psychiatric research carried out at his clinic in Munich.[4] Kraepelin's own research on the deleterious effects of alcohol can be seen as an attempt to assess the strength of the degenerative forces that he believed were afflicting his German patients and the general populace. Kraepelin's interest in travelling to Java had much to do with the opportunity it provided to assess the mental health of an alcohol-abstaining (Malay Muslim) population.

It would be an anachronistic mistake, however, to interpret Kraepelin's interest in degeneration simply as a scientific programme of psychiatric genetics. In fact, what is most surprising about Kraepelin's views on degeneration is how relatively quiet he is about the dangers posed to the germ plasm by genetic factors or biochemical toxins (Kraepelin, 1908). Instead, his arguments were remarkably socio- and psychogenic: he was interested in the influence of culture and civilization, believing that they imposed onerous and debilitating burdens on human development. High culture and 'life-experiences' threatened not only to countermand Darwinian laws of natural selection by shielding human beings from their environment, but also to impinge directly on the development of germ cells. Kraepelin viewed the effects of culture as potentially contributing to a degenerative deterioration of individuals and entire 'races'. Two of the key exacerbating factors he believed could be ameliorated were those of syphilis and alcoholism.

These neo-Lamarckian concerns about degeneration drove Kraepelin to espouse and actively promote a variety of prophylactic measures. Like Bénédict Augustin Morel, he too advocated social programmes to strengthen education and moral values, eradicate syphilis and alcoholism, improve living conditions, and relieve poverty. After about 1900, Kraepelin's attention turned increasingly to prophylactic issues and social policies, especially regarding alcoholism, crime, degeneration and hysteria. In terms of the content of these writings, we find him advancing more explicitly eugenic demands (*Edition*, VI: 44ff.). In Kraepelin's eyes, syphilis and alcohol counted among the most devastating toxins (*Volksgiften*). He saw their effects manifested daily in the admission of alcoholics and paralytic patients to his clinic – effects that to his mind threatened the health and biological viability of the German people. Studying other cultures was considered a means of studying the German people and their problems, particularly through comparative assessment of the effects of both syphilis and alcoholism on mental health.

Clinical epidemiology

Concerns such as these also contributed to a shift in Kraepelin's research agenda around the turn of the century. To understand this change, it is helpful to recall Kraepelin's clinical approach in the 1890s in Heidelberg. There, as is well known, he developed clinical research tools designed to summarize as much data as possible on the course of a patient's illness. His so-called *Zählkarten* enabled the succinct documentation of the clinical picture that patients manifested on the psychiatric wards and helped to capture whatever additional clinically useful anamnestic and catamnestic information might be gleaned from relatives or other public officials (Kraepelin, 1983: 142–3; see also: Berrios and Hauser, 1988; *Edition*, V, 35–50; Weber and Engstrom, 1997).[5] Furthermore, the *Zählkarten* were but the pinnacle of a far more extensive clinical inscription regime that included ward reports, patient records, diagnostic lists and research cards. Taken together, all these documents and the practices associated with them comprised an economy of information-gathering that Kraepelin deployed and exploited as part of his clinical research (Engstrom, 2005). This was also a psychiatric technology that, Kraepelin hoped, could travel around the world in order to make sense of clinical information gathered at other institutions.

While historians have been especially interested in the *Zählkarten* and the clinical assumptions that underpinned their use, they have given far less attention to equally significant developments that date – roughly speaking – from his appointment to the chair in psychiatry at the University of Munich and his trip to Ceylon (Sri Lanka), Singapore, and the island of Java in colonial Dutch East India in 1904. From this point onwards, Kraepelin undertook to expand decisively the reach of his institutionally-grounded research methods. He soon began calling for 'extensive, careful, decades-long studies' of entire geographic regions that would 'gather knowledge by means of *expert analysis of individual cases* – knowledge that we can never acquire through regular, large-scale population statistics' (Kraepelin, 1908: 750–1, original italics). In other words, Kraepelin came to advocate a kind of epidemiological research project that, remarkably enough, relied less on population statistics than on incisive and geographically widespread clinical observations (Engstrom, 2007, 2016).[6]

In developing this epidemiological project, Kraepelin deployed a variety of strategies and means of data collection to expand the range of his clinical observations. For example, he pitched his project to an audience of Bavarian alienists whom he hoped to enlist in his undertaking (Kraepelin, 1908). Then at the International Congress of Mental Health Care in Berlin in 1910, he (together with Ernst Rüdin) proposed building an international network of psychiatrists to collect statistical data on a global scale (Alzheimer, 1911: 244). These efforts complemented the sophisticated information-gathering techniques he had already implemented and fine-tuned in his own

clinical practice. Taken together, the result of his initiatives was a 'massive influx of clinical observation material' which demanded that clinical work be conducted 'on a grand scale' (Kraepelin, 1983: 141–2).[7]

One of the most striking aspects of Kraepelin's efforts to expand the range of his clinical data is the sheer diversity of sources upon which he drew. For information, he turned to local and regional asylums, juvenile detention facilities, Bavarian schools, military recruitment offices, and to the courts. This reminds us that, as important as Kraepelin's *Zählkarten* were, his clinical research also relied on other institutions and their respective inscription regimes. Kraepelin's research was, as Michel Foucault (1991: 184–94) has taught us, embedded in a complex network of social relationships and administrative jurisdictions that extended far beyond his own clinic. The success of that research demanded heightened co-operation and co-ordination between psychiatrists and various other professional groups. This breadth of information resources – and Kraepelin's awareness of the methodological problems it posed – needs to be accounted for when assessing his work. Nevertheless, he appears to have had few qualms about drawing on the observations of officials not trained in psychiatry. His use of information that could never have satisfied his own standards of rigorous clinical observation suggests internal tensions within his own work and contrasts sharply, for example, with his insistence on gathering knowledge by means of 'expert analysis of individual cases'. He would encounter the same problems when trying to access data on his psychiatric travels in 1904 and 1925.

Kraepelin's answer to the challenge posed by the spectre of degeneration was a broad-based epidemiological research project and, as he conceived it, that project was an extension of his clinical research methods. In other words, the degeneration theory was put to use in order to expand the reach of the clinical technologies he had already developed in examining and documenting institutionalized patients. His variety of comparative psychiatry was developed in the service of this agenda.

Comparative psychiatry in South-East Asia before Kraepelin's visit: W. Gilmore Ellis and P.C.J. van Brero

While Kraepelin had developed his own research agenda prior to his visit to South-East Asia in 1904, there was already an emerging psychiatric research tradition in the region, based in the new colonial asylums and employing psychiatric techniques and theories imported from Europe (Pols, 2006, 2007a, 2007b). The psychiatrists working at these institutions stayed in touch with their metropolitan communities by contributing asylum reports and clinical research papers to psychiatric journals. They also kept up with new developments in the field by reading these journals. Clinical reports coming from the asylums that Kraepelin visited in Singapore and Buitenzorg (Java) touched on a number of topics that interested him, particularly: specific 'new' mental illnesses unrecorded in European patients, such as latah and amok; the relative lack of general paralysis in non-European populations; and the effects of alcohol and abstinence on mental health. Additionally, these visits afforded Kraepelin the opportunity to psychologically profile the mental characteristics of a non-European population, putting his data-collecting methods into practice in non-German settings for comparative purposes.

W. Gilmore Ellis was Medical Superintendent of the Government Asylum at Singapore from 1888 to 1908 (Ng, 2001: 17–18). Ellis reported racial differences in the population of this asylum, observing in his 1891 annual report that 'General paralysis of the insane, a most fatal and irrecoverable disease, is rarely if ever seen among Asiatics' (van Brero, 1897: 47). He also noted that 'epilepsy is comparatively rare among Malays' and 'the whole Malay race' had an 'aversion … to alcohol in any form' (Ellis, 1893: 337). Not only were differences found between races, but some

disorders – which would later be considered culture-bound syndromes – were believed to manifest themselves only or predominantly in the 'Malay race'.

A key example of this ethnic specificity was amok, a semi-conscious and extremely violent state which occasionally resulted in mass homicide and was therefore of considerable forensic-psychiatric interest in the Malay Straits Settlement. Ellis (p. 329) believed amok to be 'a peculiarity of the Malay race'.[8] He was adamant that 'Heredity … has nothing to do with the condition, otherwise than the heredity of the whole race, for all Malays are subject to these attacks' (p. 336). Despite the fact that the amoker rarely had any recollection of their actions, Ellis noted that it was not caused by alcoholic delirium (p. 337). Rather, following the English psychiatrist Henry Maudsley, Ellis believed amok to be a form of 'masked epilepsy'. In many cases, amoker were held criminally responsible for their actions, as they initially allowed themselves to enter into a blind rage (Anon., 1893).

The other Malay-specific mental affliction that Ellis studied was latah (Winzeler, 1995), a startled reaction to a sudden noise or to an unexpected touch or action that resulted in uncontrolled swearing, obscene actions or inappropriate behaviours. Ellis believed it could be compared to amok: 'If running amok be due to masked epilepsy … certain cases of latah may be of the same relationship to amok as *petit mal* to epilepsy' (Ellis, 1897: 33). He observed that latah was 'manifested chiefly, but not solely, in persons of Malay race; I have seen a few eurasians and Indians undoubted sufferers … Not a trace of the condition has ever been observed in any of the numerous members of the Chinese races resident in the Straits Settlements' (p. 34; see also O'Brian, 1883). These racial differences would become important in the ensuing development of transcultural psychiatry, especially as latah became (along with amok and koro) one of the three main syndromes originally considered culture-bound by later psychiatrists. Unlike amok, Ellis (1897: 40) held that latah was 'nearly invariably hereditary, attacking a large proportion of members of the same family'. Being inheritable did not imply that latah was a form of degeneration, however. 'Those afflicted are not degenerate either as regards physique or mental abilities. As Malays go, many whom I have examined have been most able' (p. 40).

Another significant colonial psychiatrist writing in South-East Asia before Kraepelin visited was Pieter Cornelius Johannes van Brero, a physician at the Government Asylum in Buitenzorg, Java, although by 1904 he had relocated to Lawang (Java). He was born in Surabaya (Java), but studied medicine in Utrecht (and a semester in 1883/84 in Heidelberg) before returning to the Dutch East Indies (de Wilde, 1934). He wrote a large number of psychiatric works in English, French, German and Dutch, including on topics such as asylum construction, amok, latah and 'comparative racial psychiatry' (van Brero, 1894, 1895, 1896, 1897, 1901).

As Kraepelin did later, and as a significant elaboration of Gilmore Ellis's construction of Malay mental illness, van Brero painted a clinical picture of indigenous patients as less 'civilized' and more 'natural' than Europeans.[9] These racial differences were exhibited in fewer 'cognitive' symptoms and more motor symptoms, as in the case of latah, or by stronger affect and weaker volitional control, as seen in the example of amok in particular.[10] This interpretation corresponded with the notion of 'diseases of civilization' (*Zivilisationskrankheiten*) that Kraepelin and many of his contemporaries shared, although van Brero did not articulate his work in these precise terms.

Van Brero and Kraepelin also shared a concern for the effects on the mental health of a population attributable to (sanctioned) cultural practices, such as the consumption of alcohol and other psychotropic agents, especially opium, which was widely used among the Chinese population (van Brero, 1897: esp. 26, 67–73).[11] The alcoholic abstinence in Muslim populations, remarked upon by Ellis and others, provided an opportunity to assess the effects that alcohol had on mental health when compared with the hazards seen in Europe.

Like Kraepelin, van Brero (1897: 39) emphasized 'incomplete ethical and intellectual mental development' in indigenous subjects. As a consequence, 'education and cultivation' (*Bildung und Veredelung*) were presumed to have salubrious effects, thus reconfirming the changing patterns of amok that were seen by Ellis in Singapore since British colonization, with social measures believed to engender 'positive' changes. Unlike Kraepelin, van Brero took no definite position on the question of 'racial degeneration' (*Rassendegeneration*). With reference to clinical 'signs of degenerative psychoses' in indigenous patients, van Brero remarked:

> We should leave unaddressed the question of whether these expressions must be interpreted as symptoms of racial degeneration. It seems more plausible to me to attribute them to incomplete ethical and intellectual mental development. And so, in this respect too, education and cultivation would have beneficial consequences. (p. 39)

Kraepelin would have probably agreed: the pathogenic effects of a given *Volksart* could be as significant as those of a given *Rasse.* For example, the ill-effects of alcohol abuse could affect the mental health of a population as much as their degenerate heredity.

Van Brero devoted a large part of his article on comparative racial psychiatry to progressive paralysis, including four extensive case studies, which he included precisely because the disorder was so rare in the Dutch East Indies (van Brero, 1897: 47–63). Nevertheless, he admitted that the small number of cases precludes any attempt to compare them with 'full-blooded Europeans' (p. 64). Of particular relevance to Kraepelin's later visit, van Brero found that progressive paralysis was 'very rare' among indigenous Malaysians and cited numerous studies – including those of Gilmore Ellis – that found the same for other indigenous populations, albeit not for North American blacks (pp. 37, 44–5). Like van Brero, Kraepelin did not find sufficiently rich clinical 'material' to draw general, comparative conclusions, although he later saw his Java trip as laying the foundations for such research. Furthermore, like Kraepelin after him, van Brero lamented the difficulties involved in acquiring clinical evidence, whether it was because of the relative complexity of life-circumstances in Europe, or because of the need to rely on the 'vox populi' in indigenous cultures (pp. 63, 65).

Colonial studies of racial difference in mental health clearly predated Kraepelin's trip to South-East Asia, and indeed may have encouraged his choice of Singapore and Java to undertake his research. This colonial work was concerned with describing indigenous mentalities, local psychopathologies such as koro (Blonk, 1895; Crozier, 2011), amok and latah, as well as specific differences in general paralysis and the effects of alcohol and other exogenous factors on the population. Racial differences between European, Malay and Chinese patients were asserted, and different cultural practices that affected mental health were examined by Ellis, van Brero and their colleagues. There was a tendency to frame these differences around race rather than around culture. Psychoanalysis had not developed any special insights into non-western mental health by this time (Anderson, 2014b; Freud, 1913/2011; Malinowski, 1929; Sachs, 1937; Slot, 1935; Wulfften-Palthe, 1936). Rather, colonial psychiatrists largely sought to relate local mental afflictions back to a western psychiatric framework. One of the key moments in this trajectory was Kraepelin's attempts to draw on these colonial clinical data.

Kraepelin's comparative psychiatry research in Java

Kraepelin's trip to Java (Bendick, 1989; Boroffka, 1990; Weidner, 1972) in early 1904 needs to be understood, not just in the context of his own ambitious epidemiological research agenda but also as an important catalyst to that agenda. In justifying the trip, Kraepelin stressed that he intended

first and foremost to explore whether the chief forms of mental illness in German asylums were as common in foreign cultures and whether those forms manifested themselves in the same way. He assumed from the outset – and confirmed it, based on his experiences in Singapore and Java – that indigenous populations were afflicted by the very same types of mental illnesses found in his clinic in Munich. But he also insisted that, for the most part, the manifestation and frequency of those illnesses reflected differences in both racial characteristics and socio-culturally inflected lifestyles and personalities (Kraepelin, 1904b; see also Bendick, 1989: 167–8). As he later noted in his memoirs:

> It seemed to be even more important to determine whether dementia praecox occurs among people of entirely different stock and under entirely different living conditions. Because the real causes of the disease, which was widespread in our country, were still completely unknown, I hoped to advance our knowledge by investigating whether the climate and special living conditions in the civilized nations had any significant influence on the occurrence of dementia praecox. [Furthermore], I thought that the unique nature [*Eigenart*] of a people had necessarily also to manifest itself in the frequency and the individual forms of insanity, and hence that comparative psychiatry would necessarily provide valuable insight into the soul of a people [*Seele der Völker*] and could in turn contribute to a better understanding of diseased mental processes. (Kraepelin, 1983: 123)

This is very different from the stories that we are usually told about colonial psychiatry, where psychiatrists working in colonial asylums are commonly portrayed as controlling unruly colonized peoples, or even being involved in the mental care of indigenous populations. These were not Kraepelin's aims at all. It is also very different from the work of the transcultural psychiatry that developed in the mid-twentieth century, as a form of relativistic appreciation of non-western mental disorders – what Yap (1965) later named culture-bound syndromes.

Instead, the trip to Java was undertaken in explicit support of Kraepelin's clinical efforts to improve differential diagnosis and to demarcate the boundaries between disease entities. Dissatisfied with the information he could glean from his correspondence or from published accounts, he justified the trip on the grounds that expert clinicians were needed to examine indigenous patients. We can therefore understand Kraepelin's trip to Java – and more broadly his notion of comparative psychiatry – as an exercise in applied clinical epidemiology. Far from founding transcultural psychiatry or even inaugurating a 'psycho-dynamic' turn in his clinical approach as Bendick (1989: 98) has suggested, Kraepelin's research in Java was conceived as part and parcel of an epidemiological research agenda aimed at comparing clinical symptoms and assessing different aetiological factors of well-known disease entities.

Kraepelin spent approximately three weeks at the Buitenzorg Mental Hospital on Java. With the linguistic aid of a Javanese physician and a German nursing orderly, he examined some 225 patients (100 European, 100 indigenous, and 25 Chinese) (Kraepelin 1904a; see also Bendick, 1989: 44).[12] Among his many findings, and in line with his specific interest in alcoholism, he noted that alcohol use was common among European patients, whereas the opium-using Chinese and the betel-nut-chewing Malays showed no mental disturbances relating to their drugs of choice (Kraepelin, 1904b: 434). Furthermore, he found that among all the indigenous patients he had examined,

> not a single case of general paralysis or cerebral syphilis was observed, while of the 50 European male patients eight such cases were observed, although the diagnosis of two of them was not entirely certain … [O]bservations in other countries suggest that Europeans are especially prone to becoming paralytic as a result of lues. It seems that we must therefore consider that we are dealing here with some more deep-seated difference, perhaps one linked to racial traits or to some kind of damage that makes Europeans less

> resistant than the indigenous population to the effects of lues on the brain and cerebral vessels. In addition to the effects of the tropical climate, alcohol may well also play a role. (Kraepelin, 1904b: 434–5)

Kraepelin took pains to emphasize that, in many cases, differences in the clinical picture could be attributed not to different kinds of disorders, but rather to the fact that familiar symptoms simply were not as 'richly manifested' in indigenous patients (p. 435). In fact, contrary to the work done by Ellis and van Brero, and referring specifically to the newly described mental illnesses such as latah, amok and koro, Kraepelin (p. 437) held that:

> there is no compelling reason to assume the existence of entirely new and hitherto unknown forms of mental disease among the indigenous population of Java … However, it must also be said that in Java the clinical pictures we are familiar with are modulated in ways that, with some justification, can be attributed to the racial backgrounds of the patients. And therein lies the advantage of comparative psychiatric research.

For Kraepelin, amok belonged to the epileptic disorders, latah to hysteria, and koro to obsessive-compulsive disorders (Jilek, 1995: 233).

One of the more striking aspects of Kraepelin's writings about Java is the fact he associated race more with ethnic and psychological traits than with biological ones. Indeed, it seems that his notions about race were more culturally determined, and less biologized than we have sometimes, in hindsight, come to understand them (Pols, 2011). In this regard, Kraepelin remained a student of Wilhelm Wundt's notion of *Völkerpsychologie*. He was interested in the collective psychological 'make-up' of different peoples and believed that it was significantly moulded by culture. He specifically mentioned religion, social mores, art, politics and history as influencing the frequency and clinical manifestation of psychiatric illnesses; he imagined psychiatric and psychological science working in tandem in order to understand a people's 'entire mental disposition [*gesamte psychische Eigenart*]'; he envisioned comparative psychiatry as incorporating 'personality' and 'personal qualities' and as being an 'auxiliary science' to Wundtian *Völkerpsychologie*; and he was convinced that if:

> the characteristics of a people are manifested in its religion and its customs, in its intellectual and artistic achievements, in its political acts and its historical development, then they will also find expression in the frequency and clinical formation of its mental disorders, especially those that emerge from internal conditions. (Kraepelin, 1904b: 437)

Perhaps the most significant conclusion that Kraepelin drew from Java for his own research was the belief that, although syphilis was widespread in both the Javanese and the European population of Dutch East India, progressive paralysis was exceptionally rare among the Javanese.[13] On the basis of this discrepancy, Kraepelin surmised that progressive paralysis might be attributable to weakened immune systems in non-indigenous populations. If progressive paralysis was indeed a syphilitic disorder, then the apparent 'natural immunity' of the Javanese – and other indigenous populations – needed to be explained. This perplexing question informed Kraepelin's research for the better part of two decades and led him to correspond with psychiatrists from around the world in an effort to explain the relationship between syphilis and progressive paralysis (*Edition*, VI: 208–13, 222–4). Indeed, the trip to Java was but an initial step in a larger undertaking that saw Kraepelin investigating progressive paralysis (and dementia praecox) in other countries as well. In the autumn of 1905, shortly after returning from Java, Kraepelin undertook an extensive research trip to Greece, Constantinople and the Balkan states, where he likewise examined patients suffering from syphilis and paralysis (Kraepelin, 1983: 160–3).[14]

The riddle of paralysis

Hideyo Noguchi's discovery of the *Treponema pallidum* bacterium as the cause of progressive paralysis in 1913 certainly reinvigorated Kraepelin's interest in paralysis. But nothing drove home the disease's dire prognostic implications more than World War I and its presumed biological effects on the German populace. The spectre of syphilitic soldiers returning from the war loomed large in Kraepelin's imagination and further deepened his long-standing concerns about the connection between alcohol and the spread of sexually transmitted diseases. To his mind, alcohol abuse was too often a 'precursor of paralysis', because it enhanced the risk of infection and worsened its prognosis (Kraepelin, 1924: 1128; 1926b).

During the war, Kraepelin intensified his research on syphilis and paralysis (*Edition*, VII: 38–47; Engstrom, 1991: 119–22). From 1915 he had all patients admitted to his clinic tested using the Wassermann reaction in order to 'determine the average rate of syphilitic infection in our patients' (Anon., 1920: 155; Anon., 1921: 348; Plaut, 1927b). Furthermore, in 1919 he and other colleagues in Munich started large-scale human trials on paralytic patients, injecting them with the spirochaete responsible for relapsing fever. Assuming similarities between the bacteria causing syphilis (*Treponema pallidum*) and relapsing fever (*Borrelia*), the researchers hoped the *Borrelia* bacterium would stimulate the body's resistance and help it to fight off the *Treponema pallidum* bacterium.[15] In addition to these patient trials, Kraepelin initiated a massive reassessment of patient records in his own hospital and in several other local asylums (Anon., 1925: 624f.; Anon., 1926: 270). He also undertook extensive catamnestic research on all cases of paralysis that had been admitted to his clinic, dating back to 1904 (Lange, 1926: 299).

Shortly after the war, Kraepelin expanded the horizon of this clinical research by again taking up the study of paralysis on a global scale. In 1921 he began corresponding with psychiatrists outside Europe and revived his contacts with the asylum in Java that he had visited some 20 years earlier (*Edition*, VIII: 47–52). The data he collected was incorporated into his clinical inscription regime and compiled in a new card catalogue for 'comparative psychiatry' in 1922 (Anon., 1923: 256). These and other endeavours underscore the fact that by the early 1920s paralysis had become one of the most important fields of Kraepelin's psychiatric research (Kraepelin, 1924, 1926c). At the German Research Institute for Psychiatry, which he founded in Munich in 1917, it occupied the attention of numerous researchers. Indeed, because of its clinical, serological, anatomical and socio-hygienic dimensions, paralysis engendered 'the close cooperation between several divisions of the research institute' (Lange, 1926: 300; Spielmeyer, 1925).

Kraepelin himself expounded extensively on progressive paralysis in a 1924 article on 'The riddle of paralysis', in which he reviewed the difficulties of reaching an accurate diagnosis. While paralysis presented one of the 'most clear cut forms of disease in all of medicine' and although its cause seemed related to syphilis, neither pathological anatomy nor serology had so far been able to establish definitive indications (Kraepelin, 1924: 1123).[16] Kraepelin therefore considered paralysis to be a 'special case' that he sought to distinguish from cerebral syphilis using clinical criteria, especially the different courses and prognoses of the illnesses. He also cited endocrinological evidence to suggest that, beyond any brain disorder, there was also a 'serious general disorder' that was probably responsible for the morbid prognosis. From his observations, Kraepelin concluded that syphilis and paralysis, although related, were essentially two different diseases that followed from infection with *Treponema pallidum*.

But just how paralysis evolved from syphilis remained a conundrum. For only a very small percentage of syphilitic cases went on to become paralytic. As a result, Kraepelin believed it was necessary to recognize that the tendency to become paralytic might be 'acquired' and there was evidence to suggest that 'life events' (*Lebenseinflüsse*) could give rise to paralysis. He devoted

much of his article to the pathogenic significance of these 'life events', and he placed particular emphasis on two such events (pp. 1129–30).[17] First, previous exposure to infectious diseases seemed to reduce the risk of succumbing to paralysis. By enhancing the body's own defence mechanisms, these diseases appeared to provide protection against paralysis. Second, he emphasized the iatrogenic effects of treatment for syphilis. Drawing on the research of his colleague Karl Wilmanns, Kraepelin argued that inadequate treatment regimes for syphilis might facilitate the development of paralysis by leaving 'morbid nests' (*Krankheitsherde*) of the bacteria in the body, from which paralysis could then subsequently arise.[18]

In elaborating these views, Kraepelin drew explicitly on his experiences in Java and the Balkans. He especially noted the lower exposure to infectious diseases in 'civilized Europe' (*Kulturvölker Europas*) and the differences in the treatment of syphilis, compared with countries with few or no cases of paralysis (p. 1129). These differences prompted him to conclude that there existed a kind of 'natural protection' against paralysis (but not syphilis) that was under threat in 'civilized' cultures: whereas Europeans were at greater risk of suffering paralysis, peoples of the 'east and south' enjoyed a degree of immunity (pp. 1127–8). One key difference in cultural factors was the different drinking habits of the populations he studied.

Mainly to allow for further study of these differences, Kraepelin helped to initiate a project for the collection of international statistics on paralysis (Anon., 1925: 615; Kolb and Kraepelin, 1925). In cooperation with a Bavarian colleague Gustav Kolb, he hoped to enlist support from around the world as part of a global study of the incidence of paralysis. The project was decidedly interdisciplinary, drawing on the assistance of psychiatrists, neurologists, statisticians and syphilis experts. With their help, Kolb plotted graphs comparing incidence and mortality rates of paralysis and other syphilitic diseases in different countries across a range of variables, such as age, race, sex, climate, religion and occupation (Kolb and Kraepelin, 1925: 94). Kraepelin was especially interested in locating countries in which paralysis was rare or absent, hoping to shed light on the 'causal conditions' that seemed to protect indigenous populations from the disease. Nevertheless, the project's aims remained euro-centric. It assumed that paralysis was a 'parasyphilitic disease' caused not just by syphilis but also other factors in 'western culture' and 'civilization'; comparing the 'paralysis curves' from different countries was designed to locate 'factors rooted in western culture' that could explain the differences (p. 2).

Researching paralysis in North America (1925)

Kraepelin's ongoing interest in paralysis provided the justification for yet another research trip, this time to the USA, Mexico and Cuba in the spring of 1925 (Bendick, 1989: 172–179; *Edition*, VIII: 51–69; Engstrom, Burgmair and Weber, 2016; Plaut, 1926, 1927a).[19] Although there were other, and indeed more important, motivations for the trip, Kraepelin used it to continue his research in comparative psychiatry and in particular to study paralysis in African-American and native Indian patients. Travelling with his Munich colleague and serologist Felix Plaut, he examined patients at four institutions, two hospitals for African-Americans (St. Elizabeths Hospital in Washington, DC, and the Mazorra Asylum near Havana) and two for native Americans (the Asylum for Insane Indians in Canton, South Dakota, and the Manicomo General Hospital in Mexico City).[20]

Before he began examining patients at St. Elizabeths, Kraepelin spent several days reviewing the medical literature on native and African-Americans at the Library of the Surgeon General in Washington, DC. From these studies, Kraepelin concluded that the health of both groups had suffered grievously from the oppressed conditions in which they lived:

> It is fascinating to read about the fundamental differences between Indians and Negroes, both of whom have been consigned to misery by Whites, albeit in different ways … . Negroes, a people protected in

> slavery, tolerably well-nourished and exposed to no dangers, suddenly had to look after themselves after emancipation, although they were entirely unprepared to do so. The result was poverty, neglect, the outbreak of many diseases, the terrible carnage of tuberculosis, and the massive spread of syphilis, alcoholism, wantonness, and licentiousness. But Indians were a proud, self-confident and tough people, able hunters and warriors, who were deprived of every means of survival by Whites. On their barren reservations, they could no longer productively sustain themselves. They declined physically and sank into fatalistic apathy; and were ravaged by tuberculosis, infectious diseases, syphilis and alcoholism.[21]

Kraepelin was especially impressed with the native Indians – although hardly less deprived than African-Americans – he examined at the asylum in Canton, South Dakota, including his patient Lizzie Red Owl.

> In spite of all the neglect, mental inferiority, and primitive ways [*Unkultur*], their entire race [*Menschenschlag*] was far more attractive than the Negroes, who were far more mobile, better informed, and influenced by their constant interaction with Whites. As well as their often strong physique, on average they were remarkable for their dignified reticence and stoic endurance of the inevitable. Indians are proud of their race [*Rasse*] and their tribe, whereas the Negroes fervently long to resemble Whites. Indians were the country's masters, Negroes its slaves.[22]

Two things are especially noteworthy about these statements. First, Kraepelin seems to have been well aware of the destitute and oppressed social conditions in which native Indians and African-Americans lived. Indeed, he acknowledged the acute physical and mental health problems that derived from those conditions.[23] This belies some biologically over-invested interpretations of Kraepelin's work and reminds us of the importance that he attributed to social and cultural factors when it came to interpreting the manifestations of mental illness and preventing its spread. Thus, far from shunning the emerging field of social psychiatry, Kraepelin's research on comparative psychiatry was grappling to incorporate the social dimensions of mental illness into its *modus operandi* (Kraepelin, 1921; see also Engstrom and Weber, 2010).

Second, and partly due to his experiences in Java, Kraepelin seems to have believed that mental illness was less common among indigenous populations, not least because those populations evinced considerably more robust immune systems compared with the physical and mental 'domestication' that characterized more developed nations (Bendick, 1989: 73–4). This deep-seated cultural pessimism led Kraepelin to idealize the vitality of indigenous populations and juxtapose them with supposedly degenerate European high culture (Bendick, 1989: 96). Like his trip to Java two decades earlier, Kraepelin's trip to America seems to have confirmed and reinforced these views and convinced him that the effects of civilization – in curtailing or severing peoples' bonds with nature and their own instincts – were of important pathogenic significance.[24]

The results of his clinical examinations only partially confirmed these general impressions. Kraepelin and Plaut concluded that there existed no discernible difference between blacks and whites as far as their respective susceptibilities to paralysis were concerned. Furthermore, from this they deduced that racial and various other psychological and sexual differences had no part to play in the emergence of paralysis (Plaut, 1926: 44–6). But drawing similarly clear-cut conclusions about native Indians proved to be far more difficult. Of the patients examined at the asylum in Canton, they encountered not a single definitive case of paralysis (p. 73), and of the very few cases for which paralysis seemed the likely diagnosis, Kraepelin and Plaut doubted that the patients were in fact 'pure blooded Indians' (p. 73). Seeking further information on the racial composition of the Indian population, they entreated anthropologist Franz Boas to provide them with an expert opinion, but he rebuffed their request, claiming that current science could not establish the racial purity of Indians (pp. 62–3).

While in the USA, Kraepelin was more successful in recruiting the support of the US Department of the Interior. In a circular sent by the Office of Indian Affairs to more than 100 US asylums, superintendents were directed to submit reports on native Indian patients afflicted with syphilis and paralysis. The respondents were specifically instructed to provide a 'short historical sketch' of each paralytic patient and to report any differences 'observed between the external manifestations of syphilis in the Indian people and syphilis in other races' (*Edition*, VIII: 191). However, the results of this nation-wide survey were anything but conclusive. Reports from the 110 asylums that responded to the circular revealed only 25 Indian patients, of whom only three showed signs of syphilis, and only one of them was diagnosed with progressive paralysis.[25]

Although such disheartening results might have been taken as confirmation of the notion that native Indians were less susceptible to paralysis, Kraepelin and Plaut drew rather different conclusions from their evidence. The fact that they believed they had found a few cases of paralysis implied that native Indians did not enjoy 'true immunity from paralysis' (Plaut, 1926: 73). More importantly for our argument, however, Kraepelin and Plaut seem to have concluded that institutionally derived statistics were so unreliable as to make any definitive statements about trends in the general population impossible. The viability of Kraepelin's research depended upon accurate hospital statistics, especially 'uninterrupted serological documentation of all admissions' and 'careful clinical investigation' (p. 11), such as those employed at Kraepelin's institute in Munich. The hospital's investigative apparatus (*Ermittlungsapparat*) (p. 13) as well as reliable statistical studies of the general population were both necessary preconditions to meaningful research in comparative psychiatry.

What is most striking about the account of their research in America is their complete lack of trust in statistics on the incidence and mortality of mental illness. Time and again, they warned of 'statistical artefacts' and the 'broadly arbitrary' quality of statistical evidence (pp. 22, 30). Precisely because of enormous institutional differences and the unsystematic and poor record-keeping in American asylums, acquiring reliable information about the frequency of syphilis and paralysis became a 'fruitless undertaking' and any claims about historical changes in rates of paralysis therefore effectively 'unprovable' (p. 24). Lacking reliable documentation and surprisingly cognizant of their own methodological limitations, Plaut and Kraepelin found themselves up against that vexing predicament of every historian: '*Quod non est in actis non est in mundo* [That which is not recorded in the files does not exist in the world]' (p. 24).

Conclusion

This article has sought to portray Kraepelin's understanding of comparative psychiatry in relation to his research on progressive paralysis in Java and North America. His understanding is rather poorly captured by the concepts deployed in much of the historiography on colonial psychiatry. To state this is, of course, in no way to dismiss the considerable merits of studying the history of psychiatric institutions in colonial and transnational contexts. Nor is it to deny Kraepelin's own virulently nationalistic worldview (*Edition*, VII: 17–82; VIII: 51–5, 62–4). Indeed, he attributed most of the progress made in research on progressive paralysis to German scientists and considered their research as a sign of German 'hegemony [*Weltgeltung*]' (Kraepelin, 1924: 1129). However, we conclude that Kraepelin's research in Java, the USA and other countries was ultimately a manifestation of his own clinical methodologies and agendas. Thus, this article has not been about the complex organization of the asylums he visited abroad, or about the racial-political implications for psychiatry in colonial settings, but about how those asylums became sites at which Kraepelin attempted to conceptualize his understanding of comparative psychiatry and to put his clinical epidemiology into practice.

As scientific undertakings, Kraepelin's trips to Java and the USA yielded extraordinarily meagre results. Reporting back to his benefactors in Munich in 1925, Kraepelin conceded that because of the 'often contradictory evidence' it was impossible to draw any clear scientific conclusions from the trip (Anon., 1926: 259). Without the institutional infrastructure to support it, Kraepelin's research in comparative psychiatry threw up more questions and contradictory evidence than scientifically verifiable results. To the degree one can therefore understand the asylums in Java and America as testing grounds for Kraepelin's own metropolitan agendas, they failed to assuage his concerns about the morbid effects of alcohol and syphilis on European populations and provided no concrete answer to his long-standing questions about whether those effects were compromising the German populace's biological viability.

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Notes

1. This article relies, in part, on research conducted in connection with the eight-volume *Kraepelin Edition* (Burgmair W, Engstrom EJ and Weber MM, 1999–2013). Subsequent references to these volumes will be cited simply as *Edition*.
2. Summers (2010: 89) makes a similar point in relation to St. Elizabeths Hospital in Washington, DC, which manifested 'larger transatlantic … intellectual formations that deployed ideas about civilization and the primitive to legitimize social orders…'.
3. Besides his many trips to Italy, Kraepelin's travels took him to North Africa (1899, 1901), Java (1904), the Balkans (1895, 1905), the Iberian peninsula (1896, 1906, 1924/5), Mexico and Cuba (1925), and the USA (1908, 1925).
4. For example, the histopathological work of Alois Alzheimer was dedicated, among other things, to differentiating aetiologically between simple processes of aging, pathological processes in the brain, and more deeply seated degenerative conditions. Felix Plant's serological work on syphilis and progressive paralysis had potentially important diagnostic implications for Kraepelin's degeneration hypothesis. Ernst Rüdin's work on racial hygiene aimed to clarify the mechanisms of genetic inheritance and facilitate a so-called empirical genetic prognosis.
5. Foucault (1991: 190) has described this ability to maintain patients' 'individual features' as the advent of a disciplinary form of power that utilizes the dossier as its primary epistemological tool.
6. Although Kraepelin's actual research methodology was not strictly speaking epidemiological, his ambitions certainly were. As Anne Lovel (2014: i17) has recently noted, 'although [Kraepelin's] and other early cross-cultural approaches used asylum statistics to infer about rates of mental illness … they were not yet epidemiological'.
7. Kraepelin added that this increase of 'material' resulted in an 'extraordinary expansion of his scientific horizon' and enabled him to explore new fields such as progressive paralysis, psychopathy, paranoia, hysteria and dreams.
8. Ellis (1893: 326) believed that amok was a transient condition: under British colonial rule in Singapore, he interpreted the falling numbers of amokers as a sign that 'better control over their impulses is undoubtedly being evolved among the more civilized Malays'. This social improvement was not a 'racial improvement'.
9. This view was typical of psychiatric constructions of racial difference before the influence of the 'Personality and Culture' school of anthropology, as seen in the works of Ruth Benedict and Margaret Mead. For more on the historiography of racial difference, see Anderson, 2014a.
10. These differences were typical of the way that non-western populations were thought about. For the Indonesian context, see Pols, 2006, 2007a, 2007b; and for sub-Saharan Africa, see Vaughan, 1991; Campbell, 2007.

11. This corresponds with Vorstman (1897), who commented that koro was associated with alcoholism among the Chinese of Borneo.
12. Kraepelin had relied on a similar cross-linguistic practice earlier in his career in Dorpat (Estonia), where he could converse with many patients only through translation.
13. Progressive paralysis was an illness associated with the late stages of syphilis. It usually afflicted individuals in mid-life and was accompanied by serious clinical symptoms, including motor-neural disruptions, progressive dementia, and sometimes hallucinations and changes in personality. By the 1920s it comprised some 15% of psychiatric hospital patients and up to 50% of hospital deaths in German cities.
14. In Constantinople, Kraepelin (1983: 163) likewise found 'no major differences' when compared with patients in Germany.
15. Based on results from 76 cases followed over five years, Kraepelin (1924: 1130) concluded that the technique had been remarkably effective against paralysis; see also Plaut and Steiner, 1925.
16. The diagnosis was further complicated by another syphilitic disorder, namely *tabes dorsalis*. It showed similar symptoms, but its course was much slower and milder than in cases of paralysis and could stop and even improve. Nor did *tabes* evolve into dementia (*Siechtum*) as paralysis did.
17. While it was generally recognized that hereditary influences had no part in causing paralysis, Kraepelin suggested that alcohol, exhaustion, and emotional 'excitement' might be contributing factors.
18. These 'nests' were especially dangerous if located in brain tissue or cavities. Kraepelin therefore expected better results from therapeutic intervention beneath the meninges or in cerebral cavities and the spinal channel. Near the end of his life, however, Kraepelin (1926c) was considerably more sceptical of Wilmanns's views. Furthermore, Kraepelin (1926a) and his colleagues (Plaut and Jahnel, 1926) rejected the views of Leon Daraszkiewicz, who in response to Kraepelin's article advanced the hypothesis that paralysis was caused by vaccinations. According to Daraszkiewicz (1926), countries that vaccinated against smallpox exhibited higher rates of paralysis. Nevertheless, these debates underscore the importance of what Richard Noll (2007) has described as the 'lost biological psychiatry' in Kraepelin's work. On Daraszkiewicz, see Marcinowski, 2012.
19. Kraepelin had been to the USA once before, for a consultation in 1908; Noll, 1999.
20. On the history of St. Elizabeths, see Gambino, 2008; and on the asylum in Canton, see Putney, 1984; Riney, 1997.
21. Emil Kraepelin to Ina Kraepelin, 5 April 1925, Perkow Papers, Historical Archives of the Max Planck Institute for Psychiatry, Munich.
22. Emil Kraepelin to Ina Kraepelin, 5 May 1925, Perkow Papers (see previous note); also Plaut, 1926: 66. To the extent that Kraepelin shared notions like the 'African Mind' or any putative 'consensus' about specific 'black pathologies' that other observers attributed to African-Americans, he seems to have adopted views advanced by Green, 1914. Cf. Plaut, 1926: 21; Summers, 2010: 74; see also McCulloch, 1995.
23. Conditions in Canton were correspondingly poor; Putney, 1984; Riney, 1987. The 'asylum' was little more than a prison, with almost no medical facilities, and its inmates often died of tuberculosis. Of the 306 inmates admitted between 1902 and 1924, 52 had died of tuberculosis. The asylum was finally closed down in 1934 due to mismanagement.
24. Such views clashed with contemporary, racially charged American interpretations of Indians' susceptibility to tuberculosis. According to the so-called 'virgin soil' theory, the high incidence of tuberculosis among Indians was attributed to a 'natural' lack of immunity; McMillen, 2008.
25. See 'Summary of answers to Circular No. 2119 – General Paresis', K 20/II/2, Historical Archives of the Max Planck Institute for Psychiatry, Munich; also Plaut, 1926: 58–60.

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