

**PSYCHIATRY AND THE NOBEL PRIZE:
EMIL KRAEPELIN'S *NOBELIBILITY***

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Abstract. This paper gives an overview of runner-up candidates in the field of psychiatry for the Nobel Prize in physiology or medicine and provides a detailed account of the Nobel Prize nominations for Emil Kraepelin. Kraepelin was nominated for the Nobel Prize on at least eight occasions from 1909 to 1926. Among the sponsors, we find psychiatrists and neurologists such as Robert Gaupp, Ernst Meyer, Eugen Bleuler, Oswald Bumke, Giovanni Mingazzini, and Wilhelm Weygandt. Portraying Kraepelin as a Nestor of psychiatry, the nominators meant that his work was of theoretical importance and that they also liberated the way for new areas of research. However, the proposals remained half-hearted and lacked clear practical results or solid evidence, which in the end weakened Kraepelin's Nobelibility, i.e. his eligibility for the award.

Keywords: Emil Kraepelin, psychiatry, Nobel Prize in physiology or medicine, history of psychiatry, schizophrenia, manic-depressive psychosis

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1. Introduction

In 1910, Emil Kraepelin was invited to nominate a scholar for the Nobel Prize in physiology or medicine. He replied to the Nobel Committee: “After receiving the invitation, I contacted colleagues in other medical fields for advice, because as it seems, no researcher in my field can possibly compete for such an honourable award” (Nobel archive (NA), Kraepelin yearbook 1910). It is speculative whether Kraepelin implied that “no other researcher in my field but me” should resonate in the mind of the readers, but his reply reveals three aspects of medicine and science associated with questions of personal achievements and reputation which will be investigated further in this paper. First, the staging of excellence in medicine with

the help of the Nobel Prize; second, the role of psychiatry in the cast of the medical disciplines; and third, Kraepelin's story as a Nobel Prize runner-up.

Given the focus of this journal, we will not discuss the prize-worthiness of Kraepelin's scientific work or his legacy in detail. It is in this context sufficient to mention that Kraepelin's name still stands for excellence in psychiatry: Established in 1928, the *Golden Kraepelin Medal* (awarded by the German Research Institute of Psychiatry) is one of the world's most renowned awards in psychiatry. Reflecting upon this reputation, it is perhaps not surprising that Kraepelin was nominated several times for the Nobel Prize in physiology or medicine.

In this paper we demonstrate the ambivalence of excellence and failure preserved in the Nobel Prize archive by tracing the nominations for Emil Kraepelin, one of the founders of modern scientific psychiatry. A few of the arguments presented here were also highlighted in a recent correspondence piece for *World Psychiatry* (Hansson and Fangerau 2016). Taking Kraepelin's case as an example, we try to deconstruct the aura surrounding the Nobel Prize, arguably – at least nowadays – the strongest symbol of scientific excellence worldwide. The key questions concern how and why particular scientists have been acknowledged as the greatest in their respective fields. We do that by analyzing Nobel Prize nominations collected in the archive of the Nobel Committee for physiology or medicine in Sweden. These files offer new perspectives on reward mechanisms in medicine and on how excellence has been attributed within particular scientific communities during the 20th century. Moreover, the nominations can help to reconstruct networks in medicine and science, and even more so if – where applicable – personal letters between nominator and nominee and comments in the daily press are added to the analysis. Bo S. Lindberg, for example, combined such sources and presented new nuances in terms of international reputation of the strong Nobel Prize candidate and renowned Swedish neurologist Salomon Henschen during the first decades of the 20th century (Lindberg 2013). Following this approach, we are interested in why some often nominated candidates fail in the end.

To understand Kraepelin's Nobel Prize candidacy – or *Nobelibility*, Jüri Allik coined this neologism at the Tartu conference “Emil Kraepelin 160/30” in February 2016, meaning the eligibility for winning a Nobel Prize – better, we will first have a brief look at the Nobel Prize nomination procedure and zoom in on the rather few prizes for psychiatrists. Second, the nominations for Kraepelin will be reconstructed in order to understand why he as one of the most important psychiatrist of his time was never awarded the prize. In the end, Kraepelin could not, to use his own words: “compete for such an honourable award”. Thus, we finally have to ask, why he was only a second best option for the Nobel Prize committee. The focus will be on Kraepelin as a nominee, although he also acted as a nominator himself on several occasions. From 1901 to 1921 he nominated in chronological order, according to the official Nobel Prize nomination database, scholars of different nationalities working in various fields of medicine: Robert

Koch (1901, 1905), Jules Bordet (1910, 1912, 1914), Bernhard Naunyn (1910), Felix Marchand (1911, 1912), Franz Nissl (1919), and August von Wassermann (1920, 1921) (<https://www.nobelprize.org/nomination/archive/> (October 1, 2016)). Two of them became Nobel laureates, Koch in 1905 and Bordet in 1919.

2. Background: the Nobel Prize and psychiatry

The Swedish inventor Alfred Nobel laid the foundation for five prizes in physics, chemistry, physiology or medicine, literature, and peace to those who had “conferred the greatest benefit to mankind”. As for the prize category of physiology or medicine, this phrase was slightly elaborated on – it should according to Nobel's will (signed in 1895) be given to a “living person who has made the most important discovery within the domain of physiology or medicine” and to be awarded by the medical faculty at the Caroline Institute in Sweden. The first prize ceremony took place in Stockholm in 1901. Former Nobel laureates, some scientific societies and some universities were back then, and are still today, invited to nominate scholars for the award each year. Already during the early years of the prize, there was a buzz around the nomination procedure. For example, in 1906 a correspondent in the *British Medical Journal* spoke critically of the lobbying behind the curtains before a nomination was to be submitted: “All those who are invited to suggest candidates for the Swedish award will remember how often they are asked by friends to vote for So-and-so” (Anon 1906).

Most nomination letters include at least a few sentences as motivation why the proposed scientist is viewed as prize-worthy. In a recent overview, we characterized three common arguments in Nobel Prize nominations, namely that the candidate is portrayed as a true hero in science (indicated by other renowned prizes, scientific honours or eponyms), that the significance of the discovery in question is internationally acknowledged (shown by quotes and citations in scientific journals, textbooks, and daily press) and that it has an enormous potential in multiple medical fields (Hansson et al. 2016). At the same time, this kind of rhetoric exemplifies the importance of the Nobel Prize from the standpoint of the nominator. As for the public view, sociologists of science have underlined the lasting and outstanding reputation of the prize (Zuckerman 1977, Merton 1979). Historians again have suggested that the history of the award mirrors trends in medicine throughout the last century (Ackerknecht 1968). If we follow this last assumption – which role did psychiatry play?

At the beginning of the 20th century psychiatry benefitted from the trends of institutionalisation, professionalization and specialisation in the German medical sphere (Huerkamp 1985, Weisz 2005). Before psychiatry as a discipline could enter the university in that way, it was mainly considered a practical field for so-called ‘alienists’ who cared for their patients rather than tried to cure them. Around *fin de siècle*, psychiatry was still a growing academic discipline as far as university institutionalization is concerned: full professorships were being

established at German universities, and it became a subject of the core curriculum for medical students (Roelcke 2003). In light of this fact, it might seem extraordinary that researchers within the field were nominated for the Prize repeatedly, but it was not unusual that disciplines which had recently achieved full academic citizenship were brought up in Nobel nominations, perhaps as a strategy to claim their legacy. This was also true for other quite newly introduced specialties at universities like urology, gynaecology, and even medical history (Hansson 2015). But if we rely on the nomination numbers, these disciplines were outsiders. During the first two decades of the 20th century, the lion's share of the proposals dealt with fields like bacteriology, immunology and physiology, and to a somewhat lesser extent, surgery.

Not much light has been shed – with the exception of Carl-Magnus Stolt's papers on Sigmund Freud and António Egas Moniz (Stolt 2001, Stolt 2002) – on specific links between the Nobel Prize in physiology or medicine and psychiatry or psychiatrists, at least not using original files in the Nobel archive. To date, three Nobel prizes have been awarded to psychiatrists or to researchers in recognition of psychiatric therapies: Julius Wagner-Jauregg in 1927 for his discovery of the therapeutic value of malaria inoculation in the treatment of dementia paralytica (Whitrow 2003), António Egas Moniz in 1949 for his discovery of the therapeutic value of leucotomy in certain psychoses, and Eric Kandel in 2000 for his research on the physiological basis of memory storage in neurons. However, the list of nominated psychiatrists is much longer.

Going through some nominations by psychiatrists from 1901 to 1960, we noticed an articulated annoyance about the fact that not a greater number of scholars within the field had been honoured. The Munich psychiatrist and neurologist Kurt Kolle, for example, stated in a nomination letter for Karl Jaspers in 1958 that “if we just view medicine as a strict natural science, it will remain just a torso” (NA, yearbook 1958). He asked: “Why only consider lab-based research and accidental discoveries for the Nobel Prize? [...] Why aren't there more psychiatrists who had received the Prize? Some overlooked psychiatrists have indeed been just as prize-worthy as the selected laureates”. Giving some examples, Kolle mentioned his former teacher Emil Kraepelin for his research on *Dementia praecox* and manic depression (he had himself published a biographical sketch on him (Kolle 1956)), Eugen Bleuler for his book “*Gruppe der Schizophrenien*“, Constantin von Economo for the ‘discovery’ of *Encephalitis epidemica*, Alois Alzheimer for his work on the pathology of the nervous system, Sigmund Freud for the psychoanalysis, Karl Bonhoeffer for his work on symptomatic psychosis, and Hans Berger for developing the EEG (for Berger see Gerhard et al. 2005). Other psychiatrists or neurologists, like Franz Nissl (with whom Kraepelin worked with for several years in Munich), and Arnold Pick, stated in their nominations (Pick in 1902 and Nissl in 1910) that they – from their viewpoint – probably independently of each other, could not distinguish a candidate as superior to others. Consequently, they recommended that no prize should be awarded during those years (NA yearbook 1902 and 1910).

3. Nobel Prize nominations for the Pope of Psychiatry

Discussions around the award linked to Kraepelin, or the 'super-Pope of psychiatry' as Freud allegedly nicknamed him (Livingstone 2015), do not appear either in the Kraepelin letter editions (Burgmair et al. 2000–2008) or in Kraepelin's memoirs (Kraepelin 1987). This is also true for the official compendia on the history of the Nobel Prize written by members of the various Nobel committees – Kraepelin is to date not mentioned by name in that context (Liljestrand 1951, Norrby 2010). It is only Jüri Allik (1998, p. 104) who hints in a paper in this journal, that “[i]t is indicative that Kraepelin himself expected to receive the Nobel Prize [...] not for establishing that mental disease runs a regular course [...] but for his studies on the work of fatigue curve”, a statement also mentioned in an obituary notice by Wilhelm Weygandt (1927).

Kraepelin was nominated on at least eight occasions over a time period covering 17 years, from 1909 to 1926. He was nominated by Robert Gaupp (Tübingen), Ernst Meyer (Königsberg, now Kaliningrad), Eugen Bleuler (Zurich), Oswald Bumke (Leipzig), Giovanni Mingazzini (Rome), and Wilhelm Weygandt (Hamburg). Correspondences between Kraepelin and Weygandt, Meyer, and Mingazzini, respectively, are kept in the Historical Archive at the Max-Planck Institute for Psychiatry in Munich. In these letters, the Nobel Prize nominations for Kraepelin are not discussed, but they highlight some aspects of their relationships.¹ For example, Weygandt wrote to Kraepelin in 1903 (and again in 1908) to ask for a letter of recommendation, and in 1906 to ask if Kraepelin would be interested in becoming an editor for a journal in order to give it a stronger reputation. The more comprehensive correspondence with Mingazzini dealt largely with practical questions regarding Kraepelin's house in Italy, and also with the election of German researchers for scientific associations in Rome.

In the following, we will highlight three nominations for Kraepelin, which are to some extent representative for the other proposals as well since they cover the main arguments why he was reckoned a strong candidate.

In 1909, Robert Gaupp – at that time full professor at the university of Tübingen – wrote in his nomination of his former teacher that Kraepelin doubtlessly was the most important contemporary psychiatrist and one of the most original experimental physiologists: “K. has revolutionized scientific psychiatry in theory and practice” (NA, yearbook 1909). Furthermore, Gaupp stressed Kraepelin's social engagement regarding anti-alcohol/temperance movement and how the state should deal with psychiatric patients ('replace isolation with hot baths'), and how to protect the German and Western race.

Eight years later, in 1917, the Swiss psychiatrist Eugen Bleuler submitted a more comprehensive nomination letter. This letter has a lyrical touch. Bleuler chose to use a glass mountain as a figure of speech, referring to peasant folklore and man's

¹ Nils Hansson visited the archive in May 2016. Max Planck-Institut für Psychiatrie – Historisches Archiv – K 33/21 (Weygandt), K 33/12 (Meyer), K 34/4 (Mingazzini).

attempts to climb a mountain made of glass. According to one of many versions of the tale, for each step a man takes up the mountain, he slides back two steps. Bleuler argued that Kraepelin was the one who had managed to form a basis for scientific psychiatry by ‘cutting steps into the mountain’ so that all clinicians could benefit from his fruitful work. In other words, the steps in the glass mountain that according to Bleuler saved psychiatrists from slipping down the glass hill were Kraepelin’s systematic clinical observations and categorial classifications of dementia praecox (later relabelled schizophrenia by Bleuler himself) and manic depression (manic-depressive psychosis). Should this framework not exist, Bleuler argued, psychiatry would have been useless: “What good is it to know that one treatment works for a single patient, not leading to a general conclusion” (NA, yearbook 1917). From today’s perspective it seems over-simplistic that the nominators put forward Kraepelin’s nosology and reputation of drawing strict lines, not taking into account that Kraepelin in his own textbook stressed grey zones and the multifaceted nature of disease and disorders, just as Kraepelin’s nosological construction and classification processes constantly evolved throughout the editions of his widespread textbook *Psychiatry* (Engstrom 2003).

In the very last nomination for Kraepelin, submitted in November 1925 for the Prize in 1926 (Kraepelin passed away in October 1926), Wilhelm Weygandt – the Hamburg psychiatrist and Kraepelin’s former assistant during three years in the late 1890s – put forward that Kraepelin has had a lasting impact on psychiatry, suggesting that psychiatry as a whole had been a chaotic disaster pre-Kraepelin (NA, yearbook 1926). According to Weygandt, Kraepelin had introduced experimental-psychological methods to foster the understanding of mental diseases in a previously unimagined way, summaries of which expressed in his Opus magnum *Psychiatry* and in his experimental essays published in the journal “*Psychologische Arbeiten*” (a journal founded by Kraepelin). At that time, the four-volume ninth edition of Kraepelin’s major textbook (later described by Alexander and Selesnick as ‘the bible of modern psychiatry’ (1966)) was in preparation, to be published in 1927. Weygandt also stressed that – another typical argument in Nobel nomination letters – scholars from many countries had been highly inspired by Kraepelin and that they used his work as basis for further research.

All in all, Kraepelin was honoured by the nominators for his link of psychiatry and public health and racial hygiene (Gaupp), his systematic clinical observations and categorial classifications (Bleuler) and his introduction of experimental-psychological methods to psychiatry (Weygandt).

However, Weygandt’s nomination had an unexpected twist: Weygandt wrote that he was not able to point at one single discovery by Kraepelin that would merit the Nobel Prize. Instead, he put forward Julius Wagner-Jauregg in Vienna up front (who was to receive it one year later). This twist was also hidden in the other nominations. In fact, Bleuler had meant that he too could not propose a single discovery that in itself would merit a prize to Kraepelin. This is also true for the Kraepelin nomination by Oswald Bumke in 1923 mentioning Kraepelin’s life-time achievement.

4. Discussion

What constitutes a 'Nobel Prize-worthy' discovery in the field of psychiatry? As pointed out in the introduction, only Julius Wagner-Jauregg and António Egas Moniz were awarded the Nobel Prize in recognition for work related to psychiatry during the first half of the 20th century, both for procedures no longer prize-worthy from today's perspective. During the 19th century treatments or pharmaceuticals which were considered as so harmful or dangerous for the patient that their application required boldness and defiance of death were called 'remedia heroica' (Ersch and Gruber 1829:396). Recently, Hans-Walter Schmuhl and Volker Roelcke (2013) used this term to describe a category of psychiatric treatments showing these characteristics of potentially harming patients, which were increasingly introduced after World War I (e.g. shock therapies with insulin, cardiazol, electricity). It is noteworthy that the two laureates before 1950 received their prizes for so called experimental or 'heroic' therapies. We argue that the significance of their contributions turned out obvious for their peers and the Nobel Prize committee in their specific historical contexts. With their intrusive and dramatic character they resembled surgeons or experimental approaches like the heart catheterization (Nobel Prize for Werner Forssmann in 1956) and other therapeutic procedures. It seems as if one 'revolutionary' discovery was more interesting for the prize jury than – as the nominators described Kraepelin's work – careful description, precise organisation of data and an influential textbook.

That said, this simple story and easy causality gets blurred by others who missed the prize. One further scholar who received much attention amongst nominators was the US-American neurophysiologist and psychiatrist Manfred Sakel for his insulin shock therapy, widely used on patients with diagnosed schizophrenia in the 1930s. In this case, nominators compared Sakel with Nobel laureate Wagner-Jauregg, arguing that Sakel was at least just as influential, and that the insulin shock therapy had a much wider application than malaria fever therapy (NA, L. Halpern, yearbook 1958). Other subsequent prime candidates within the field were the Italian scholars Ugo Cerletti and Lucio Bini who introduced the electroconvulsive therapy (ECT) in the late 1930s, a therapy in which electric current is used to provoke a seizure as an attempt to treat certain mental disorders (Passione 2004). Other runners-up among European scholars (not mentioned by Kolle) with ties to psychiatry, psychology and brain research during the first half of the 20th century whose achievements in the end also did not convince the majority of the Prize jury were Cesare Lombroso, Ernst Kretschmer, Wilhelm Wundt, Eduard Hitzig, Oscar Vogt, and Karl Kleist. Due to various reasons they did not make it either, and further historical research is needed to highlight other factors how (not) to win a Nobel Prize.

In Kraepelin's case, the nominators meant that his work was of theoretical importance, that the theories had been verified by other scientists and had also liberated the way for new areas of research. They portrayed him as a Nestor or even a scientific manager. But the proposals remained half-hearted and lacked

clear practical results or solid evidence. Instead the nominators used unspecific terms, metaphors, and phrases or words – characteristic for Nobel nomination rhetoric (Hansson and Schlich 2015) – e.g. ‘indestructible progress’ or ‘[Kraepelin] completely changed the standards of psychiatry’. So after reviewing the nominations, it does not come as a surprise that Kraepelin did not end up on the shortlist of the Nobel committee. With friends like that, who needs enemies?

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