

## I. Who Was Paul Möbius?

“The modern history of psychotherapy begins,” Freud said in 1909 to an interviewer of the *Boston Evening Transcript*, “with the school of Nancy, with Liébeault, Bernheim; etc., and with Möbius, who unfortunately died early, though not until his studies on suggestion had borne much fruit.”<sup>1,2</sup>

Emil Kraepelin, the twentieth century classifier of psychosis, gave his late colleague Möbius a place in a biographical collection of important German psychiatrists,<sup>3</sup> particularly for having achieved a “breakthrough” in the understanding of hysteria as a psychogenic condition. Kraepelin’s still valid classification of the psychoses into *endogenous* (produced from within) and *exogenous* (engendered from without) was one of Möbius’ ideas. It appeared in the sixth edition of Kraepelin’s textbook in 1896, three years after the publication of Möbius’ short compendium on nervous disease, where it was first proposed and applied.<sup>4</sup> That survey is a rigorous attempt to differentiate between internally and externally caused nervous diseases. The conditions that are “proved or can be assumed to be exogenous” include the conventional toxic and infectious ones (including tertiary lues—Möbius’ “metalues”), trigeminal neuralgia and sciatica (“rheumatic,” as is Bell’s palsy), thyroid disease and acromegaly (due to “pituitary hypertrophy”), multiple sclerosis, paralysis agitans, the group of motor neuron diseases, and syringomyelia. Endogenous disorders are described as those where “the principal condition must lie in the individual, in a congenital disposition (*Anlage*), other factors being merely contingent and quantitative.” Neurasthenia and hysteria

are classified with what we now know to be genetic diseases: epilepsy and migraine, Huntington's chorea, myotonia, muscular dystrophy, Friedreich's disease, and spastic spinal paralysis. Understandably, the book is dedicated to Charcot, "the supreme master."<sup>5</sup>

Adolf Strümpell, the leading German internist of his day, devoted four pages of his 286 page autobiography to Möbius' colorful personality, more space than he gave to any other one-time collaborator. In Strümpell's opinion it was Möbius' greatest "clinical achievement" to have "erected, with one single stroke, the fruitful etiological concept in the place of all those previous contradictory and unsatisfactory attempts at explaining" Graves' (or Basedow's) disease.<sup>6,7</sup> Was this not simply myxedema in reverse? Möbius had asked in 1886, insisting that the diseased thyroid gland was the source of the entire syndrome, then still handled as a neurosis.<sup>8</sup> "Neurosis," lest we forget, had not yet assumed its current connotation of a psychogenic disorder but rather was still perceived as a bona fide disease of the nervous system that simply lacked post-mortem confirmation. As late as 1908, Hermann Oppenheim, in the fifth edition of his standard German textbook of neurology, could not bring himself to abandon the old concept of what we now call hyperthyroidism as a disease primarily affecting the nervous system, especially its autonomic portion. Langley, Marie, Erb, and others, he added, continued to support this view. Oppenheim conceded only that Möbius' hypothesis was "very suggestive" in view of recent favorable reports regarding thyroidectomies; there might be a "secondary" involvement of the thyroid gland.<sup>9</sup> A substance produced by the thyroid causing Graves' disease and antagonistic to the agent causing myxedema? This concept was so radical that Möbius' account of it in the twenty-second volume of Nothnagel's omnibus on internal medicine was presented in a separate monograph. Another author's account of "diseases of the thyroid" covered only myxedema and cretin-

ism.<sup>10</sup> Endocrinology as such was not yet conceived; the term itself was coined only in 1909 by Nicola Pende.<sup>11</sup>

Möbius also played a significant role in the struggle that began in the 1870s to link tabes dorsalis and general paresis (the two most common nervous system diseases of the day) with syphilis. Anyone familiar with the history of this issue will confirm that as early as 1884 he was one of the first supporters, and perhaps the most untiring, of Fournier's insight into that link, considerably before the better-known William Erb accepted it in 1892. Fournier had spoken of "paralues" as a side phenomenon; Möbius coined the word "metalues" to characterize tertiary syphilis as an after-effect.<sup>12</sup> Again, Oppenheim's basic neurology text of 1908 accepted as proven only that "there is a connection," while emphasizing that "we have no right to make syphilis the *sine qua non* of tabes dorsalis."<sup>13</sup> Most French and Anglo-American authors had done so by that time, particularly on the evidence of the positive Bordet-Wassermann reaction. This serological test, however, was introduced in 1906, that is, at the very end of Möbius' life. Although discovered in 1905, the *Spirochaeta pallida* was not detected in the nervous tissues of taboparalytcs before 1913.<sup>14</sup>

Kraepelin and Strümpell provide much of the basis for Spoerri's<sup>15</sup> and Bodenheimer's<sup>16</sup> excellent, significantly recent biographical reevaluations of Möbius' work. When Breuer and Freud wrote their *Studies in Hysteria* (1895), they quoted Möbius rather than Charcot and Janet, as they were referring to somatization of ideas and to the hypnoid state in that condition.<sup>17</sup> Freud subsequently took little notice of Möbius, and vice versa. His name hardly figures in Freud biographies. Thus, it seems all the more remarkable that Freud mentioned Möbius so prominently during his 1909 visit to the United States. After all, for twenty years (1886–1906), Möbius had held a singular position of authority as one of the two editors of *Schmidt's Jahrbücher der gesamten Medizin* where he reviewed much of the current inter-

national literature pertaining to clinical neurology and psychiatry.

Nevertheless, between Bernheim and Liébeault on one hand, and Freud on the other, Möbius seems to have been squeezed out of the historical mainstream. The Anglo-American literature in particular has given little space to him. He rates three lines in Garrison's *History of Medicine* and is briefly mentioned in Zilboorg and Henry's standard history of psychiatry.<sup>18</sup> Ellenberger credits Möbius with having been one of the first to establish private institutions for work-therapy.<sup>19</sup> He merits a seven-line paragraph in Alexander and Selesnick's *History of Psychiatry* which places him "among the great clinicians," and credits him with "great influence because of his imaginative mind and literary ability." Here he is given credit for believing in the psychological origin of hysterical symptoms "more than Charcot and Janet did."<sup>20</sup> In a more recent Spanish historical study, *Neurosis y Psicoterapia* (1970), Lopez and Morales do devote about 10 of their 380 odd pages to Möbius, calling him "an outstanding and well known figure thanks to his important contribution to neurology, psychiatry, and endocrinology, as well as his notable production as an essayist."<sup>21</sup>

Möbius was fifty-three when he died, over two years before Freud recalled him in 1909. That year his "pathographies" of Rousseau, Schopenhauer, Nietzsche, and Goethe, as well as his defense of Gall and phrenology, were deemed worthy of a third leather-backed edition in Leipzig, his hometown.<sup>22</sup> The University of California, Berkeley, Library keeps these volumes in storage; only Möbius' more provocative titles are on the active shelves, among them the shocking titles *Über den physiologischen Schwachsinn des Weibes* (On the Physiological Feeble-mindedness of the Female)<sup>23</sup> and *Hoffnungslosigkeit aller Psychologie* (Hopelessness of all Psychology).<sup>24</sup> None of Möbius' works has been translated into English; the excerpts in this essay are my renderings.

Möbius' name is preserved as a multiple eponym in neuro-ophthalmology.<sup>25</sup> Even so, not every specialist would be able to identify "Möbius' syndrome" as congenital nuclear cranial nerve palsy.<sup>26</sup> And only members of an older generation are likely to remember that to look for impaired ocular convergence in hyperthyroidism is to look for the "sign of Möbius."<sup>27</sup> Almost all of us, neurologists and psychiatrists included, would need a medical dictionary to find out that "akinesia algera (Möbius)" is a patient's inability to move because all or part of the body is imagined to be painful (*algeros*).<sup>28</sup>

None of Möbius' reviewers mentions the philosophical mainspring of his work, which is unique in its focus upon the fundamental conundrum that has baffled neurology and psychiatry: the relationship between mind and brain. Möbius believed that a rigorous monism offered the solution.

## II. What Was Monism?

My interest in the man was accidentally awakened by a passage in his monograph on migraine, a standard work in his day and, like his study of hyperthyroidism, a contribution to Nothnagel's *Handbuch*. Like all of Möbius' writings, it is refreshingly unceremonious in tone. While discussing the mind-brain problem posed by migraine he breaks into this brisk credo, "I am an adherent of monism,"<sup>29</sup> and follows it with a lengthy digression. Because metaphysics are anathema in medicine, a writer who states his personal philosophy in such a context is a rare bird indeed. It would be hard to find a similar specimen in any other clinical writing of the time; today it would be out of the question.

Monism, although the medical literature hardly reflects this, was a vigorous intellectual movement around the turn of the century, especially in Germany, and to some extent in the United States. An old concept, monism took on new life as an aggressive view of the world, in the wake of the upheaval over Darwinism. If Darwin and Huxley were merely warding off the onslaught by the religious establishment, the German version of “man’s place in nature” turned into a vociferous and fundamental attack, with political overtones, against “obscurantism” at large. The attack was launched by the foremost continental expounder and amplifier of the Darwinian gospel: Ernst Haeckel. Not only did Haeckel’s famous “basic biogenetic law” interpret evolution to mean that the embryo passes through every evolutionary stage (“ontogeny” and “philogeny” are his terms), but he also traced the descent of man, indeed all life on earth, back to the inorganic world. Much of Haeckel is science by analogy, especially analogy of configuration, as in Goethe’s naturalism. Romanticism and *Naturphilosophie* were not dead, least of all in Germany. As one would expect, Haeckel clashed with Virchow, the creator of *Cellular Pathology* (1858). Virchow’s credo *omnis cellula e cellula* (“all cells arise from preexisting cells”) supported traditional vitalism in opposition to the new, or revived, claim that nonliving and living forms were only consecutive products on nature’s assembly line. (Virchow, a patriotic liberal activist, also accused Haeckel of propagating socialism, a taunt the fervently nationalistic Haeckel found outrageous.)<sup>30</sup>

As to monism, only a small ideological dressing seemed necessary to cover the wounds that scientific materialism kept inflicting on man’s metaphysical yearning for purpose in the universe. If the soul could be atomized, the argument seemed to run, why not see nature, every atom of it, “ensouled?” Haeckel had to defend himself against being branded a mean materialist. There were two connotations of materialism, he explained. In its moral (or immoral)

sense, it referred to gratification of the senses—nothing of course could be farther from his creed. Scientific materialism, however, led straight to monism. Monism, in the words of one of Haeckel's biographer's, signifies that "what we call 'dead' is really alive; what we call 'living' is really subject to the same laws as the 'dead'."<sup>31</sup> Monism, finally, was the very "bond between religion and science," or so reads the subtitle to *The Creed of a Scientist*, one of Haeckel's numerous pamphlets.<sup>32</sup> His *History of Creation* had first appeared in 1868, three years before Darwin's *Descent of Man*. The craving to preserve spiritual and emotional values in the pursuit of science was shared not only in biological circles but also by some physicists and chemists, among them Wilhelm Ostwald, who received the 1909 Nobel Prize in Chemistry for his pioneering work on electrolytes. Like the nonpolitical Möbius a citizen of Leipzig, Ostwald became a leader in the increasingly Pan-Germanic monistic movement.<sup>33</sup>

The turbulence created by evolutionism prompted other powerful minds to seek some effective means of reconciling divine harmony and purpose with disconcerting discoveries suggesting nothing but chance. Typically, these deep-delving would-be mediators were far from meek and conciliatory in action and assumed hard-hitting and rebellious postures. In England Samuel Butler was perhaps their most remarkable representative: amateur anti-Darwin evolutionist, musician, painter, and novelist, he disowned his theological background and espoused a position of idealistic monism (although he did not use the term).<sup>34</sup>

Monism proper, in the person of Paul Carus, migrated in 1887 from Germany to the United States. Whether or not this busy philosophical writer was in fact a descendant of Carl Gustav Carus—comparative anatomist, painter, and philosopher of the unconscious at Leipzig, who had already found the fact of heredity sufficient proof of the cell's psychic life—he was a spiritual heir. With the support of a wealthy Chicago zinc manufacturer and publisher (C.

Hegeler), whose daughter he married, Carus brought out *The Monist* in 1890. A quarterly magazine “devoted to the philosophy of science,”<sup>35,36</sup> it has had an uninterrupted run to this day. “Scientific terms are comparable to myths that contain deep religious truths,” Carus wrote in an article on an Austrian monist, the physicist Ernst Mach.<sup>37</sup> Back in Germany, but not before 1906, the pugnacious League of Monists (*Monistenbund*) gathered around the venerable seventy-two-year-old Haeckel. Drawn into the political arena, the radical-liberal, anticlerical, Pan-Germanic organization eventually split, one faction merging with the Social Democrats, the other with the National Socialists.<sup>38</sup>

Dr. Möbius died shortly after the *Monistenbund* was founded, and its periodical contains no contribution of his. He was not a “joiner,” and presumably both the league’s chauvinism and socialism repelled him. “I am not a good patriot,” he confessed to Kraepelin.<sup>39</sup> His life, especially the last decade or two, reflected his monastic as well as his monistic inclinations. The pun may be forgiven considering the common origin of the two words: *monos* (“one, alone”) and the natural association that links the solitary thinker with his cherished aim: the unified view of all things. Although this objective is as old as human thought, only a few classical Western world views have been strictly monistic, in contrast to the perhaps more comfortable dualistic (Descartes) and pluralistic (William James) ones. An eighteenth century term, *monism* was coined by Christian Wolff, a mathematician and philosopher following Leibniz.

Since that time, at least two opposing views of monism have existed: the idealistic, which holds that everything is ultimately the consequence of mind, and the materialistic, which maintains that everything is material.

The philosophical compromise that reality like a hollow ball reflects both a material convexity and an ideal concavity, depending on the position from which it is viewed, dates back to Spinoza.<sup>40,41</sup>



But why should natural scientists, and physicians in particular, be concerned with these philosophical matters? The answer, like the response to the parallel question of why medical men should pursue the history of medicine, is two-fold. First, physicians will philosophize because of something in their personality. Second, although philosophy (or history) by itself may not enhance their kindness or ability to apply their knowledge, physicians who like to philosophize can argue with some justification that underlying any body of knowledge, hence part of it, is its philosophy (or history). If this is true for every medical specialty, it is particularly so for psychiatry, which forever poses the question of how a mind is related to a body or nervous system, and how disease, that is, the fact of a measurable deviation from a measurable norm, can ever apply to, say, hysteria or even migraine headache. In contrast, although the differential diagnosis between “organic” and “functional” (i.e., psychogenic) disorders is almost constantly and often agonizingly on the physician’s mind, especially if he is a neurologist, the issue seldom causes him to have any fundamental epistemological or semantic qualms.

When Möbius wrote, “I am an adherent of monism,” he meant to give his position regarding the general concept of neurosis, which in 1894 also included migraine:

I believe that in principle every event might be interpreted as mechanical; I do not like to disrupt the natural connections. By the same token I hold that mechanism is a psychological process seen from without. In other words I do not take the mental and the physical to be different things but manifestations of one and the same: the difference depends on the point from which the observation is made. I am also convinced that, unlike physics, medicine must not refuse to be concerned . . . with views that relate the psychological to the physical, because medicine is continuously forced to switch from one field to the other. Hence psychophysical parallelism must underlie medical thinking in order to overcome our confusion.

While in migraine “we must assume an anatomical change in a definite place . . . the road of experimentation is hardly passable in a disorder presenting almost entirely subjective symptoms.”<sup>42</sup> For the sake of convenience, then, Möbius here permitted monism itself to break down, to admit the existence of two fields and the need to switch, in practice, from one to the other.

### III. Fechner and Leipzig

Paul Möbius’ approach to the problem of neurosis was that of a man who had been driven by an inner need to the study of medicine after first taking up theology, then philosophy. Although a specialist in nervous diseases, he also devoted long working hours to many other subjects: physical anthropology, craniology, psychology, biography, and metaphysics. Unlike Freud he had never been active in a laboratory as a neurophysiologist or pathologist and, surprisingly, he did not even have any formal psychiatric asylum training.<sup>43</sup> Yet, both he and Freud went from clinical neurology to psychotherapy and were strongly influenced by Fechner.<sup>44</sup> Möbius was personally acquainted with that unusual Leipzig professor, both as his student and physician.

In the history of psychology no less than in the history of psychological oddities of science, Gustav Theodor Fechner occupies a commanding position. He is known as the founder of psychophysics. This term, Fechner’s life, and his philosophy reflect what a priori may appear as a paradox. Yet to this day the instruments employed in physics have remained part of the methodology of researching the psyche. To measure mind in the precise terms of the stimuli

that make it tick is still basic to neurophysiology and the behavioristic approach. Although Fechner is known as the exponent of “psychophysical parallelism”—the term that also appears in Möbius’ passage on migraine just quoted—both men are better described as monists, or adherents of the “identity hypothesis,” which states that nature is mind, mind nature. Just as matter can be reduced to measurement—a mental concept—so mind is reciprocally subject to quantification. “The earth is a living organism, so is the universe,” and “material phenomena must be made the base of mental.”<sup>45</sup> Fechner began his career in physiology, continued as a typical pedantic professor of physics, to end up as a psychologist and experimental art critic; meanwhile he also assumed a mystic’s persona in his many satirical and philosophical writings, presenting himself as a man with a mission, who had passed through a “crisis.” A severe psychoneurotic illness, it affected his eyes, head, whole body, and being: Möbius considered him an excellent example of “akinesia algera.” Fechner altogether strikes one as a figure out of the romantic tales of E.T.A. Hoffmann, set in the sober atmosphere of Leipzig.<sup>46,47</sup>

Today not many in the West may realize that Leipzig once was one of the great cultural centers of Europe. A local poet glorified it in 1728 as “the world-famous Athens on the Pleisse.”<sup>48</sup> J. S. Bach comes to mind, with the Thomas Church and School—where Paul Möbius’ father taught for a time—Mendelssohn, with the Gewandhaus musical establishment, Schumann, Wagner, and Goethe, who spent some of his academic years in that “miniature Paris” of his day, later to portray its medieval student ribaldry in the tavern scene of *Faust*. The third largest city in Germany (after Berlin and Hamburg), famous since the twelfth century for its international fairs, Leipzig was the world’s most important publishing center before it half disappeared behind the iron curtain. In the twentieth century, it was also known as an industrial, socialist, and communist center, graced since