

## Psychiatry in history



### Celebrating Arnold Pick's contributions to aphasiology, neurolinguistics and psychiatry

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To mark the forthcoming centenary of Arnold Pick's death, his largely forgotten contributions to psychiatry, neurosciences and aphasiology need to be celebrated. Pick was born in 1851 in Gross Meseritsch in Moravia (now Velké Meziříčí, in the Czech Republic). He graduated from medical school in Vienna in 1875 at the age of 24. In 1872, while still a student, he completed an elective at the Landesirrenanstalt, a state mental institution in Vienna, and in 1872–1874 he was a student assistant to the controversial but eminent Austrian psychiatrist and neuroanatomist Theodore Meynert and was influenced by his work. On graduation, Pick worked as second physician in the Grossherzogliche Oldenburgische Irrenheilanstalt in Wehnen, where the infamous policy of euthanasia began in 1920 – an irony for a man described by many as humane and noble minded. In 1880 Pick was appointed assistant director and subsequently (1882–1886) director of Dobřany Psychiatric Hospital. In 1886, he was promoted to full Professor of Psychiatry and Neurology and a few months later he took over the chair of Psychiatry and Neurology at Prague University. He served as Dean of Medicine at Prague University between 1891 and 1892.

He is eponymously remembered in Pick's disease (known today as behavioural variant frontotemporal dementia), Pick bodies (3-repeat tau protein) and Pick cells (ballooned neurons). With Otto Kahler he established Kahler–Pick's law, describing how incoming fibres in the posterior columns of the spinal cord from a higher level displace medially those that enter at a lower level. He also described a bundle of nerve fibres recurving rostrally from the pyramidal tract in the medulla oblongata called Pick's pyramidal bundle. He first described reduplicative paramnesia in 1903 in a patient who believed that Pick had two identical clinics in different locations in Prague and he was among the first to give reliable descriptions of visual hallucinations, micrographia and palilalia. In a seminal case study published in the *Prager Medizinische Wochenschrift* in 1892 he reported a 71-year-old man who presented with progressive aphasia as part of a dementia and on post-mortem showed asymmetrical atrophy of the brain – what we would now diagnose as primary progressive aphasia. In 1907 Pick presented his work at the first International Congress of Psychiatry in Amsterdam and argued that functional networks are affected in circumscribed atrophy causing focal speech and language dysfunction, which is now fully supported by functional magnetic resonance imaging. Most new histopathological studies in frontotemporal lobar degeneration confirm atrophy of either the upper three cortical layers with TDP-43 deposits or the lower three layers with tau deposits, but a bilaminar pattern of atrophy is also seen. In his latter years Pick did substantial work on agrammatism, aphasia and apraxia. In agrammatism, he included not only a disturbance of syntax but also a global disturbance of language use and distinguished two forms of agrammatism, the temporal and frontal varieties. In his last manuscript, published posthumously by his student Otto Sittig in 1931, Pick highlighted the difference between generalised atrophy and focal atrophy: the latter, he believed, affected structure and function in an irregular manner.

Pick loved music and was much ahead of his time in terms of equality and diversity, employing a woman with a bipolar illness as his secretary. He died of septicaemia in Prague in 1924.

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