

## Key thinkers

Compared to many other disciplines, psychology has a fairly recent history. In this regular column, **Noel Sheehy** looks at the contributions of some of the most influential figures, beginning with the founding father of psychology, Wilhelm Wundt.

# Wilhelm Maximilian Wundt

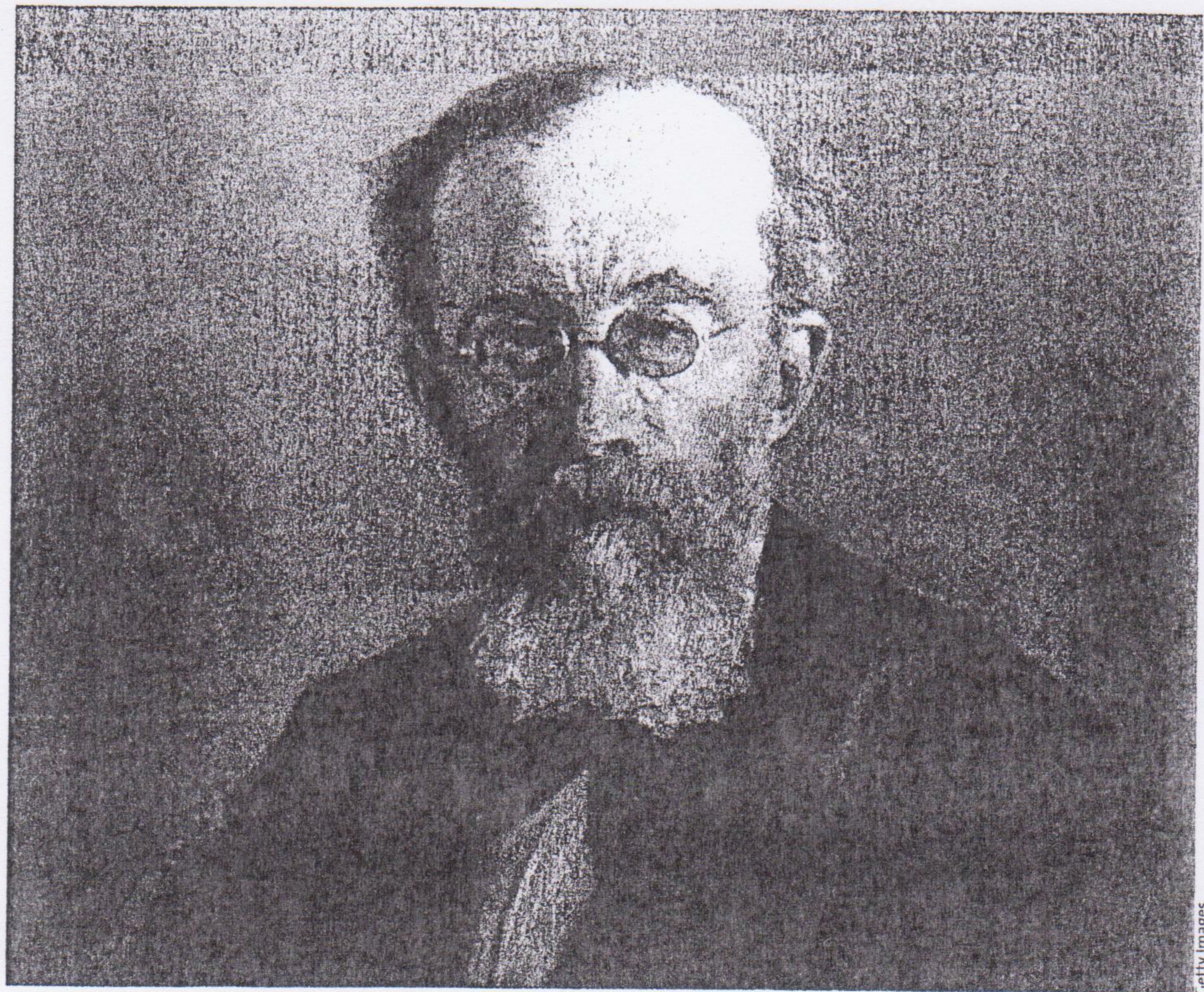
**W**ilhelm Wundt (1832–1920), the father of modern psychology, was the youngest of four children. A shy lad, his only childhood friend was a mentally handicapped boy with severe communication difficulties. For a time, his liberal education was supervised by a young vicar and at 13, he started at the Bruchsal Gymnasium. This proved to be a personal and academic disaster. He found it difficult to make friends, endured a regime of corporal punishment and was regarded by his teachers as an academic failure — they suggested a career in the postal service. A move to the Heidelberg Lyceum brought some improvement.

After leaving school, Wundt studied physiology at Berlin and then Heidelberg. He graduated from Heidelberg and had a brief career in politics before returning to Heidelberg to teach. He took up the position of professor of physiology at Leipzig in 1875 and established a laboratory dedicated to experimental psychology located in the Konvikt, a building which once stood in the yard of the university at Augustusplatz. In their early years, all subsequent psychological laboratories were modelled on Wundt's laboratory.

### Physiological psychology

In his masterpiece, *Principles of Physiological Psychology*, Wundt set out the case for an alliance between physiology and psychology. The product was a new science he called 'physiological psychology' or 'experimental psychology', as it would be called today.

For Wundt, the goal of psychology was to study all aspects of human experience. He made a basic distinction between the methods needed to investigate lower mental processes, such as seeing and hearing, and higher mental processes, such as language and social behaviour. He



considered experimental methods perfectly suited to the investigation of lower-level processes. His position on their suitability for the study of higher mental processes is less clear.

Some writers take the view that Wundt considered non-experimental methods, such as historical analysis, more appropriate to the study of higher mental functions. To support their position, they refer to the fact that he also developed a *Völkerpsychologie* (social psychology) that is somewhat different from his physiological psychology.

### The difference between immediate and mediate experience

A core idea in Wundt's thinking is the distinction between immediate and mediate experience. The physical sciences are based on mediate experience: they use special instruments to measure reality as it is. For example, spectrometers can be used to measure the wavelengths of light and provide an experience of the world

mediated by this apparatus. The mediated experience does not resemble light as it is experienced by a person — the 'immediate' experience of light. Wundt argued as follows:

- First, the new science of psychology should focus on investigating the world as it is experienced.
- Second, experimental techniques are best suited to studying immediate experience as it occurs.

Wundt's goals were to:

- detect and describe the basic elements of immediate experience
- discover the laws that govern the way in which the basic elements are combined into more complex mental experiences

The majority of his studies focused on the analysis of sensation, perception, reaction times and attention.

The kind of experiment Wundt designed is illustrated by his 'thought meter': a simple device comprising a clock with a bell and a pendulum that swings across a calibrated scale. He noticed it was possible



to attend to the sound of the bell or to the precise position of the pendulum against the scale, but not both experiences simultaneously. There was a gap of about one-tenth of a second in shifting the focus of attention from one to the other. His studies on attention led him to distinguish between perception (automatic, involuntary processes involved in responding to a physical stimulus) and apperception (what a person attends to). Wundt used the term apperception to refer to the psychological process by which individuals voluntarily select what they attend to.

Focusing attention, or changing what you attend to, involves a voluntary act of will. This is an important aspect of Wundt's approach and indicates why it is usually referred to as **voluntarism**. Wundt concluded that reactions to apperceived stimuli could not be predicted with accuracy because it was not possible to conduct experiments to investigate **voluntary effort**.

### **Wundt's introspection**

Introspection was an important tool of experimental psychology but it is important to make a distinction between the way Wundt used the term and how it is conventionally understood. Wundt

was adamant that introspection — the process of analytic self-reflection — had no place in experimental psychology. His idea of introspection is based on the systematic, controlled investigation of perceptions. He argued that this special kind of introspection is only achieved through training and he insisted that everyone in his laboratory should be trained to the required standard. The analysis of perceptions was based on rigorous adherence to specific rules:

- immediate rather than mediate experiences must be reported
- the person needs to be aware when a stimulus is about to be introduced and not taken by surprise
- they should be at a heightened state of attention
- their reports of their internal perceptions need to be repeated many times
- the conditions under which internal perceptions are reported need to be varied systematically in order to ensure the results can be generalised across a wide range of situations

### **Is Wundt a reductionist?**

Many of Wundt's students developed and changed his approach. Some of these

changes meant that his approach came to be regarded as reductionistic — the idea that all human experience can be reduced to basic sensations.

Many of the standard criticisms of Wundt that appear in introductory textbooks of psychology — his reliance on introspection, his so-called commitment to reductionism — are simply wrong. Contemporary historians of Wundt are now concentrating on correcting the numerous misunderstandings that have crept into descriptions of his ideas and methods. Wundt was one of the most prolific writers in the history of psychology. Between 1853 and 1920, he wrote about 54,000 pages — an average of one word every 2 minutes, 24 hours per day for 68 years. He completed his autobiography 8 days before his death on 31 August and is buried at Südfriedhof (South Cemetery), Grossbothen, Germany.

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