



Wilhelm Wundt (1832-1920)



Wilhelm Maximilian Wundt is known as the “father of experimental psychology” and the founder of the first psychology laboratory. From there, Wundt exerted enormous influence on the development of psychology as a discipline, especially in the United States. His writings, totalling an estimated 53,000 pages, include articles on animal and human physiology, poisons, vision, spiritualism, hypnotism, history, and politics; text- and handbooks of “medical physics” and human physiology; encyclopaedic tomes on linguistics, logic, ethics, religion, a “system of philosophy;” not to mention his *magna opera*, the *Grundzüge der physiologischen Psychologie* and the *Völkerpsychologie* (in ten volumes). Although his work spans several disciplines - physiology, psychology and philosophy - Wundt would not have considered himself an “interdisciplinary” or “pluralistic” thinker: he was to the core a foundationalist whose great ambition was to establish a philosophico-scientific system of knowledge, practice, and politics. Despite his intentions, however, the sheer length of his career (some 65 years) and the volume of his output make it hard to speak of a coherent Wundtian doctrine. His *corpus* is riven by tensions and ambiguities, and though his work has undergone periodic scholarly reconsiderations, Wundt’s lasting importance for the field of psychology remains the topic of lively debate among psychologists. Not only was he a powerful influence (albeit mostly by repulsion) upon the founders of Pragmatism, Phenomenology, and neo-Kantianism, it was also Wundt and his pioneering students who developed the empirical methodologies that first granted psychology a disciplinary identity distinct from philosophy.

Wundt was born on August 16th, 1832, in the town of Neckarau. He studied at the *Gymnasien* at Bruchsal and Heidelberg and entered the University of Tübingen at 19, in 1851. In 1856, at the age of 24, Wundt took his doctorate in medicine at Heidelberg, and habilitated as a *Dozent* in physiology. Two years later, the physicist, physiologist, and psychologist, Hermann von Helmholtz received the call to Heidelberg as a professor of physiology, a decisive moment for Wundt’s career as the two worked in the same laboratory until 1871.

In founding the experimental science of psychology, Wundt, in effect, simply “triangulated” a *media via* between the available options: he rejected Fechner’s mysticism while maintaining his experimental approach. At the same time, Wundt went beyond the purely physical interpretation of physiological experiments à la Helmholtz, arguing that at least in humans experimentation could reveal law-like regularities of *inner* (psychological) reality. Thus, to use the phrase of Ben-David and Collins, he established the “hybrid science” whose dual provenance is expressed in Wundt’s name for it, “physiological psychology”.

For Wundt, experimental psychology was the unmediated study of consciousness, *aided* by the experimental protocols of the natural sciences. Yet this definition involves two contestable assumptions: first, that “consciousness” is susceptible to experiment (rejected by Kant); second, that psychology, even if conceived as experimental, has for its object consciousness or “the mental” (later rejected by the Behaviourists). Wundt defined consciousness as “inner experience;” it is only the “immediately real” phenomena constituting this



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experience, and nothing behind or beyond it, that is the object of *psychological*, as opposed to physiological or psychophysical investigation. Wundt's project was not only a "psychology without a soul," in F A Lange's phrase, but also a science without a substrate *tout court*. Consequently, Wundt presented himself as a radical empiricist: The subject of psychology "is itself determined wholly and exclusively by its predicates," and these predicates derive solely from direct, internal observation. The basic domain of inquiry, accordingly, is that of "individual psychology," i.e., of the concrete mental contents appearing to particular human beings, and not some mental substance or bundle of faculties.

Wundt repeatedly addressed the objections raised against the possibility of psychological, as opposed to physiological or psychophysical, experimentation. How are we to subject the mind-body complex to physiological stimulation such that the reactions may be given a purely psychological interpretation? From the physiological point of view, experimentation with stimulus and response are not experiments of sensation, but of externally observable excitations and reactions of nerve and muscle tissue. For example, a nerve fibre or a skin surface may be given an electric shock or brought into contact with acid, and twitches of muscle fibre are observed to follow. It is obvious, especially when the nerve-tissue in question belongs to a dead frog, that these experiments say nothing about the "inner" experience or consciousness of sensation. Wundt's innovation was the attempt to project the experimental rigor of physiology into the domain of inner experience by supplementing these experiments with a *purely* psychological set of procedures. These procedures constituted Wundt's well-known method of *Selbstbeobachtung*, i.e., "introspection" or, better, "self-observation."

Whereas experimental psychology focuses in the first place on the effects of the physical (outer) on the psychic (inner), the willing consciousness is characterized by intervening in the external world, that is, by *expressing* the *internal*. This latter feature of consciousness lies beyond the scope of experiment because the origins of conscious expression cannot be controlled. Moreover, psychological development is obviously not determined merely by sensation, but also by the meaningful influences of the individual's "spiritual [*geistig*] environment" - his culture - influences that are not obviously susceptible to experimentation. Hence, just as Wundt reserved for physiology an ancillary role in experimental psychology, so too he argued for the utility of a distinct methodological approach to analyze and explain the "psychic processes that are bound, in virtue of their genetic and developmental conditions, to spiritual communities [*geistige Gemeinschaften*]". It is the inquiry into "cultural products [*Erzeugnisse*]" of the "totality of spiritual life [*geistiges Gesamtleben*]" in which certain psychological laws have embodied themselves," specifically, language, art, myth, and customs (*Sitten*). These objects cannot be investigated in the same way as those of individual "inner" experience, but require a mode of explanation appropriate to their external, yet non-physical phenomenology.

Wundt was concerned not only with expanding the set of known psychological facts, but also with interpreting them from within an appropriate explanatory framework. Of course, the necessity of establishing such a closed framework distinct from physiology amounted to distinguishing psychological causality from physical causality in general, and hence psychology from the natural sciences altogether. But psychology has to be defined against two other areas of "scientific" (*wissenschaftlich*) inquiry; first, in its *völkerpsychologisch*



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dimension, against the *Geisteswissenschaften* or “human sciences,” and second, against the non-psychological domains of philosophy.

For Wundt, it is only the sciences that have methodologies by which to synthesize our representations, sensible as well as “processed,” into “facts” or “pieces of” knowledge (*Erkenntnisse*). Hence, while strictly speaking, he was committed to considering psychology (i.e., physiological psychology) as a part of philosophy, he usually spoke of them as distinct enterprises.

Wundt divided the sciences into two large families: the “formal” sciences and the “real” sciences. The former included mathematics while the latter studied the natural and spiritual aspects of reality, and correspondingly were divided into the natural and the human sciences. The human sciences, in turn, were divided into two genera, one of which dealt with spiritual processes (*geistige Vorgänge*), the other with spiritual products (*geistige Erzeugnisse*). The former was the science of psychology while the latter included the general study of these products as such (e.g., political science, law, religion, etc.). Since the process precedes the product, psychology as “the doctrine of spiritual [*geistig*] processes as such” is the foundation of all the other human sciences. Philosophy, in turn, takes *psychology*’s results and again abstracts from them the normative rules governing the organization of the human *and* natural sciences, something the latter cannot do themselves. In this way psychology as a science mediates between the sciences and philosophy.

Wundt’s conception of psychology was always controversial. He had wished to reform philosophy, not as a synthetic science, but with a direct, indispensable, juridical relation vis-à-vis both the natural and human sciences. He never saw his psychological scientism as a threat to philosophy. On the contrary, he considered his psychology to be part of philosophy, one necessary for philosophy to take its proper place in the totality of the sciences. Indeed, argued Wundt, philosophy could only assume that position *through* the mediating position of psychology.

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