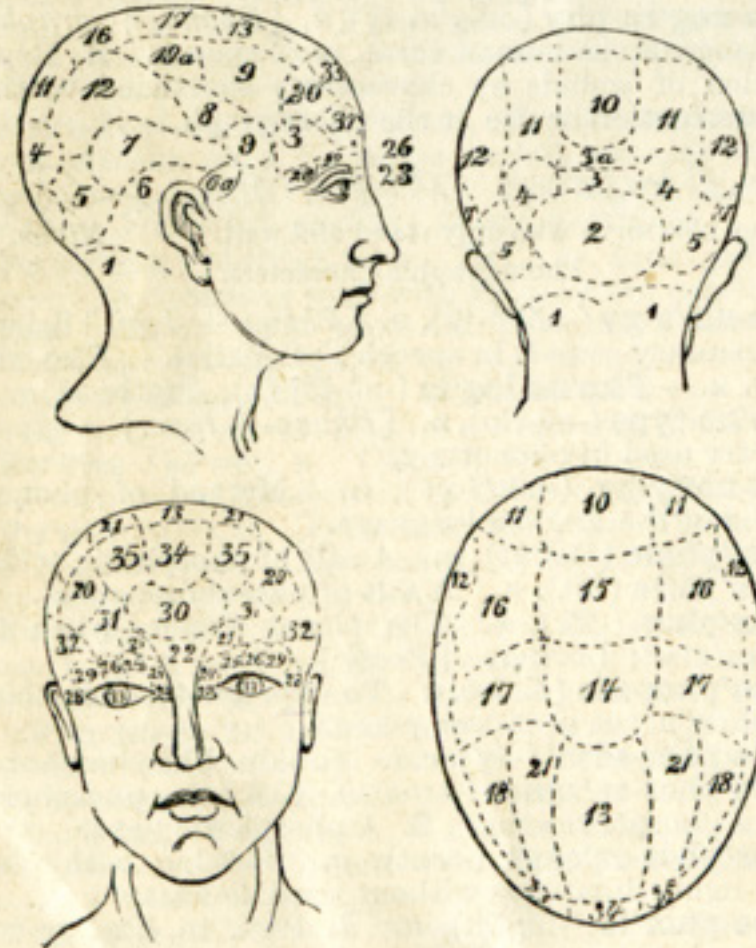


History of Psychology

Phre-nol'o-gy (-nŏl'ŏ-jŏ), *n.* [Gr. φρήν, φρενός + -logy.] **1.** Science of the special functions of the several parts of the brain, or of the supposed connection between the faculties of the mind and organs in the brain. **2.** Physiological hypothesis that mental faculties, and traits of character, are shown on the surface of the head or skull; craniology. — **Phre-nol'o-gist**, *n.* — **Phren'o-log'ic** (frĕn'ŏ-lŏj'ĭk), **Phren'o-log'ic-al**, *a.*



A Chart of Phrenology.

1 Amativeness ; **2** Philoprogenitiveness ; **3** Concentrativeness ; **3 a** Inhabitiveness ; **4** Adhesiveness ; **5** Combaticiveness ; **6** Destructiveness ; **6 a** Alimentiveness ; **7** Secretiveness ; **8** Acquisitiveness ; **9** Constructiveness ; **10** Self-esteem ; **11** Love of Approbation ; **12** Cautiousness ; **13** Benevolence ; **14** Veneration ; **15** Firmness ; **16** Conscientiousness ; **17** Hope ; **18** Wonder ; **19** Ideality ; **19 a** (Not determined) ; **20** Wit ; **21** Imitation ; **22** Individuality ; **23** Form ; **24** Size ; **25** Weight ; **26** Coloring ; **27** Locality ; **28** Number ; **29** Order ; **30** Eventuality ; **31** Time ; **32** Tune ; **33** Language ; **34** Comparison ; **35** Causality. [Some raise the number of organs to forty-three.]

1. History of Psychology
2. Psychology Today
3. Psychology as a Science

Today

- Be able to describe the historical roots of psychology.
- Describe the early history of psychology and name the important figures in the early history of psychology.
- Describe the dominant viewpoints in psychology today.
- Describe the limits of psychology as a science.

Intellectual Roots

Psychology sprouted largely from two disciplines: Philosophy and Physiology.

History of Psychology

Intellectual Roots

Psychology sprouted largely from two disciplines: Philosophy and Physiology.

Both have, for a very long time, asked questions about the validity of our sensory experiences:

Can we trust our senses?

How well does our perceptual world reflect the real world?

Can we trust our thoughts? Can we trust the thoughts and senses of others?

History of Psychology

“Seeing is believing”

“Naive realism: The belief that we see the world precisely as it is.”
(Lilienfeld et al., 2013)



Naive Realism

“Seeing is believing”

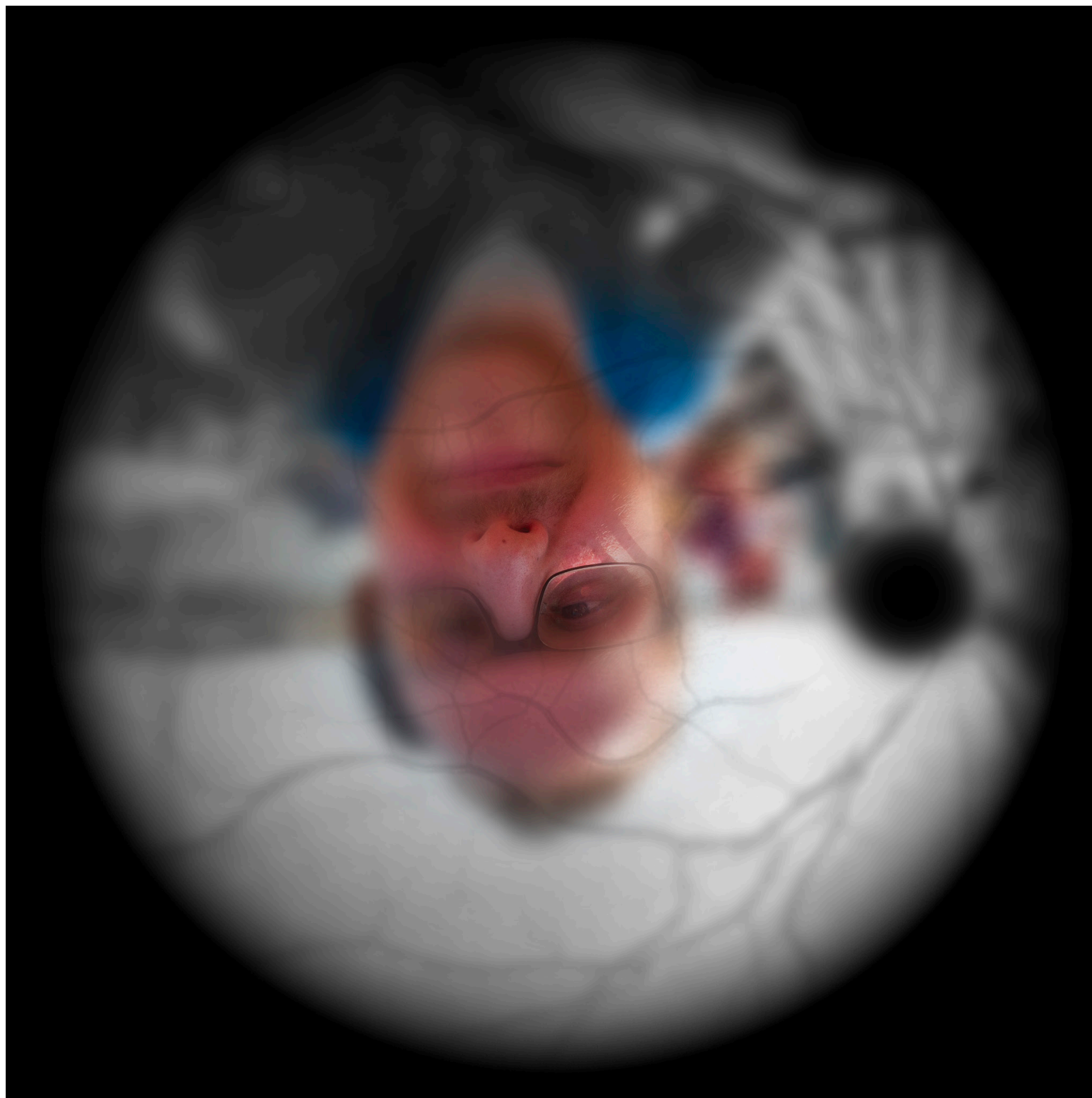
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Naive Realism



Naive Realism



Naive Realism

Early 1800's

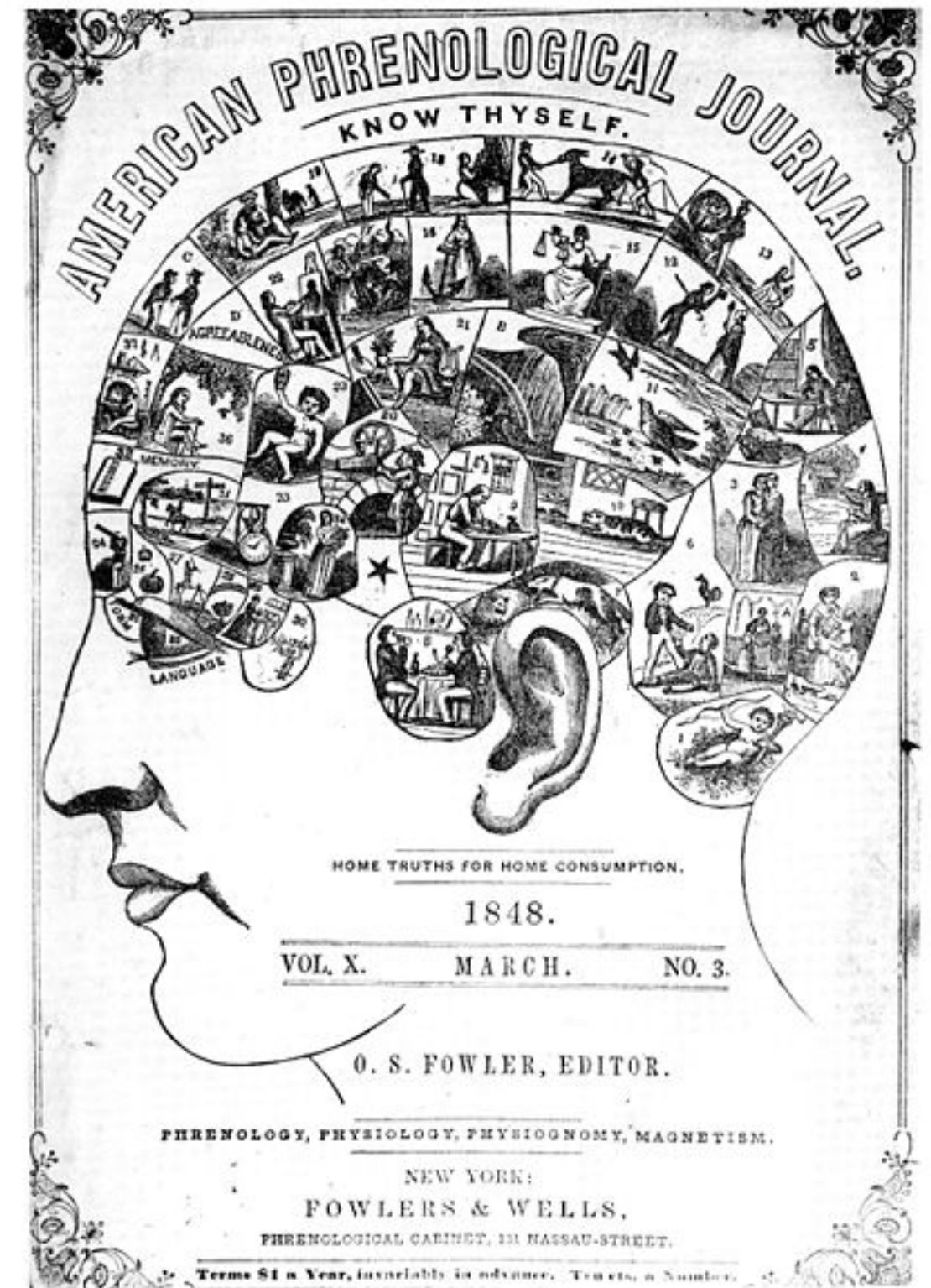
In the early 1800's, there was no field of Psychology. But during that time there were two interesting ancestors to the field of Psychology.

History of Psychology

Early 1800's

In the early 1800's, there was no field of Psychology. But during that time there were two interesting ancestors to the field of Psychology.

Phrenology. A theory from Franz Gall, now discredited, that is based on the idea that the bumps on your skull are there because of the shape of your underlying brain, and those bumps are indicators of your personality.



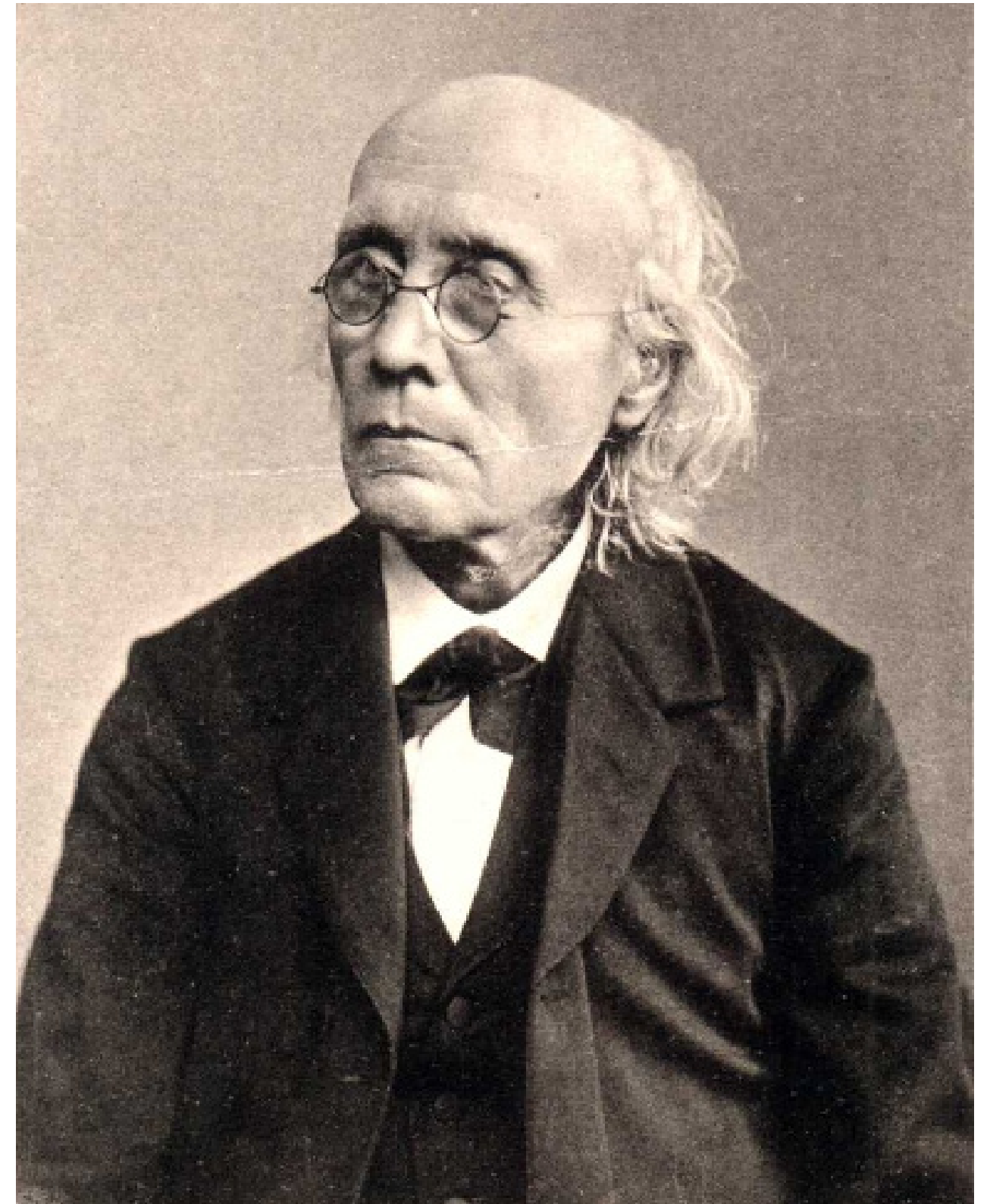
History of Psychology

Early 1800's

In the early 1800's, there was no field of Psychology. But during that time there were two interesting ancestors to the field of Psychology.

Psychophysics. The science of defining quantitative relationships between physical and psychological (subjective) events.

Gustav Fechner (1801–1887) invented psychophysics. His text on the subject is considered to be the launching point for experimental psychology.

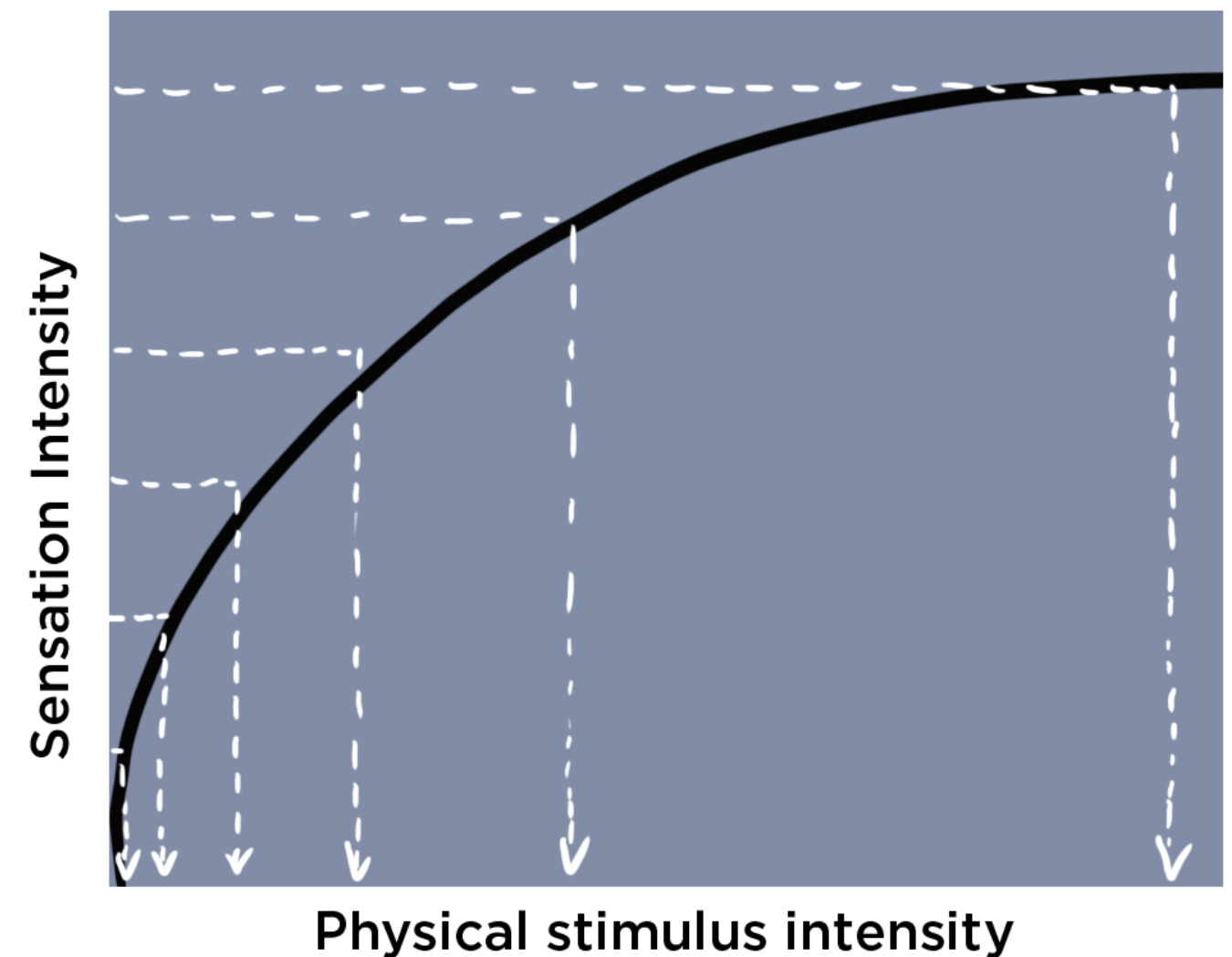


History of Psychology

Early 1800's

Fechner's Law: Describes the relationship between stimulus magnitude and sensation magnitude. The magnitude of subjective sensation increases proportionally to the logarithm of the stimulus intensity.

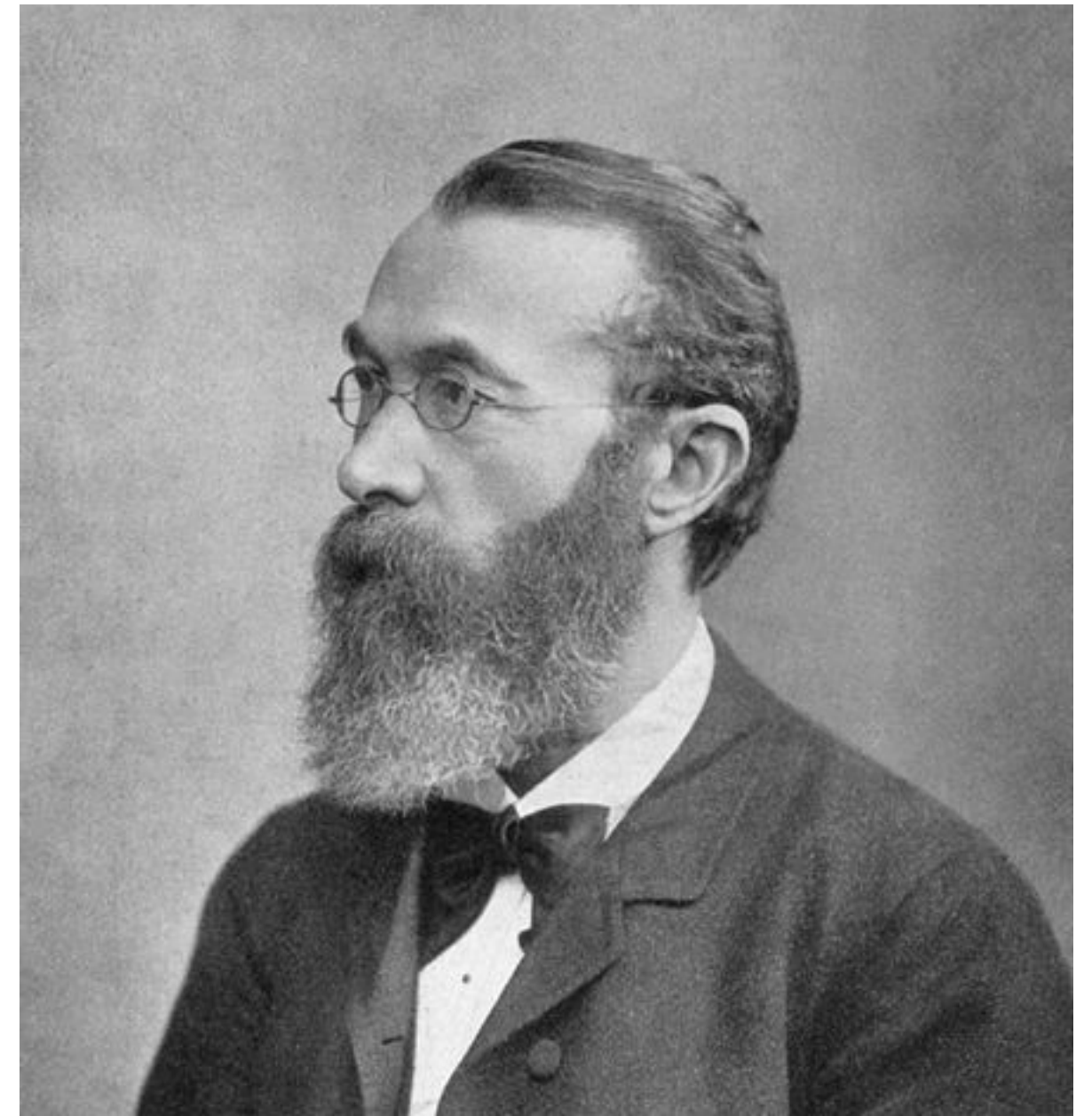
As stimulus intensity grows larger, larger changes are required for the changes to be detected by a perceiver.



Wilhelm Wundt (1832-1920)

In 1879, Wundt established the first laboratory for Psychological research at the University of Leipzig.

Wundt believed the primary focus of the new field of Psychology should be consciousness: The awareness of immediate experience.

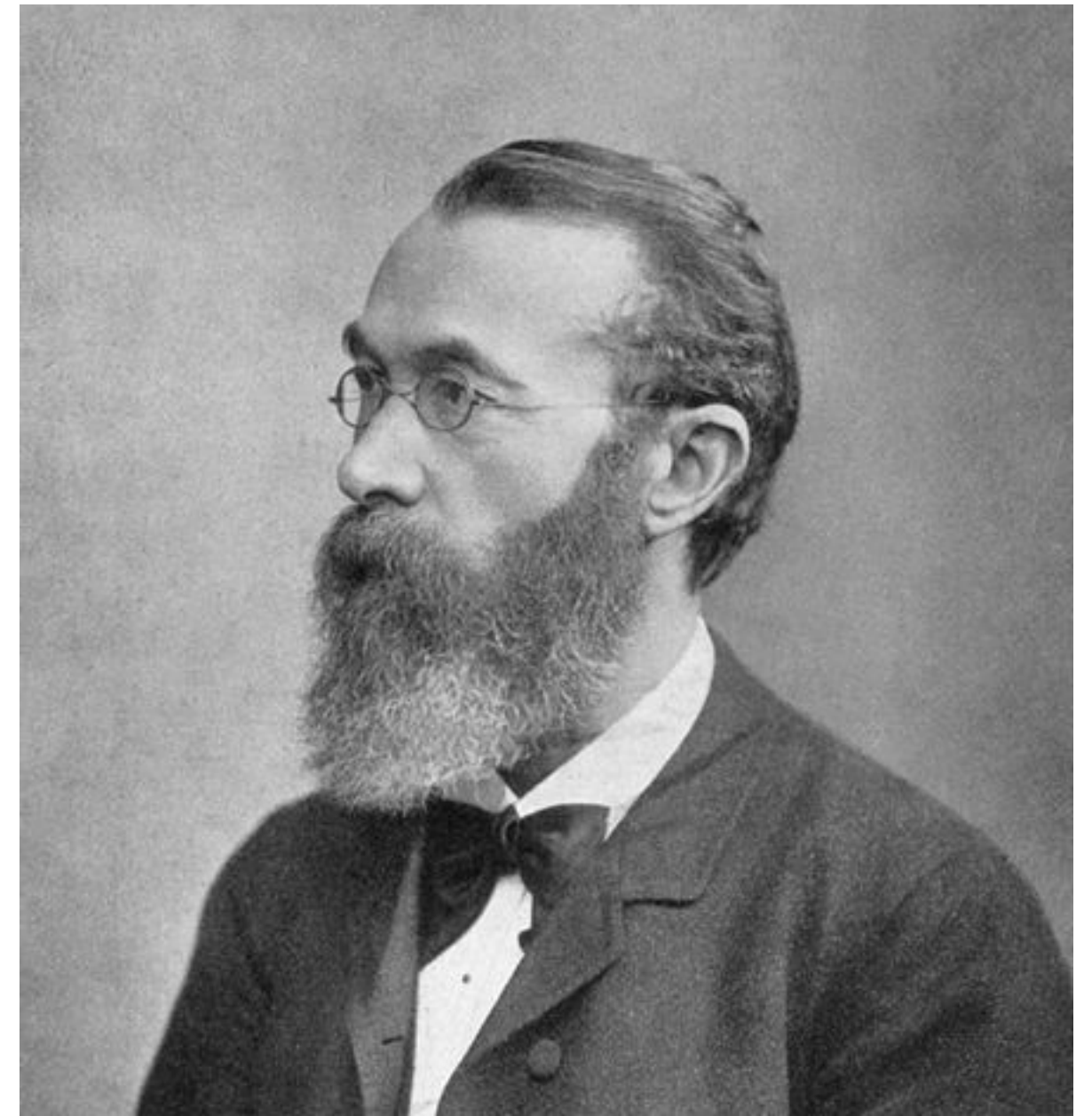


History of Psychology

Wilhelm Wundt (1832-1920)

Wundt's primary methodology was the technique of **introspection**: The careful, systematic self-observation of one's own conscious experience.

Led to the development of **structuralism**: aimed to identify the basic 'structures' of psychological experience.

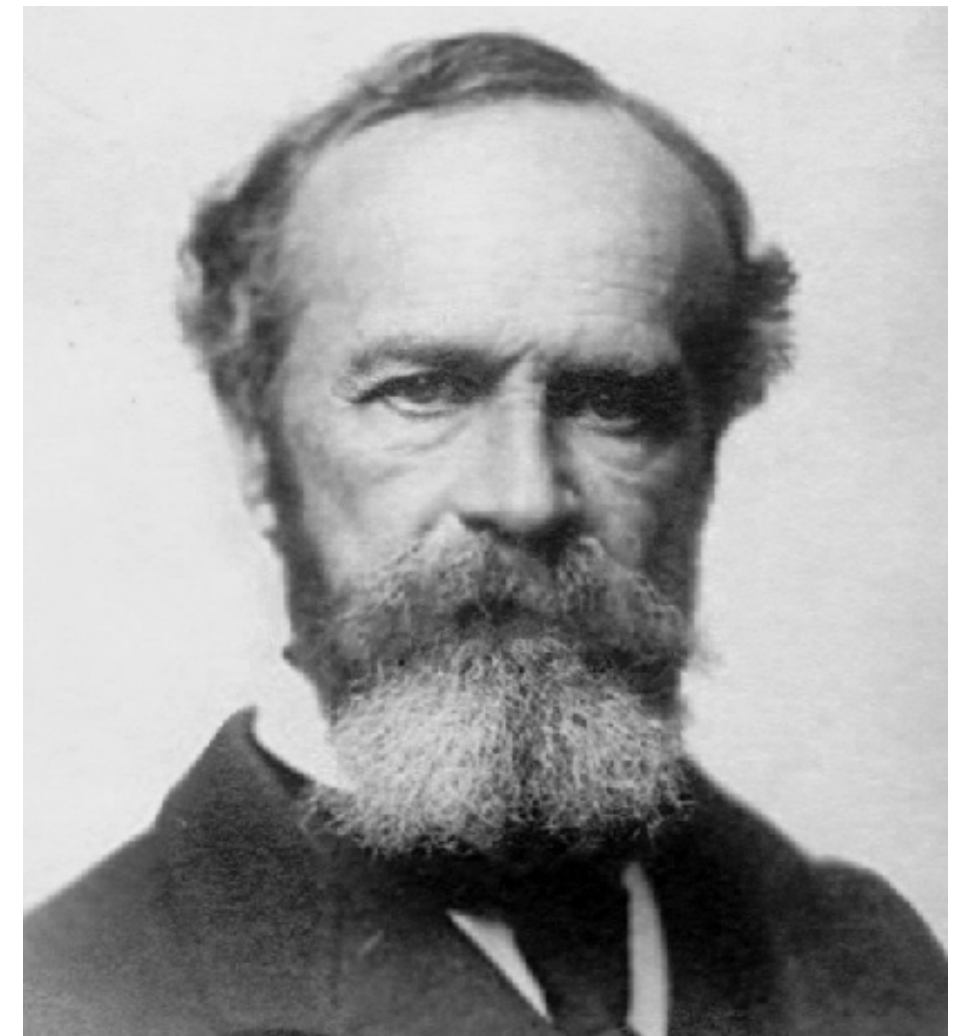


History of Psychology

William James (1842-1910)

Often described as the Father of American Psychology.

Argued that careful introspection reveals an ever-changing “stream of consciousness” (rather than a fixed set of structures).

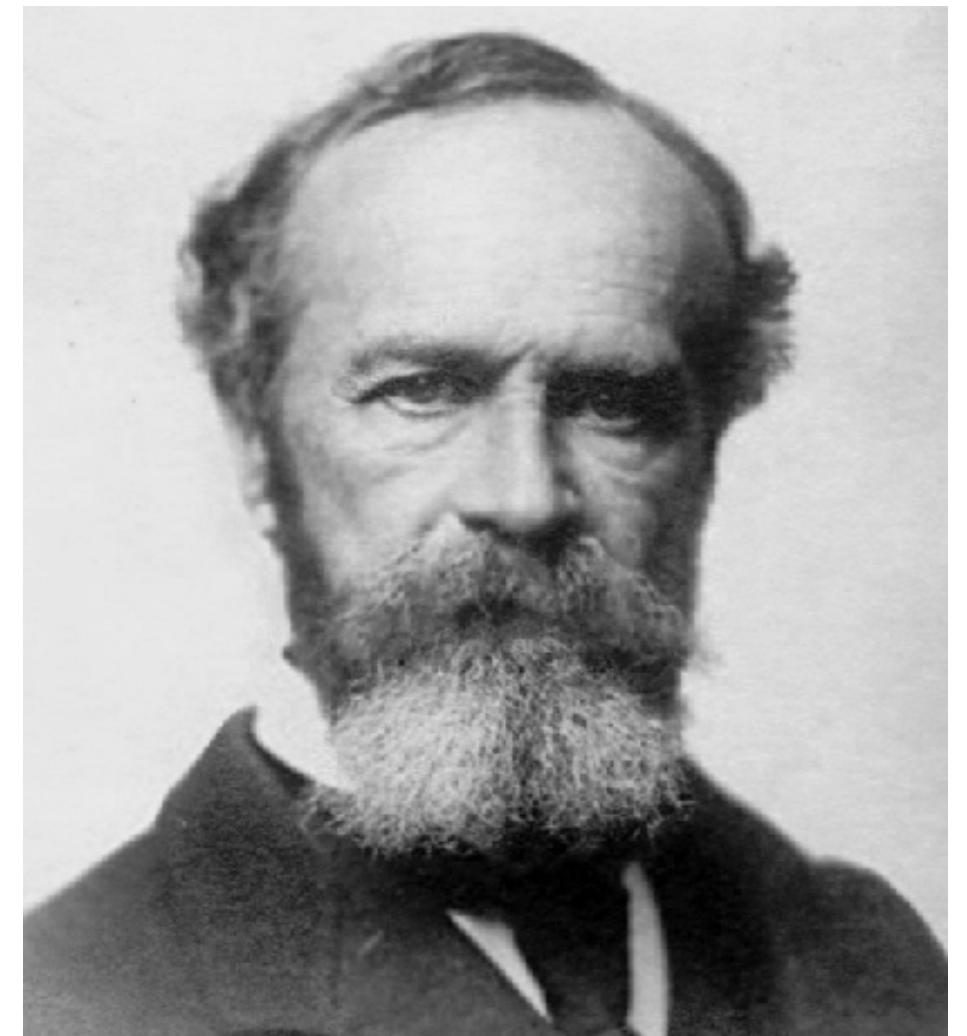


History of Psychology

William James (1842-1910)

James's **functionalism**: Regarded the mind as a function of the organism; and that we should investigate the function/purpose of that consciousness, rather than its structure.

(Inspired by Charles Darwin's concept of **natural selection**: Heritable traits that provide a survival or reproductive advantage are more likely to be passed on to subsequent generations and thus come to be "selected" over time.)



History of Psychology

William James (1842-1910)

Was also very interested in variations in consciousness. In addition to being credited as the father of Psychology, James has also been credited as the father of the American Psychedelic Movement in the 1960's (e.g., Tymoczko, 1996).

I myself made some observations on . . . nitrous oxide intoxication, and reported them in print. One conclusion was forced upon my mind at that time, and my impression of its truth has ever since remained unshaken. It is that our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different.

Early Prominent Woman Psychologists



Mary Calkins (1863- 1930)



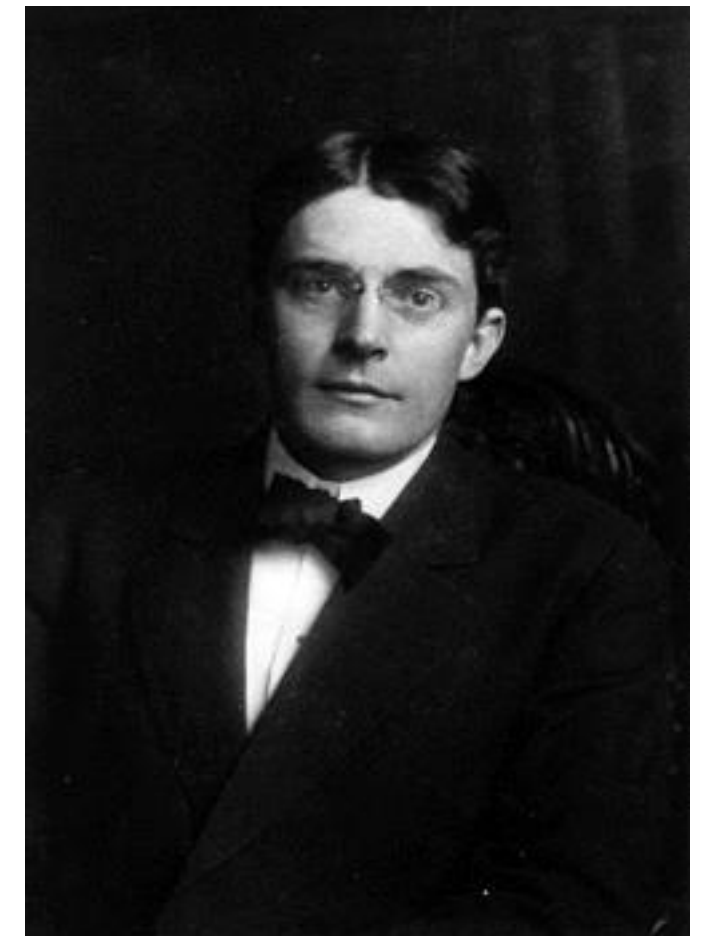
Margaret Washburn (1871- 1939)

History of Psychology

John B. Watson (1878-1958)

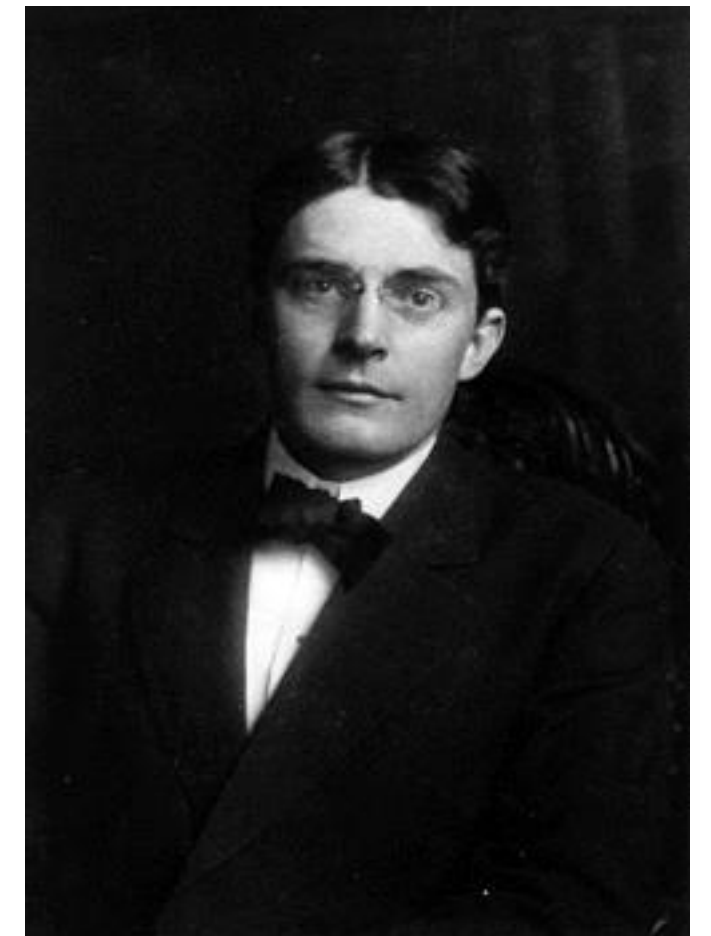
By 1910, both structuralism (the descendent of Wundt's method) and functionalism (James's method) were widely regarded as outdated methods for investigating psychology.

What replaced them were the methods of **behaviourism**--the next major school of thought to enter the field of Psychology.



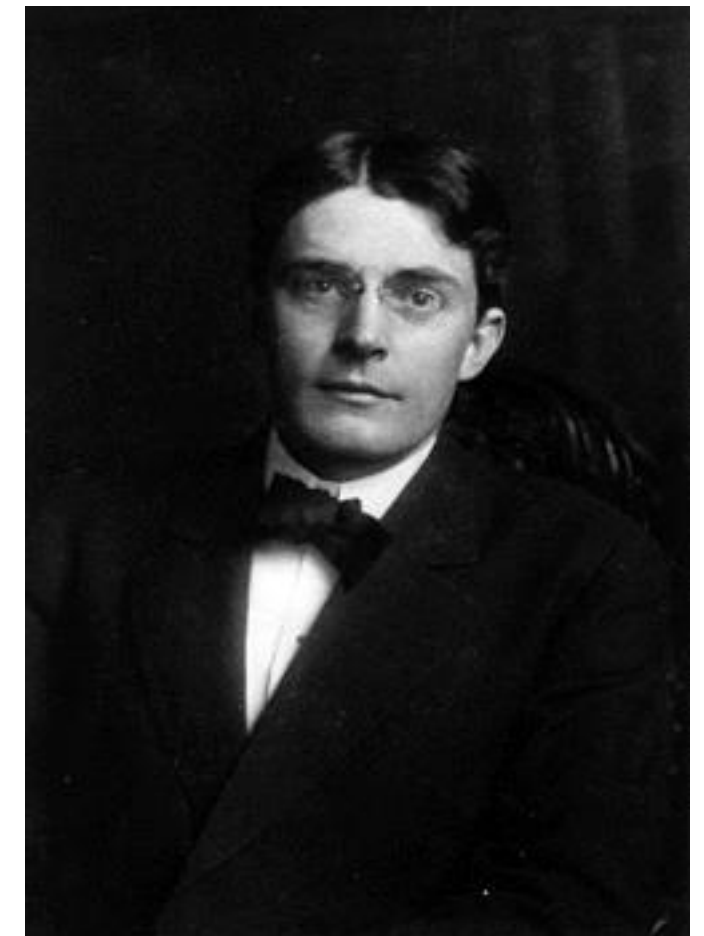
John B. Watson (1878-1958)

Watson declared he was a new type of psychologist: a **behaviourist**. He claimed that behaviourism would completely eliminate introspection from psychology. Psychologists should study only what could be observed and measured.



John B. Watson (1878-1958)

“Give me a dozen healthy infants, well-formed, and my own special world to bring them up in, and I’ll guarantee to take any one at random and train him to become any type of specialist I might select--doctor, lawyer, artist, merchant-chief, and yes, beggerman and thief.” (Watson, 1913)



History of Psychology

Behaviourism

Helped us to understand learning and the importance of scientific rigor.

History of Psychology

Psychoanalysis

Freud and Jung

Aim: Uncover internal processes we are unaware of.

Starting point for conceiving mental processes outside of conscious awareness



History of Psychology

Cognitivism

The study of cognition re-emerged as an important part of psychology in the 1960's and early 1970's. In their analysis of trends in psychology, Robins, Gosling, and Craik (1999) found that over the past few decades “cognitive psychology has sustained a steady upward trajectory” of influence.

Focuses on our interpretation of events.

The term **cognitive science** is now used to refer to any form of research that involves scientific explanations of intelligent behavior, including the fields of linguistics, artificial intelligence, portions of philosophy, portions of educational psychology, and cognitive psychology.

Psychology Today

Neuroscience

The scientific study of the nervous system.

Has been growing by leaps and bounds, and has become highly integrated with cognitive psychology: **cognitive neuroscience**.

Psychologists who are neuroscientists are generally called biopsychologists, behavioural neuroscientists, physiological psychologists, psychobiologists, or cognitive neuroscientists.

Psychology Today

Empiricism

Modern psychology is largely a scientific discipline.

For example, it is empirical: It gathers knowledge through observation.

Psychology as a Science

Scientific Theory

A **scientific theory** is an explanation for a large number of findings in the natural world.

A testable prediction is called a **hypothesis**.

Psychology as a Science

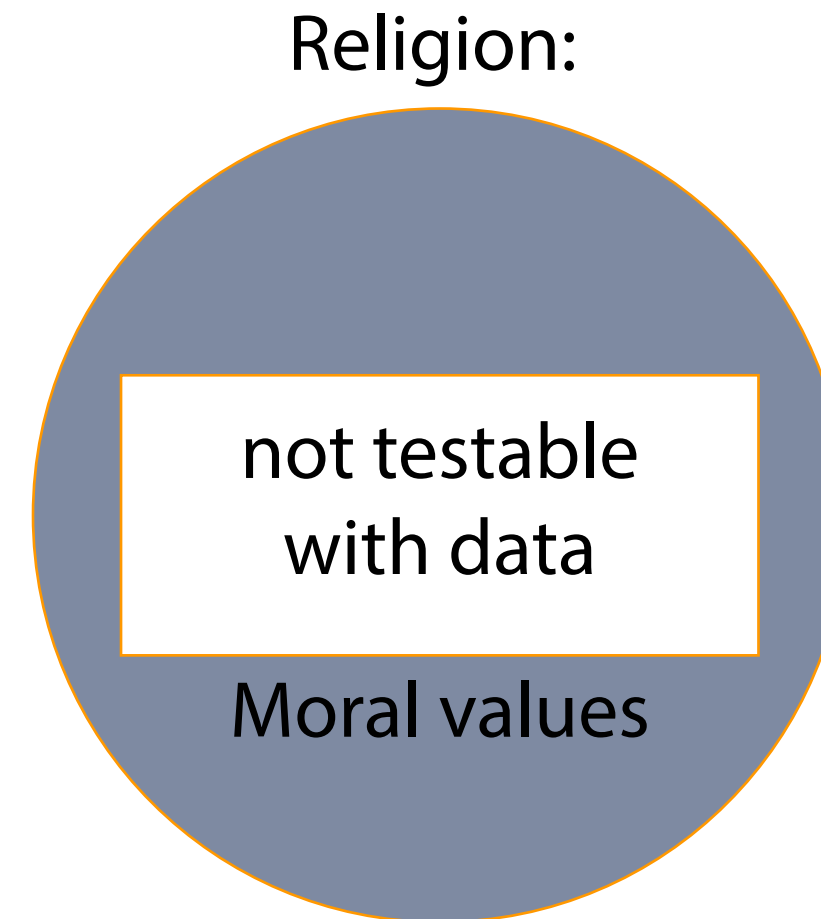
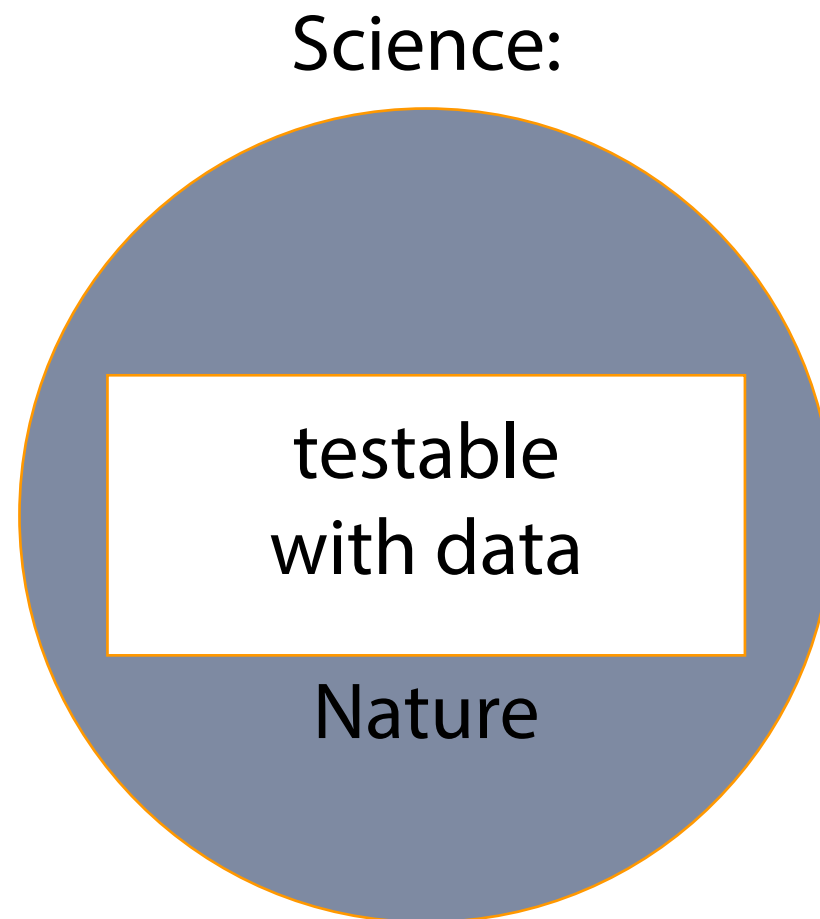
Avoiding Biases

Confirmation Bias: The tendency to search for evidence that supports our beliefs and to avoid evidence that contradicts our beliefs. That is, the tendency to find what you are looking for.

Belief Perseverance: The tendency to maintain our initial beliefs even in the face of contradictory evidence.

Psychology as a Science

The Limits of Science



(adapted from Gould, 1997)

Psychology as a Science