**Wilhelm Wundt (1832-1920)**

What made him the founder of psychology?

What made Wundt the founder of psychology was his creation of a new science of psychology. Another was his lab's development, where he utilized scientific methods to study the human mind and behavior. He was also responsible for separating psychology from philosophy by analyzing the mind in a structured way in measurement and control.

What goal did he announce in his book *Principles of Physiological Psychology*?
Gedankenmesser

Wundt's Gedankenmesser was referred to as the "thought meter." He used this to measure the mental process of perceiving two stimuli. He announced that it was impossible to perceive these two things simultaneously. Multitasking was scientifically impossible, as he demonstrated to himself. For example, he found he could not simultaneously attend to the sound and sight of the pendulum clock.

What two important things happened during the Leipzig years?

As the professor of philosophy at the University of Leipzig, he founded the journal Philosophical Studies in 1881 and established his laboratory in Leipzig.

What two parts did psychology get divided into?

Empiricism and associationism

What did Wundt believe that psychology should be the study of?

Immediate experience

Voluntarism

The idea is that our minds can organize mental contents into higher-level thought processes.

Mediate and immediate experience.

Mediate experience is Wundt's theory that our minds provide us with information and knowledge other than the elements of an experience. Immediate experience is unbiased of any personal interpretations.

Introspection, according to Wundt

Introspection is the examination of one's mental state. Wundt referred to this method as internal perception. Wundt was sure his introspection would provide all the data necessary for the problems of interest to psychology as he trained his subjects to introspect properly.

Wundt's three goals of psychology

1. Analyze conscious processes into their basic elements

2. Discover how these elements are synthesized or organized.

3. Determine the laws of connection governing the organization of the elements

Two elements of psychology

1. Sensations
2. Feelings

Doctrine of apperception – the law of psychic resultants

Wundt believed that every psychical compound shows attributes that may be understood from the characteristics of its elements but are by no means to be looked upon as the mere sum of the characteristics of these elements; the whole is greater than the sum of its parts.

**Hermann Ebbinghaus (1850-1909)**

The first to investigate learning and memory experimentally.

What did Ebbinghaus learn about nonsense syllables?

Ebbinghaus learned that the nonsense syllables satisfied the criteria of the material he needed for research. These were uniformly unassociated, homogeneous, and unequally familiar materials. The nonsense syllables he created were typically formed of two consonants with one vowel in between.

Forgetting curve

The forgetting curve came about from Ebbinghaus's research on the effect of time which showed that material is forgotten rapidly in the first few hours after learning and more slowly after that.
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Sentence completion exercise (still used in psychology today)

This was Ebbinghaus's first successful test of a higher mental process which is still used today in a modified form in cognitive ability tests.

**Franz Brentano (1838-1917)**

Contrast with Wundt

Brentano opposed Wundt's idea that psychology should mainly study the content of a conscious experience. Brent believed that the primary method should be observation, not experimentation. His ways of study were memory and imagination. Wundt’s was experimental and social.

What did Brentano argue should be the proper subject matter of psychology?

Mental activity

In what two ways did Brentano believe you could study mental acts?

Through memory and imagination

**Carl Stumpf (1848-1936)**

Stumpf was a major rival of Wundt’s – what did he argue should be the primary date of psychology?

Phenomena

What is phenomenology according to Stumpf?

According to Stumpf, it was a kind of introspection that refers to examining an unbiased experience, an experience just as it occurs. Not to analyze it, just an immediate description of the experience.

**Oswald Kulpe (1862-1915)**

How did Kulpe define psychology?

Kulpe defined psychology as the science of the facts of experience that are dependent on the experiencing person.

What was Kulpe’s systematic experimental introspection?

The systematic experimental introspection method involved an individual performing complicated tasks involving memory, thought, or judgment and being asked to report what they experienced after completing the tasks.

What did Kulpe mean by imageless thought?

Imageless thought is his theory that specific words, sensations, or other signs do not necessarily have to be attached to experiences. Kulpe further developed the idea that the memory of an event or object did not have to have an associated image.

**History of Psychology - Chapter 5 Review**
**Edward Bradford Titchener (1867-1927) and Structuralism**

Although he claimed to represent Wundt's ideas and theories in America, he did not actually do this - how exactly did he change Wundt's theories?

Titchener offered his approach, which he called structuralism, yet claimed it represented psychology by Wundt.

What did Titchener view the central task of psychology to be?

An experimental science

1901-1905: During these years, he wrote experimental psychology.
Why is this noteworthy? It was a manual for laboratory practice.

Titchener's view of women

Titchener Experimentalists were a group of men who met regularly to compare research notes. Titchener selected the men and the topics of these meetings. One of his rules was that no women were allowed. During these meetings, men smoked and spoke freely, giving oral reports in a smoke-filled room. Titchener felt women were considered too pure to smoke.

What did he believe the subject matter of psychology should be?

Conscious experience

What was meant by stimulus error?

Titchener warned against committing this, which he called stimulus error which confuses the mental process with the observed object.

For Titchener what was meant by introspection?

The self-reflective observation of one's sensations and feelings. Titchener used introspection as an essential research tool to study people's inner sensations and mental images. In addition, the method was used to identify individuals learned responses.

Titchener’s three essential problems of psychology

1. Reduce consciousness down to its simplest components
2. Determined laws by which the simplest components are associated
3. Connect with psychological conditions

Titchener’s three elementary states of consciousness

1. sensations
2. images
3. affective states

Titchener presented a list of what he believed to be 44,500 elements of sensation – all of which he believed could be categorized according to four characteristics basic to all sensations.

1. Quality
2. Intensity
3. Duration
4. Clearness

Criticisms of Structuralism

It needed to be defined better.
Without a trained observer, this was not clear.
No introspective language was created.
It was criticized for their similarity that introspection is the same as retrospection.
Also, the mind could not be divided into two parts, one doing the observing and the other being observed.
Too concerned with internal behaviors.

Contributions of Structuralism

The first major school of thought.
A significant influence on Experimental psychology.
It made a good starter school of thought so others could use it as a foundation for what not to do.