

Hergenhahn's An Introduction to the History of Psychology

Eighth Edition

EIGHTH EDITION

HERGENHAHN'S
An Introduction to the
History of Psychology



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Chapter 9

Early Approaches to Psychology

Learning Objectives

After reading and discussing Chapter 9, students should:

- Be familiar with the events and ideas that culminated in the voluntarism of Wundt.
- Be acquainted with Wundt's work and research.
- Be familiar with Titchener's work and research.
- Be aware of and acquainted with competing approaches to Wundt and Titchener.
- Be acquainted with the research of Ebbinghaus and its importance.

Voluntarism

- The name that Wundt gave to his approach to psychology was voluntarism because of its emphasis on will, choice, and purpose.
- Voluntarism, then, was psychology's first school—not structuralism, as is often claimed.

Wilhelm Maximilian Wundt (1 of 8)

- Psychology's Goal
 - Psychology's goal was to understand both simple (basic processes of the mind) and complex (higher mental processes) conscious phenomena.
 - For simple phenomena, experimentation was to be used; however, for complex phenomena experimentation could not be used
 - Only various forms of naturalistic observation could be used.

Wilhelm Maximilian Wundt (2 of 8)

- Two types of experience
 - Mediate experience and data are obtained via measuring devices and thus not direct.
 - Immediate experience and data are events in human consciousness as they occurred
 - This was to be the subject matter of psychology.
- Methodologies employed
 - Some experimentation but primarily introspection
 - His experimental introspection was not the unstructured self-observation used by earlier philosophers.

Wilhelm Maximilian Wundt (3 of 8)

- Wundt's introspection used laboratory instruments to present stimuli
 - In most instances the subject was to respond with a simple response such as saying “yes” or “no,” pressing a key.
 - These responses were made without any description of internal events.
- Used to study immediate experience but not the higher mental processes.

Wilhelm Maximilian Wundt (4 of 8)

- Two basic types of mental experience
 - Sensations
 - Sensations occurred when a sense organ is stimulated and the impulse reaches the brain.
 - Described in terms of modality, intensity, and quality.
 - Feelings
 - Accompanied sensations and could be described along three dimensions (tridimensional theory pleasantness–unpleasantness
 - excitement–calm
 - strain–relaxation
 - of feelings)

Wilhelm Maximilian Wundt (5 of 8)

- Perception, attention, apperception, and creative synthesis
 - Perception is passive process governed by the stimulation present, the physical makeup of the person, and the person's past experience.
 - The interaction of these factors make up the person's perceptual field.
 - The part of this field the person attends to is apperceived
 - Apperception and selective attention are the same

Wilhelm Maximilian Wundt (6 of 8)

- Apperception is active and voluntary, hence the school called voluntarism.
- Creative synthesis
 - Elements which are attended to can be arranged and rearranged as the person wills, thus arrangements not experienced before can be produced.

Wilhelm Maximilian Wundt (7 of 8)

- Mental chronometry
 - Used a method developed by Franciscus Donders to measure differences in reaction time when various mental activities were required by the experimental situation.
 - He eventually abandoned this pursuit because he found that reaction time varied too much
 - From study to study, from subject to subject, based on the sense modality stimulated, the intensity of the stimulus, etc.

Wilhelm Maximilian Wundt (8 of 8)

- Physical causality versus psychological causality
 - Physical causality is a reality because events could be predicted on the basis of antecedent conditions
 - Prediction of psychological events is impossible
 - Principle of the heterogeneity of ends
 - Principle of contrasts
 - Principle toward the development of opposites

Völkerpsychologie (1 of 2)

- Wundt's research culminating in his 10-volume *Völkerpsychologie*
 - Verbal communication begins with a general impression and is a three-stage process
 - The speaker must apperceive his or her own general impression
 - The speaker chooses words and sentence structures to express the general impression
 - The listener, after hearing the words and sentences, must apperceive the speaker's general impression

Völkerpsychologie (2 of 2)

- Misrepresentation of Wundt
 - Wundt has been portrayed in texts inaccurately
 - May be due in part to students of Wundt's who misrepresented or misinterpreted him.

Edward Titchener (1 of 7)

- Titchener and female psychologists
 - Titchener displayed conflicting behaviors towards women.
 - He would not allow women to join his group, The Experimentalists.
 - However, his first doctoral candidate was Margaret Floy Washburn, who was the first women to receive a PhD in psychology

Edward Titchener (2 of 7)

- Structuralism's Goals and Methods
 - Goals of psychology were the determination of the what, how, and why of mental life.
 - The *what* was learned through introspection
 - The *how* answered the question of how the elements combined.
 - The *why* involved the neurological correlates of mental events.
 - He only sought to describe mental experience or the structure of the mind
 - Therefore, the school was called structuralism.

Edward Titchener (3 of 7)

- Titchener's process of introspection
 - More complicated and required more of the subject than Wundt's.
 - Introspection in Titchener's laboratory required the subject to describe the basic, raw, elemental experiences which form complex cognitive experience.
 - He wanted sensations, not perceptions, if in the report the subject responded with the name of the object rather than the elemental aspects of the stimulus, the subject committed a stimulus error.

Edward Titchener (4 of 7)

- Mental elements
 - Elements of consciousness (the mind) were sensations (elements of perceptions), images (elements of ideas) and affections (elements of emotions).
 - The elements could be known only by their attributes.
 - Attributes of sensations and images were quality, intensity, duration, clearness, and extensity.
 - Affections could have the attributes of only quality, intensity, and duration.
 - Titchener did not agree with Wundt's tridimensional theory of emotion
 - Emotions were described in terms of one dimension: pleasantness—unpleasantness

Edward Titchener (5 of 7)

- Law of Combination
 - He described how the elements combine by using the law of contiguity as many others had done before.
- The context theory of meaning
 - What gives meaning to sensations is called the context theory of meaning.
 - What gives sensations and events meaning is the images and events with which the sensation has been associated contiguously in the past.
 - These associations form a core or a context.

Edward Titchener (6 of 7)

- Neurological correlates of mental events
 - Believed that physiological processes provide a continuous substratum that give psychological processes a continuity they otherwise would not have.
 - Although the nervous system does not cause mental events, it can be used to explain some of their characteristics.

Edward Titchener (7 of 7)

- Decline of Structuralism
 - The decline of structuralism was inevitable as people began to question the use of introspection as a viable method in research.
 - Other factors which contributed to the decline
 - Development of the study of animal behavior
 - The lack of interest in practical implications on the part of structuralists
 - The development of behaviorism and objective methods of research

Early German Psychology (1 of 11)

- Franz Clemens Brentano: Act Psychology
 - The important aspect of the mind was not what it was made of but what it did
 - Studies should emphasize the mind's processes
 - Mental processes are aimed at performing some function
 - His view was called act psychology.
 - All mental acts incorporate something outside of itself (which he called intentionality).
 - He employed phenomenological introspection— introspective analysis of intact, meaningful experiences.

Early German Psychology (2 of 11)

- Carl Stumpf and Berlin
 - Like Brentano, Stumpf argued for study of intact, meaningful experiences, phenomenology.
 - The study of mental phenomena.
 - Influenced the development of Gestalt psychology. The three “founders” of Gestalt psychology studied with Stumpf.
 - Stumpf and a student Oskar Phungst helped investigate the Clever Hans phenomenon.

Early German Psychology (3 of 11)

- Edmund Husserl and Phenomenology
 - Two types of introspection
 - One focuses on the intentionality described by Brentano
 - Second focuses on subjective experience—the processes a person experiences.
 - Focuses on the essences of mental processes. He referred to it as pure phenomenology.
 - His goal was to create a taxonomy of the mind
 - Describe the mental essences by which humans experience themselves.

Early German Psychology (4 of 11)

- He sought to examine meanings and essences, not mental elements, via introspection, which differed greatly from the structuralists.
- Proper subject matter of psychology.
 - The phenomenologies of Brentano, Stumpf, and Husserl all insisted that the proper subject matter of psychology was intact, meaningful psychological experiences.
 - This approach was to impact Gestalt psychology and existentialism.

Early German Psychology (5 of 11)

- Oswald Külpe: The Würzburg School
 - In contrast to Wundt, Külpe proposed that some thought could be imageless and also that the higher mental processes could be studied experimentally
 - Set out to do so by using his method called systematic experimental introspection.
 - The imageless thought controversy continued for many years.
 - The most influential work which came out of the Würzburg school (where Külpe was the leader) was the idea of mental set.

Early German Psychology (6 of 11)

- Mental set is a determining tendency, which causes the person to behave in certain ways completely unaware that they are doing so.
- The mental set can be induced by instruction or by simply the person's past experiences.

Early German Psychology (7 of 11)

- Hermann Ebbinghaus
 - Researched learning and memory using a unique methodology
 - This was important because this was the first time that learning and memory had been studied as they occurred
 - It illustrated that these processes could be studied experimentally.
 - Many of his findings are still cited today and most of the major conclusions reached are still valid today.

Early German Psychology (8 of 11)

- Hermann Ebbinghaus' method
 - He developed nonsense syllables to use as stimuli in his research.
 - These provided series of stimuli that were essentially meaningless.
 - The subject is to learn (memorize) a series of syllables by looking at them sequentially until mastery.
 - Then after various time intervals they were to relearn the same list.

Early German Psychology (9 of 11)

- The difference in number of exposures to relearn the list in comparison to the number of exposure to mastery at the initial exposure was called savings.
- Conclusions
 - More rapid forgetting during the first hours following learning and slower thereafter.
 - Overlearning (continuing to study past mastery) decreased the rate of forgetting.
 - Distributed practice was more effective than massed practice.

Early German Psychology (10 of 11)

- G.E. Müller
 - Important findings on memory
 - Subjects spontaneously organize materials to be remembered into meaningful patterns
 - The first to document retroactive inhibition
 - In addition to his studies of memory, Müller became the leading researcher in psychophysics following the death of Fechner.

Early German Psychology (11 of 11)

- Hans Vaihinger: As If
 - Proposed that societal living requires that we give meaning to our sensations, and we do that by inventing terms, concepts, and theories and then acting “as if” they were true.