

Psychology 1910 - 1920

- 3 "schools" of psychology opposing Wundt's psychology and Titchner's structuralism
 - Functionalism objected to the narrowness or structuralism and reductionism
 - Behaviorism rejected study of consciousness for the study of observable behavior
 - Gestalt rejected reductionist approach to psychology maintained an interest in studying the mind

Beginning of Gestalt psychology

- 1910 Max Wertheimer on vacation noticed that distal objects seemed to move with the train; nearby objects went past. Why?
- Study of apparent motion why stationary objects appear to move
- Began to study this phenomena with two former students of Karl Stumpf – Kurt Koffka and Wolfgang Kohler

Apparent motion

- Phi phenomenon flashing a vertical light that is followed 50-60 msec later by a horizontal light produces the appearance of movement. The light appears to move from vertical to horizontal
- Movement only perceived if delay was 50 60 msec
- The perceptual experience had properties the individual components did not
- 1st Gestalt paper presented in 1912

Basic premise of Gestalt psychology

- Humans are not passive receivers of sensory information. Our perceptions are active, lively, and organized
- We actively organize perceptions into coherent wholes – today the process is referred to as top-down or conceptually driven processing

Criticisms of Wundt and Titchner

- Wundt was studying sensory experiences "from below" instead of "from above". How we organize information more important than the individual sensory elements
- Titchner had his methodology backwards.
 - Titchner: the subjects task is to explain their sensory experience, not the objects being experienced (Introspection)
 - Wertheimer: the observers task is to describe the object being experienced, not describe the experience

The Gestalt team

- Wertheimer: the teacher and lecturer who influenced students and colleagues through seminars and discussions
- Koffka: the writer and theorist he produced the basic principles of Gestalt psychology in 1935 <u>Principles of Gestalt Psychology</u>
- Kohler the debater he enjoyed debating and criticizing the behaviorists and structuralists. Only one of the 3 elected president of the APA

Lack of a Gestalt psychology today

- They spent the majority of their time criticizing others instead of consolidating ideas into practical and testable theories
- Described how perceptual processes work, rather that theorizing how they worked
- Others took Gestalt ideas and incorporated them into their own theories
- Gestalt psychology most important from 1915 to the 1940's – mostly in Germany

Gestalt principles of perceptual organization

Similarity

Proximity

Good form and common fate

Closure

Law of Pragnanz

Geographical versus behavioral environment

 Geographical environment – the physical world

 Behavioral environment – our interpretation of the physical world

 Our interpretation of organization can produce a behavioral world that is very different from the physical world

Importance of perceptual constancy

- Our perception of an object will remain the same even if the sensory experience changes – includes shape, size, brightness, and color constancy
- Kohler's explanation: when we attend to an object we also attend to its relationship with other objects in the visual display. If the relationship between the object and other objects remains the same, the object is perceived as remaining the same

Insightful learning - Kohler

 Kohler went of Canary Islands to study intelligence and problem solving ability of great apes in 1913.

 WWI began and he was unable to leave until 1917

 Conducted most of his studies on insightful learning during this period

Studies of Insightful Learning

 Prevailing theory at the time – Thorndike's Law of Effect – trial and error and reward

 Kohler – animals have reasoning ability and are not dependent on trial and error

 Kohler's detour problem – tested dogs, children, and chickens

Studies of problem solving of apes

- More complex and required higher problem solving, but basic paradigm the same: the direct approach would not solve the problem

 the apes had to find an indirect way to the goal.
- 1st study: Bananas hung from ceiling out of the reach of the apes.
 - Bananas swung back and forth. If the animal climbed a nearby scaffolding, the bananas would swing in to their reach
 - Apes first jumped and failed, then looked around, went to the scaffolding and climbed up

Mentality of Apes (1921; 1928)

- 3 characteristics of insightful learning:
 - Insightful learning solutions result from restructuring the problem – the ah ha!
 - The fruit that was provided served as an incentive, but was not responsible for learning. The animal solved the problem before they ate the fruit
 - Insightful solutions are characterized by generalizations or large amounts of positive transfer from one problem to another

Americanization of Gestalt psychology

 1925 – Kohler came to U.S. as a visiting professor at Clark University

Traveled and spoke all over the U.S. except for the south

 Why? 1925 was the year of the Scopes Monkey Trial, and it was felt his study of reasoning apes would cause problems

Americanization of gestalt psychology

- Rise of Nazis in Germany forced many Jews to leave academic positions
- Koffka left in 1927 before he was dismissed and expelled from Germany
- Wertheimer expelled in 1933
- Kohler, who was not Jewish, tried to leave in 1934, but wasn't allowed to leave until 1940
- By the 1940's, Gestalt psychology had become a recognized part of American psychology

The 4th Gestalt psychologist – Kurt Lewin

- Only one of the 4 who participated in WWI – younger than the others
- 1st studies our perceptions of landscapes are different depending upon the situation
- Industrial psychology evaluation of the work environment needed to include job satisfaction, not just level of production

Kurt Lewin

- Forced out of Germany 1933 injustice of his persecution greatly affected his psychological work
 - 1930's pioneered work on democratic and authoritarian leadership and their effect on members of a group
 - Field theory of psychology
 - Assisted in the U.S. war effort with his research in group decision making techniques – particularly food buying behavior
 - Generally credited with applying Gestalt psychology to real world situations

Lewin's study of group productivity

- 4 major areas of research
 - Find ways to make groups more productive and prevent the tendency for them to become inefficient
 - Study communication and the spread of rumors
 - Study of social perception and interpersonal relationships
 - Study of leadership training
- Purpose of these groups of study were to develop effective leadership, improve communication, and fight prejudice and destructive attitudes

Lewin's legacy

 Seen today as one of the most important psychologists for his contributions of making psychology applicable to real humans in the real world

 Much of his work on group dynamics still used in counseling, educational, industrial, and clinical settings

Gestalt therapy

- Fritz created the term Gestalt therapy, but it has nothing to do with Gestalt psychology
- He borrowed some of the terms, but he never read any of the Gestalt psychology books and had no background in Gestalt psychology
- Others described Gestalt therapy as a misleading entitlement