Hergenhahn's An Introduction to the History of Psychology
Eighth Edition

Chapter 14
Gestalt Psychology

CENGAGE

Learning Objectives (1 of 2)

After reading and discussing Chapter 14, students should:

- Be familiar with the antecedents of Gestalt psychology.

- Be acquainted with the founding of Gestalt psychology and the individuals involved.

- Understand the basic principles of Gestalt psychology.

- Be familiar with the Gestalt explanation of learning.

- Be acquainted with applications of Gestalt views on productive thinking and education.

- Understand the basics of Lewin's field theory and its application, conflicts, and group dynamics.
- Describe the impact of Gestalt psychology.

- German psychologists took issue with Wundt's elementism
  - Several German psychologists argued that consciousness could not be reduced to elements without distorting the true meaning of conscious experience.
  - People experience things in meaningful, intact configurations which are termed Gestalt and this type of psychology was to be called Gestalt psychology.
  - They advocated a molar approach, which concentrates on phenomenological experience—mental experience as it occurred to the naïve observer, without further analysis (experience as it appears in consciousness).

- Philosophers/antecedent views
  - Immanuel Kant and the Gestaltists both believed that consciousness cannot be reduced to sensory stimulation, and conscious experience is different from the elements that compose it.
  - Ernst Mach postulated that two perceptions, space form and time form, appeared to be independent of the particular elements that composed them.
  - Christian von Ehrenfels influenced Wertheimer (one of the founders of Gestalt psychology) as an instructor of several courses.

Antecedents of Gestalt Psychology (3 of 3)

- Ehrenfels (and Mach) proposed that form is something that emerges from the elements of sensation.

- William James postulated a stream of consciousness in contrast to the mind being composed of isolated mental elements.

  - The stream should be the focus of psychological inquiry; any attempt to break it up for more detailed analysis must be avoided.

- Köhler was well versed in physics and Gestalt psychology represented an effort to model psychology after field theory instead of Newtonian physics.

- Max Wertheimer
  - Used the phi phenomenon, a perception of apparent movement when the elements of the experience are, in fact, stationary.
  - Proposed that our perceptions are different than the sensations that comprise them.
  - His paper describing this phenomenon is customarily taken as the formal beginning of Gestalt psychology.
  - In addition to presenting the initial ideas for Gestalt psychology, his two research assistants at the time of this research were Kurt Koffka, and Wolfgang Köhler.
  - These three individuals are considered the cofounders of Gestalt psychology.

The Founding of Gestalt Psychology (2 of 2)

- Kurt Koffka
  - Wrote several books and articles regarding Gestalt psychology.
  - His article entitled, "Perception: An introduction to Gestalt-theorie," was believed to provide a misrepresentation that Gestaltists were only interested in perception.

- Wolfgang Köhler
  - He did research regarding aspects of learning which greatly influenced Gestalt ideas, including the nature of learning in chimpanzees.

- Field theory
  - Gestaltists propose that the brain contains structural fields of electrochemical forces.
    - Upon entering a field, sensory data both modify the structure of the field and are modified by the field. Our experience results from the interaction of the sensory data and the force fields in the brain.
  - Cognitive experience results from the fields of brain activity transforming sensory data and giving that data characteristics it otherwise would not possess.

- – According to this analysis, the whole (electrochemical force fields in the brain) exists prior to the parts (individual sensations) and it is the whole that gives the parts their identity and meaning.

- Psychophysical isomorphism

  - – The force fields in the brain transform incoming sensory data and that is the transformed data that we experience consciously.

  - – Isomorphism comes from the Greek meaning "similar shape."

- The patterns of brain activity and the patterns of conscious experience are structurally equivalent.

- Brain is a dynamic configuration of forces that transforms sensory information

  - Instead of viewing the brain as a passive receiver and recorder of sensory information

  - The notion of isomorphism necessitated an opposition to the constancy hypothesis, which states there is a one-to-one correspondence between environmental stimuli and sensations.

- Top down analysis
  - For Gestalt psychology, organized brain activity dominates our perception, not the stimuli that enter into that activity.
    - Therefore, the whole is more important than the parts, thus reversing one of psychology's oldest traditions.
  - Analysis proceeded from the top to the bottom instead of from the bottom to the top, in other words analysis proceeded from the whole to the parts.

- Law of Prägnanz
  - The psychological organization will always be as good as conditions allow because fields of brain activity will always distribute themselves in the simplest way possible under the prevailing conditions.
  - The law asserts that all cognitive experiences will tend to be as organized, symmetrical, simple, and regular as they can be, given the pattern of brain activity at any given moment.
    - This is what "as good as conditions allow" means.

- Perceptual constancy
  - The way we respond to objects as if they are the same, even though the actual stimulation our senses receive may vary greatly.
  - This phenomenon is not a function of sensation plus learning but is a function of the ongoing brain activity and the fields' activity.

- Perceptual Gestalten (figure-ground and principles of organization)
  - Figure-ground

- The perceptual field can be divided into two parts, the figure and the ground. The figure is clear and unified and is the object of attention, the ground is diffuse and consists of everything that is not being attended to. The division creates a figure-ground relationship and what is the figure and what is the ground can be changed by shifting one's attention.

– Continuity
  - Stimuli that have continuity with one another (intrinsic togetherness, seem to go together) will be experienced as a perceptual unit to make a whole.

- Proximity
  - Stimuli, which are close together, tend to be grouped together as a perceptual unit.

- Inclusiveness
  - When there is more than one figure, we are most likely to see the figure that contains the greatest number of stimuli.

- Similarity
  - Objects that are similar in some way tend to form perceptual units.

- Closure
  - Incomplete figures in the physical world are perceived as complete ones. For example, if we have figures with gaps in them we fill in the gaps to make a whole.

- Subjective and Objective Reality
  - Koffka distinguished between the geographical environment (physical environment) and the behavioral environment (our subjective interpretation of the geographical environment).
  - Our own subjective reality governs our actions more than the physical environment.

- Cognitive trial and error
  - Instead of behavioral trial and error, the Gestaltists believed that cognitive trial and error occurs
    - Organisms come to see solutions to problems.

The Gestalt Explanations of Learning (2 of 3)

- Insight learning
  - If a problem is presented to an organism along with whatever is necessary to solve the problem, insight learning will typically occur.
  - Insight learning has basically four characteristics:
    1. The transition from no solution to solution is sudden and complete
    2. Performance based on the insightful solution is usually smooth and free of errors

The Gestalt Explanations of Learning (3 of 3)

3. A solution gained by insight is retained for a considerable length of time

4. A principle gained by insight is easily applied to other problems.

- Transposition

    – An organism learns principles or relationships, not specific responses to specific situations.

    – Once it learns a principle, the organism applies it to similar situations.

    – Similar to transfer of training.

- Productive thinking
    - The ideas presented in the book *Productive Thinking* by Wertheimer were based on personal experience, experimentation, and interviews with people considered excellent problem solvers, such as Einstein.

- Learning based on Gestalt principles would be based on understanding the structure of the problem, followed by the solution and the solution is reinforcing
  - Learning and problem solving are intrinsically reinforcing.
- This is top-down learning in contrast to rote memorization or learning based on logic and typical of most education systems.
- Learning and problem solving governed by intrinsic motivation rather than extrinsic motivation

- Memory
  - A memory process is the brain activity caused by a specific environmental event.
  - When the event ends, so does the brain activity it caused
    - However, a remnant, a memory trace, remains in the brain.
  - We also remember things in general terms rather than by specific characteristics.

- – Individual traces gives way to a trace system, which is the consolidation of a number of interrelated experiences.

- – The interaction of traces and trace systems with memory processes results in our perceptions and memories being smoother and better organized than they otherwise would be.

- Theory
  - Aristotle vs. Galileo
    - Aristotle emphasized inner essences and categories
    - Galileo emphasized outer causation and the dynamics of forces.
    - Lewin saw Galileo as revolutionizing science when he changed its focus from inner causation to a more comprehensive notion of causation, in which the behavior of an object or organism is determined by the total forces acting on the object or organism at the moment.
    - For Lewin, complex dynamic forces acting on an individual at a given moment explains human behavior.

- Life Space
  - Consists of all influences acting on him or her at a given time.
  - These influences, called psychological facts, consist of an awareness of internal events, external events and recollections of prior experiences.
  - To be a psychological fact, it must exist in a person's awareness at the moment.

Kurt Lewin's Field Theory (3 of 6)

- Only those facts that are currently present in the life space can influence a person's thinking and behavior.
  - This is called the principle of contemporaneity.
- The life space also contains imagined events.
- Motivation
- Biological and psychological needs cause tension in the life space, and the satisfaction of the need reduces the tension.
  - Psychological needs are called quasi needs.

- Zeigarnik effect
  o The tendency to remember uncompleted tasks better than completed tasks.
    ➢ The explanation was that for an uncompleted task the associated tension is never reduced therefore, the task remains as an intention, and as such remains as part of the person's life space. Thus, we remember the uncompleted task better than the completed task.

- Application
  - Conflict
    - Lewin investigated three types of conflict:
      - Approach–approach conflict
      - Avoidance–avoidance conflict
      - Approach–avoidance conflict.
  - Group dynamics
    - For Lewin, a group can be viewed as a physical system and the behavior of the individual elements is determined by the configuration of the existing field of energy.

Kurt Lewin's Field Theory (6 of 6)

- The nature of configuration of a group will strongly influence the behavior of its members.

- Members of each group has what Lewin called a dynamic interdependence.

- Studies of group dynamics led to encounter groups, sensitivity training, and leadership institutes.

The Impact of Gestalt Psychology

- Gestalt psychology have been assimilated into modern psychology, and therefore Gestalt psychology has lost its distinctiveness as a school.

- Gestalt psychology influenced
  – Cognitive psychology
  – Social psychology