Chapter 5: First Among Equals

Wilhelm Wundt:
- authoritarian & humorless
- medically trained
- first psychological laboratory (University of Leipzig, 1879)
- reaction time experiments (most common)
- Principles of Physiological Psychology (1873/74):
  - dualistic parallelism (not really a monist)

- objective introspection ("atoms of thought")
- forerunner of structuralism ("elemental contents of mind, " Edward B. Titchener)

Reactions against Wundt’s psychology:
* applied psychology
* Wurzburg School (Oswald Külpe; holistic study of human thought)
* Gestalt psychology
* Hermann Ebbinghaus (memory, University of Berlin)
* functionalism (William James)
Chapter 6: William James

- **William James:**
  - unpretentious & witty
  - medically trained
  - psychology not yet a science, but would someday become one
  - first to teach psychology in America (Harvard University, 1875)
  - *Principles of Psychology* (1890):
    * numerous topics
    * no unified grand theory

- rejected the unconscious
- naturalistic kind of *introspection* (immediate retrospection)
- *functionalism* (consciousness = process)
- *stream of consciousness*
- self-theorist ("personal" consciousness)
- *James-Lange theory of emotion*
- *theory of will* (motivation psychology)

- James’ legacy:
  - “productive paradoxes”
  - pervasive, though not dominant impact
  - outside mainstream (applied psych.):
    ~ educational psychology
    ~ mental health
    ~ parapsychology

- Wundt vs. James:
  - Wundt = laboratory methods and experimentation
  - James’s psychology = more pragmatic and less narrow and rigid
Chapter 7: Explorer of the Depths

**Sigmund Freud:**
- bundle of contradictions
- medically trained (would-be neuroscientist)
- clinical psychiatrist
- primary process (unconscious, pleasure)
- secondary process (conscious, reality)
- "hypnotic catharsis"
- psychoanalysis (1896)
- five-stage theory of personality dev.

**Criticisms of Freudian psychology:**
- unscientific and unverifiable
- sexist
- theory ends in adolescence
- pessimistic
- outdated

**Freud's legacy:**
- existence of dynamic unconscious
- ideas permeated Western culture
- controversy spawned competing views (neo-Freudians & others)

Chapter 8: The Measurers

**Francis Galton:**
- impacted by Darwin’s theory
- *Hereditary Genius* (1869)

**Galton’s legacy:**
- first to use mental testing (individual differences)
- mathematical research methods:
  * applied normal distribution to variations in human traits
  * correlation analysis
- invented genealogical study
• coined phrase “nature and nurture”
• invented self-questionnaire
• pioneered “twin-study” method
• reputation tarnished by creation of eugenics (“selective breeding”)

Intelligence-testing movement:
• James Cattell (1890 pioneer)
• Alfred Binet (1st scale using mental age)
• William Stern (intelligence quotient)
• Lewis Terman (revised Stanford-Binet)
• Henry Goddard (mass testing; eugenics)
• ongoing controversies: nature-nurture, general-multiple, & “cultural fairness”

Chapter 9: The Behaviorists

Nature of “mind” (radical behaviorism)

Early behaviorism (experimentally validating philosophical laws of association):
• Edward L. Thorndike
  * “father of educational psychology”
  * “puzzle-box” experiments (late 1800s & early 1900s)
    ~ trial-and-error learning
    ~ Law of effect
    ~ Law of exercise

• John Dewey
  * reflex arc (1896)
    ~ organisms acting to alter stimuli
    instead of being prodded to respond
    ~ “social behaviorism” (functional)
• Ivan Pavlov (early 1900s)
  * conditioned reflex
  * classical conditioning
• John B. Watson
  * Psychology as the Behaviorist Views It (1913)
    ~ observable behavior
    ~ objective natural science
    ~ prediction & control of behavior
Later behaviorism (neo-behaviorists):
- **Edward C. Tolman** (1930s & 40s)
  * "purposive behavior"
- **Clark L. Hull** (1940s & 50s)
  * "calculus of behaviorism"
- **J. R. Kantor** (early-mid 1900s)
  * interbehaviorism
- **B. F. Skinner** (mid-late 1900s)
  * atheoretical
  * thinking is behavior
  * environmental determinism
  * operant conditioning
  * "behavioral engineering" (response shaping)
  * programmed instruction
  * behavior modification
  * Walden Two (1948)

Chapter 10: The Gestaltists
The "rediscovery of the mind":
- **Gestalt psychology**:
  * German-based perspective
  * out of step with Zeitgeist (circa 1910)
  * emigrated to U. S. in 1930s (uphill battle against behaviorism)
  * stressed nativism
  * whole > sum of its parts (holism)
  * 114 "laws of Gestalten"

Gestalt principles of perceptual organization:
- **perceptual grouping**:
  * proximity (physical closeness)
  * similarity (sameness)
- **closure** (enclosing incomplete objects)
- **simplicity** (Law of Pragnanz)
- **selective attention** (figure-ground relations)
Pioneers of Gestalt psychology:
- Max Wertheimer = "intellectual father, thinker, & innovator" (1913)
- Kurt Koffka = "author-salesperson"
- Wolfgang Kohler = "experimenter" (research into insight learning)
- Karl Duncker = inspired by Kohler (transfer of learning; functional fixedness)

Integration into mainstream U.S. psychology by mid-20th century:
- problem solving ("ape intelligence")
- learning & memory (restored meaningfulness to its study)
- perception (perceptual set, context effect, parapsychology, illusions)

Perceptual illusions:
- Muller-Lyer illusion = architecture
- Hermann’s grid = receptor cells in retina
- horizontal-vertical illusion = fashion
- Zollner illusion = “cross-hatched illusion”
- KANIZA triangle = closure (visual cortex)
- irradiation illusion = size distortion
- devil’s tuning fork = ambiguous depth cues
- “op art” of the 1960s and 1970s = perceived pulsation (eye focus)
Supplemental Coverage: The Humanists

- **Humanistic psychology:**
  - early antecedents:
    - self theories (George Herbert Mead, William James)
  - "third-force movement" (1950s)
  - basic tenets:
    - inherent human "goodness"
    - striving for personal growth & meaningfulness
    - distinctive human qualities

- Pioneering humanistic self-theorists:
  - Abraham Maslow:
    - motivation & personality theorist
    - Maslow's motivational pyramid/hierarchy of needs
  - Carl Rogers:
    - psychotherapist
    - client-centered therapy
      - unconditional positive regard
      - active or reflective listening

- Evaluating humanistic psychology:
  - contributions:
    - optimistic
    - contributions to psychotherapy
    - restored human beings as focus of psychological study
  - criticisms:
    - overly optimistic
    - highly subjective