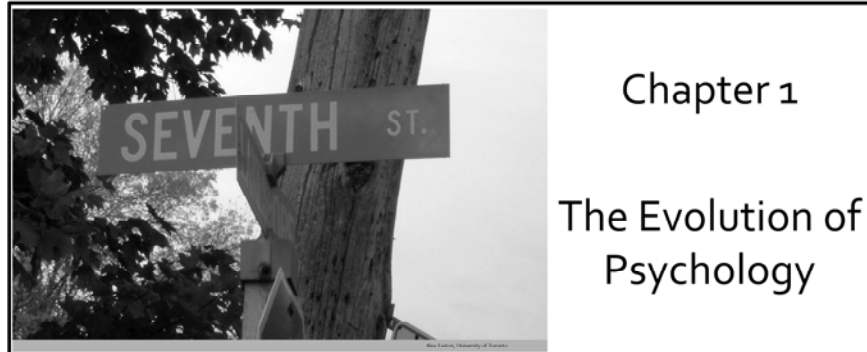


Psychology: Themes and Variations Second Canadian Edition

Class 2: September 15, 2009



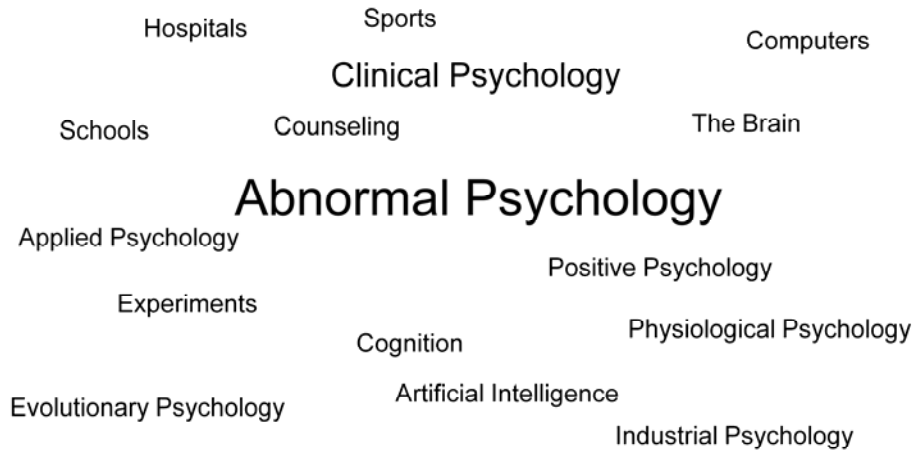
What is Psychology?

- Greek - "Psyche" - "the mind" and "logos" – "study of"
- "the systematic, and sometimes scientific, study of human/animal mental functions and behaviour"
 - Wikipedia
- What do you think?



<http://www.onlinc.com/stopwatch.com/fullscreen/stopwatch/>

What is Psychology?



The Development of Psychology: From Speculation to Science

- Prior to 1879
 - Physiology and philosophy scholars studying questions about the mind
 - **René Descartes** – “I think, therefore I am”
 - **John Locke** – Theory of mind and Empiricism (knowledge arises from experience)
 - **Immanuel Kant** – identified psychology as something separate from philosophy, but did not think it could be analyzed scientifically
 - Hermann von Helmholtz – sensory physiology – theory of vision

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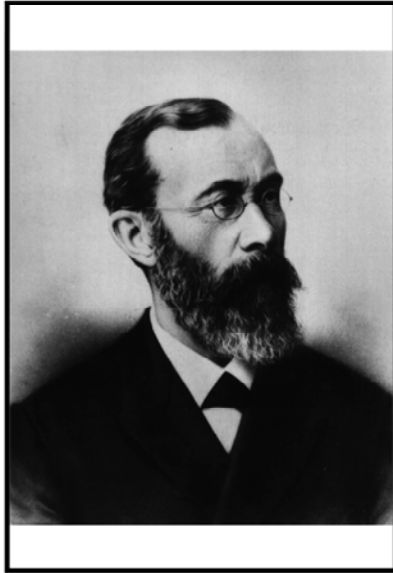
Prior to 1879 psychology did not exist as an independent field of study

Psychological questions arose on a secondary basis in the fields of Physiology and Philosophy

Wilhelm Wundt campaigned to make psychology an independent discipline

Brought the scientific methods of physiology to bear on philosophical questions

Developed the first laboratory in psychology at the University of Leipzig in 1879



Wilhelm Wundt (1832-1920) University of Leipzig, Germany

- **Introspection** as method for studying the mind
- Campaigned to make psychology an independent discipline
- Established the first laboratory for the study of psychology in 1879

5

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Wilhelm Wundt's International Influence

- Leipzig, the place to study psychology
 - Graduates of Wundt's program set up new labs across Europe and North America
- G. Stanley Hall (1846-1924), Johns Hopkins University
 - Established the first psychology laboratory in the U.S. in 1883
- Between 1883 and 1893, 24 new laboratories in North America
- James Mark Baldwin founded the first Psychology Laboratory in Canada 1891. Psychology gained department status at the St. George campus in 1927.
- Baldwin and James Gibson Hume from the University of Toronto help to establish the American Psychological Association with G. Stanley Hall in 1892

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Many young scholars came to Leipzig to study under Wundt

Wundt's students, trained in the scientific study of the mind, dispersed across Germany and America

The first research lab in the U.S. was established by G. Stanley Hall (1846-1924) (who studied under Wundt briefly) at John's Hopkins University

Between 1883 and 1893, 24 new psychological laboratories sprang up in the U.S. and Canada

While psychology was born in Germany, its period of largest growth began in the United States

Early Psychology Research Laboratories in North America

Figure 1.1

Early research laboratories in North America. This map highlights the location and year of founding of the first 24 psychological research labs established in North American colleges and universities. As the colour coding shows, a great many of these labs were founded by the students of Wilhelm Wundt, G. Stanley Hall, and William James.

Source: Based on Garvey, 1929; Higard, 1987.



The Battle of the “Schools”: Structuralism vs. Functionalism

- Two intellectual schools of thought regarding the science of psychology
 - Structuralism – led by Edward Titchener
 - Focused on analyzing consciousness into basic elements
 - **Introspection** – careful, systematic observations of one’s own conscious experience
 - Functionalism – led by William James
 - Focused on investigating the function or purpose of consciousness
 - Led to investigation of mental testing, developmental patterns, and sex differences
 - May have attracted the first women into the field of psychology

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Two intellectual schools of thought regarding the science of psychology fought it out in the academic arena, with the fight led by Edward Titchener in the STRUCTURALISM corner and William James in the FUNCTIONALISM corner.

The structuralists believed that psychology should be about analyzing consciousness into its basic elements, just as physicists were studying how matter was made up of basic particles...to do this, Titchener and his followers relied on introspection, a process by which a person makes careful, systematic self-observations of one’s own conscious experience.

The functionalists thought this missed the point. James and his followers thought psychology should be about investigating the function or purpose of consciousness, rather than its structure.

Who Won the Battle?

- Most historians give the edge to James and the functionalists
 - Depending on introspection does not allow for any independent objective evaluation of a claim
 - Today, psychologists are not really categorized as structuralists or functionalists
- Applied psychology and Behaviourism - descendants of functionalism
 - Behaviourism - early 1900's
 - The next major school of thought to influence the development of psychology

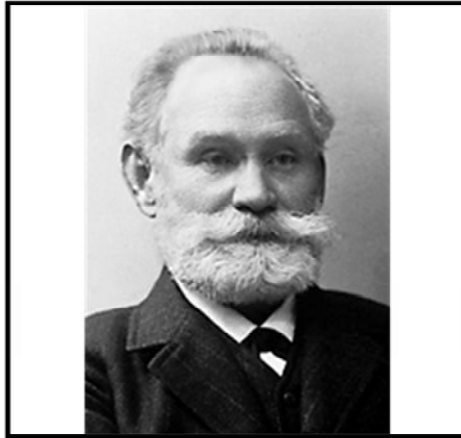
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Probably the functionalists, although the war changed as both schools of thought gradually faded away

Today, psychologists really aren't categorized as functionalists or structuralists, but the modern fields of applied psychology and behaviourism are direct descendants of functionalism

Basically, the Battle of the "Schools" was only the prelude to numerous fundamental controversies in psychology

It was the advent of behaviourism in the early 1900's that was the next major school of thought to fundamentally alter the course of psychology



Development of Behaviourism
– Ivan Pavlov – 1890's



- "Classical" conditioning
- Very basic form of learning
- Reflex can be elicited by a cue

Behaviourism: Redefining Psychology

- John B. Watson (1878-1958): United States
 - Founder of Behaviourism
- Psychology = scientific study of behaviour
- Behaviour = overt or observable responses or activities
 - Radical reorientation of psychology as a science of observable behaviour
 - Study of consciousness abandoned
- Stimulus = any detectable input from the environment

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John B. Watson (1878-1958) founded the behaviourist school of thought

*Basic tenet: Only observable behaviour should be studied in scientific psychology
behaviour, according to Watson, refers to an observable or overt response or
activity of an organism*

Watson's ideas radically changed the landscape of psychology

Give up consciousness and have a science of behaviour

John Watson and the Nature-Nurture Debate

- Nurture, not nature
 - *“give me a dozen healthy infants, well-formed, and my own special world to bring them up in and I’ll guarantee to take any one at random and train him to become any type of specialist I might select – doctor, lawyer, artist, merchant-chief, and yes, even beggar-man and thief...”*
- Behaviourist school of thought emphasized the environment (nurture)
- Focus on stimulus-response relationships
- S-R psychology

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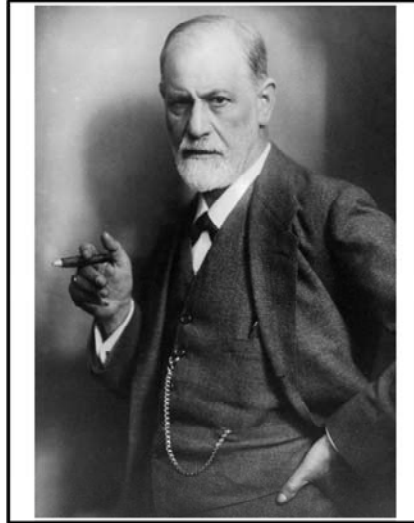
Watson not only proposed a fundamental change in the focus of psychology, but he also took a strong stand on one of the oldest questions in psychology...are we who we are because of nature or nurture?

Watson argued strongly for nurture: famous quote...while this really oversimplified his stance, his writings did contribute to the strong environmental slant associated with the behaviourist school of thought

In addition, the focus of behavioural psychology was on the relationship between stimuli in the environment and the responses of the organism...S-R psychology...clearly putting emphasis on the environment, or nurture, in behaviour

Sigmund Freud and the Concept of the Unconscious Mind

- Sigmund Freud (1856-1939): Austria
- Founded Psychoanalytic school of thought
- Emphasis on unconscious processes influencing behaviour
 - Unconscious = thoughts, memories, and desires that are below the surface of conscious awareness but exert great influence on behaviour



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Freud was an Austrian physician who founded psychoanalytic psychology

His work with people with psychological problems led him to believe that people are influenced by unconscious forces...that is, thoughts, memories, and desires that are outside conscious awareness

Freud's Ideas: Controversy and Influence

- Behaviour is influenced by the unconscious
- Unconscious conflict related to sexuality plays a central role in behaviour
- Controversial notions caused debate and resistance
- Significant influence on the field of psychology

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Freud believed that unconscious conflict, particularly with regard to sexual urges, plays a central role in behaviour.

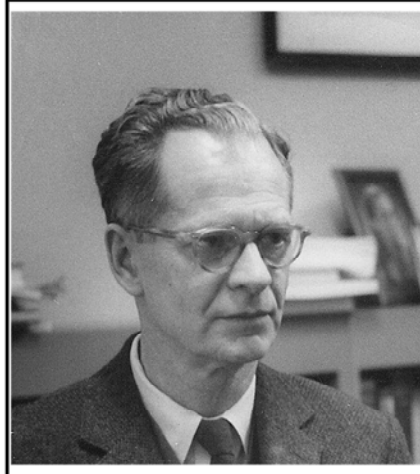
This was scandalous and offensive for several reasons...first, if we are influenced by forces we are not aware of, how can we be masters of our own minds? Where does free will come in? Second, in an era of sexual repression, the emphasis on sexuality was quite upsetting to many people. The controversial nature of Freud's ideas caused great resistance in the field of psychology, and his ideas were not well received among academic circles.

Despite of (or maybe even because of) the controversy, Freud's ideas moved into the main stream, influencing thought in psychology, medicine, art, and literature.

Behaviourism Revisited:

B.F. Skinner

- Environmental factors determine behaviour
- Responses that lead to positive outcomes are repeated
- Responses that lead to negative outcomes are not repeated
- Beyond Freedom and Dignity
- More controversy regarding free will and the debate between nature vs. nurture



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Skinner championed a return to the strict focus on OBSERVABLE behaviour only...he didn't deny that mental events exist, just that they cannot be studied scientifically and are therefore outside the realm of the science of psychology.

Fundamental principle is that organisms tend to repeat responses that lead to positive outcomes and vice versa.

Skinner trained animals using this principle with much success; later, his followers showed that it also works with humans...

He stirred up controversy in the early 70's when he published Beyond Freedom and Dignity, asserting that all behaviour is governed by external stimuli...people are controlled by their environments, not themselves...free will is an illusion.

The 1950's:

Opposition to Psychoanalytic Theory and Behaviourism

- Charges that both were de-humanizing
- Diverse opposition groups got together to form a loose alliance
- A new school of thought emerged - **Humanism**
 - Led by Abraham Maslow (1908-1970) and Carl Rogers (1902-1987)
 - Emphasis on the unique qualities of humans: freedom and personal growth

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While behaviourism and Psychoanalytic theory dominated mainstream psychology, many people had a hard time believing that people are not masters of their own fate.

The anti-Freud/Skinner crowd formed a loose alliance that eventually became a new school of thought...humanism...led by Abraham Maslow and Carl Rogers.

Humanism focused on the unique qualities of humans, especially free will and the potential for personal growth...a very optimistic view of human nature as opposed to the psychoanalysts or behaviourists.

Psychology's Roots in Canada

- Canadian Psychological Association founded in 1939 – membership 6313 (CPA, 2008)
- Important contributions by Brenda Milner and Donald Hebb
- Renowned McGill University brain expert Dr. Brenda Milner has been named one of four recipients of the prestigious International Balzan Prize for 2009, which is worth approximately \$1 million Canadian, for her work in cognitive neuroscience.



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James Mark Baldwin was born in South Carolina and received his Ph.D. from Princeton University as well as working in Leipzig in Wilhelm Wundt's lab

Brenda Milner of McGill University made crucial contributions to psychology in the areas of memory and neuropsychology

Donald Hebb also of McGill University received his Ph.D from Harvard University and published his seminal book *The Organization of Behaviour: A Neuropsychological Theory*, in 1949. This book challenged the then dominant behaviourist models and set the stage for contemporary developments in cognition and neuroscience.

Putting the Psyche Back in Psychology: The Return of Cognition

- Cognition = mental processes involved in acquiring knowledge
- 1950's and 60's – Piaget, Chomsky, and Simon
 - Application of scientific methods to studying internal mental events
 - Cognitive psychology: the new dominant perspective?

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Cognition involves thinking or conscious experience...the dominance of behaviourist thought significantly decreased with the advent of cognitive psychology.

Theorists such as Jean Piaget – who studied the development of cognition, Noam Chomsky – who studied the psychological underpinnings of language, and Herbert Simon and colleagues – who studied problem solving, paved a new path in psychology by using scientific methods (way beyond introspection) for studying cognitive processes.

Some researchers argue that cognitive psychology is now the dominant perspective in psychology.

Physiological Psychology: The Biological Basis of Behaviour

Biological perspective - behaviour explained in terms of physiological processes

- **James Olds (1956)**
 - Electrical stimulation of the brain evokes emotional responses in animals
- **Roger Sperry (1981)**
 - Left and right brain specialization
- **Donald Hebb (1949)**
 - Cell-assemblies describe neural networks

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Biological psychologists are interested in interrelations among mind, body, and behaviour.

Advocates of the biological perspective maintain that much of human and animal behaviour can be explained in terms of the physiological processes that underlie the behaviour.

James Olds, in the 50's, demonstrated that animals could be made to experience emotions, such as pleasure and rage, through brain stimulation.

Roger Sperry, in the 80's, demonstrated that the left and right halves of the brain have specialized functions and each handle different types of mental tasks.

*Donald Hebb also of McGill University received his Ph.D from Harvard University and published his seminal book *The Organization of Behaviour: A Neuropsychological Theory*, in 1949. This book challenged the then dominant behaviourist models and set the stage for contemporary developments in cognition and neuroscience.*

Contemporary Psychology: Cultural Diversity

- Ethnocentrism – viewing one’s own group as superior and as the standard for judging
- Historically: middle and upper class white males studying middle and upper class white males
- 1980’s – increased interest in how cultural factors influence behaviour
- growing global interdependence
- increased cultural diversity

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The vast majority of psychological research seeking to identify general principles of behaviour that could be applied to all of humanity has been conducted in the United States, by white middle and upper class males studying white middle and upper class males. Little attention was paid, historically, to how this research might apply to non-Western cultures, ethnic minorities, or women.

In the late 80’s, however, a movement toward incorporating cultural factors into research and theory emerged...this was in part due to sociopolitical forces (civil rights movement, women’s movement, etc.), but most notably to the advances in international communication and increased global interdependence, as well as the increasingly diverse multicultural make-up of the Western world.

Evolutionary Psychology: Behavioural Patterns in Terms of Evolutionary Significance

- Central premise: natural selection occurs for behavioural, as well as physical, characteristics
- Buss, Daly & Wilson, Cosmides & Tooby – 80's and 90's
 - Studied natural selection of mating preferences, jealousy, aggression, sexual behaviour, language, decision making, personality, and development
 - Thought provoking perspective gaining in influence, but not without criticism



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The basic idea behind evolutionary psychology was not new; James and the functionalists were influenced by Darwin. The 60's and 70's brought breakthroughs in evolutionary biology that began to impact psychology in the late 80's.

David Buss, Martin Daly, Margo Wilson, Leda Cosmides, and John Tooby led the new evolutionary psychology movement.

The above researchers met at the Center for Advanced Study in the behavioural Sciences in the late 90's to set an ambitious research agenda for evolutionary psychology.

Basically gave life to the first new theoretical perspective in psychology.

While the perspective is gaining in influence, many critics hold that the theory is untestable and based on post hoc accounts for obvious behavioural phenomena.

Positive Psychology

- Positive Psychology uses theory and research to better understand the positive, aspects of human existence.
- Positive subjective experiences
- Individual traits
- Positive institutions and communities

Psychology Today: A Thriving Science and Profession

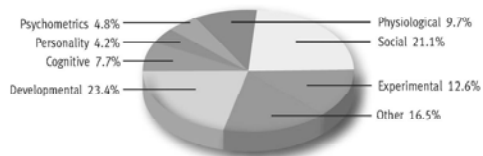
- Psychology is the science that studies behaviour and the physiological and cognitive processes that underlie it, and it is the profession that applies the accumulated knowledge of this science to practical problems.
- Research: Seven major areas
Personality, Psychometrics, Social, Cognitive,
Physiological, Developmental, and Experimental
- Applied Psychology: Four major areas
Clinical, Counselling, Educational and School,
and Industrial Organization

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Psychology is the science that studies behaviour and the physiological and cognitive processes that underlie it, and it is the profession that applies the accumulated knowledge of this science to practical problems.

The seven major research areas in psychology are: developmental, social, experimental, physiological, cognitive, personality, and psychometrics.

The four major applied areas of specialization are: clinical, counselling, educational/school, and industrial/organizational.



| Area | Focus of research |
|---------------------------------|--|
| Developmental psychology | Looks at human development across the life span. Developmental psychology once focused primarily on child development but today devotes a great deal of research to adolescence, adulthood, and old age. |
| Social psychology | Focuses on interpersonal behaviour and the role of social forces in governing behaviour. Typical topics include attitude formation, attitude change, prejudice, conformity, attraction, aggression, intimate relationships, and behaviour in groups. |
| Experimental psychology | Encompasses the traditional core of topics that psychology focused on heavily in its first half century as a science: sensation, perception, learning, conditioning, motivation, and emotion. The name experimental psychology is somewhat misleading, as this is not the only area in which experiments are done. Psychologists working in all the areas listed here conduct experiments. |
| Physiological psychology | Examines the influence of genetic factors on behaviour and the role of the brain, nervous system, endocrine system, and bodily chemicals in the regulation of behaviour. |
| Cognitive psychology | Focuses on "higher" mental processes, such as memory, reasoning, information processing, language, problem solving, decision making, and creativity. |
| Personality | Is interested in describing and understanding individuals' consistency in behaviour, which represents their personality. This area of interest is also concerned with the factors that shape personality and with personality assessment. |
| Psychometrics | Is concerned with the measurement of behaviour and capacities, usually through the development of psychological tests. Psychometrics is involved with the design of tests to assess personality, intelligence, and a wide range of abilities. It is also concerned with the development of new techniques for statistical analysis. |

Figure 1.6
Major research areas in contemporary psychology. Most research psychologists specialize in one of the seven broad areas described here. The figures in the pie chart reflect the percentage of academic and research psychologists belonging to APA who identify each area as their primary interest.

Source: Based on 2000 APA Directory Survey.

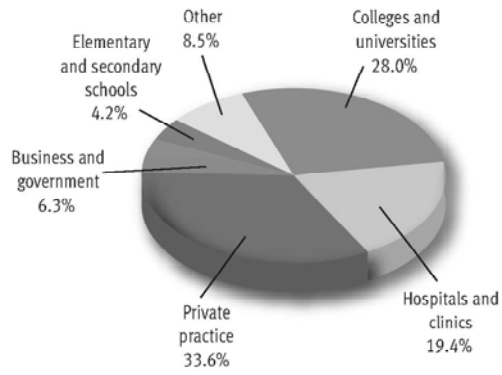


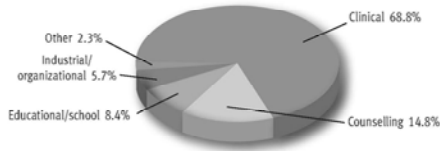
Figure 1.5

Employment of psychologists by setting. The work settings in which psychologists are employed have become very diverse. Survey data on the primary employment setting of APA members indicates that one-third are in private practice (compared to 12% in 1976) and only 28% work in colleges and universities (compared to 47% in 1976). These data may slightly underestimate the percentage of psychologists in academia, given the competition between APA and APS to represent research psychologists.

Source: Based on 2000 APA Directory Survey.

Figure 1.7
Principal professional specialties in contemporary psychology.
 Most psychologists who deliver professional services to the public specialize in one of the four areas described here. The figures in the pie chart reflect the percentage of APA members delivering professional services who identify each area as their chief specialty.

Source: Based on 2000 APA Directory Survey.



| Specialty | Focus of professional practice |
|---|--|
| Clinical psychology | Clinical psychologists are concerned with the evaluation, diagnosis, and treatment of individuals with psychological disorders, as well as treatment of less severe behavioural and emotional problems. Principal activities include interviewing clients, psychological testing, and providing group or individual psychotherapy. |
| Counselling psychology | Counselling psychology overlaps with clinical psychology in that specialists in both areas engage in similar activities—interviewing, testing, and providing therapy. However, counselling psychologists usually work with a somewhat different clientele, providing assistance to people struggling with everyday problems of moderate severity. Thus, they often specialize in family, marital, or career counselling. |
| Educational and school psychology | Educational psychologists work to improve curriculum design, achievement testing, teacher training, and other aspects of the educational process. School psychologists usually work in elementary or secondary schools, where they test and counsel children having difficulties in school and aid parents and teachers in solving school-related problems. |
| Industrial and organizational psychology | Psychologists in this area perform a wide variety of tasks in the world of business and industry. These tasks include running human resources departments, working to improve staff morale and attitudes, striving to increase job satisfaction and productivity, examining organizational structures and procedures, and making recommendations for improvements. |

Studying Psychology: Seven Organizing Themes

- Themes related to psychology as a field of study:
 - Psychology is empirical (Theme 1)
 - Psychology is theoretically diverse (Theme 2)
 - Psychology evolves in a sociohistorical context (Theme 3).
- Themes related to psychology's subject matter:
 - Behaviour is determined by multiple causes (Theme 4)
 - Behaviour is shaped by cultural heritage (Theme 5)
 - Behaviour is influenced jointly by heredity and environment (Theme 6).
- Finally, people's experience of the world is highly subjective (Theme 7).

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Theme 1: empiricism is the premise that knowledge should be acquired through observation... Psychologists conduct scientific research to TEST their ideas.

Theme 2: A theory is a system of interrelated ideas used to explain a set of observations...in psychology, we have many competing theories...Freud, for example, would explain behaviour in different terms than would Skinner...there is often more than one way to look at something.

Theme 3: Psychology and other sciences are influenced by trends, issues, and values in society...for example, the rapid growth of clinical psychology was greatly influenced by the war-related surge in the demand for clinical services.

Theme 4: behaviour is governed by a complex network of interacting factors...why will you make an A in psychology? Intelligence, study skills, memory, motivation?

Theme 5: Culture refers to the widely shared customs, beliefs, values, norms, institutions, and other products of a community that are transmitted socially across generations...cultural factors shape behaviour and influence our interpretations of behaviour.

Theme 6: Heredity and environment interact to mold behaviour in complex ways...it's not nature or nurture, but the impact of nurture on nature/ vice versa.

Theme 7: Motives and expectations influence people's experiences...the scientific method is used to keep this from being a problem.