

Important Figures In Psychology

Posted on November 2, 2018

Psychology is the scientific study of behavior and mental processes. It includes the investigation of learning, memory, emotion, perception, development, personality, relationships, mental health, and the biological and social conditions that shape human action. The original essay identifies B. F. Skinner, Jean Piaget, and Sigmund Freud as three important figures who changed the discipline. That selection is useful because each represents a different way of understanding people. Skinner emphasized observable behavior and environmental consequences (Skinner, 1953). Piaget examined how children construct knowledge across development (Piaget, 1952). Freud developed psychoanalysis and placed unconscious conflict at the center of personality and treatment (Freud, 1917). Their theories are not accepted today as complete explanations of human psychology, and each has received substantial criticism. Their importance lies in the research questions, methods, concepts, institutions, and debates they created.

Psychology Before the Three Figures

Psychology did not begin in the 1980s, and Skinner did not start the entire field of behaviorism. Philosophers and physicians had discussed mind and behavior for centuries. Experimental psychology emerged as a distinct academic discipline in the late nineteenth century, commonly associated with Wilhelm Wundt's laboratory in Leipzig in 1879. William James developed an influential functionalist approach in the United States, while Ivan Pavlov studied conditioned reflexes and John B. Watson promoted behaviorism. Skinner, Piaget, and Freud entered different intellectual traditions and transformed them. Their work should therefore be understood as part of a larger history rather than as the creation of psychology by three isolated geniuses.

B. F. Skinner: Life and Intellectual Development

Burrhus Frederic Skinner was born in 1904 in Susquehanna, Pennsylvania. He initially hoped to become a writer and completed an undergraduate degree at Hamilton College. After becoming dissatisfied with his literary progress, he encountered the writings of Watson, Pavlov, and Bertrand Russell and turned [toward psychology](#). He entered Harvard University for graduate study in 1928. Skinner developed what he called radical behaviorism, an approach that treated behavior as a lawful subject of scientific analysis and examined how environmental histories shape action. He later taught at the University of Minnesota, Indiana University, and Harvard (Skinner, 1953).

Operant Conditioning

Skinner's most influential contribution was the experimental analysis of operant behavior. Operant behavior acts on the environment and is modified by its consequences. If a consequence increases the future probability of behavior, it functions as reinforcement. If it reduces the probability, it functions as punishment. Positive and negative do not mean good and bad in this terminology. Positive means that a stimulus is presented, while negative means that a stimulus is removed. Negative reinforcement therefore strengthens behavior by removing or avoiding something aversive; it is not another name for punishment (Skinner, 1953).

The Operant Chamber

Skinner used carefully controlled apparatuses, popularly called Skinner boxes, to study the behavior of rats, pigeons, and other animals. A response such as pressing a lever or pecking a key could produce food, remove an unpleasant condition, or occur according to a programmed schedule. Continuous measurement allowed Skinner to study how behavior changed over time. The chamber did not represent every feature of human life. Its purpose was to isolate functional relationships that could later be examined in more complex settings (Skinner, 1953).

Schedules of Reinforcement

Skinner and other behavior analysts showed that the timing and pattern of consequences influence the rate and persistence of behavior. Fixed-ratio, variable-ratio, fixed-interval, and variable-interval schedules produce different response patterns. Gambling is frequently used to illustrate variable-ratio reinforcement because rewards occur unpredictably after responses, although real gambling behavior also involves cognition, emotion, social context, and commercial design. Schedule research influenced education, behavioral therapy, animal training, organizational management, and experimental psychology (Skinner, 1953).

Reinforcement and Punishment

The original essay states that positive reinforcement is always more effective than severe punishment. Skinner strongly emphasized reinforcement and criticized punitive social practices, but no intervention is automatically effective in every setting. Punishment can suppress behavior temporarily while producing fear, avoidance, aggression, concealment, or escape. Reinforcement can build alternative behavior, but it must be meaningful, timely, and implemented consistently. Ethical behavioral intervention identifies the function of behavior, teaches useful alternatives, and avoids coercive or degrading procedures (Skinner, 1953).

Applications of Skinner's Work

Principles derived from operant conditioning contributed to applied behavior analysis, classroom management, behavioral activation, contingency management for substance-use disorders, skill instruction, and rehabilitation. Exposure treatments for phobias developed from a broader behavioral tradition involving classical conditioning, extinction, learning theory, and later cognitive approaches; they should not be attributed to Skinner alone. Modern behavioral therapies frequently integrate thoughts, emotion, acceptance, values, and social context rather than limiting treatment to visible action.

Criticism of Skinner

Critics argue that strict behaviorism understates cognition, language, biology, agency, and internal experience. Noam Chomsky's critique of Skinner's account of verbal behavior became especially influential, although behavior analysts dispute aspects of that critique. Contemporary psychology studies both observable behavior and internal processes using experiments, neuroscience, computational models, and self-report. Skinner's enduring contribution is methodological: he demanded precise definitions, direct measurement, and attention to environmental contingencies. His system is one perspective rather than the final theory of human nature.

Jean Piaget: Life and Intellectual Project

Jean Piaget was born in Neuchâtel, Switzerland, in 1896. As a young person, he studied natural history and published observations about mollusks. His biological interests later shaped his view of intelligence as adaptation. While working with children's responses on intelligence-test tasks, Piaget became interested in the reasoning behind wrong answers rather than simply whether an answer was correct. He developed genetic epistemology, the study of how knowledge develops, and spent much of his career at institutions in Geneva. In 1955, he founded the International Centre for Genetic Epistemology, which brought scholars from several disciplines together (Piaget, 1952).

Children as Active Constructors of Knowledge

Piaget rejected the idea that children are merely smaller adults who possess less information. He argued that children actively construct understanding through interaction with objects and people. New experience may be interpreted through an existing scheme, a process he called assimilation. When the existing scheme cannot handle the experience, it may be changed through accommodation. Cognitive development involves repeated attempts to reach equilibrium between current understanding and new information (Piaget, 1952).

Sensorimotor Development

Piaget described the sensorimotor period as extending from birth to approximately age two. Infants learn through perception and action and gradually develop object permanence, the understanding that objects continue to exist when they cannot be seen. Later research found that some abilities appear earlier than Piaget's tasks suggested, especially when researchers reduce motor and language demands. His central insight remains important: early cognition is organized through active engagement, and the method used to test a child can affect the ability observed (Piaget, 1952).

Preoperational Thought

During the preoperational period, approximately ages two to seven, symbolic language and pretend play expand. Piaget argued that children often show centration, focusing on one feature of a situation, and struggle with conservation tasks in which quantity remains the same despite changes in appearance. He also described egocentrism, difficulty coordinating one's viewpoint with another. The term does not mean selfishness. Research has shown that children's performance improves when tasks are familiar, meaningful, and linguistically clear, making the stage boundaries less rigid than Piaget proposed (Piaget, 1952).

Concrete and Formal Operations

In the concrete-operational period, children become more successful at logical operations involving tangible objects and events, including conservation, classification, and reversibility. Piaget associated adolescence with formal operations, or systematic reasoning about hypothetical possibilities. Not all adults use formal reasoning consistently across every domain. Expertise, schooling, culture, and task familiarity influence performance. Contemporary developmental science therefore treats development as variable and domain-sensitive rather than a universal staircase followed identically by everyone (Piaget, 1952).

Educational Influence

Piaget's work encouraged educators to consider developmental readiness, active discovery, manipulation of materials, and the reasoning behind errors. His theory supports learning environments where students explore and explain rather than memorize passively. It does not imply that teachers should provide no guidance. Research on instruction shows that well-designed explanation, modeling, feedback, and social interaction can accelerate learning. Piaget's emphasis on individual construction is often combined with Vygotskian attention to language, culture, and guided participation (Piaget, 1952; Vygotsky, 1978).

Criticism and Legacy of Piaget

Piaget frequently used small samples and clinical interviews, including studies of his own children. Some tasks required language or memory that obscured underlying competence. His theory also gave insufficient attention to cultural variation and instruction. Nevertheless, he made children's reasoning a major scientific subject and influenced developmental psychology, education, philosophy, and cognitive science. The questions generated by his errors were almost as productive as the findings that survived.

Sigmund Freud: Neurology and Psychoanalysis

Sigmund Freud was born in 1856 in Freiberg, Moravia, then part of the Austrian Empire. Trained as a physician and neurologist, he worked in Vienna and became interested in symptoms that did not appear to have a straightforward neurological explanation. Through collaboration, clinical observation, and theoretical revision, he developed psychoanalysis. Freud left Nazi-controlled Austria for London in 1938 and died in 1939. His influence extends beyond psychology into literature, art, film, philosophy, and everyday language (Freud, 1917).

The Unconscious

Freud did not invent the idea of unconscious mental activity, but he made it central to a comprehensive theory of personality. He argued that wishes, memories, conflicts, and defenses can influence behavior without being fully available to awareness. Contemporary psychology also recognizes unconscious or nonconscious processes, but these concepts are studied differently and do not confirm every Freudian claim. Automatic perception, implicit memory, habit, and motivated reasoning are not identical to Freud's dynamic unconscious (Freud, 1917).

Free Association and the Talking Cure

In free association, patients are encouraged to report thoughts without arranging or censoring them. The analyst listens for recurring themes, avoidance, conflict, and meaning. Psychoanalysis also emphasizes transference, the repetition of feelings and relationship patterns within therapy, and resistance, processes that interfere with confronting difficult material. Modern psychodynamic therapies vary considerably in length and technique. They often focus more directly on relationships, emotion, attachment, and recurring interpersonal patterns than classical analysis did (Freud, 1917).

Dreams and Wish Fulfillment

Freud called dreams a royal road to the unconscious and distinguished manifest content, the remembered dream, from latent meaning. He often interpreted dreams as disguised forms of wish fulfillment. Contemporary sleep research does not support one universal symbolic code or the claim that every dream conceals a wish. Dreams are associated with memory, emotion, brain activation, and personal experience. Freud's contribution was to treat dreams as psychologically meaningful narratives, but interpretations must not be presented as objective facts that only the analyst can know (Freud, 1917).

Psychosexual Development and Libido

Freud proposed oral, anal, phallic, latency, and genital stages and used libido to describe psychic energy connected with sexuality and attachment. These theories shaped later discussions but have limited empirical support and reflect assumptions of Freud's period. His accounts of women and sexuality have been criticized as male-centered and culturally narrow. Feminist scholars have both rejected and reinterpreted psychoanalysis, using its concepts to examine gender, power, language, and identity (Freud, 1917).

The Structural Model

Freud described personality through the id, ego, and superego. The id represents instinctual demand, the ego negotiates reality, and the superego includes conscience and ideals. These are theoretical functions rather than literal brain structures. Defense mechanisms such as repression, denial, projection, displacement, and rationalization were developed further by Anna Freud and later clinicians. Some defense concepts remain influential in clinical description, though they can be difficult to test and should not be used to dismiss disagreement automatically.

Scientific and Therapeutic Criticism

Freud's theories were developed from clinical cases that often lacked independent verification, comparison groups, or predictions capable of clear falsification. Some historical case interpretations have been disputed. Psychoanalysis also became associated with lengthy and expensive treatment. Research on contemporary psychodynamic therapies provides evidence of benefit for some conditions, but that evidence should not be confused with validation of every classical theory. Freud's historical importance and the current effectiveness of a therapy are separate questions.

Comparing the Three Figures

Skinner, Piaget, and Freud differed in their preferred evidence. Skinner used tightly controlled experiments and analyzed observable response patterns. Piaget used interviews, tasks, and developmental observation to reconstruct children's reasoning. Freud used clinical narratives and interpretation to explain unconscious conflict. Skinner emphasized environment, Piaget active cognitive construction, and Freud inner conflict and early relationships (Skinner, 1953; Piaget, 1952; Freud, 1917). Modern psychology combines experimental, developmental, biological, social, cultural, and clinical evidence rather than selecting one system to explain everything.

Influence on Psychology Today

Skinner's influence survives in behavioral analysis, learning research, and outcome measurement. Piaget's influence appears in developmental theory, education, and the study of children's concepts. Freud's influence remains in psychodynamic therapy, personality theory, and cultural interpretation. Their terminology sometimes appears in popular speech without precision. A responsible history distinguishes influential ideas from established facts and acknowledges later scholars, research participants, clinicians, and critics who revised their work.

Conclusion

B. F. Skinner, Jean Piaget, and Sigmund Freud are important not because they gave psychology one final meaning, but because they created influential research programs. Skinner demonstrated how consequences and schedules shape behavior. Piaget showed that children actively organize experience and reason differently across development. Freud made unconscious conflict, early relationships, and therapeutic conversation central topics (Skinner, 1953; Piaget, 1952; Freud, 1917). Each theory contains limitations and historically specific assumptions. Psychology advanced by testing, criticizing, and integrating their ideas. Their most durable legacy is the set of questions they forced the discipline to ask about learning, development, consciousness, personality, and change.

References

Freud, S. (1917). *Introductory lectures on psycho-analysis*. George Allen & Unwin.

Piaget, J. (1952). *The origins of intelligence in children*. International Universities Press.

Skinner, B. F. (1953). *Science and human behavior*. Macmillan.

Vygotsky, L. S. (1978). *Mind in society*. Harvard University Press.