**Cognitive Psychology Practical**

**Submitted To:**

**Mrs. Samar Fahd**

**Submitted By:**

**Aqsa Iftikhar**

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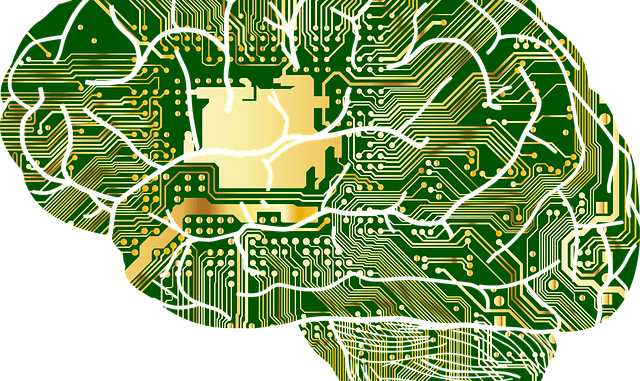
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**Department of Applied Psychology**

**The Islamia University of Bahawalpur**

* **Definitions of Cognitive Psychology**
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* **Definitions of Cognitive Psychology**

1. Cognitive psychology is the scientific investigation of human cognition, that is, all our mental abilities – perceiving, learning, remembering, thinking, reasoning, and understanding.
2. Cognitive psychology is the scientific study of mental processes such as "attention, language use, memory, perception, problem solving, creativity, and thinking".
3. Cognitive psychology is the branch of psychology that focuses on the way people process information. It looks at how we process information we receive and how the treatment of this information leads to our responses. In other words, cognitive psychology is interested in what is happening within our minds that links stimulus (input) and response (output).
4. Cognitive psychology involves the study of internal mental processes—all of the things that go on inside your brain, including perception, thinking, memory, attention, language, problem-solving, and learning.
5. **Cognitive psychology** is the area of psychology that focuses on internal mental processes. Such processes include thinking, decision-making, problem-solving, language, attention, and memory.

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* **History of Cognitive Psychology**

Cognitive psychology in its modern form incorporates a remarkable set of new technologies in psychological science. Although published inquiries of human cognition can be traced back to Aristotle’s ‘’De Memoria’’ (Hothersall, 1984), the intellectual origins of cognitive psychology began with cognitive approaches to psychological problems at the end of the 1800s and early 1900s in the works of Wundt, Cattell, and William James (Boring, 1950).

Cognitive psychology declined in the first half of the 20th century with the rise of “[behaviorism](http://www.scholarpedia.org/w/index.php?title=Behaviorism&action=edit&redlink=1)" –- the study of laws relating observable behavior to objective, observable stimulus conditions without any recourse to internal mental processes (Watson, 1913; Boring, 1950; Skinner, 1950). It was this last requirement, fundamental to cognitive psychology, that was one of behaviorism's undoings. For example, lack of understanding of the internal mental processes led to no distinction between [memory](http://www.scholarpedia.org/article/Memory) and performance and failed to account for complex [learning](http://www.scholarpedia.org/w/index.php?title=Learning&action=edit&redlink=1) (Tinklepaugh, 1928; Chomsky, 1959). These issue led to the decline of behaviorism as the dominant branch of scientific psychology and to the “Cognitive Revolution”.

The Cognitive Revolution began in the mid-1950s when researchers in several fields began to develop theories of [mind](http://www.scholarpedia.org/w/index.php?title=Mind&action=edit&redlink=1) based on complex representations and computational procedures (Miller, 1956; Broadbent, 1958; Chomsky, 1959; Newell, Shaw, & Simon, 1958). Cognitive psychology became predominant in the 1960s (Tulving, 1962; Sperling, 1960). Its resurgence is perhaps best marked by the publication of Ulric Neisser’s book, ‘’Cognitive Psychology’’, in 1967. Since 1970, more than sixty universities in North America and Europe have established cognitive psychology programs.

In the mid-20th century, three main influences arose that would inspire and shape cognitive psychology as a formal school of thought:

* With the development of new warfare technology during [WWII](https://en.wikipedia.org/wiki/World_War_II), the need for a greater understanding of human performance came to prominence. Problems such as how to best train soldiers to use new technology and how to deal with matters of attention while under duress became areas of need for military personnel. [Behaviorism](https://en.wikipedia.org/wiki/Behaviorism) provided little if any insight into these matters and it was the work of [Donald Broadbent](https://en.wikipedia.org/wiki/Donald_Broadbent), integrating concepts from human performance research and the recently developed [information theory](https://en.wikipedia.org/wiki/Information_theory), that forged the way in this area.
* Developments in computer science would lead to parallels being drawn between human thought and the computational functionality of computers, opening entirely new areas of [psychological thought](https://en.wikipedia.org/wiki/Computationalism). Allen Newell and Herbert Simon spent years developing the concept of [artificial intelligence](https://en.wikipedia.org/wiki/Artificial_intelligence) (AI) and later worked with cognitive psychologists regarding the implications of AI. This encouraged a conceptualization of mental functions patterned on the way that computers handled such things as memory storage and retrieval, and it opened an important doorway for [cognitivism](https://en.wikipedia.org/wiki/Cognitivism_(psychology)).
* [Noam Chomsky](https://en.wikipedia.org/wiki/Noam_Chomsky)'s 1959 critiqueof behaviorism, and empiricism more generally, initiated what would come to be known as the "[cognitive revolution](https://en.wikipedia.org/wiki/Cognitive_revolution)". Inside psychology, in criticism of behaviorism, J. S. Bruner, J. J. Goodnow & G. A. Austin wrote "a study of thinking" in 1956. In 1960, G. A. Miller, E. Galanter and K. Pribram wrote their famous "Plans and the Structure of Behavior". The same year, Bruner and Miller founded the Harvard Center for Cognitive Studies, which institutionalized the revolution and launched the field of cognitive science.
* Formal recognition of the field involved the establishment of research institutions such as [George Mandler](https://en.wikipedia.org/wiki/George_Mandler)'s Center for Human Information Processing in 1964. Mandler described the origins of cognitive psychology in a 2002 article in the Journal of the History of the Behavioral Science.

[Ulric Neisser](https://en.wikipedia.org/wiki/Ulric_Neisser) put the term "cognitive psychology" into common use through his book *Cognitive Psychology*, published in 1967. Neisser's definition of "cognition" illustrates the then-progressive concept of cognitive processes:

The term "cognition" refers to all processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used. It is concerned with these processes even when they operate in the absence of relevant stimulation, as in images and [hallucinations](https://en.wikipedia.org/wiki/Hallucinations). Given such a sweeping definition, it is apparent that cognition is involved in everything a human being might possibly do; that every psychological phenomenon is a cognitive phenomenon. But although cognitive psychology is concerned with all human activity rather than some fraction of it, the concern is from a particular point of view. Other viewpoints are equally legitimate and necessary. [Dynamic psychology](https://en.wikipedia.org/wiki/Psychodynamics), which begins with motives rather than with sensory input, is a case in point. Instead of asking how a man's actions and experiences result from what he saw, remembered, or believed, the dynamic psychologist asks how they follow from the subject's goals, needs, or instincts.

* **Five Contributors in the history of Cognitive Psychology**

**John Robert Anderson**

John Robert Anderson (born August 27, 1947) is a Canadian-born American psychologist. He is currently professor of [Psychology](https://en.wikipedia.org/wiki/Psychology).

**Alan David**

Alan David Baddeley, [CBE](https://en.wikipedia.org/wiki/Commander_of_the_Order_of_the_British_Empire), [FRS](https://en.wikipedia.org/wiki/Fellow_of_the_Royal_Society), [FMedSci](https://en.wikipedia.org/wiki/Fellow_of_the_Academy_of_Medical_Sciences) (born 23 March 1934) is a British [psychologist](https://en.wikipedia.org/wiki/Psychology). He is professor of psychology at the [University of York](https://en.wikipedia.org/wiki/University_of_York).

# David Ausubel

# David Paul Ausubel (October 25, 1918 – July 9, 2008) was an American psychologist. His most significant contribution to the fields of [educational psychology](https://en.wikipedia.org/wiki/Educational_psychology), cognitive science, and science education learning was on the development and research on "*advance organizers*"

# Albert Bandura

# Albert Bandura [OC](https://en.wikipedia.org/wiki/Order_of_Canada) ([/bænˈdʊərə/](https://en.wikipedia.org/wiki/Help:IPA/English); born December 4, 1925) is a [Canadian](https://en.wikipedia.org/wiki/Canada)-[American](https://en.wikipedia.org/wiki/U.S.A.) [psychologist](https://en.wikipedia.org/wiki/Psychologist) who is the David Starr Jordan Professor Emeritus of Social Science in Psychology at [Stanford University](https://en.wikipedia.org/wiki/Stanford_University).

# Elizabeth Loftus

# Elizabeth F. Loftus [FRSE](https://en.wikipedia.org/wiki/Fellow_of_the_Royal_Society_of_Edinburgh) (born Elizabeth Fishman, October 16, 1944) is an American cognitive psychologist and expert on human [memory](https://en.wikipedia.org/wiki/Memory).

* **Applications of Cognitive Psychology**

Cognitive psychology research has produced an extensive body of principles, representations, and algorithms. Successful applications range from custom-built expert systems to mass-produced software and consumer electronics:

(1) Development of computer interfaces that collaborate with users to meet their information needs and operate as intelligent agents.

(2) Development of a flexible information infrastructure based on knowledge representation and reasoning methods.

(3) Development of smart tools in the financial industry.

(4) Development of mobile, intelligent robots that can perform tasks usually reserved for humans.

(5) Development of bionic components of the perceptual and cognitive neural system such as cochlear and [retinal](http://www.scholarpedia.org/article/Retina) implants.

* **Scope of Cognitive Psychology**

Cognitive psychology is not only focused to all what occurs in everyday life, it is even dominant to psychologist’s mission to realize how of the behavior. The scope of cognitive psychology could be assumed by realizing its sub disciplines and the effort or the work done in it.

**1. Social/Communal Psychologists:**

Social psychologists try to examine the mental process involved in thinking about other persons.

**2. Scientific Psychologists:**

Clinical psychologists inspect the role that mental practice play in psychopathology.

**3. Developmental Psychologists:**

Developmental psychologists examine about the ways that cognitive procedure amend throughout the life time.

**4. Neuropsychologists:**

Cognitive psychology is also connected with neuropsychology, in which neuropsychologists stab to understand the connotation between mental dispensation and brain action.

**5. Managerial Psychologists:**

Cognitive psychology plays its role in manufacturing or structural set up where in administrative psychologists are maintained to know how cognitive procedure such as memorizing and decision making plans work out in administrative or industrial workstation.