

Module:
Psychological Foundations of Mental Health

Week 1:
Introduction to Cognitive Psychology

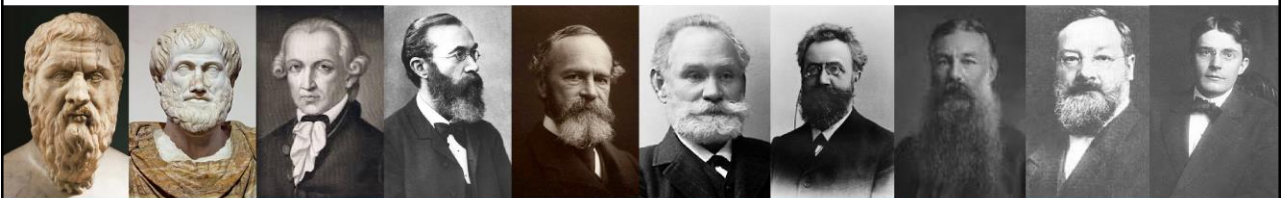


Professor Richard Brown

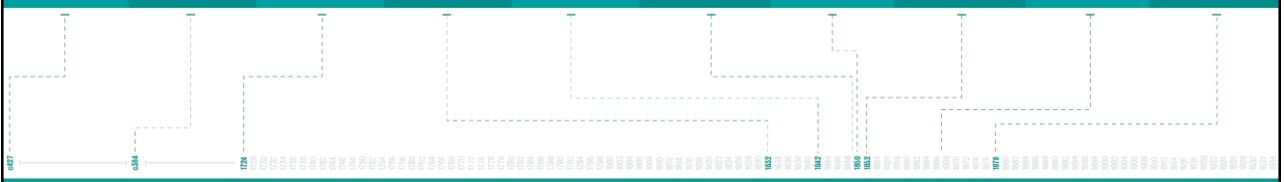
Topic 1:
**Foundations of cognitive
psychology: from Plato to Pavlov**

Part 2 of 3

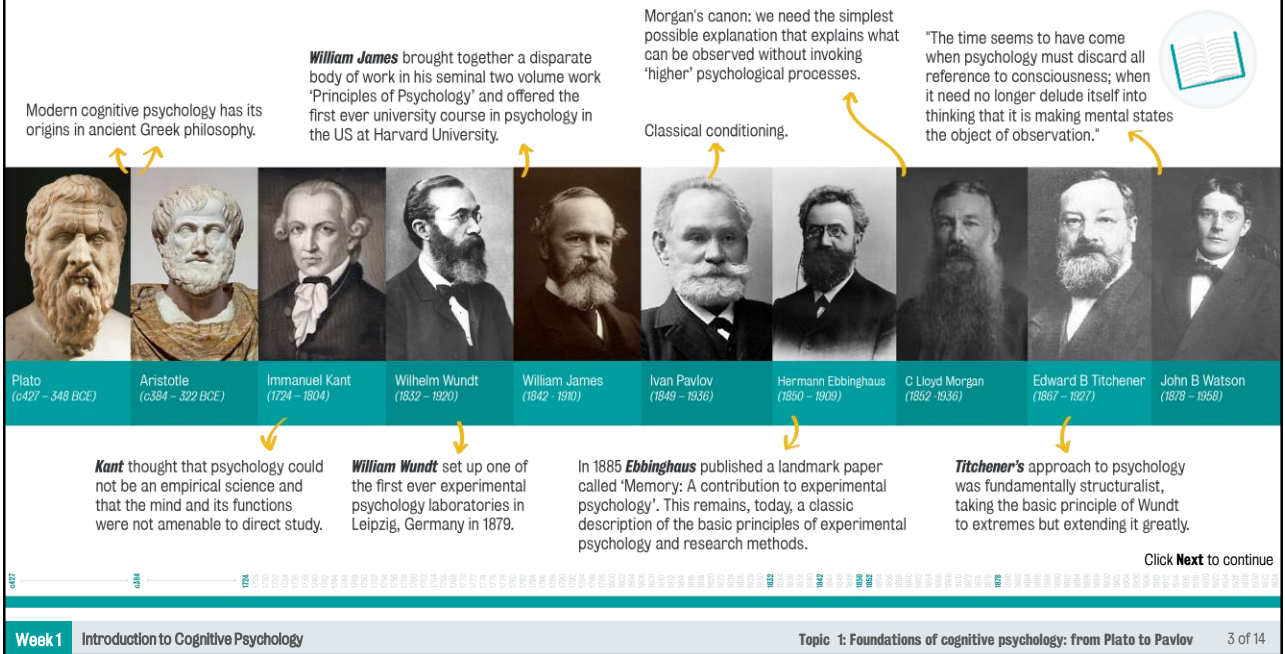
Timeline of the cognitive (r)evolution (1)



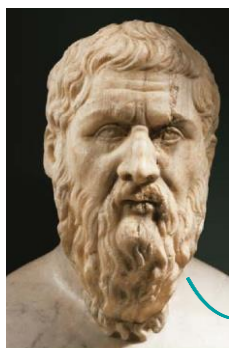
Plato (c427 – 348 BCE) Aristotle (c384 – 322 BCE) Immanuel Kant (1724 – 1804) Wilhelm Wundt (1832 – 1920) William James (1842 – 1910) Ivan Pavlov (1849 – 1936) Hermann Ebbinghaus (1850 – 1909) C Lloyd Morgan (1852 – 1936) Edward B Titchener (1867 – 1927) John B Watson (1878 – 1958)



Timeline of the cognitive (r)evolution (2)



Ancient beginnings, rationalism and empiricism, and the scientific method



Plato
(c427 – 348 BCE)

2000+
YEARS AGO...

PSYCHE

SOUL

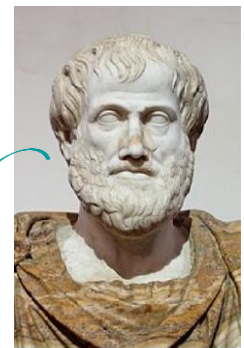
MIND

RATIONALISM

Thinking itself
↓
Knowledge is innate
↓
Nature
↓
Core human nature

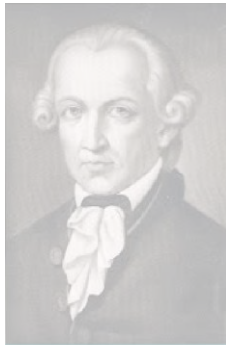
EMPIRICISM

Experience
↓
Shaped by experience
↓
Nurture
↓
Humans can be controlled and manipulated



Aristotle
(c384 – 322 BCE)

Immanuel Kant (1724 – 1804)



Immanuel Kant
(1724 – 1804)

fast forward
2500 YEARS

Enlightenment

Scientific Revolution



psychology
AN EMPIRICAL SCIENCE?

Why not?

- Introspection alone
- No general law
- Reductionism
- Introspection alters what it observes

Why Kant, then?

- Cognitive architecture

'All our knowledge begins with the senses, proceeds then to understanding and ends with reason'

(from Critique of Pure Reason, 1781)

- Transcendental method

Wilhelm Wundt (1832 – 1920) (1)



Wilhelm Wundt
(1832 – 1920)

father of
EXPERIMENTAL PSYCHOLOGY

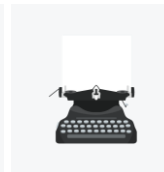
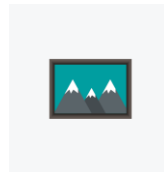
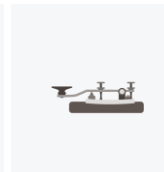
Experimental psychology
laboratory: 1879

Experimental

Introspection

Based on sensation
and its percepts

Visual images



DESCRIPTION OF EXPERIENCES

Automatic
passive associations

LEAD TO

Conscious thoughts

Mental image
(*apperception*)

Result of active,
Voluntary process

VOLUNTARISM

Wilhelm Wundt (1832 – 1920) (2)



Wilhelm Wundt
(1832 – 1920)

Conscious experience as a whole

EXPERIMENT

APPLE

Crisp Sweet Red

*Preceding conscious awareness
of the apple itself*



CONCLUSION: **Our thoughts
have structure**

STRUCTURALISM



Mental Chronometry



Attention
(Stimulus)

Apperception
(image)

1/10 sec

Wilhelm Wundt (1832 – 1920) (3)



Wilhelm Wundt
(1832 – 1920)

'The distinguishing characteristics of mind are
of a subjective sort; we know them only from
the contents of consciousness'



Click **Next** to continue

Edward B Titchener (1867 – 1927) (1)



Edward B Titchener
(1867 – 1927)

Experimental Introspection

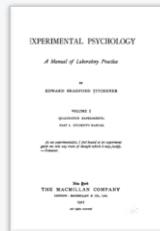


Wundt → Whole



Titchener → Elemental parts

Structuralism approach

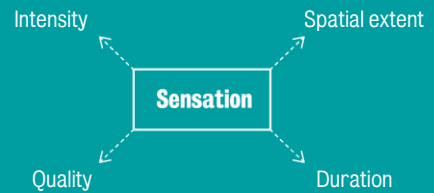


Experimental Psychology
(Titchener, 1901)

Standardisation of Experimental Method

What is it?

What is it **for**?



Edward B Titchener (1867 – 1927) (2)



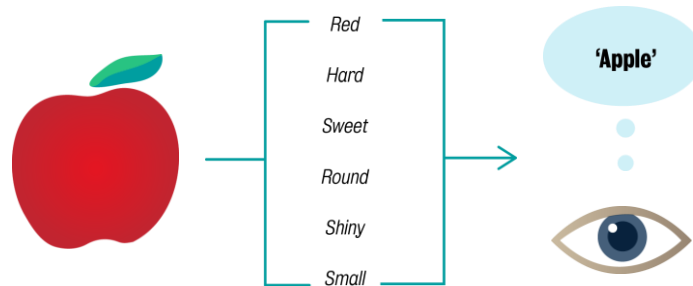
Edward B Titchener
(1867 – 1927)

'The world of psychology contains looks and tones and feelings; it is the world of dark and light, of noise and silence, of rough and smooth; its space is sometimes large and sometimes small, ... its time is sometimes short and sometimes long, it has no invariables. It contains all the thoughts, emotions, memories, imaginations, volitions that you naturally ascribe to mind'

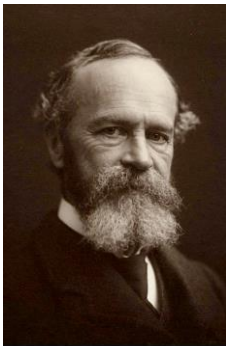


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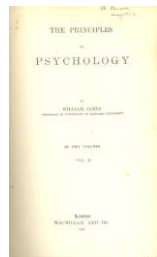
Structuralism



William James (1842 - 1910) (1)



William James
(1842 - 1910)



The Principles of Psychology
(James, 1891)

first ever
**UNIVERSITY COURSE IN
PSYCHOLOGY IN THE US**



FUNCTIONAL INTROSPECTION

Mental process rather than mental structures

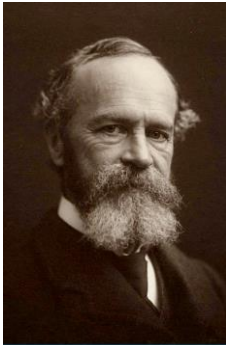
Purpose
of consciousness

Rather than

Constituent
parts of consciousness



William James (1842 - 1910) (2)



William James
(1842 - 1910)

'Every way of classifying a thing is but a way
of handling it for some particular purpose'.

The Sentiment of Rationality (1882)

'My thinking is first and last and always for
the sake of my doing'

Principles of Psychology (1890)

Click **Next** to continue

Hermann Ebbinghaus (1850 – 1909)



Hermann Ebbinghaus
(1850 – 1909)

**pioneer of
EXPERIMENTAL COGNITIVE PSYCHOLOGY**

1885 Paper: "Memory: a contribution
to experimental psychology"

Statistical approaches

Ebbinghaus forgetting curve

Basic principles:

Control over conditions

Impact of extraneous factors

