



Professor Richard Brown

Module:

Psychological Foundations of Mental Health

Week 1:

Introduction to Cognitive Psychology

Topic 1:

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

Part 3 of 3

The growth of behaviourism



The (temporary) decline of cognitivism and the growth of behaviourism: Pavlov and Classical conditioning

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The behaviourist critique



C Lloyd Morgan
(1852 -1936)

late 19TH — early 20TH

↓
All psychology was
cognitive psychology



Dissatisfaction with introspection

BEHAVIOURISM

LIMITATIONS

Unreliable

Unrepresentative

Limited in use

Limited in areas to
which it could be applied

Wider issue:

Animal psychology
ignored

'Morgan's Canon'

'In no case is an animal activity to be interpreted in terms of higher psychological processes if it can be fairly interpreted in terms of processes which stand lower in the scale of psychological evolution and development.'

- Simplest possible explanation
- Parsimony
- Implications for human psychology

**Do we need cognition as
explanatory factor?**

Morgan (1903)

John B Watson (1878 - 1958) (1)



John B Watson
(1878 - 1958)

RISE OF BEHAVIOURISM

Founder: J B Watson

study of mental states
**IS FUNDAMENTALLY
UNSCIENTIFIC AND NEEDS
TO BE ABANDONED**

'I do not wish unduly to criticise psychology. It has failed signally, I believe, during the fifty-odd years of its existence as an experimental discipline to make its place in the world as an undisputed natural science...

The time seems to have come when psychology must discard all reference to consciousness; when it need no longer delude itself into thinking that it is making mental states the object of observation'.

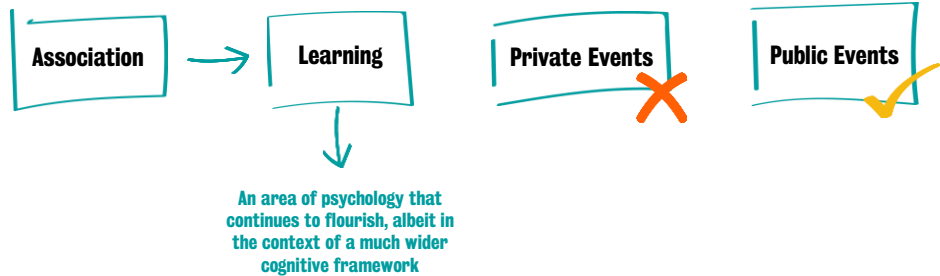
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Watson (1913)

John B Watson (1878 - 1958) (2)



John B Watson
(1878 – 1958)



Behaviourism



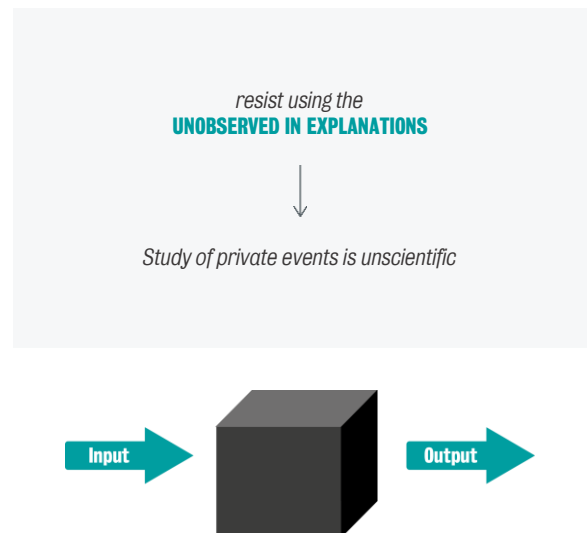
John B Watson
(1878 – 1958)

definition BEHAVIOURISM

"It's an approach to psychology which limits itself to the description of relationships between observable environmental events, and ensuing observable behaviour of organisms in the environment.

Typically behaviourism rejects subjective experience as a proper topic of study, and resists explanations of observable acts in terms of inferred but unobservable mental processes".

Avoid psychological explanations that go beyond **INPUTS** and **OUTPUTS**



The behaviourist objection to 'inner states'

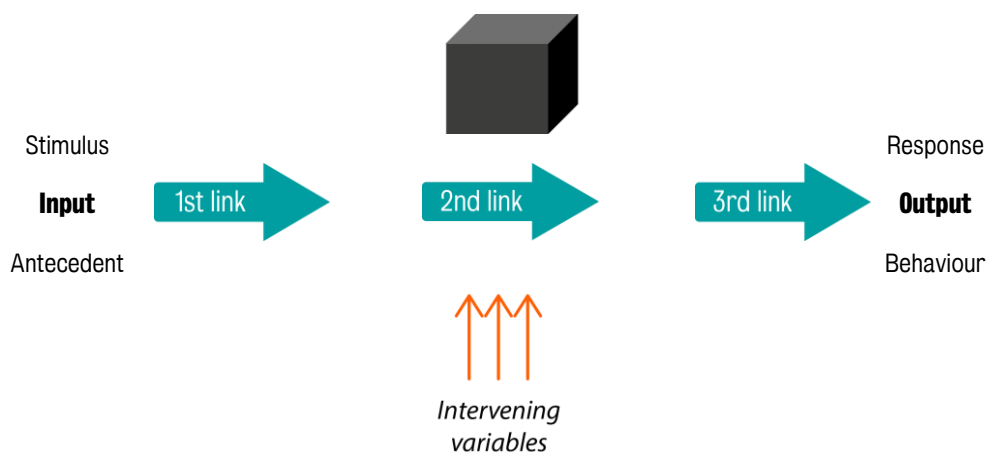


"The objection to inner states is not that they do not exist, but that they are not relevant in a functional analysis. We cannot account for the behavior of any system while staying wholly inside it; eventually we must turn to forces operating upon the organism from without. Unless there is a weak spot in our causal chain so that the second link is not lawfully determined by the first, or the third by the second, then the first and third links must be lawfully related. If we must always go back beyond the second link for prediction and control, we may avoid many tiresome and exhausting digressions by examining the third link as a function of the first."

(Skinner, Science and Human Behavior, 1953, p. 35)

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Behaviourist terminology



Ivan Pavlov (1849 – 1936)



Ivan Pavlov
(1849 – 1936)

NEW THEORIES EMERGE FROM EXISTING IDEAS



PHYSIOLOGICAL REFLEX



- Automatic response to stimuli
- Pavlov studied digestive reflex reactions in dogs

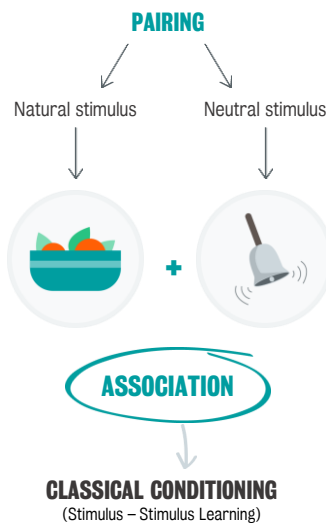


- Measuring digestive fluids without food getting in the way

Classical conditioning (1)



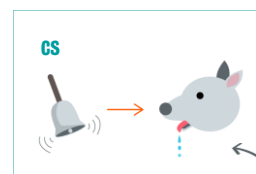
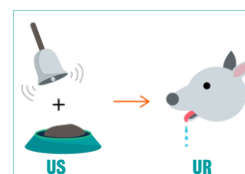
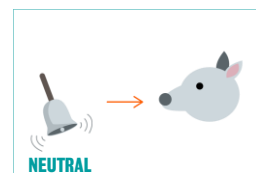
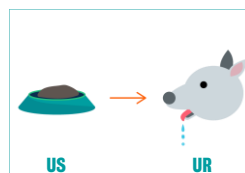
Ivan Pavlov
(1849 – 1936)



FOOD: unconditioned stimulus (US)

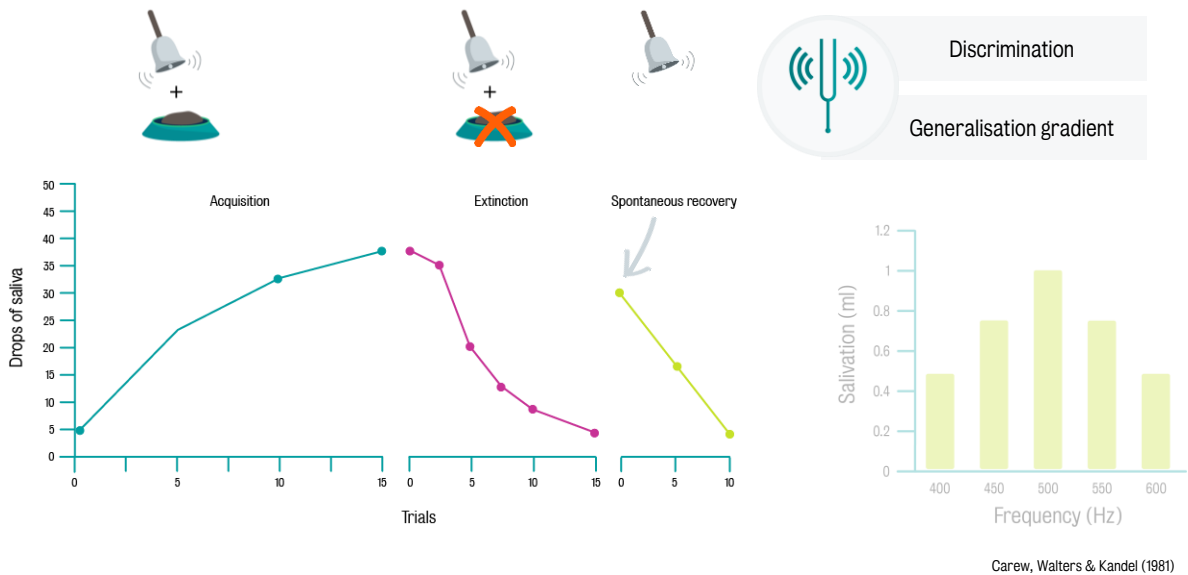
SALIVATION: unconditioned response (UR)

BELL: neutral stimulus



Conditioned response (CR)

Classical conditioning (2)

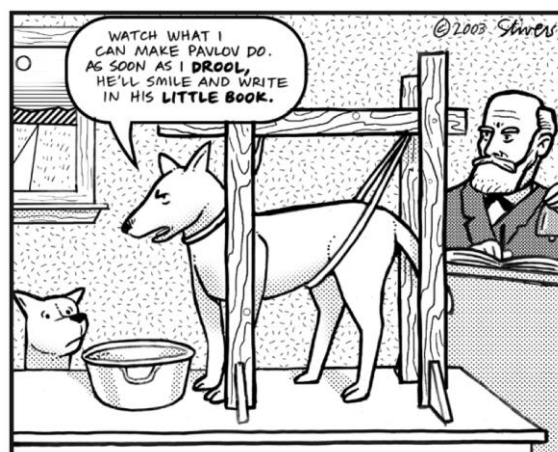


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Classical conditioning (3)

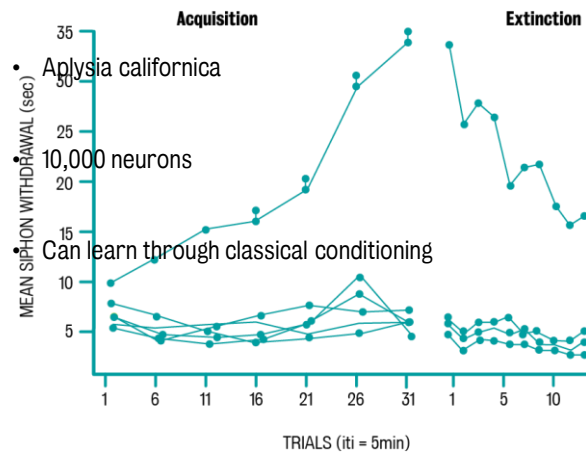


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Demonstration: Classical conditioning does not require cognitive explanations



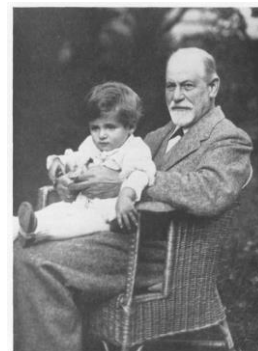
Carew, Walters & Kandel (1981)

JB Watson and 'Little Albert' (1)



JB Watson and Rosalie Rayner with 'Little Albert'

1920



Sigmund Freud with 'Little Hans'

Analysis of a Phobia in a Five-year-old Boy, 1909

Freud (1909)

JB Watson and 'Little Albert' (2)



JB Watson with 'Little Albert'

It is possible to condition fear in a baby simply and quickly

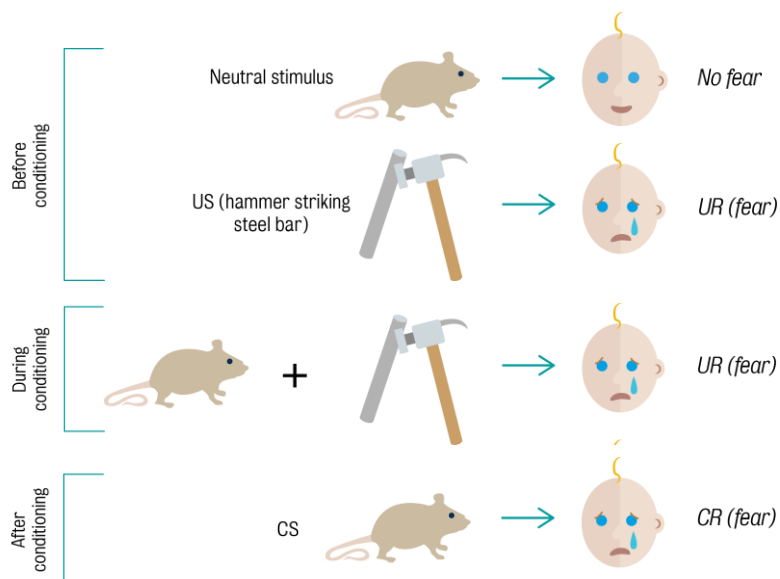
Watson and Morgan (1917)

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Watson & Rayner (1920) 'Little Albert' (Summary)



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