

Module:
Psychological Foundations of Mental Health

Week 1:
Introduction to Cognitive Psychology



Professor Richard Brown

Topic 2:
The heyday of behaviourism:
Operant Learning
Part 1 of 3

Topic list



This week, we will be looking at the following topics:

- Topic 1: Foundations of cognitive psychology from Plato to Pavlov
- **Topic 2: The heyday of behaviourism: operant learning**
- Topic 3: The cognitive (r)evolution

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The role of the consequences of behaviour

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Edward L Thorndike (1874 – 1949)



Edward Thorndike
(1874 – 1949)

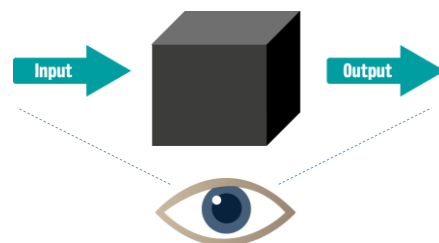
Thorndike studied animals

"Human-like" attributes explained in terms of reflexes and connections

↓
however
↓

In humans, 'mental life' requires the assumption of internal events

Mediation = Key to cognitive psychology



BEHAVIORISM

VS

COGNITIVISM

Edward L Thorndike (1874 – 1949)



Edward Thorndike
(1874 – 1949)

“The fundamental phenomenon which I find presented in animal consciousness is one which can harden into inherited connections and reflexes, on the one hand, and thus connect naturally with a host of the phenomena of animal life; on the other hand, it emphasizes the fact that our mental life has grown up as a mediation between stimulus and reaction.”

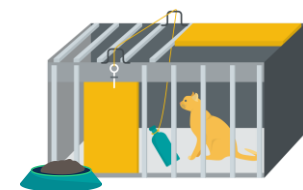
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Thorndike (1911)

Thorndike's puzzle boxes



Edward Thorndike
(1874 – 1949)



Trial and error learning → **Connectionism**

Operant learning

Stimulus - Response - Outcome

↓
Contingency learning
↓
SR learning

Classical conditioning

Unconditioned stimulus (US) Conditioned stimulus (CS)

↓
Contiguity learning
↓
SS learning

Thorndike's law of effect (1911)



Edward Thorndike
(1874 – 1949)

Operant learning

Situation → Response

3-Term contingency



Thorndike's law of effect (1911)



Edward Thorndike
(1874 – 1949)

'Responses that produce a satisfying effect in a particular situation become more likely to occur again in that situation, and responses that produce a discomforting effect become less likely to occur again in that situation'

From Animal Intelligence (1911)

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3-term contingency learning

**Situation**Discriminative
Stimulus

Antecedent

Response

Response

Behaviour

Effect

Reinforcer

Consequence