

Two way shuttle box
 Two black compartments
 adjustable barrier
 Barrier height was adjusted to shoulder height of subject
 Each compartment held 2 50W lights and one 7 1/2 W light
 CS = turn off all 50W lights
 US= electric shock through grid floor
 550 v. ac through variable current limiting resistor in series with the subject
 When subject crossed barrier, shock would end photocell beams interrupted, response automatically recorded and trial ended
 Latencies of barrier jumping were measure from CS onset to the nearest 0.01 sec. by an electrical clock

Procedure

Escape/avoidance training for dogs in a shuttle box. The apparatus consisted of two black compartments separated by a barrier. Each compartment held two 50W lights and one 7.5W light. The barrier height was adjusted to the shoulder height of the subject. The shuttle box was connected to a 550V AC power source through a variable current limiting resistor and a photocell beam. When the subject crossed the barrier, the photocell beam was interrupted, and the shock ended. The response was recorded automatically. The latencies of barrier jumping were measured from the onset of the shock to the nearest 0.01 sec. by an electrical clock.

Results

Escape group learned how to terminate shock. Each subject showed decreasing latencies of barrier jumping over the course of the session. Subjects learned to escape shock within 10 seconds when the subject with the "yoked" group crossed barrier pressing after 30 trials. "Yoked" group showed minimal interference with escape.

Conclusions

The degree of learned helplessness was measured by the number of trials it took for the subject to escape shock. The escape group learned to escape shock within 10 seconds when the subject with the "yoked" group crossed barrier pressing after 30 trials. "Yoked" group showed minimal interference with escape.

Experiment #2

Subjects

30 experimentally naive mongrels
 height, weight, and housing same as Experiment #1

Video

Learned Helplessness
 *Sorry video won't play when embedded in Prezi!! :(
 Have to search on youtube for it.
 Please wait one moment:(

The Aberdeen Experiment



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 Showed that dogs with prior exposure to inescapable shock "reliably results in interference with subsequent escape/avoidance learning"

Pavlovian Harness
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- Rubberized cloth hammock
- Legs hung down
- Head held in position with panels
- Pressing head up for the escape group terminated shock
- Pressing head up for Yoked group did nothing
- Located inside a shielded white opaque attenuating cubicle
- 500V. ac transformer with parallel voltage divider
- Fixed resistance of 20,000 ohms
- Current applied through brass plate on subjects hind footpads

Procedures

Same two apparatuses used from Experiment #1
 Pre-Escape group underwent 3 days of treatment
 Day 1: 50 escape/avoidance trials in shuttle box from Esc. #1
 Day 2-24 hours after shuttle box trials subject was retained in inescapable, ungraded shock session in the harness.
 Day 3: 24 hours after inescapable shock subject was returned to the shuttle box to avoid 10 trials (like Day 1)
 The No Pre-Escape group no prior experience with shuttle box before experiencing escape/avoidance.
 3 day treatment for "No Pre-Escape"
 subjects exposed to inescapable shock session (as described in Pre-Escape group Day 2)
 24 hours after shock session, subjects participated in 40 shuttlebox training.
 If subject failed to respond to trial, but trials it was moved to opposite side of the box.

Summary of Experiment

Seligman and Maier wanted to see if the dogs' inability to escape the shuttle box (Experiment #2) was because of its inability to escape or control the shock in the first experiment (learned helplessness). Later, in 1978, Seligman and Maier proposed the theory that "theory that inescapable shock is an extreme stressor that elicits a neurochemical reaction by the animals for measurement". This experiment sparked studies involving humans such as the one done by Hiroto where humans were subjected to a loud noise in an escape situation. The humans were less efficient escaping the loud noise if they had already been subjected to an inescapable loud noise.

Experiment #1

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 30 dogs were split into 2 groups
 15 escape/avoidance before shock
 15 no escape/avoidance before shock
 15 trials per day
 3 days of trials with all 40 trials and noise

Escape/avoidance training

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Escapable/inescapable shock sessions

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Activity!!!

Criticisms

- The symptoms of learned helplessness is different between animals and humans.
- Humans can experience the feelings of worthlessness, suicidal thoughts and depression. Although it is slightly possible that animals can still sense these feelings as well, it is much easier to observe these behaviors in humans.
- Humans also can learn helplessness by watching other people who are experiencing it.

Contributions

- Lead to "positive psychology" (developed by Martin Seligman and Mihaly Csikszentmihalyi (1963))
- Positive psychology is primarily concerned with using the principles of theory, research, and intervention techniques to understand the positive, resilient, and emotionally fulfilling aspects of human behavior.
- Positive psychologists seek to find and nurture "positive human" or "positive mental" life more fully, rather than merely treating mental illness.

Ethical Considerations

- The use of animal models to generalize to humans
- Welfare of the dogs - at least two died in each experiment.
- Animal rights activists argue against Seligman's use of painful, inescapable shocks
- Physical and psychological harm to the dogs
- Prompted American Psychological Association to develop ethical guidelines for the use of animals in research.

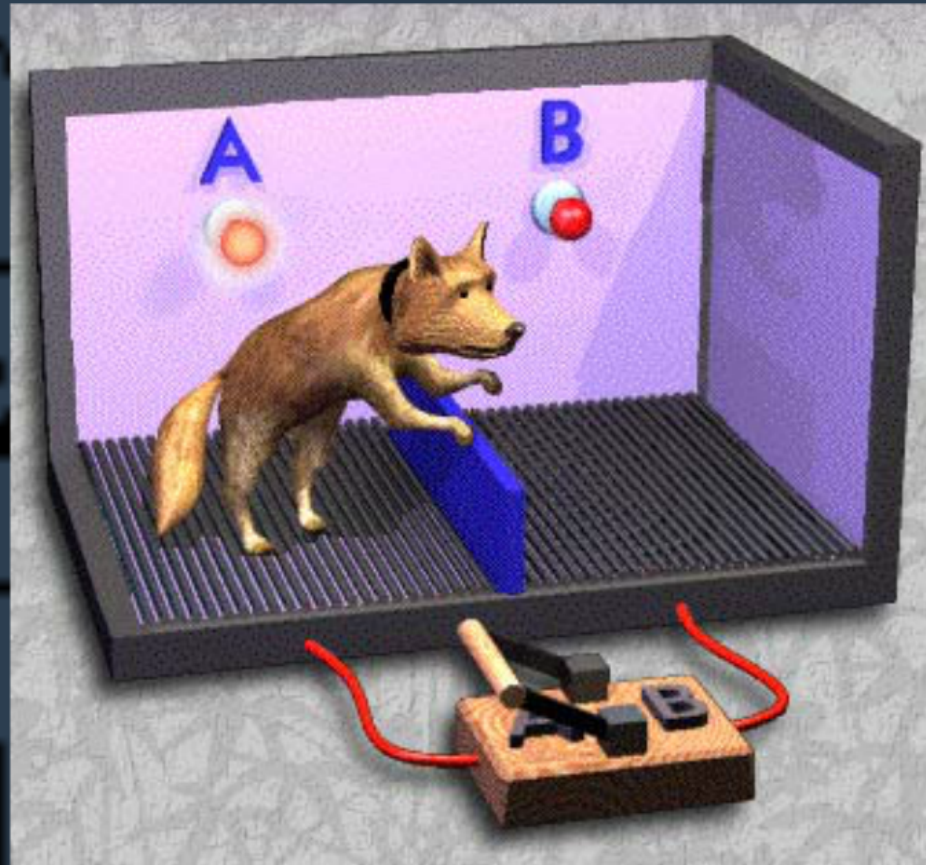
The background is a dark blue map of the United Kingdom, showing the outline of the country and some internal regional boundaries. A thick red arc is drawn across the top of the map, curving from the left edge to the right edge. The text 'Thecasesolutions.com' is centered in white, and 'The Aberdeen Experiment' is centered in red below it. The word 'Hurdle' is visible on the map in the lower central part.

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The Aberdeen Experiment

Hurdle

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Spea

Hurdle



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Showed that dogs with prior exposure to inescapable shock “reliably results in interference with subsequent escape/avoidance learning”

Hurdle

Speaker

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**Subjects were dogs
approx. 30 dogs
never subjected to experiments before
mutts
15-19 inches tall at the shoulder
25-29 pounds
individual cages with ad lib food and water**



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Experiment #1

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shock "reliably results in interference with subsequent escape/avoidance learning"

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Experiment #1

Shock producing floor

Escapable/inescapable shock sessions

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Activity!!!

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- Positive psychology is primarily using the psychological theories and intervention techniques to understand positive, adaptive, creative and fulfilling aspects of human behavior
- Positive psychologists seek "more genius and talent" and "to move beyond mental illness" rather than mental illness

Same two
PreEscape
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Day 2 - 2
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Day 3 - 2
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3 day treat
subject ex
Day 2)
24 hours
If subject
box

Pavlovian Harness

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Escape/avoidance training

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