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• Many events animals are exposed to cause concern

…but when we discuss animal welfare, we often assume that we know what is best for the animals.

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How are you feeling?

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What is your motivation?

- What will you do to access the resource?
- What will you do to avoid the stimuli/event?

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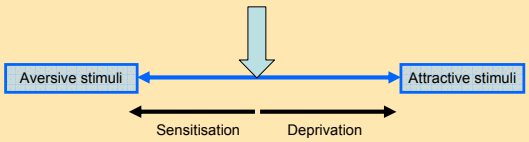

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Responses to attractive (appetitive) stimulus

- Travel towards it
- Repeat what they just did
- Become frustrated without it

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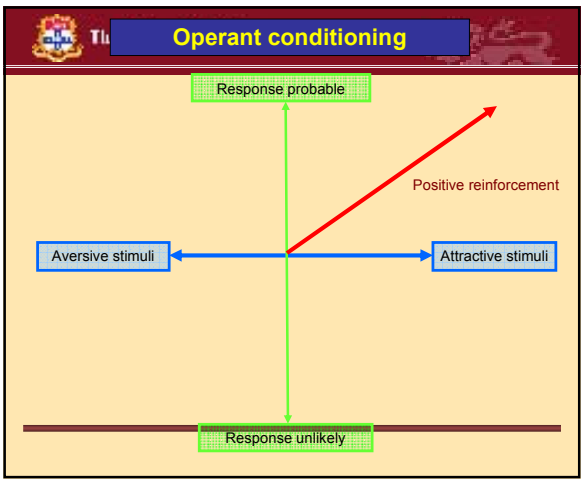
Operant conditioning



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Behavioural measures

- Searching behaviours
- Post-inhibitory rebound
- Preference and demand studies

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Searching

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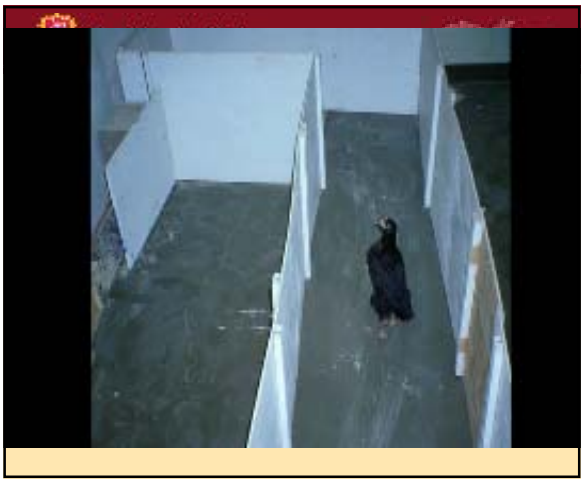

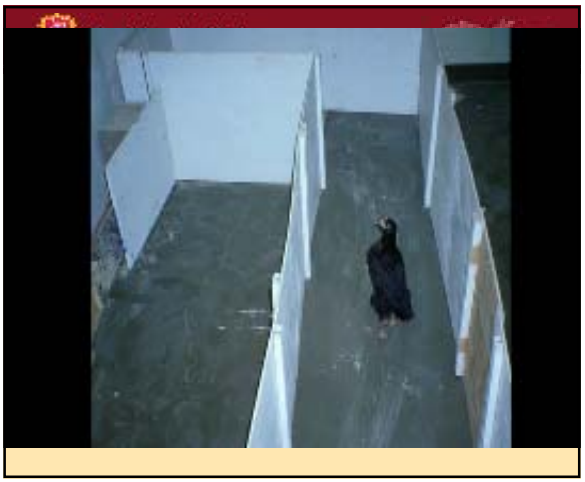

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Post-inhibitory Rebound

- performing a behaviour at a higher rate after deprivation.

Rebound is only really expected when there are important internal causal factors.

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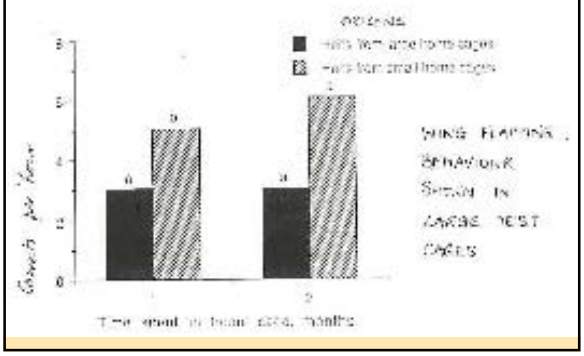

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- **Preference and demand**
- 1. preference tests,
  2. operant techniques,
  3. consumer demand theory.

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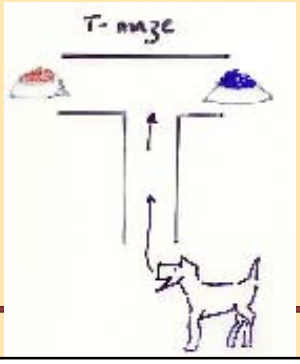
Preference tests

The experimenter offers the animals two different choices of environment, food, light, etc.



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A good example is the choice that hens make for flooring materials in their cages.

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- Simple preferences tests can be extended to offer several variations on a single theme.
- The combinations of possibilities are almost endless –food, lighting, flooring, companions, etc.

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Operant techniques

A more advanced method of determining preferences is the operant test.

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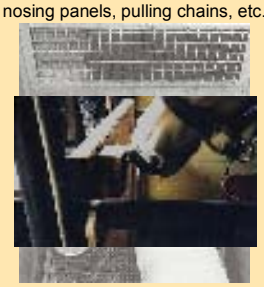
Various devices can be used, such as running on conveyors, nosing panels, pulling chains, etc.



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Simple preference and operant tests have several disadvantages:

1. Relative vs absolute preferences.
2. Short-term vs long-term preferences.
3. Lack of behavioural wisdom.

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Relative vs absolute preferences

Preference tests can only give a measure of relative preference.

They only tell us how much the animal likes A compared with B.

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Short-term vs. long-term preferences

•Short-term preferences might not be the same as long-term preferences.

e.g., the motivation that hens have for a suitable nest site.

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Lack of behavioural wisdom

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What about an animal that has been deprived of a resource all its life?

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Equally, if the animal is in a monotonous environment, performing panel presses and making choices may in itself be rewarding.

The tests measure priorities but not the strength of preference

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- …so make panel pressing hard work

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- …so make panel pressing **hard work**

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Consumer demand theory

What is the strength of its motivation?

What will it pay to….

gain a resource?
or to avoid an aversive stimulus?

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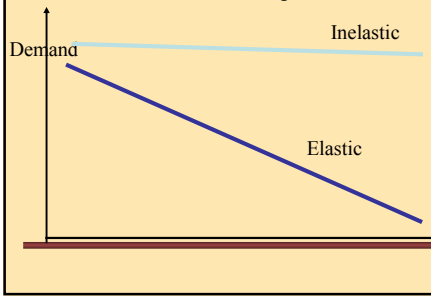
If the animal's preference persists when it has to work harder to access to its most preferred environment, it is showing inelastic demand.



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access to a variety of bedding materials,

degrees of social contact with conspecifics,

cages of varying size and complexity,

nests of varying size,

different designs of treadmill.

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Although consumer-demand tests are the gold-standard, but they are hampered by the:

- problem of short-term vs long-term preferences
- "misbehaviour of organisms" concept

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- e.g. that key-pressing may not be an appropriate task for a hen that has egg-laying as its chief priority.

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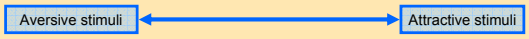

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Responses to aversive stimulus

–Travel away from it
–Try to get rid of it
–Avoid repeating what they just did

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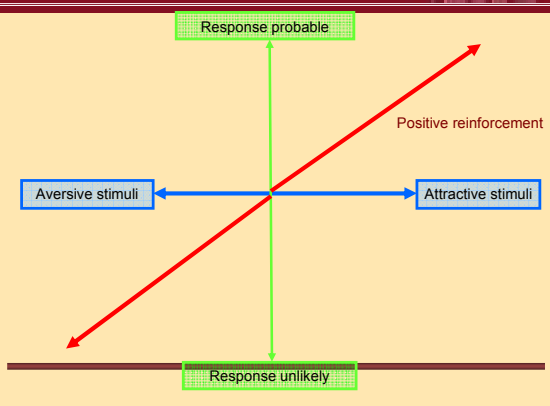
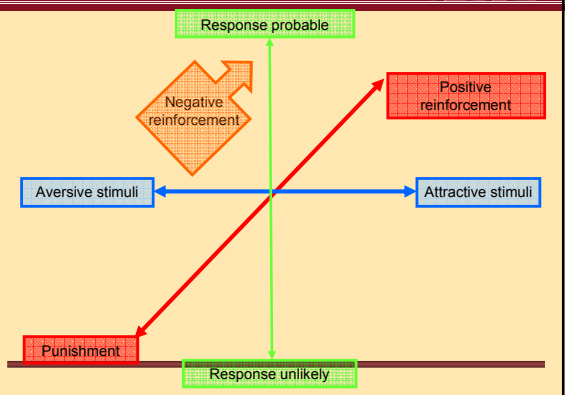
Operant conditioning



Operant conditioning



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Behavioural measures

– Agonistic and avoidance behaviours

The 4F's

– Displacement and redirected behaviours

– Stereotypic behaviours (OCD)

– Apathy & learned helplessness

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FIGHT

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FLIRT

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FREEZE

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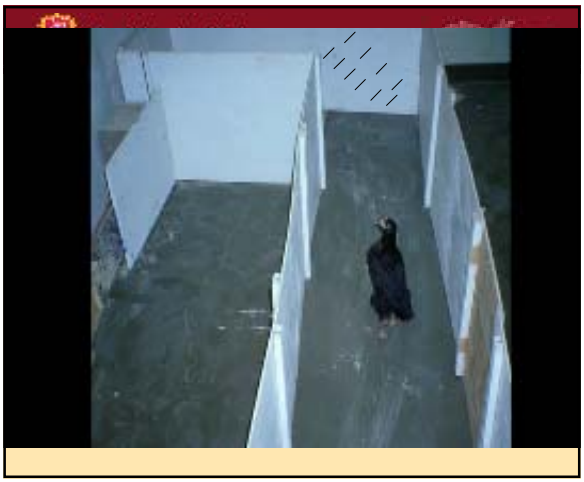
FLEE



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Displacement behaviours

Nowhere to run?

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Redirected behaviours

- Wood-chewing (11.8%)
- Bed-eating

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Stereotypic behaviours:

- Repetitive
- Invariant
- Apparently functionless

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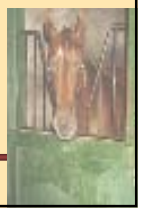
Two main locomotory activities:

- Weaving (3.2%) - lateral swaying of the head over the stable door or some other barrier.
- Box-walking (2.2%) - pacing of a fixed route around the stable.



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