

Learning and Memory Outline

Five procedures that you can use to modify behaviors: *change a person's behavior*

- 1 & 5 are key
1. **Shaping** - reinforce successive approximations of a desired behavior - very specific goal, see where you are now, small steps - reward steps
 2. **Prompting/Fading** - prompt - physically guiding the individual through behavior and immediately give reward - then gradually fade guiding.
 3. **Modeling** - provide a model of desired behavior - video, etc.
 4. **Structuring the Environment** - minimize distracting stimuli make desired stimuli more salient.
 5. **Increasing Motivation** -

Instinctive drift (Operant conditioning and the Brelands) - when an animal is taught a behavior that's close to an instinctual behavior, the learned behavior "drifts" towards the instinctual behavior in spite of non-reinforcement.

Sauce Bearnaise Syndrome (classical conditioning and Martin Seligman): learned taste aversions as examples of a special type of classical conditioning. *pineapple vodka - get sick after eating it means you can't eat that thing anymore.*

Seligman's preparedness dimension:

Prepared - biological makeup preps us - vom w/ food - Ancestors needed to remember what not to eat

Unprepared - doesn't help or doesn't hurt (biological makeup)

Contraprepared - biological makeup may prevent you from something in animals, but not humans.

essay ★ **Learned Helplessness** - organism learns something is hopeless & ~~may~~ give up & may die

POW and Dr Kushner's observations - Harold learns he betrayed his country & he's not going to get released - he gave up & died.

Ferrari's study of freedom of choice in nursing home

• lack of freedom of choice can kill you.

55 women over 65, 17 of which had no choice but to move to the nursing home.

• all of these deaths were unexpected - not particularly sick

Out of these 17, 8 died in 4 weeks and 8 more died by 10 weeks for a total of 16 out of 17 women had died in 10 weeks.

Only one of the 38 women who had a choice died

Why???

Langer and Rodin and Rodin and Langer studies of nursing home residents.

Exp group - emphasized personal control, gave them a plant to care for, and allowed them to choose when to see a movie and how to arrange their room.

Control grp - emphasized that people would take care of them.

3 week Results

Exp grp - more alert, felt better, happier, less depressed, like the nursing home better.

Control grp - less alert, less happy, more depressed, etc.

Learned Helplessness leads to depression which depresses your immune system → sick → death.

18 month results

Control grp had double the mortality of the exp grp.

Implications of this for all of us? For nursing homes? For schools? Hospitals? For parenting?

Memory

Think about duration, what work we have to do to get something into one of these types of memories, and it's capacity.

Sensory Memory - big capacity, short duration, just be conscious

Short term memory - 7 ± 2 capacity, lasts ≈ 30 mins or less, rehearse or repeat to keep in

Long term memory - unlimited capacity, lifetime duration, effortful encoding - connect to associations, etc.

Eidetic imagery - have an exact copy in your brain of the original sensory experience - photographic memory - not useful for high level thinking -

Working memory - longer than short term; shorter than long-term

Implicit and explicit memory - implicit - need a specific sign to remember it
explicit - can retrieve the information anytime

Eidetic imagery - takes time - limited usefulness