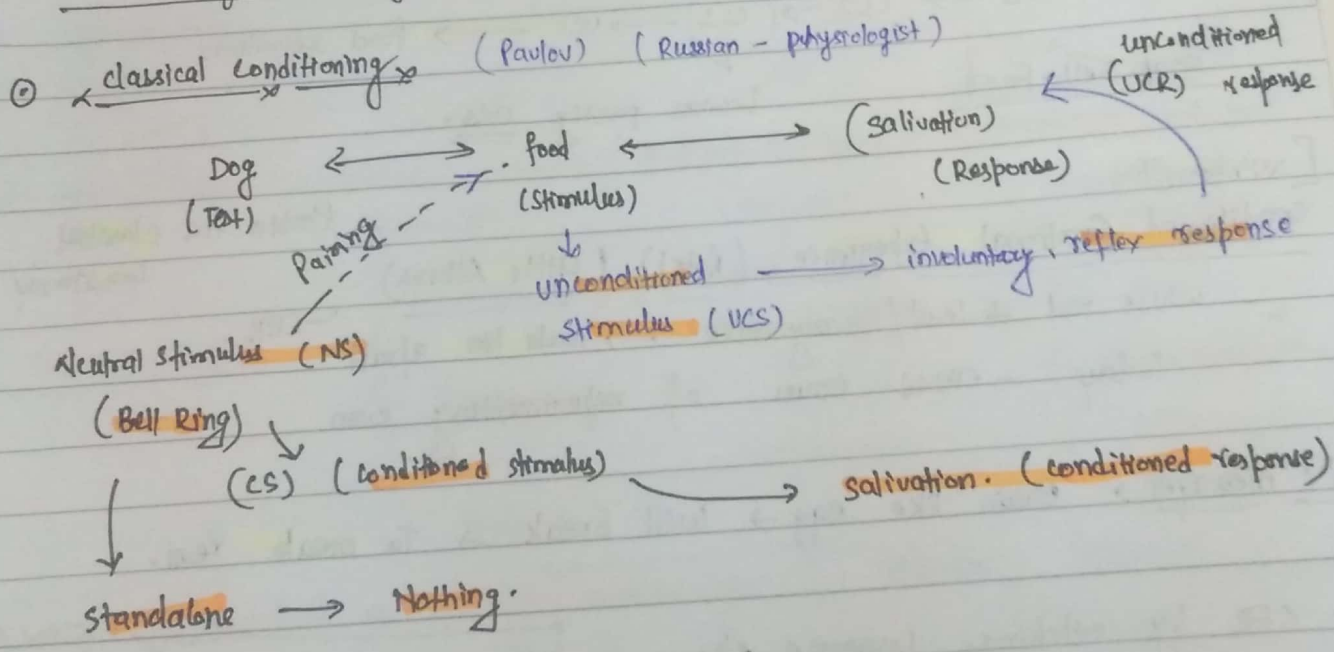


① Learning
 if not learning - we would have died out as species long ago
 adopt to changing condition - behaviour (rewarding) - continue
 unsuccessful - eliminate

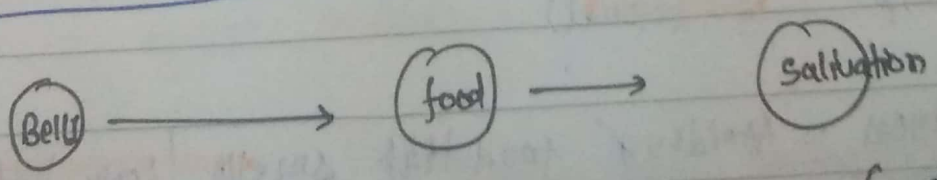
Learning → relatively permanent change in behaviour
 experience (not touch hot stoves) Practice
 [ex: any learning will not help walk → maturation of feet]

Not all change is learning: change (physiological) - babies → (maturity)



key notes#

① CS before UCS and come very close → several times - distinctive*
 stands out from competing stimuli



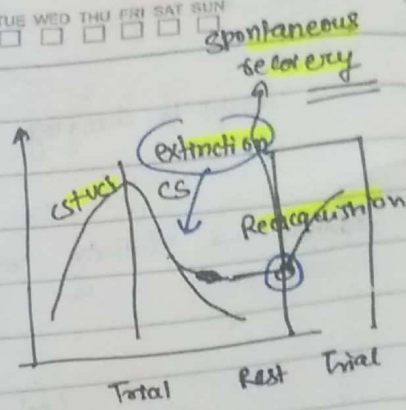
if Bell 2 pressed → CR → stimulus generalisation (repeat → take bell)
 stimulus discrimination ← no salivation

if bell → no food? (GSR)

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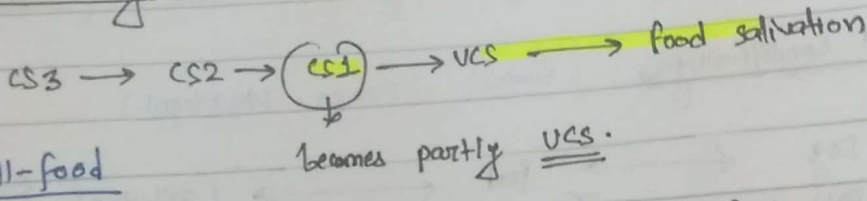
if the reinforcer weakens / removed stimuli

↓
 salivation decreases but not dead & gone
 ↓
 just suppressed



↳ Retraining Helps achieve it again

Higher order Conditioning



snop-bell-food

Phobia via Classical Conditioning

[Watson]

Conditioned Emotional Experience (rats!) (Little Albert) - CER.

white rod + loud / scary noise → made him afraid

Today - ethical issues of experimenting even

TV messages → Brain like egg → will break → To create fear.

of CER by watching someone else → Vicarious Conditioning vaccine camp crying.

• conditioned taste aversion: for drugs may be → post drug → nauseated drink.

(mammals → taste aversion)

Birds → (visual)

Biological preparedness: Avoiding food that smells / looks bad / evil

why does classical conditioning work?

→ Pavlov - brain - activate same place

(stimulus substitution) - but after (before both) work work?

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→ Rescorla: expectancy created by tone to rats for shock coming (not

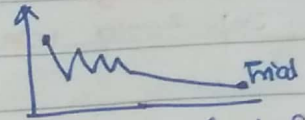
expectancy of CS followed by UCS → cognitive perspective.

Operant Conditioning

(Thorndike - Puzzle Box & law of effect frustrating cat)

involuntarily classical condition

voluntarily operant conditioning (Time)



⊙ cat → box → lever (stimulus) → pushing the lever (Response) → escape + food (consequence)

⊙ Law of Effect { A → pleasurable event (Repeat) } } voluntary behavior training { B → unpleasant (extinct) }

Skinner → named it as operant conditioning → voluntary behavior.

classical condition: Antecedent CS | operant condition: - after response.

Reinforcement : strengthens response → (again & again) / pleasurable consequence
↳ In operant condition it is the key to learn.

Primary reinforcer : candy bar → satisfies basic biological drive (hunger / touch)

Secondary reinforcer :- paired with primary reinforcer - praise - money - gold bar

Secondary Reinforcers: Power of reinforcing from classical conditioning

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Positive & -ve Reinforcement: → Reward = +ve Removal of unpleasant = -ve
 School going → quiz = +ve to avoid parents scolding = -ve

| Operant | Classical |
|---|----------------------------------|
| - goal - increase rate of existing response | - create new response |
| - responses voluntary | - reflexive, involuntary |
| - Reinforcement - immediate consequences | → Antecedent stimulus before UCS |
| - Expectancy reinforcement | - CS must follow UCS |

⊗ Punishment always weakens response | reinforcement → always strengthens response
 (-वी करना - कमजोर) (करना strengthen)
Negative reinforcement: street light obey | tax pay in time | cutting nails

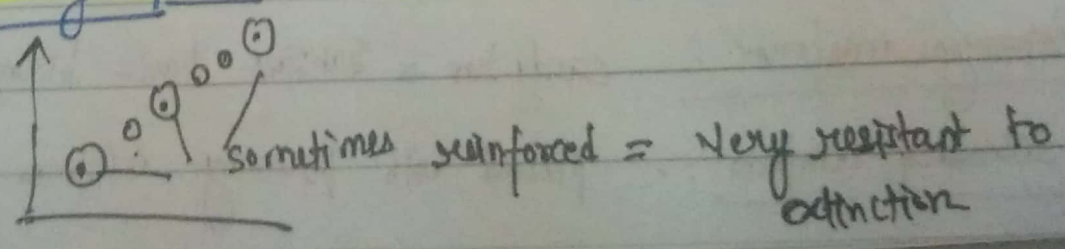
Key operant concepts

✓ Shaping → reinforcements in small steps in behaviour → desired more complex behaviour
 ✓ Restrictive stimulus, extinction, generalization, successful approximations

Schedules of Reinforcement

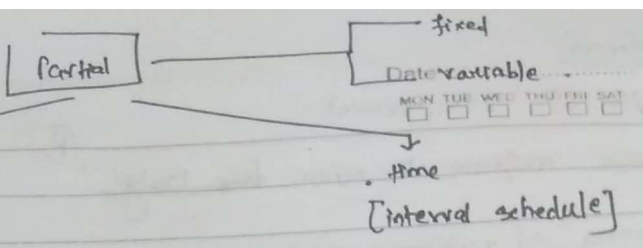
↳ timing of reinforcement → difference in learning
 - continuous reinforcement not good.
 - reinforcing every response → not best reinforcement schedule.

Partial reinforcement

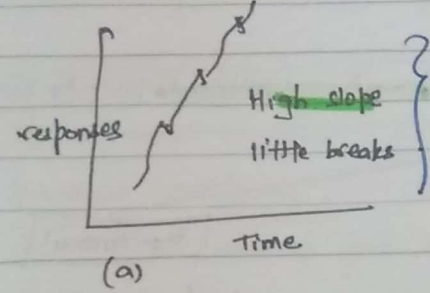


amg

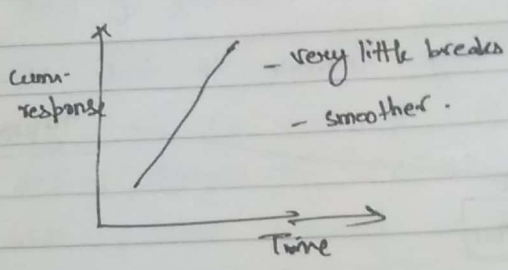
-ve
conditioning = -ve



fixed ratio schedule



variable ratio schedule



Predictable, allows rest breaks.
- 10 exams is after 2 month break.

unpredictability of reinforcement makes responses continuous
(Buying lottery tickets) - keep buying daily.

fixed interval schedule :-



✓ Slope not that great
✓ Response highest before reinforcement & then decreases suddenly.

variable interval schedule x



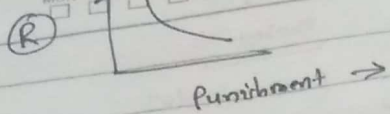
- not as fast as variable ratio schedule
- surprise quiz
- fishing in water - wait wait
- calling someone (busy)

ex: reading before exam, pay cheques.
(working hard close to bonus)

Punishment

- ✓ opposite of reinforcement
- ✓ causes response to occur less likely
- ✓ weakening of response → temporary vs permanent
- ✓ spontaneous recovery of bad behavior
- ✓ very difficult to find ideal punishment. (quality & quantity both)

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Types

by Application

- stops behaviour immediately
- self injuring child → scolding, beating.

by removal

- removal of any pleasurable stimulus
- Take out pocket money etc.

Issues

- ✓ should not become abuse, avoiding punisher
- instead of punishment, lying to avoid punishment,
- fear, anxiety, emotions → kids won't learn
- model for aggression.

should be immediate

Punishment effective

consistent
 (increase but
 never decrease)

paired with
 reinforcement
 of right
 behavior

{ milder & effective punishment }

Wd washing hand

- ✓ if not — don't shout → say it will make you fall sick
- ✓ if then yes → Good job!

Biological Constraints on Operational Conditioning (Keller & Breland - Raccoon expt)

← raccoon/pig → coins pick → piggy bank
 (They did not do consistently)

~ instinctive drift was seen (genetically determined) Date: _____
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~ 3 false Assumptions of skinner

- Tabula rasa (blank slate)
↳ can be taught anything
- Animals differences insignificant
- All responses are equally able to conditioned to any stimulus

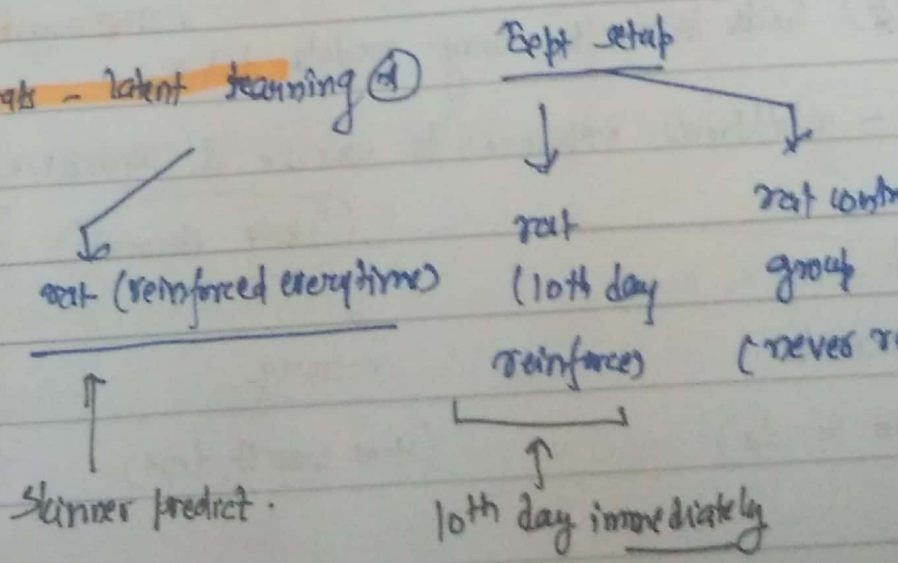
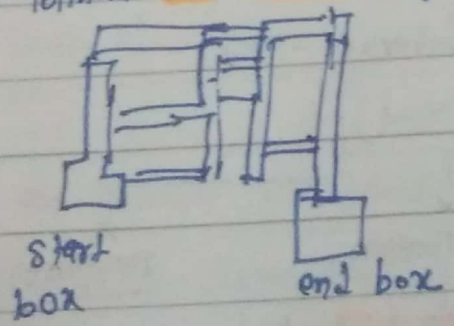
Operant Conditioning Applications

- Behaviour modification :- to bring desired changes in behaviour.
 - use of gold stars for kids | token economy
 - time out (mild punishment - removing +ve reinforcement)
- ABA (Applied Behaviour Analysis) :- dealing with kids with disorders, training animals, effective way of teaching kids.

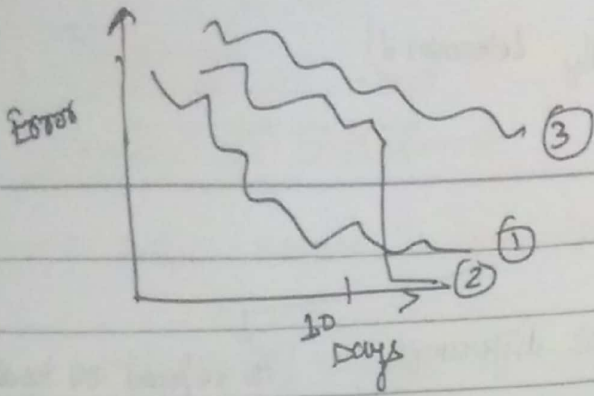
- Biofeedback :- use of feedback to bring involuntary responses (BP) → voluntary control
- Neurofeedback :- Brain scanning devices (feedback about brain activity) → modify behaviour

Cognitive Learning Theory

① Tolman's maze running rats - latent learning



means 2nd group learnt but not demonstrated (latent learning)



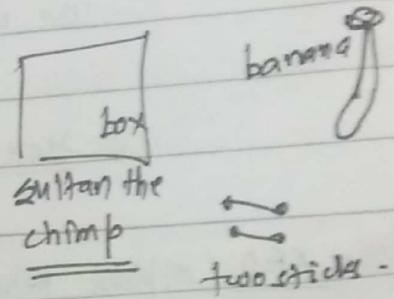
We can't escape, so why try?
 distressed
 (Helpless - learnt)

* Seligman's depressed dogs - learned helplessness

- dogs who got habituated with shock stopped making effort to jump.
- depression (Real life) - no control of what happens to them.
 (powerlessness & hopelessness)

* Wolke's smart chimp - insight learning

Sultan easily → more difficult situation → trialed errors
 ↓
 then suddenly he solved it. [insight → rapid perception of relationships].
 Aha moment!



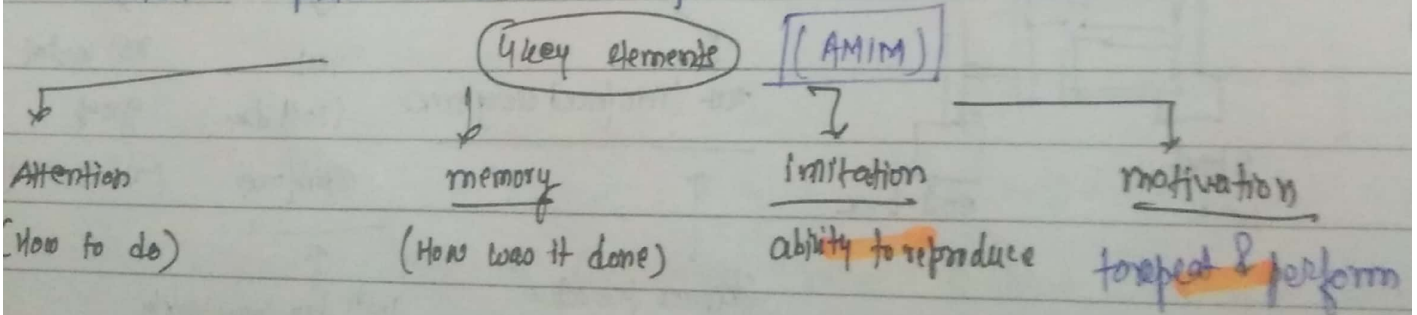
Observational learning - by watching someone (model) - doing behavior
 (no reinforcement)

* Bandura Bobo Doll expt

- o model 1
- o model 2
- o Non aggressive.
- o Angry/Aggressive

* kids learn the way models did *

- children's exposure to violence & aggressive behaviors - TV.



Microcephaly: Behavior Modification → Task Analysis (subtasks which are easier to achieve)
 → shaping → reshaping → chaining (one after other)