WELCOME !!

UNIT 2 – *What Makes us Who We Are?*
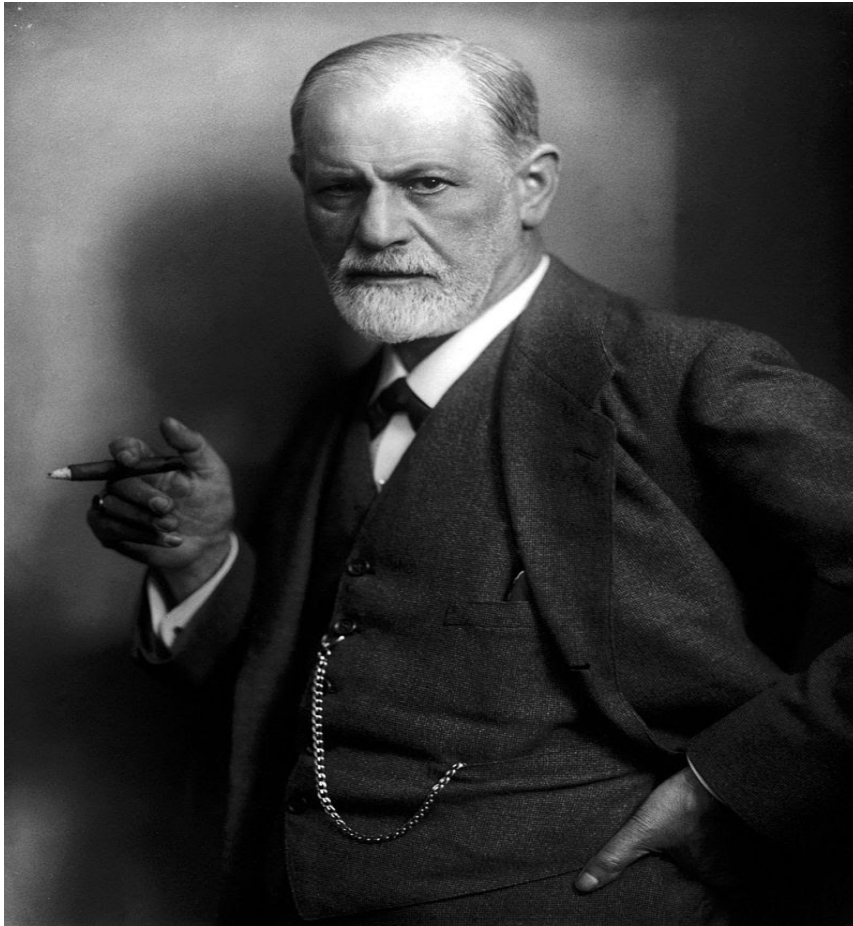
Anxiety

4 Perspectives:

- **Psychoanalytic – oldest**

- **Behavioural**

- **Cognitive**

- **Neurobiological**

Psychoanalytic

"*The root of Anxiety is the fear of death*"

Psychoanalytic –
Freud's Definition **(1890) Anxiety Neurosis**

Irritability

Deeply engrained and distressing pessimism: the belief that 'disaster is just around the corner'. Freud called this trait 'anxious expectation'.

Panic attacks – difficulty breathing, pains in the chest, sweating, vertigo and trembling.

Waking up at night in fear.

Vertigo – feels like the ground is rocking or legs giving way

Psychoanalytic – Freud's Definition (1890) Anxiety Neurosis cont'd

Phobias.

Feelings of nausea, ravenous hunger, or diarrhea

Tingling of the skin (pins and needles) or numbness.

Psychoanalytic – Freud's Emerging Definitions

- His views changed over the decades.

- In 1932, he claimed that anxiety still has roots in sexual causes, but it's primarily caused by psychological (mind/thoughts) factors.

- '**Anxiety'** (response to actual danger in external environment) vs. '**Neurotic Anxiety**' (excessive and irrational in internal environment).

Distinguishing the Types

- Anxiety - helps us – Lion, run!

- Neurotic Anxiety – makes our lives miserable.

- The root of every neurotic anxiety is the fear of an external danger.

- The root of every anxiety is fear.
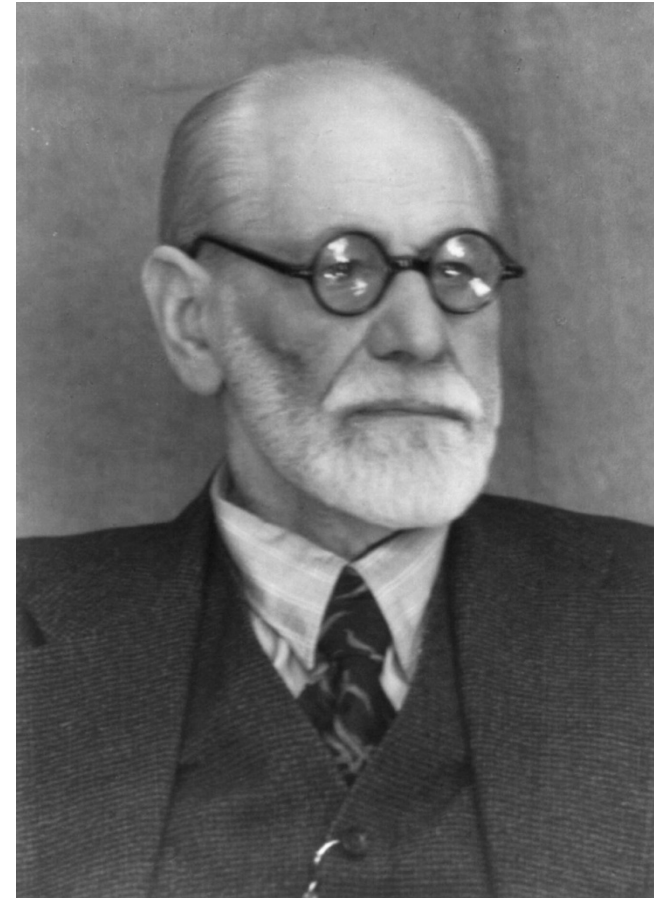
Next Perspective – *Behaviourists*

- Anxiety is a **learned response** – O.H. Mowrer.

- John B. Watson (in image) was the founder of the behaviourist school of thought in psychology. This has dominated academic psych for much of the 20th century.

- If we can't see it or measure it, then we don't know it is real.
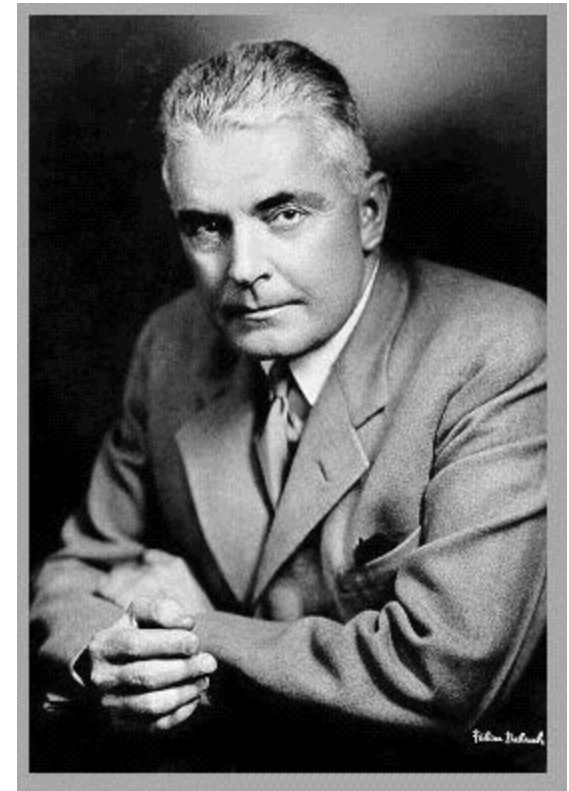
Types of Learning – for this lecture

1. **Classical Conditioning**
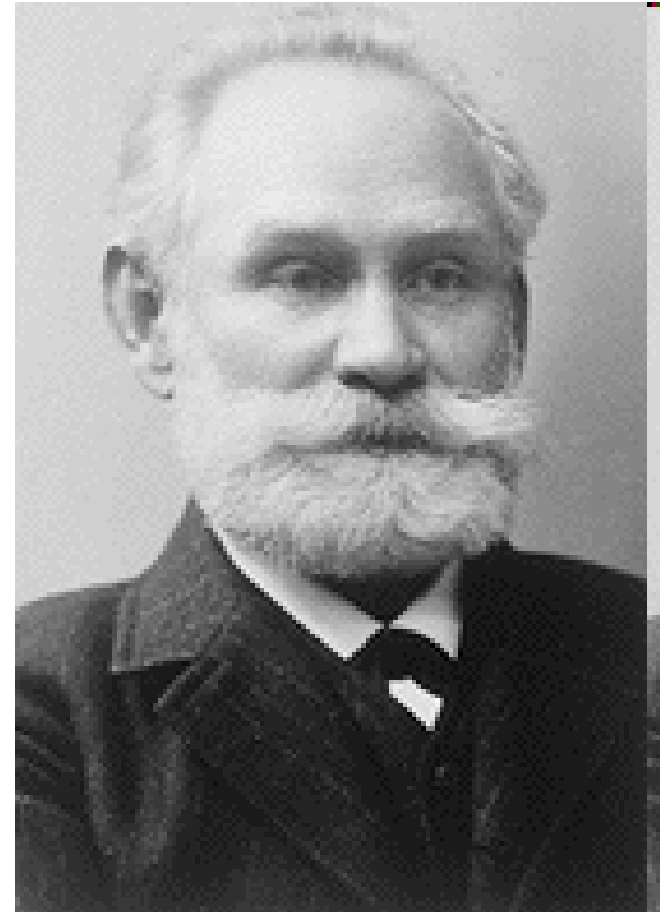
2. **Operant Conditioning**

Classical Conditioning

Ivan Pavlov (1849 – 1936)

- Russian physiologist, psychologist and physician

- In 1904, awarded the Nobel Prize in Physiology or Medicine for research on the digestive system

- "Next time there is a revolution…"

1. Classical Conditioning (cont'd)

- Pavlov is most famous for describing classical conditioning

- Discovered "by accident"

- Studying gastric function and salivary response in dogs

- Noticed something interesting… the dogs would start salivating when the research assistant feeding them entered the room (before they could even smell the meat)

What is Classical Conditioning (CC)?
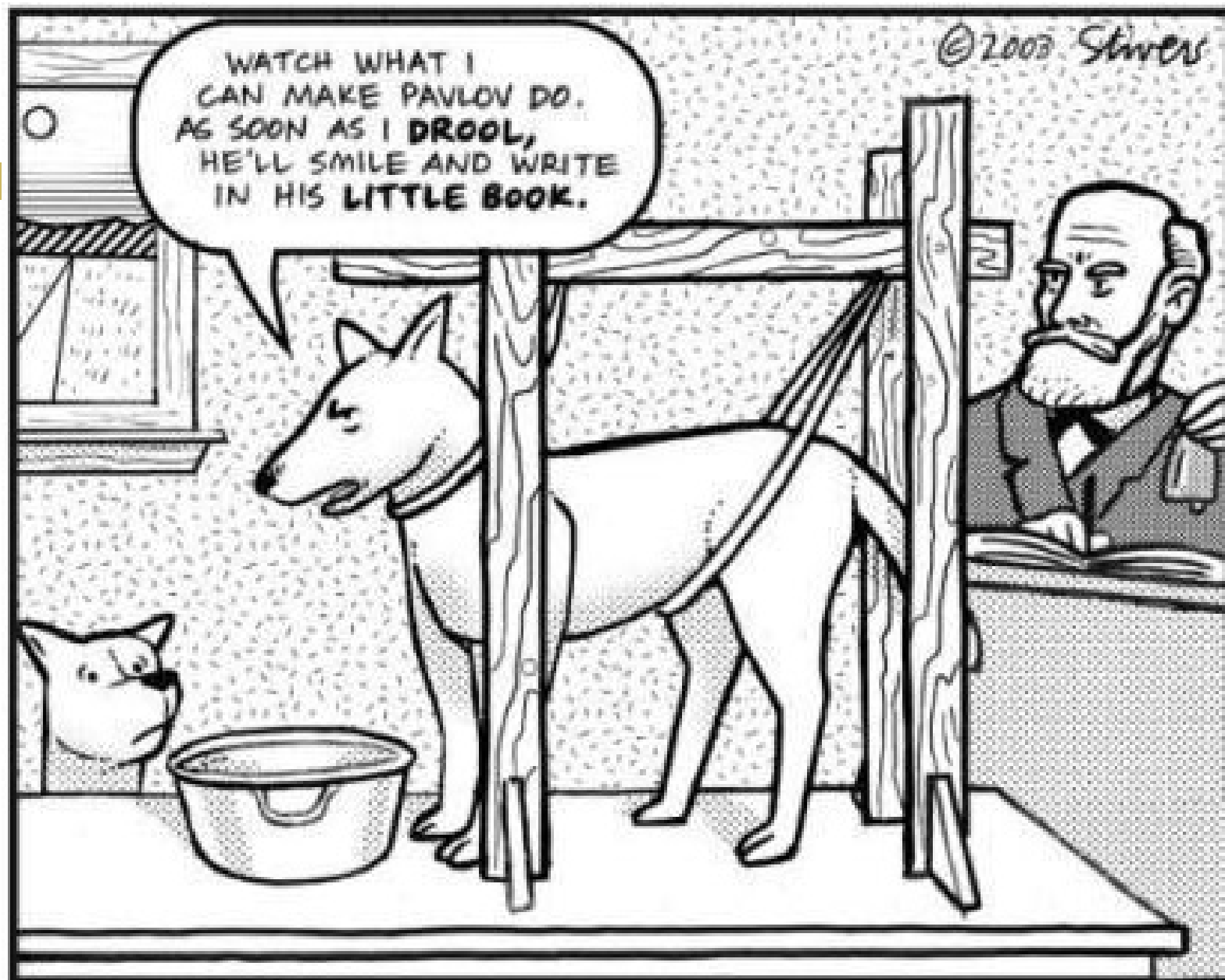
- … form of learning in which an association is formed between one stimulus and another.

- **Stimulus** = any event or object in the environment

- **KEY in CC → the association between stimuli**

Before conditioning

FOOD   **SALIVATION**
(UCS)   **(UCR)**

BELL   **NO RESPONSE**

ding, ding!

During conditioning

BELL +   **SALIVATION**
FOOD
(UCS)   **(UCR)**

ding, ding!

+

After conditioning

BELL   **SALIVATION**
(CS)   **(CR)**

ding, ding!

Other (human) Examples?
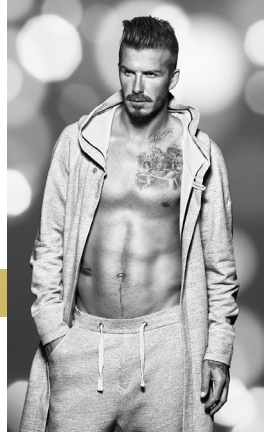
- Conditioned fears (and even phobias)
  - bitten by a dog in childhood, now afraid of dogs

- Taste aversion

- Celebrities used to sell products

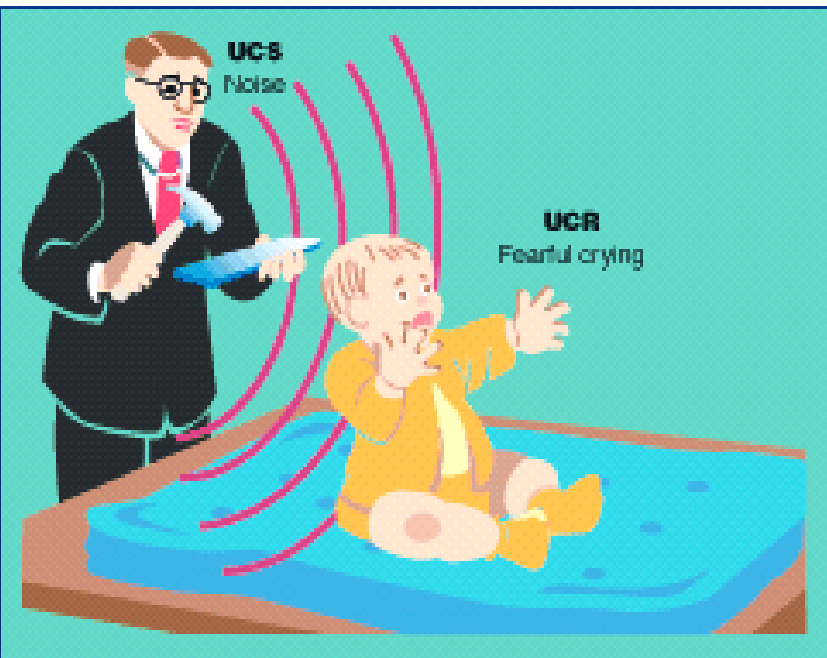- David Beckham and Modeling/Influencing many brands.

Conditioning Little Albert

- Johns Hopkins University, 1919

- John Watson claimed that he could condition a child to fear some distinctive stimulus which normally would not be feared by a child by using classical conditioning.

Initially, Little Albert did not show a fear of animals, but he did exhibit fear if a loud noise was made behind his back (a hammer striking a steel bar).
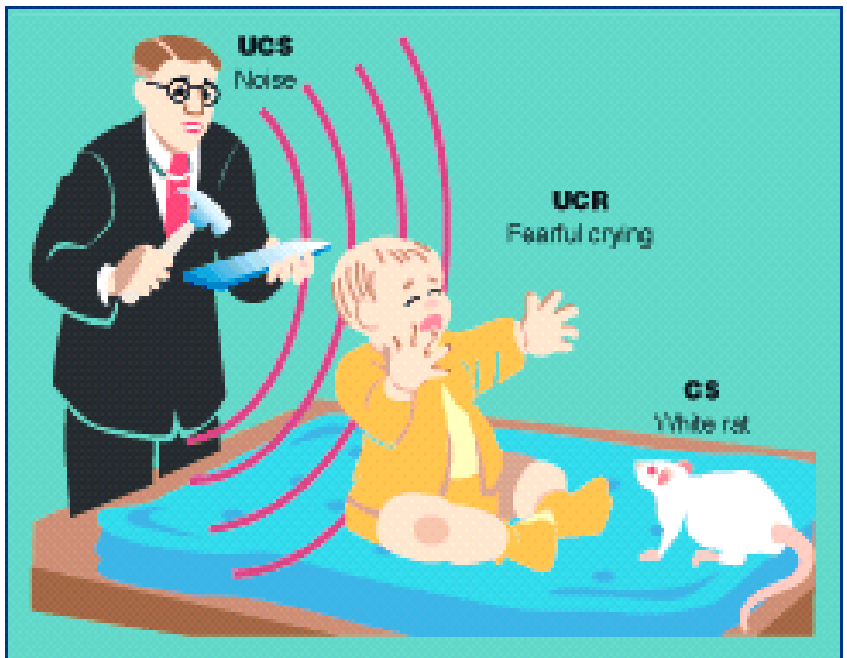
Then the researchers presented a white rat (CS) and made the loud noise (UCS).

After five presentations of the CS and UCS, Albert developed a phobia of rats—he began whimpering and withdrawing (the conditioned emotional response) and trying to avoid the rat. After two more presentations of CS and UCS, he immediately began crying on seeing the rat. "He . . . fell over on his left side, raised himself . . . and began to crawl away so rapidly that he was caught with difficulty before reaching the edge of the table" (Watson and Raynor, 1920, p. 5).
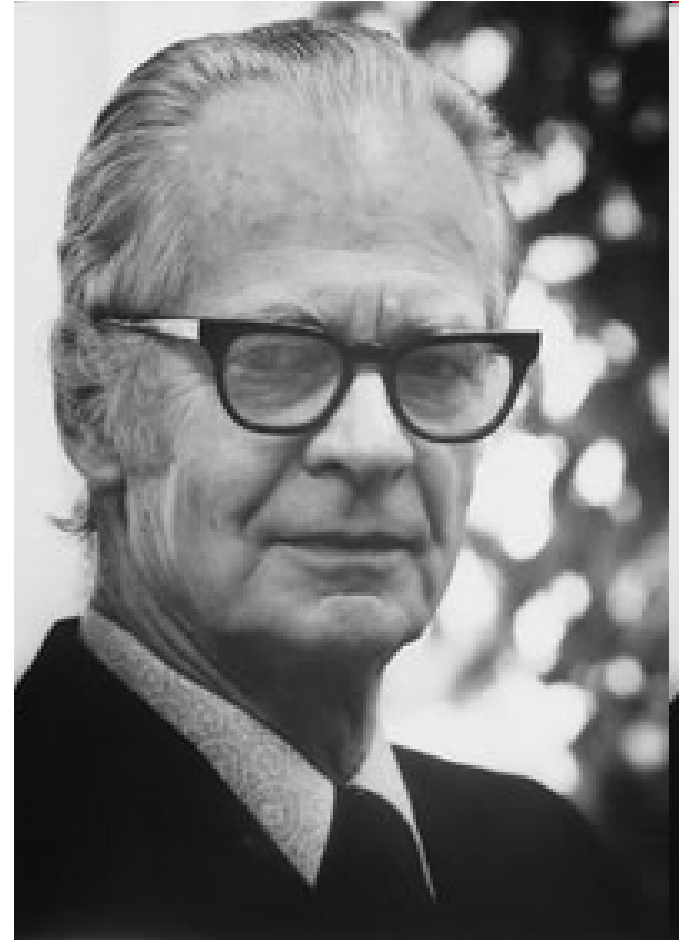
LOOK FAMILIAR?

Operant Conditioning

Operant Conditioning

- B. F. Skinner

- … the consequences of behavior are manipulated in order to increase or decrease the frequency of a response or to shape an entirely new response.

Reinforcer / Reinforcing Stimulus

□ Anything that follows a response that increases the likelihood that the response will occur again.

Shaping

- Reinforcing or rewarding successive approximations of the desired response.

- Watch a video (next slide):

- Older footage
  - https://www.youtube.com/watch?v=mm5FGrQEyBY

Types of Reinforcement

- **Positive reinforcement**

  - any pleasant consequence

  - if applied after a response, increases the probability of that response occurring again.

  - Something desirable is ADDED (+) to your environment

Types of Reinforcement

- **Negative reinforcement**
  - behaviour that is likely to occur again because it was followed by the termination of an aversive condition.
  - Something undesirable was REMOVED (-) from your environment

Punishment

☐ Punishment is anything that follows a response, that decreases the probability that the response will occur again.

Punishment (cont'd)

Positive punishment → the presentation (<u>addition</u>) of an aversive stimulus.	• Something undesirable is ADDED (+) to your environment • E.g. parking ticket, spanking
Negative punishment → the removal (<u>subtraction</u>) of a rewarding stimulus	• Something desirable is REMOVED (-) from your environment • E.g. being grounded, no TV or internet privileges

The Take Home Point?

- We know from behaviourism that anxiety can be learned.

- We also learnt that **we can un-learn the fear.**

- *Behavioural desensitization*

- A person who was once very afraid of something can now face the fear, or 'do' the activity.

The Next Perspective – Cognitive (1956 onwards)

- The legacy of behaviourism -> CBT, another way to unlearn the anxiety.

- Cognitive Theories of Anxiety: "Emotions are experienced as a result of **the way in which events are interpreted or appraised.**

- It is the meaning of events that triggers emotions rather than the events themselves. The particular appraisal made will depend on the context in which an event occurs, the mood the person is in at the time it occurs and the person's past experiences. "

Your Turn: Example of an Appraisal

- Imagine, for example, that you are woken in the early hours of the morning by a noise downstairs. Is it a cat or intruder?
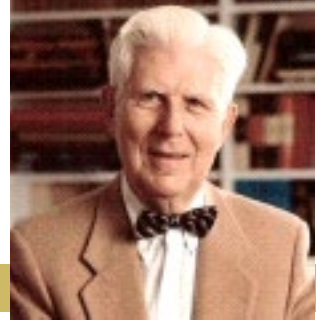
Answer:

- **How you interpret that noise will determine your emotional response.**

- If you decide it's your cat clattering around, you might feel mild irritation at being disturbed before turning over and going back to sleep. But if you believe it may be the sound of a burglar, you'll almost considerably be gripped by anxiety and lie awake wondering whether you ought to investigate.

Detection of threat – Cognitive

- May not be conscious but more intuitive based.

- **When we detect a threat that we think cannot handle, then we feel anxiety.**

- Example: Panic attacks – their mind's appraisal of the physical symptom is incorrect.

- The thoughts behind it make it more than it is and then contribute to a cycle. A negative feedback loop.

Aaron T. Beck – Father of CBT

- Why does one person assume a noise in the middle of the night is nothing to worry about, and another find themselves paralyzed by anxiety?

- Answer: **schematic beliefs** (preconceptions, ideas, and habitual thought processes, beliefs).

- They are so ingrained and automatic, that most of us are unaware that this is the problem!

Examples of negative cognitive schemas:

- It's always wisest to ==assume the worst==

- ==Trouble can strike== at any moment

- I'm a ==vulnerable== person

- I must be ==in control==

Negative Thoughts in Academics:

- I'm not good enough to pass or get this diploma, degree

- I think I will fail my test or assignments

- The other students are smarter or better than me

- What if I …oh my God! I'm going to fail! I'm not good enough.

- The other students hate me or are better than me

- The teacher hates me

- I'll never get this, or get into this career and make money.

Aaron Beck said:

- If we believe these thoughts, then we're *overestimating the threat* & underestimating our capacity to cope with it.

- **More Positive Examples :**
  - I'm ==exactly where I'm supposed to be.==
  - ==God gives people what they can handle==
  - ==I will learn==, and get this course, diploma, degree
  - ==I will pass==, and if I don't, ==I can always take something again or get extra help.==
  - I will do well.
  - I will take each task ==one step at a time.==

Last perspective - **Neurobiological**

- Areas of the brain which have been found to effect anxiety:

- Amygdala (part of limbic system – our brain's area to **make sense of threats and react,** something from our early evolution to ensure survival). Stores unconscious fear memories. Fight or Flight!

- Frontal Lobes – planning, **make sense of everything, and how to react.**

- Hippocampus – memory center of the brain

Neurobiological

The **Amygdala** also works with the hypothalamus (influencing basic processes of the autonomic nervous system – breathing, blood pressure and body temperature).

Changes to autonomic nervous system when we're anxious can lead to a wide range of physical effects including *elevated heart rate, dilated pupils and altered breathing.*
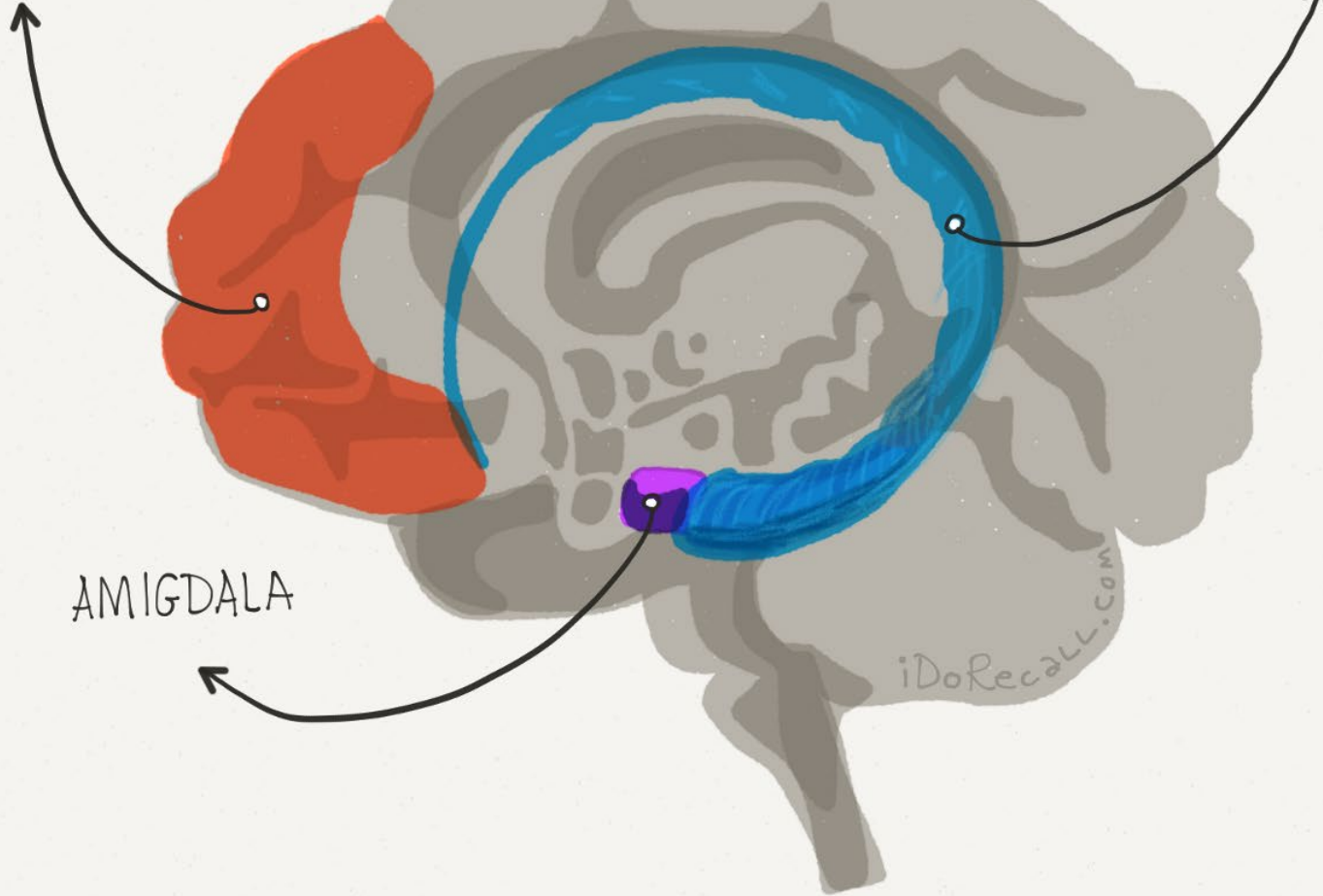
High Road reaction vs. Low Road reaction (we may react and not know why).

PREFRONTAL
CORTEX

HIPPOCAMPUS

AMIGDALA

iDoRecall.com

Neurobiological- The Limbic System

- When the Amygdala does its job and appraises something as a threat, hormones are released like. **Cortisol** and **Adrenalin** to help us escape or fight danger (fight, flight or freeze).

- If we are always on alert, then we are in a toxic stress situation.

- **GABA** neurotransmitters are involved in calming us down when we're anxious.

- Doctor's can prescribe medications to assist in these areas. **SSRIS SNRIs.**

In Conclusion

- All perspectives have their merits.

- What about *Mindfulness?*