


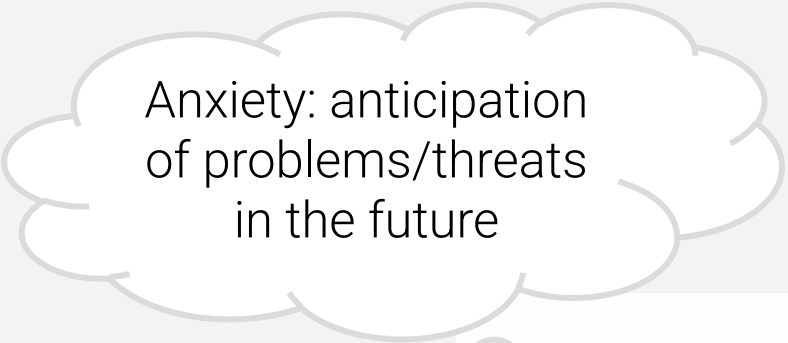
Anxiety and fear - related disorders



Fear vs anxiety



FEAR - a threat is happening right now



Anxiety: anticipation of problems/threats in the future

What do you think is there normal, useful anxiety?



Diagnostic criteria:

Generalised anxiety disorder

Symptoms must include:

- ❖ General apprehensiveness ('free-floating anxiety') **or**
- ❖ Excessive worry about certain aspects of everyday life (e.g., work, finances, health, family).

Accompanied by additional characteristic symptoms, such as:

- > **physical** -muscle aches, pains, insomnia, digestive problems
- > **behavioural** -muscle tension or motor restlessness
- > **affective** -feeling nervous, irritable, being 'on edge'
- > **cognitive** - impaired thinking, concentration

→ to be diagnosed person must experience symptoms almost every day, for several months

→ and as always - other disorders and side effects of medications must be ruled out

ICD-11: [ICD-11 for Mortality and Morbidity Statistics](#)

Diagnostic criteria:

Agoraphobia

agora - open, public space, such as a marketplace

phobia - refers to excessive fear or anxiety shown in response to a specific object or situation

Symptoms:

- ❖ excessive anxiety that occurs in (or in anticipation of) multiple situations where escape might be difficult or help might not be available, such as:
 - using public transportation
 - being in crowds
 - being outside the home alone, in shops, theatres, or standing in line
 - ❖ individual is afraid of having specific negative reaction such as panic attacks or embarrassing physical symptoms
 - ❖ The situations are actively avoided, are entered only under specific circumstances (e.g., in the presence of a companion), or are endured with intense fear or anxiety
- person must experienced symptoms for several months, they are causing significant impairment of everyday life, and are not better accounted for by another mental disorder

Diagnostic criteria:

Specific phobia

People with specific phobias show irrational and/or excessive fear of certain situations (e.g. flying, heights) or in the presence of certain objects or animals (snakes, spiders...)

AS level example?

A level example: **blood-injection-injury phobia**

Symptoms of specific phobia:

- ❖ marked and excessive fear that consistently occurs upon exposure or anticipation of fearful stimuli
- ❖ fear is disproportionate to the actual danger
- ❖ the object or situation is actively avoided or endured with intense anxiety

→ person must experienced symptoms for several months, they are causing significant impairment of everyday life, and are not better accounted for by another mental disorder

Little bit more about **blood-injection-injury phobia**

Other phobias: people often experience an increase in heart rate and blood pressure

BII phobias: a sudden decrease in blood pressure causing them to faint (lose consciousness)

Mas et al. (2010) - most people with BII phobias report that:

- they have had this phobia since childhood (72 per cent)
- in nearly half of all cases, there is a first-degree relative with the same disorder (46 per cent)
- the majority say that the disorder causes significant impairment to their daily functioning (86 per cent)
- and half reported that fainting was a common part of their response

Measures

The generalised anxiety disorder assessment (GAD -7)

- 7 item questionnaire (can be used as structured interview as well)
- respondents are asked how often they experienced anxiety symptoms in the last 2 weeks
- 4 point scale (0-3)

Scoring:

5 out of 21 = mild GAD
10 out of 21 = moderate GAD
more than 15 = severe GAD

1 *Feeling nervous, anxious or on edge?*

Not at all (0)

Several days (1)

More than half the days (2)

Nearly every day (4)

2 *Trouble relaxing?*

Not at all (0)

Several days (1)

More than half the days (2)

Nearly every day (4)

3 *Being so restless that it is hard to sit still?*

Not at all (0)

Several days (1)

More than half the days (2)

Nearly every day (4)

Measures

Evaluating GAD - 7

→ **good test - retest reliability** - meaning?

Spitzer et al. (2006) tested participants twice, one week apart, and found a strong positive correlation between the pairs of scores (+0.83)

→ **strength of having 7 items only?**

quick and easy to use - important as, in practice, doctors often have very limited time to assess patients before having to make critical decisions

→ **and despite having a very short form, it has good concurrent validity** - meaning?

it has a strong positive correlation with scores obtained on other respected measures of anxiety (Spitzer et al., 2006)

Weakness ?

Retesting patients only one week apart don't reflect severity of symptoms over time (better to do L ongitudinal study)

Measures

The Blood Injection Phobia Inventory (BIPI)

Items: 18 situations relating to blood and injections/medical needles

Task: read the situations and **rate how often** you experience certain reactions (cognitive, biological and behavioural reactions)

0 - never experience
3 - always experience

Evaluation

+ Mas et al. (2010 - example study!) proves validity (sample: spanish speaking cultures):
strong positive correlation between scores on the BIPI and the blood subscale of the Fear Questionnaire (FQ) - good concurrent validity

- people are asked about how they think they would respond in certain situations - problem?
there may be a mismatch between how people think they would respond and how they would actually respond.

Measures

+ Very detailed - helpful to therapists in designing individualised treatment programmes focused on each patient's specific symptoms, such as whether they are more fearful of their own blood or that of other people or animals, which situations frighten them the most...

Here are some sample items from the BIPI:

- 1 When I see an injured person after an accident, bleeding in the road or on the television.
- 2 When I think about a pool of blood on the floor.
- 3 When I think I have to accompany a relative to have a blood test or to treat an open wound.

} SITUATIONS

▼ Table 6.9 Sample responses from the BIPI

Cognitive	'I think that people will notice how distressed I feel.'	'I think I'm going to faint.'
Biological	'My palms and armpits sweat.'	'I feel my face is hot.'
Behavioural	'My legs and/or hands shake.'	'My words don't come out fluidly or my voice is uneven.'

REACTIONS

Explanations of anxiety and fear - related disorders

- Biological
- Psychological



Biological explanation

Genetic

This explanation suggests that we are born **prepared to fear** certain objects

- objects or situation that are a threat to survival, so we are genetically set up to avoid
- this is transmitted in our DNA through the generations to help our survival

Adoption, twin, family studies

Studies suggest that such phobias (like the blood phobia) are more often inherited from parents, in comparison to other specific phobias (Marks, 1988)

De novo mutations and NTRK3 gene - you can completely skip this part in the book

Example study: Ost (1992)

Aim:

- To compare people with blood and people with injection phobias in order to see are those phobias similar enough to be a single diagnosis or if they should be a separate diagnosis
- and to compare those two with other specific phobias (for that they used data from another study with participants who had animal, dental and claustrophobia)

Sample:

- 81 individuals with blood phobia and 59 individuals with injection phobia

Procedures:

- a) screening interview with a clinician and completed a self-report questionnaire on the history and nature of their phobia
- b) Behavioral test

b) Behavioural tests

- Blood phobics watched a colour-video of thoracic surgery and injection phobics had a finger-prick blood test
- Participants could withdraw at any point
- Time taken before withdrawal was noted and fainting was rated on a scale of 0-4
- Participants self-reported their anxiety on a scale of 0-10 and indicated which of five positive and negative thoughts they had experienced
- Heart rate and blood pressure were recorded before and after the tests

Results:

Blood phobics were more likely to:
meet criteria for both diagnoses
have a first-degree relative with the same phobia
be afraid of fainting (and indeed fainted more often)

Most important result (that unites this two phobias) → people with both diagnoses faint a lot more (70% of blood phobics and 56% of injection phobics) in comparison to people with other phobias or with anxiety disorders overall.

Together, the results of this study show that there are more similarities than differences between blood and injection phobia.

Conclusions:

Ost concluded that there is a strong genetic link for these phobias, which are more likely than other phobias to produce a strong physiological response (fainting).

Overall, there are more similarities than differences between people with blood and injection phobias and, therefore, these phobias should not be separated into two different diagnoses.

Evaluation of Ost study

Strengths:

1. screening interview with a clinician - they used DSM criteria to be sure those people indeed have the phobia - adds up to **validity**
2. Behavioral tests - provided **objective** data

Weaknesses:

1. However, behavioral tests **lacked ecological validity** - watching the videos of thoracic surgery - it's not exactly the same as our everyday encounter with blood, isn't it?
2. When it comes to family history and relatives - relying on participants **self report, no checking of the medical records**

Evaluation of genetic explanation

Strengths and weaknesses of the explanation you can extract from the Ost study

S> supported by research evidence (Ost and what was good about his study)

W> supporting studies have flaws (what was bad in this study)

Two **debates** you can **always** use with all biological explanations?

Determinism vs free will

Nature vs nurture

Psychological explanation: behavioral

Classical conditioning: Ivan Pavlov's research on salivation



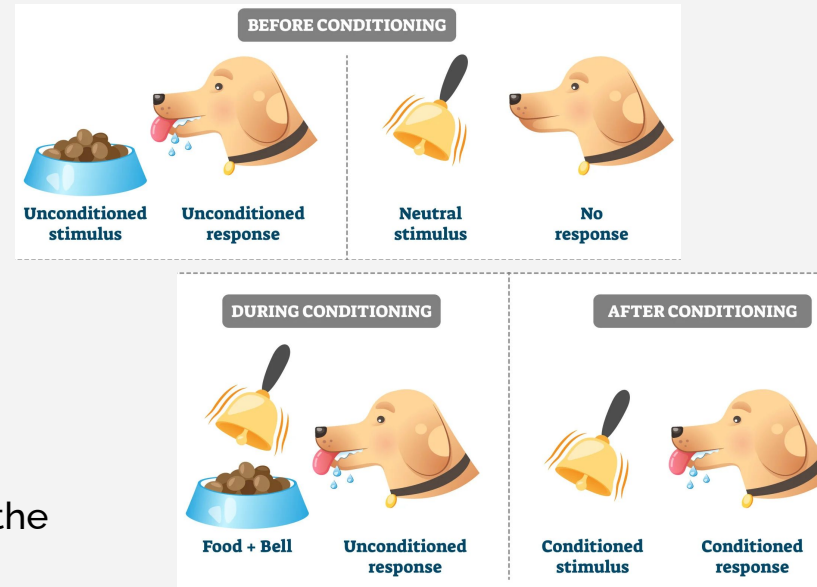
Using this principle, John **Watson**, and Rosalie **Rayner** demonstrated that fear responses(phobias) can also be conditioned

Maintenance of fear reactions - operant conditioning

Classically conditioned behaviours usually become extinct as the person learns that the CS is not always followed by the US

But - people with intense fears usually avoid their feared objects/situations. Avoidance helps them to escape the unpleasant feelings of fear.

avoidant behavior = negative reinforcement (and thus strengthens the phobia) becomes more frequent.



Could there be positive reinforcement as well?

Yes! → **comfort and reassurance** that others provide

Little reminder what classical and operant conditioning is :)

<https://www.youtube.com/watch?v=PBb1CH18Smg>

<https://www.youtube.com/watch?v=yax UB1cwFM>

Watson and Rayner (1920) study with the Little Albert

Investigation objectives:

Conditioning Fear: can fear of rat be classically conditioned by pairing it with a loud noise?

Generalization: can conditioned fear transfer to similar animals or objects?

Time Effects: is there impact of time on learned fears (will it persist or not?)

Fear Removal: investigate methods for removing learned fears (they didn't do this at the end)

Methodology:

Subject: Little Albert, a nine-month-old baby

Observations: Recorded reactions to neutral stimuli and loud noise

Conditioning: Paired rat exposure with a loud noise

Testing: Fear response tested with various stimuli over time

Results:

Conditioning Success: Albert developed fear of the rat after pairings with loud noise

Generalization: Fear extended to other animals and white fluffy items

Duration of Fear: Fear persisted over time, even when tested in a different room

Conclusions:

Learned Fear: Concluded that fear of neutral stimuli can be learned through conditioning

Phobias in Childhood: Suggested many childhood phobias result from such learned emotional reactions

Evaluation:

Strengths:

- Longitudinal Study: Multiple observations over three months allowed tracking of fear variations
- Qualitative Data: Detailed observations enriched understanding of behavior and self-soothing

Weaknesses:

- Laboratory Setting: Potential lack of ecological validity
- Single Participant: Generalizability limited
- ETHICS?!

Evaluating behavioral explanation

Strengths of behavioral:

- Supported by research evidence (little Albert)
- Real-world applications : this explanation suggests phobias can be learned and, consequently, unlearned (inspired therapies like systematic desensitization)

Issues and Debates:

Nature vs. Nurture:

→ **Weakness of behavioral** : Ignores biological factors in phobia acquisition (example: Some phobias may be genetically predisposed like Ost showed / also genetic predisposition is evident in rapid conditioning of some fears, e.g. snakes)

Determinism vs. Free Will:

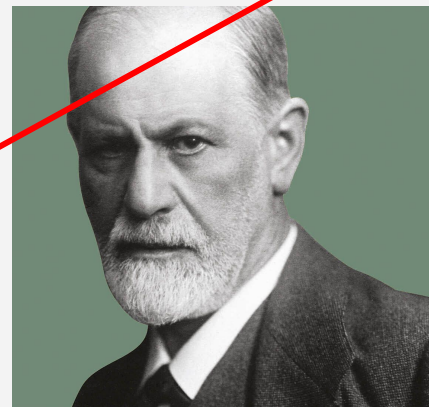
Aside biological, there is also **environmental determinism** like this one

→ **Weakness of behavioral**: Explanation is too deterministic (example: Not all individuals with a traumatic experience develop phobias, challenging simplicity)

Psychological explanation: psychoanalytic -

Key Concepts:

Author: Sigmund Freud



Phobias: People can't acknowledge the real reasons behind them because they are stored in unconscious

Psychoanalytic theory of personality and development:

3 personality structures:

Id - present on birth; **Ego** - develops around 2. year; **Superego** - develops between years 3 - 5

psychosexual stages of development (summary table at 323 page): each is associated with different erogenous zones and potential conflicts that the individual must overcome (https://www.youtube.com/watch?v=mhG-twzaE_g)

Important conflict for male infants at age 3-6: **Oedipus Complex:**
defense mechanism that can resolve : identification

If conflict is unresolved, negative emotions are moved in unconscious (repression)

Sigmund Freud's study about little Hans

Read details from the book for final, will not be on the mock

Evaluation of this study:

Strengths:

- 1. Rich Qualitative Data:** Freud collected detailed insights from letters, including private family conversations, offering rare access to the dynamics between child and parents
- 2. Longitudinal design**

Weaknesses:

- 1. Only 1 participant:** Limited to one child's experiences, potentially lacking generalizability
- 2. Subjectivity!!!** → possible trauma and abuse in the family as possible cause; raising questions about the accuracy and completeness of Freud's interpretation

Issues and Debates

Use of Children in Research: power Imbalance: Hans' father's leading questions may have influenced Hans' responses, potentially introducing demand characteristics.

Evaluating psychodynamic theory

Strengths

- explanation is supported by the Little Hans case study
- the theory led to the development of psychoanalytic therapy - at that time that was the only alternative to biological treatments, and it inspired the further development of other types of psychotherapy

Weakness

- theory relies too much on case studies, meaning the evidence is highly subjective
- theory is unscientific!!! Contrary to Freud's claims, many people say they know the cause of their phobias. Also, there is no reliable way of testing it's hypotheses (unconscious)

Treatments of anxiety and fear - related disorders

Only psychological therapy here!



Behavioral Therapy

First steps: Mary Cover Jones and Little Peter Case:

- Used **counter-conditioning**: paired candy (positive stimulus) with a caged rabbit (feared stimulus), gradually reducing fear.

Development of therapy: **Systematic Desensitization (SD)**

- Developed in the 1950s based on Jones' work
 - Combines a **fear hierarchy** with **reciprocal inhibition** to treat various phobias
- Fear hierarchy - remember from Saavedra and Silverman (button phobia)?
- Reciprocal inhibition = impossibility of feeling two strong and opposing emotions simultaneously → what is an opposing emotion to anxiety?

So in therapy - relaxation and fear responses will cancel each other out

Systematic Desensitization (SD) steps:

1. Teach the patient relaxation techniques (progressive muscle relaxation exercises, visualisation, or use anti-anxiety drugs)
2. Together create the Fear hierarchy
3. Client work through Fear hierarchy (imaginary or in vivo exposure) while remaining relaxed at each stage of the hierarchy.

*The patient does not move on to the next stage in the hierarchy until they feel no anxiety in the current one.

Evaluation of Systematic Desensitization



Strengths:

- ❖ **Animal studies that proves validity:** studies with cats - by this principle they first learned to fear a certain cage, but eventually again learned to like it (all for food right?)
- ❖ **Human longitudinal studies** demonstrated SD's effectiveness in treating agoraphobia

Weaknesses and Debates:

- ❖ **Fear Hierarchy induce slowness in procedure:** SD may be slower due to the fear hierarchy, contrasting with quicker alternatives like flooding therapy
- ❖ **Reductionism in SD:** Critics argue SD overlooks conscious and unconscious beliefs

Which negative beliefs people with agoraphobia can have ?

World is a very dangerous place

I don't deserve to get better ?

Key study: Treating blood-injection-injury phobia using cognitive-behavioral therapy with applied tension (Chapman and DeLapp)

Main theories and explanations (smth like *psychology being investigated*): **1. The diphasic response** - two opposing biological reactions

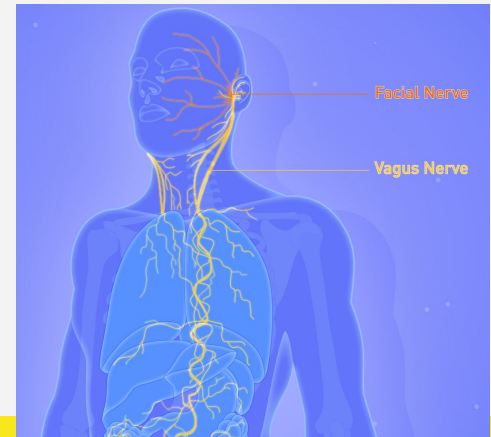
here → an initial activation of the sympathetic nervous system leading to increased heart rate and blood pressure, followed by a secondary vasovagal response causing a sudden drop in heart rate and blood pressure

Vasovagal response? vagus nerve-mediated reaction that leads to a sudden drop in heart rate and blood pressure.

The vasovagal response can lead to a syncope or fainting (synonyms)

For the sake of understanding (you don't need to know about vagus nerve, but:

→vagal nerves, are the main nerves of your parasympathetic nervous system. This system controls specific body functions such as your digestion, heart rate , blood pressure. These functions are involuntary, meaning you can't consciously control them



Main theories and explanations (smth like *psychology being investigated*): 2. Animal reminder disgust and fainting

Remember two crucial features of phobias from AS level?

→ fear and disgust

! But not any type of disgust is related to fainting in people with BII phobia

Animal reminder disgust = repulsion experienced when reminded of our own human, "animalness" nature - seeing blood, veins, internal organs...

This type of disgust is related to fainting, but not other types like disgust about possible contamination

Context (smth like *background/ previous studies*)

Anxiety around blood and injections has successfully been reduced using CBT (Cox et al., 2004), but evidence suggests that CBT is more effective in reducing fear than disgust, and some studies suggest that additional sessions may be necessary for people with BII phobias compared with other phobias.

Also - we need to find a way **how to make people not faint!** (during therapy and in everyday life of course)

For that → **applied tension technique**

→ involves applying tension to the muscles, in an effort to increase blood pressure throughout certain areas. By training individuals with blood phobia to increase muscle tension, the aim is to reduce instances of fainting and other unpleasant responses when exposed to medical procedures such as taking blood samples

Aim: The aim of this case study was to investigate whether BII phobia can be successfully treated using CBT and applied muscle tension

Method: case study

Data: both quantitative (a lot of questionnaires) and qualitative (diagnostic interviews, talks during therapy)

Participant: Hispanic male, pseudonym "T", aged 42, self-referred after more than 20 years of intense fear in medical situations (also suffered from vasovagal syncope during blood tests)

Family history (insight in *nurture* causes): mother's inappropriate jokes about possible heart condition T might have, highly anxious grandmother who used the scanner to listen to emergency dispatch calls throughout the day, witnessing deaths of several family members

▼ Table 6.14 Self-report questionnaires completed as part of T's initial assessment

Measures	Description	T's scores
The Beck Anxiety Inventory (BAI)	21 items; items are rated from 0–3	Baseline: 41 (severe anxiety)
		12-month follow-up: 7 (low anxiety)
The Fear Survey Schedule II (FSS-II)	Assesses fear towards 51 objects/situations; items are rated on a 7-point scale	Baseline: 6 ('terror') for blood and 5 ('very much fear') for death, illness, death of a loved one, untimely or early death and hypodermic needles
		12-month follow-up: none of the items was scored as 'very much fear' or 'terror'
The Blood-Injection Symptom Scale (BISS)	17 items assessing sensations experienced during situations involving blood or injections	Baseline: T answered 'Yes' for all 17 items
		12-month follow-up: 4/17 sensations were experienced when exposed to medical-related stimuli: feeling anxious, heart pounding, feeling nauseous and sweating

For the exam - remember which questionnaires were used and what they measure (not how they measure, not how many items, scales.... → So you don't need to know the descriptions or scores)

Treatments: he had 9 weekly sessions of CBT and applied tension

CBT included:

- ❖ psychoeducation
- ❖ creating fear hierarchy
- ❖ weekly goals set with therapist
- ❖ homeworks
- ❖ exposure tasks - examples: alone at home and together with therapist he watched videos that involved blood - taking blood samples, donating blood, and also he was instructed to take finger-prick blood tests at home and look at his own blood
- ❖ he was taught to use the *Subjective Unit of Discomfort Scale (SUDS)*, which was used to give ratings of his anxiety (from 0-100) at different stages during the hierarchy exposure

Applied tension procedure



- 1 Find a comfortable chair.
- 2 Tense the muscles of your arms, torso and legs.
- 3 Hold the tension for 10 to 15 seconds.
- 4 Release for 20 to 30 seconds.
- 5 Repeat five times.

Results:

Throughout the therapy sessions, T was able to experience each stage of his fear hierarchy, without his SUDS becoming too high. For the final task he successfully went to have his own blood taken (SUDS of 40 out of 100 initially, then soon dropping to 'nothing') with only minimal applied muscle tension used.

Follow-ups (4, 10 and 12 months post-treatment):

he reported maintaining the progress and having been to several medical appointments
self-report measures showed that his anxiety levels had dropped significantly from the initial assessment and that he was no longer terrified of medical situations

Conclusion → is basically the affirmative answer to the aim : Is CBT (with all aspects included from psychoeducation to exposure therapy) + applied tension going to work for BII patient?

answer : yes :)

Strengths:

Evaluation

1. **Being a case study** : quantitative + qualitative data, a lot of details about the participant, his history, course of treatment, idiographic approach
2. **Ethics** - No name, just T - **confidentiality**
3. **Applications to everyday life** - not only the improvement in mental health when treating this phobias successfully, but also improving everyday functioning, being able to go to doctors again, do necessary medical procedures..

Weaknesses:

1. Well being a **case study** is a weakness as well, you know why...
2. Also, RCT (randomised control trials) are the gold standard for evaluating treatments success. Here is just 1 man, **no control condition...**
3. **Self - reports and social desirability** - could T feel any kind of pressure to give positive feedback about a therapy ?