



## Session Review

Anxiety



Depression



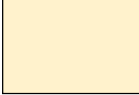
Addiction



Psychosis

Psychosis is a **complex syndrome** represents a large group of **different disease processes**.  
Psychosis and Schizophrenia have a **wide variety of biological causes and social determinants**.  
Their **experiences are real for them**. Much more likely to be **victims of violence**.

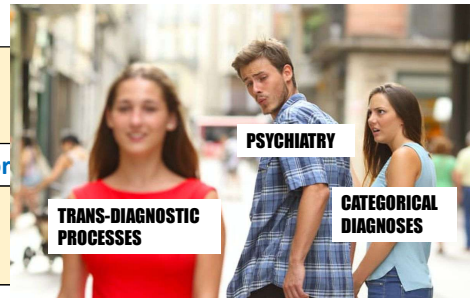
OCD



Eating Disorder



Self-harm

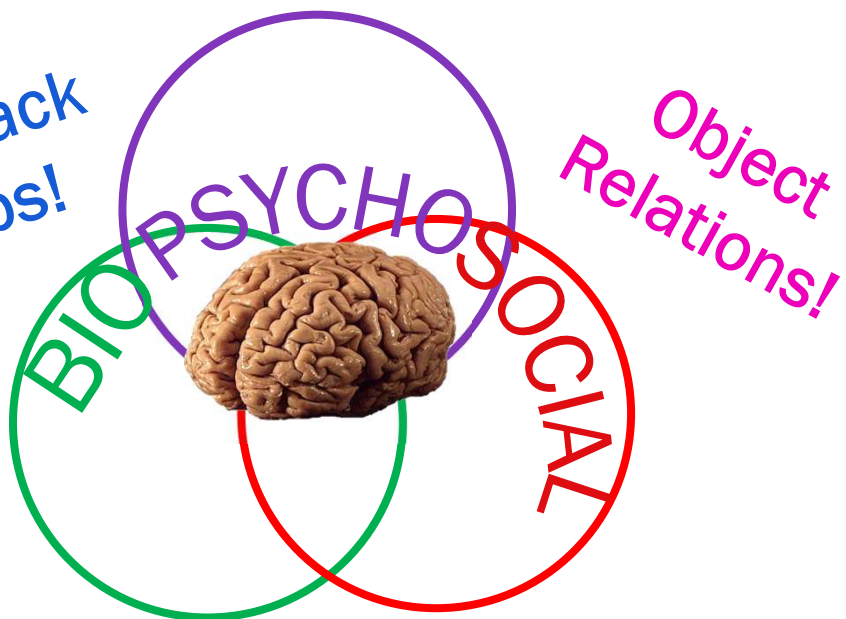


Mental health: Outline factors that contribute to mental health and how they relate to physical health across all specialties.

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Feedback  
Loops!

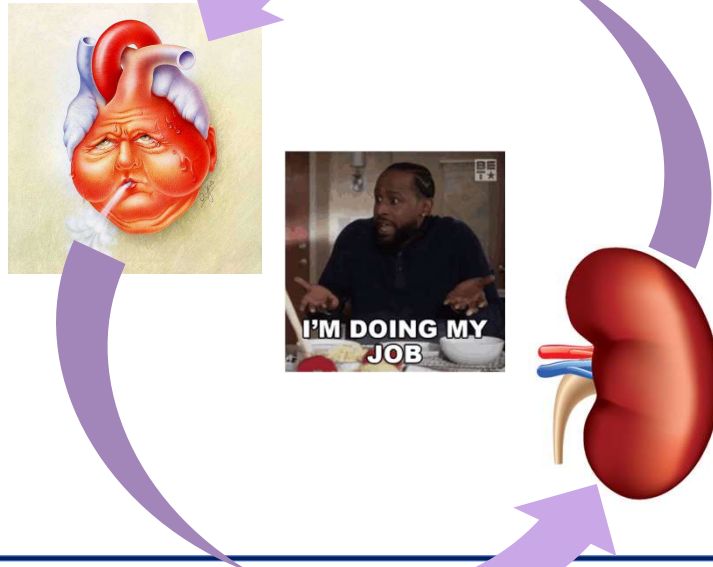


The biopsychosocial model and its application to psychiatry

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## Feedback Loops



Many diseases can be understood in terms of normal adaptive processes which help maintain homeostasis *under normal conditions*

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## WHAT IS THE BRAIN'S JOB?



- Organise sensory input



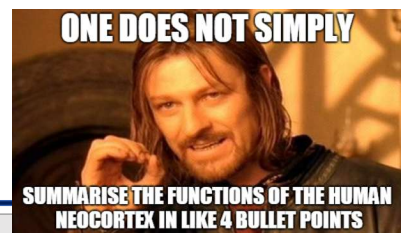
- Make sense of sensory + social information
  - Predictive models



- Motivate survival
  - Avoid harm (physical, social)



- Maximise efficiency



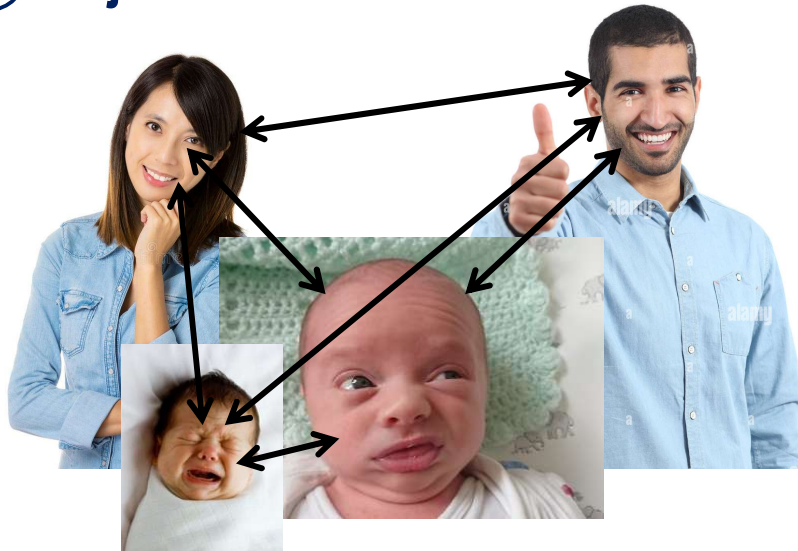
This lecture is brought to you by Dr Tom's Retirement Home For Old Memes



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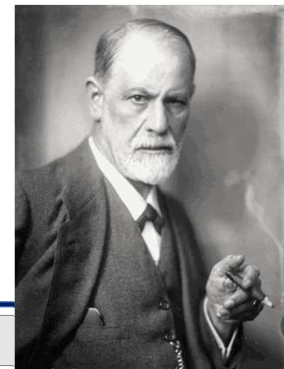
## Object Relations



D. Winnicott



D. Winnicott



The human mind always develops within a scaffold of attachment relationships

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We learn everything by copying those around us, and by having things done for us, until we "internalise" that ability. This is true of language, feeding, and also fundamental psychological processes such as thinking and managing anxiety. A useful analogy for this is to say that we all have internalised versions of early attachment figures (and the relationships between us and them) forming fundamental, unconscious substrata of our mental functioning.

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## Approach to Psychiatric Disorder

### SYMPTOMS AS ADAPTATIONS

- ...in order to survive/continue functioning
- ...in the context of developmental environment
- Also consider evolutionary backdrop

### SYMPTOMS AS COMMUNICATIONS

- ...in relation to internal and/or external "objects"
- How does the symptom organise the social environment

### MOST OF THIS IS UNCONSCIOUS

- May sound bizarre, can't be easily thought about, will be resisted

If you remember 1 (one) slide from this lecture, make it this one.

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## A case: Sam, 32F

- Anxiety disorder
- Depression
- Recurrent self-harm
- Disordered eating
- OCD (undiagnosed)
- History of alcohol misuse



*I am a bad person.*

*I make bad things happen.*

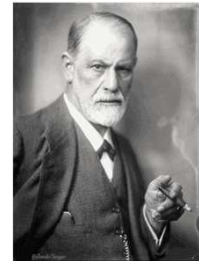
*I don't get on with people.*

*I hate my body.*

*I can't look after myself.*

*I have no motivation to do things.*

*Everything is out of control.*

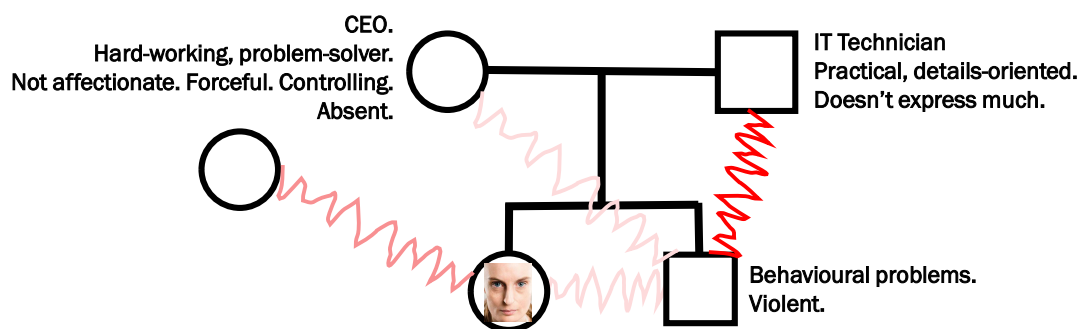


Diagnoses are helpful but give only a very surface-level picture of the problem. Almost all psychiatric conditions have their roots in development, so in order to understand their aetiology it is vital to gather information about the patient's infancy and childhood.

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## Genogram



*I was afraid all the time.*

*I don't remember much, just hiding from the fighting.*

*It was either very noisy... or silent.*

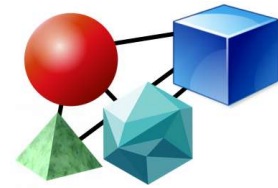
Essential to locate the patient within their social world.

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## Personal History

- 0-4 y/o – mother went back to work
- 4 y/o – brother born, family employed nanny
- 4-13 y/o – difficult experiences at home  
quite enjoyed school (escape)



- Age 7 onwards: emerging anxiety disorder, depression, OCD, eating disorder

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## Anxiety



Anxiety is a response to uncertain/potential threat of something aversive happening.

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## What is anxiety?

- A constellation of psychological and physiological responses to potential/uncertain threat
- Exists to automatically motivate us to avoid harm.



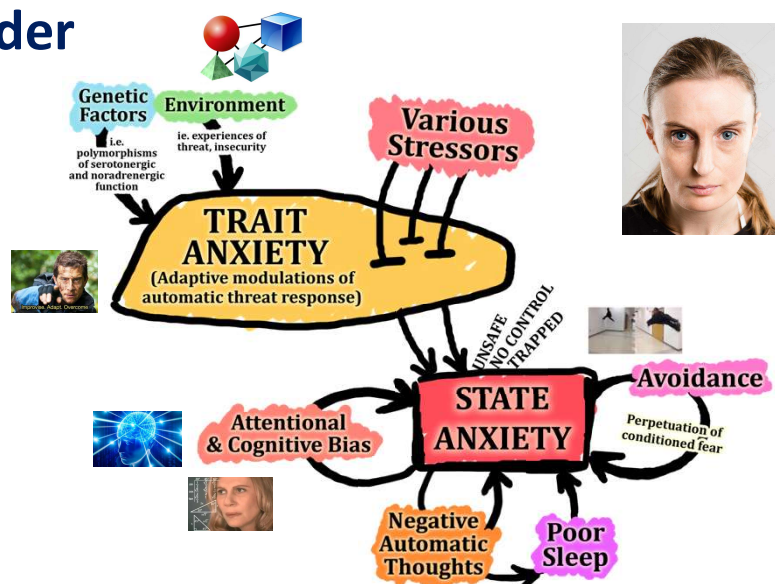
Anxiety is an essential part of the normal function of the brain.

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## Anxiety Disorder

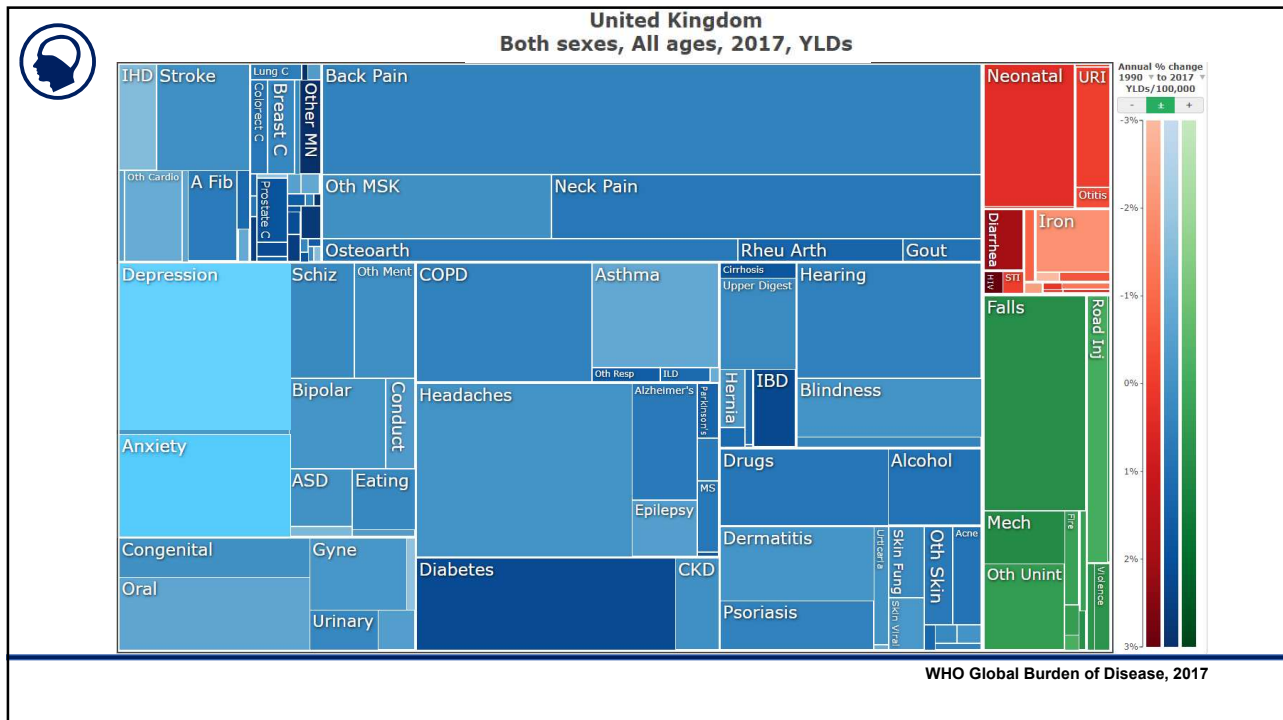
= excessively intense/  
persistent anxiety →  
significant  
distress/impairment

Anxiety disorder can  
be conceptualised as a  
**self-perpetuating  
network of positive  
feedback loops**, arising  
from responses which  
are usually adaptive.



TILO: Outline factors that contribute to mental health and how they relate to physical health across all specialties.

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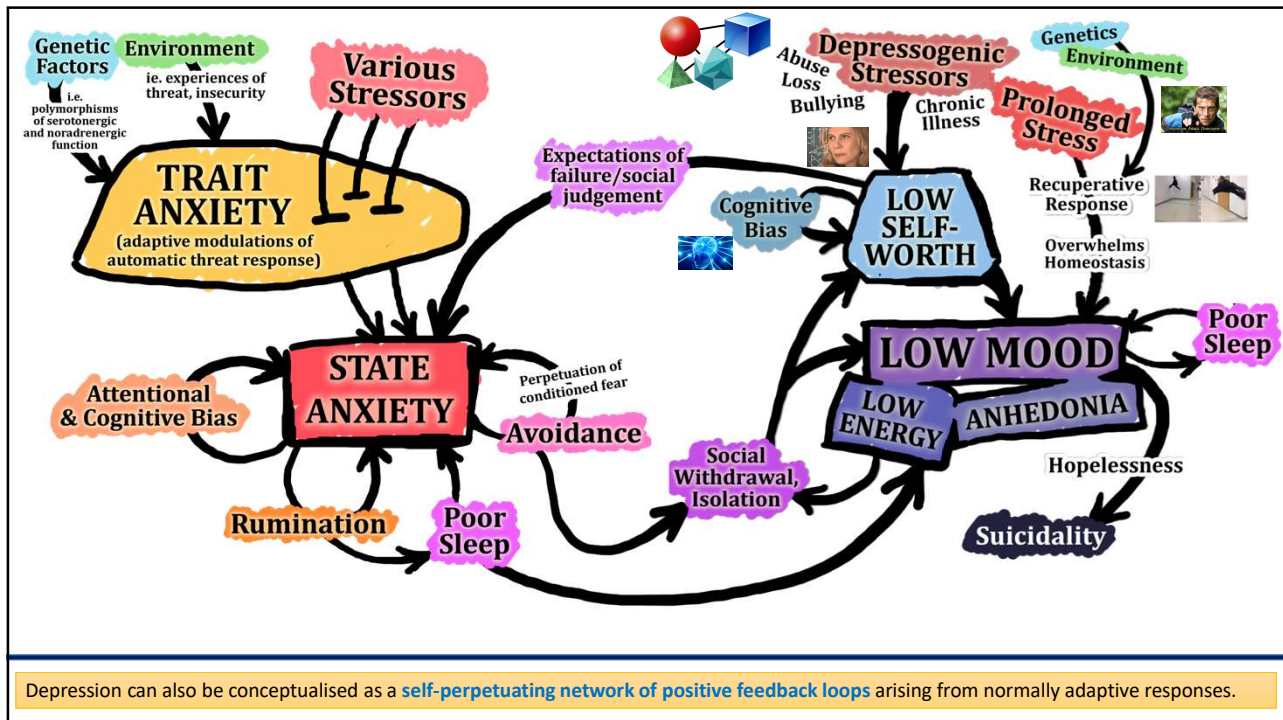
**Depression**



*I am a bad person.  
I make bad things happen.  
I don't get on with people.  
I hate my body.  
I can't look after myself.  
I have no motivation to do things.  
Everything is out of control.*

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# Super-Fun COMPULSION Game™

Compulsion is the **experience of overwhelming urges** to repeat a **behaviour**, even in the knowledge that it is harmful. It is present in numerous disorders.

The person can choose not to repeat the behaviour, but the **choice is heavily influenced** by the powerful urge to repeat it, such that very little free choice is actually available to them, and it is not reasonable to expect them to be able to just stop.

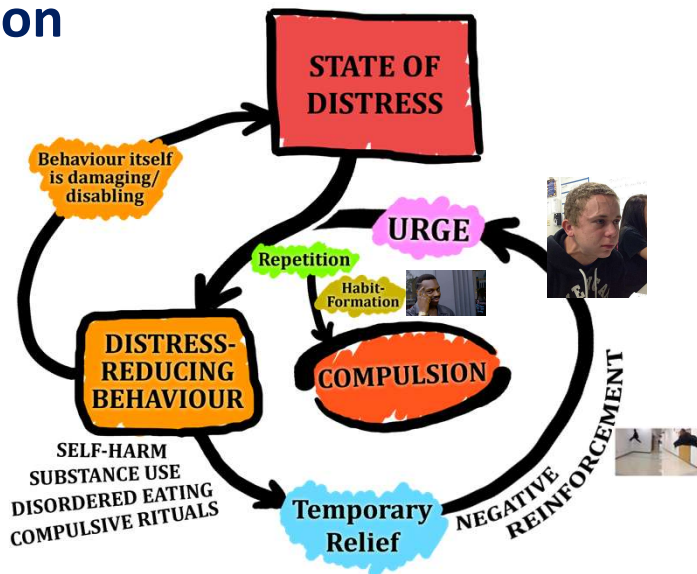
Imperial College London accepts no responsibility for any hypoxia and/or hypoxic tissue damage which may or may not occur during the *Super-Fun Compulsion Game™*

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## Compulsion

Compulsive behaviours may be self-destructive, but at least the person feels in control of that destruction – like being able to burst your own balloon (as per the Super Fun Anxiety Game™) – so it feels more bearable than the alternative.



Compulsive behaviours are usually driven by underlying persistent states of anxiety/tension/pain/distress, which the behaviour alleviates (negative reinforcement). Repetition of the behaviour gradually inculcates powerful urges to repeat the behaviour which can be difficult/impossible to resist.

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## Personal History

- 0-4 y/o – mother went back to work
- 4 y/o – brother born, family employed nanny
- 4-13 y/o – difficult experiences at home  
quite enjoyed school (escape)
- 18 y/o – went to university



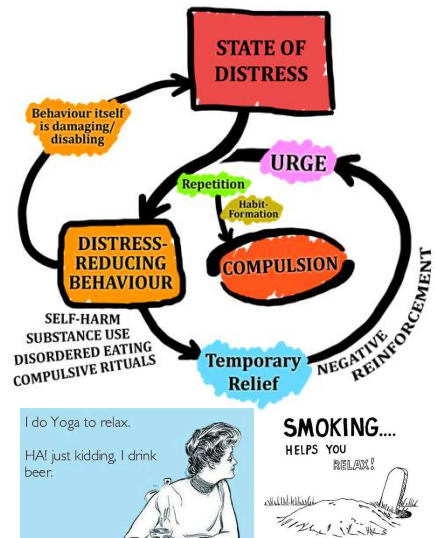
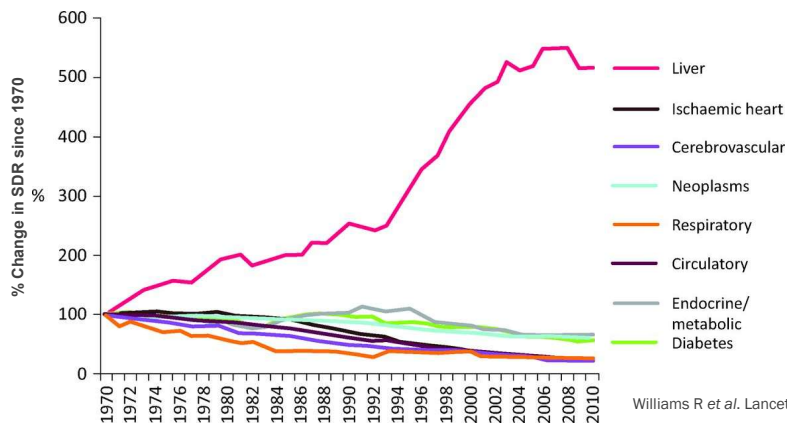
- Age 18 onwards: alcohol dependence (intermittently)

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## Substance Addiction

Standardised UK mortality rate data (age 0–64 years) from the WHO-HFA database  
Normalised to 100% in 1970, and subsequent trends.



Williams R *et al.* Lancet 2014;384:1953–97

Repeated negative reinforcement, in the context of persistent states of suffering/ distress/tension, is a central part of the development of substance addictions.

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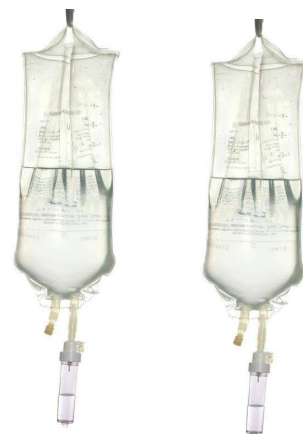


## Addiction (opiates/cocaine)

Lamb *et al.* 1991

A small study in which former heroin addicts were given either I.V. saline placebo or a tiny dose of I.V. morphine, depending on which of two levers they pulled.

The morphine dose was **too small to produce any subjective effects**, yet the subjects pulled the morphine lever much more frequently, **without even being aware they were doing it**.



Addictions have a **powerful unconscious component**, mediated by the substances' **direct action on neural circuits** responsible for motivation and reward-seeking.

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## Addiction

“Rat Park” experiments – Alexander & Fraser, 1981

Rats kept in isolation in a small, empty cage, with a supply of oral morphine, consumed large quantities of morphine, leading quickly to apparent addiction and death.

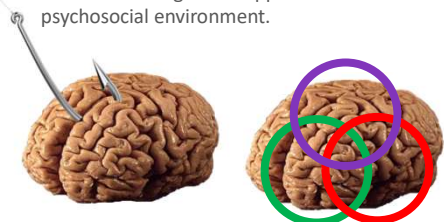
However, rats kept in a spacious, enriched environment with many other rats (similar to normal social conditions for rats), when offered the same morphine did not become addicted.



Compare a person living on the streets and using I.V. heroin, to a person living a generally good life who is given I.V. morphine for acute pain management while in hospital.

The former is highly likely to become addicted, and the latter is not, despite the fact that street heroin and medicinal morphine are more or less the same substance.

The determining factor appears to be their psychosocial environment.

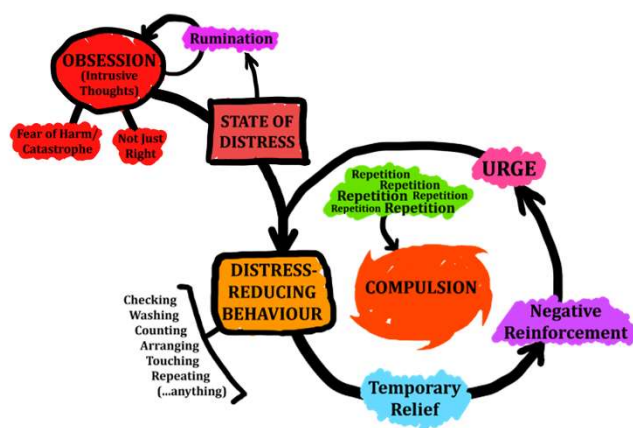


Easy to think of substance addictions as simply a **chemical hook in the brain**; however, the **social context** of addictions is also central to their development.

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## Obsessive-Compulsive Disorder



Persistent distress caused by **intrusive thoughts**.

Distress temporarily alleviated by repeated behaviours, which gradually become **compulsive** due to **negative reinforcement** and **habit-formation**.

Negative reinforcement/compulsion paradigm is central to OCD.

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## Eating Disorder



Always found food difficult.

**Restricting diet** from the age of 7.

Eating difficulties seriously impeded psychiatric treatment at various points.

*Everything is out of control.*

Eating disorders commonly linked to anxieties around feeling that everything in your life is out of control.

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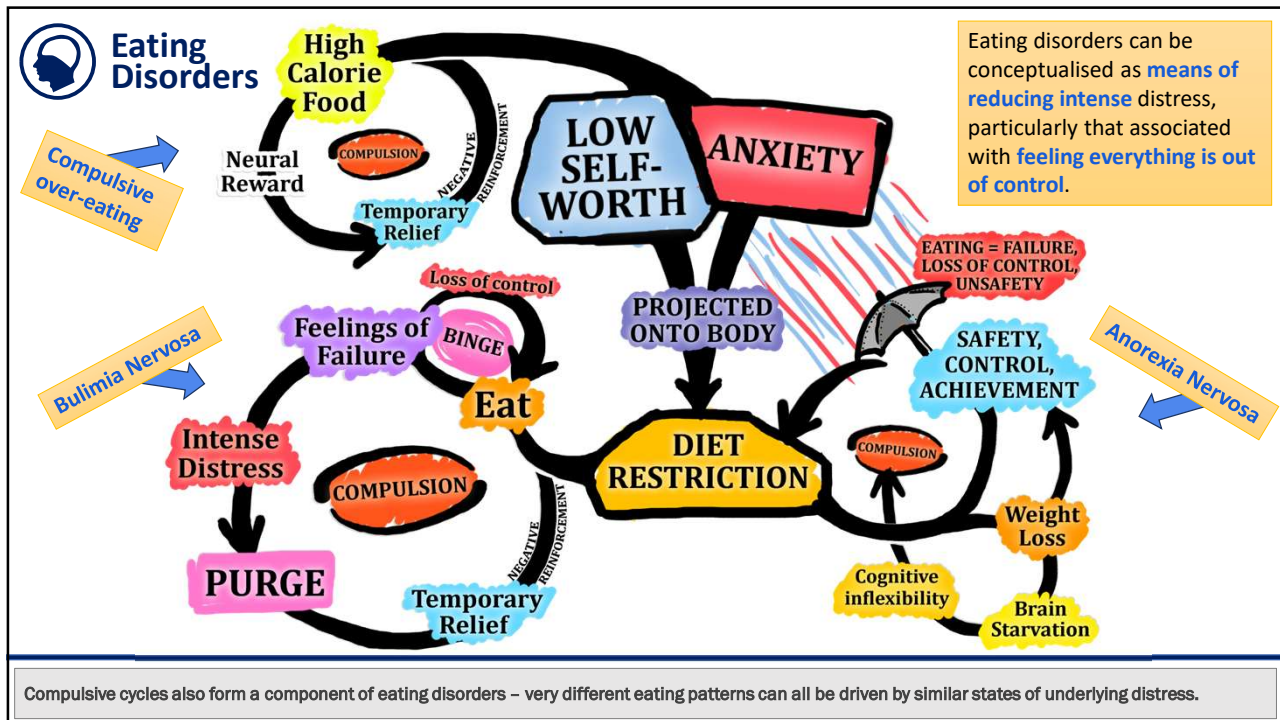
## Eating Disorders

HEALTHY FOOD = GOOD  
 UNHEALTHY FOOD = BAD  
**LOW SELF-WORTH**  
 THIN = BEAUTIFUL, HEALTHY  
 OBESE = UNHEALTHY, A BURDEN  
**YOUR BODY**  
 LOSING WEIGHT = SUCCESS, SELF-RESTRAINT

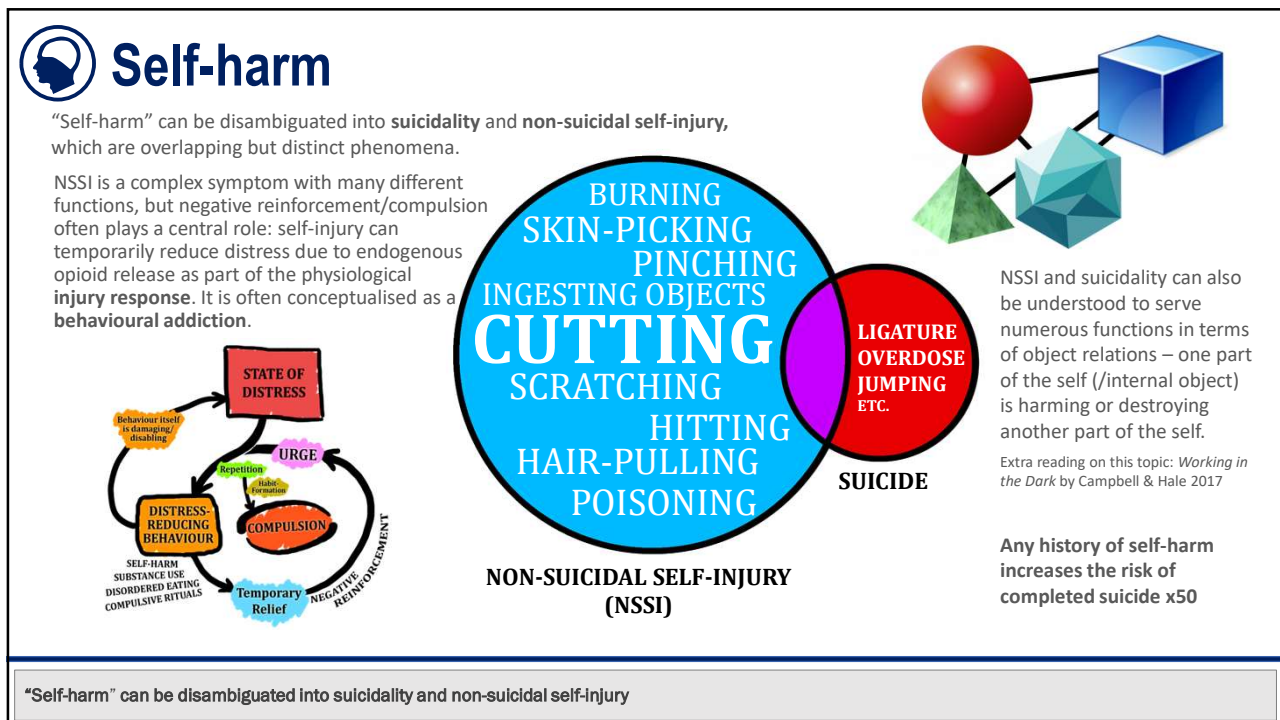
In the context of the ubiquitous value judgements around food and weight which pervade our society, it is common for low self-worth to be experienced in terms of the body. The "self" is nebulous and invisible, but the body is visible and tangible.

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## Session Review

### Anxiety

Anxiety disorder can be conceptualised as a **self-perpetuating network of positive feedback loops**, arising from normally adaptive responses.

### Depression

Depression can also be conceptualised as a **self-perpetuating network of positive feedback loops** arising from normally adaptive responses.

### Addiction

Addiction is a complex mechanism involving **persistent states of distress, repeated negative reinforcement, social context, and direct action on neural circuits**.

### Psychosis

Psychosis is a **complex syndrome** represents a large group of **different disease processes**. Psychosis and Schizophrenia have a **wide variety of biological causes and social determinants**. Their **experiences are real for them**. Much more likely to be **victims of violence**.

### OCD

Negative Reinforcement, driven by the distress caused by the **intrusive thoughts**, and **cemented by habit-formation**, establishes compulsive behaviours.

### Eating Disorders

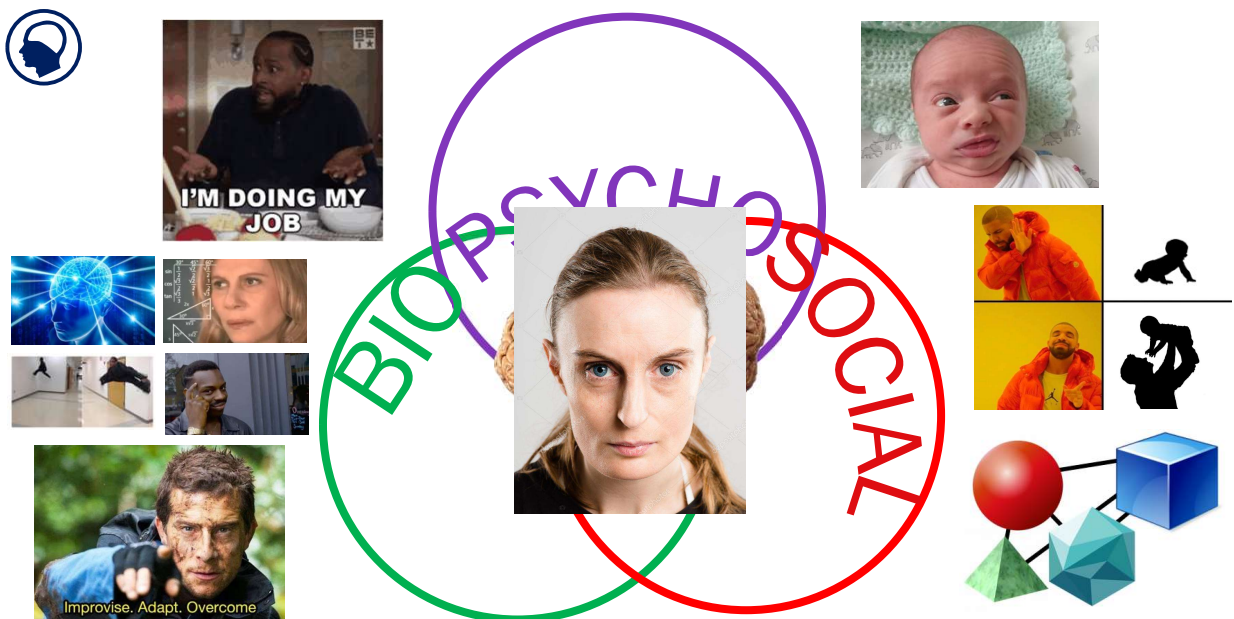
Eating disorders can be conceptualised as **means of reducing intense distress**, particularly that associated with **feeling everything is out of control**.

### Self-harm

Self-harm typically occurs in the context of **low self-worth** and **persistent distress** – it serves various functions, mainly related to reducing this distress.

Mental health: Outline factors that contribute to mental health and how they relate to physical health across all specialties.

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Side note: at the time of writing, following intensive psychiatric treatment (combination of psychotherapy, medication and social interventions, in both inpatient and outpatient settings over several years), Sam is making an excellent recovery.

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