ÚVOD DO PSYCHOLOGIE ZÁVISLOSTÍ

PSY109 APLIKOVANÁ SOCIÁLNÍ PSYCHOLOGIE

Jarní semestr 2018

Do we need definition?

- Clinicians: who to treat?
- Health insurances: whose treatment to pay?
- Legal concern: to what extend are addicts responsible for their actions?
- Philosophical: do we have free will?
- Public: how to think and feel about people involved in addictions?
- Scientists: what concept can be tested/ used in research?

Some models of addiction serve only some of these groups and may sometimes contradict each other

A repeated powerful motivation to engage in a purposeful behavior that has no survival value, acquired as a result of engaging in that behavior, with significant potential for unintended harm.

Robert West (2013) Theory of Addiction
http://www.emcdda.europa.eu/system/files/publications/728/TDXD13014ENN_443320.pdf

ASAM
American Society of Addiction Medicine

Public Policy Statement: Definition of Addiction

Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviours.

Addiction is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response.

Addiction often involves cycles of relapse and remission.

Without treatment or engagement in recovery activities, addiction is progressive and can result in disability or premature death.

Episodic intoxication in traditional societies

- Substance use known throughout time and cultures
- Limited access – psychoactive substances are rather rare and expensive
- Heavy societal control for who, when and where can have access to. E.g.: heavy drinking during festivals; altered states of mind during religious rituals; use for medical purposes (pain relief)

Epidemic spread of drugs

- 16th century
- New discoveries and globalisation of trade
- Cheap and slave labour
- Advancement in agricultural technology
- Intensification of substances – stronger, cheaper, easily transportable, available worldwide
- e.g. introduction of tobacco in Europe, export of cheap alcohol to Europe, export of opium to far east Asia and Europe
- First attempts to solve the problem: taxation and market limitation

Addiction as immoral conduct

- First model to appear in 16th century and still living today
- Substance use is not seen as a disease but as a personal moral failure, sinful and criminal act
- Excessive substance use is considered as a behaviour of choice and not as *loss of control* and thus subject of legal action and punishment
- Understanding still preferred right-wing political ideology. E.g. *war on drugs*
- It is simple, clear and straightforward
- BUT it is oversimplification – in contradiction to current knowledge (e.g. genetic predisposition). And leading to even bigger problems - escalation of violence, organized crime networks, prisons overload

Addiction as immoral conduct

- **Believe in just world** (just world hypothesis)

- Consequences are result of one's actions (*you reap what you sow*)
- Often used as blaming of victims of crimes, poverty etc. (raped woman was too seductive; poor people are too lazy,…)
- Connected to believe in destiny & higher order and often found in right-wing and religious ideology
- Guilt reduction, discomfort reduction (discomfort caused by empathy with victims), anxiety reduction (anxiety caused by uncertainty and unpredictable world)

- *The poor homosexuals — they have declared war upon nature, and now nature is exacting an awful retribution* (Pat Buchanan, 1983) – summary of why not do anything with spreading HIV epidemic in US during Reagan‘s administration


NG PANGULO NG

http://www.nytimes.com/interactive/2016/12/07/world/asia/rodrigo-duterte-philippines-drugs-killings.html?_r=0

I HAVE WORKED IN 60 COUNTRIES, covered wars in Iraq and Afghanistan, and spent much of 2014 living inside West Africa's Ebola zone, a place gripped by fear and death. What I experienced in the Philippines felt like a new level of ruthlessness: police officers' summarily shooting anyone suspected of dealing or even using drugs, vigilantes' taking seriously Mr. Duterte's call to "slaughter them all."

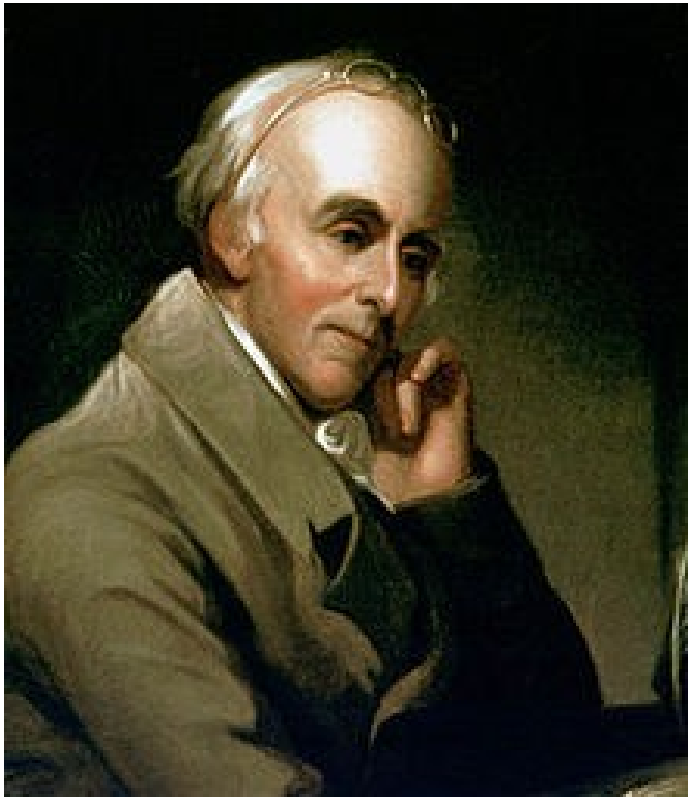
He said in October, "You can expect 20,000 or 30,000 more."

Temperance model of addiction

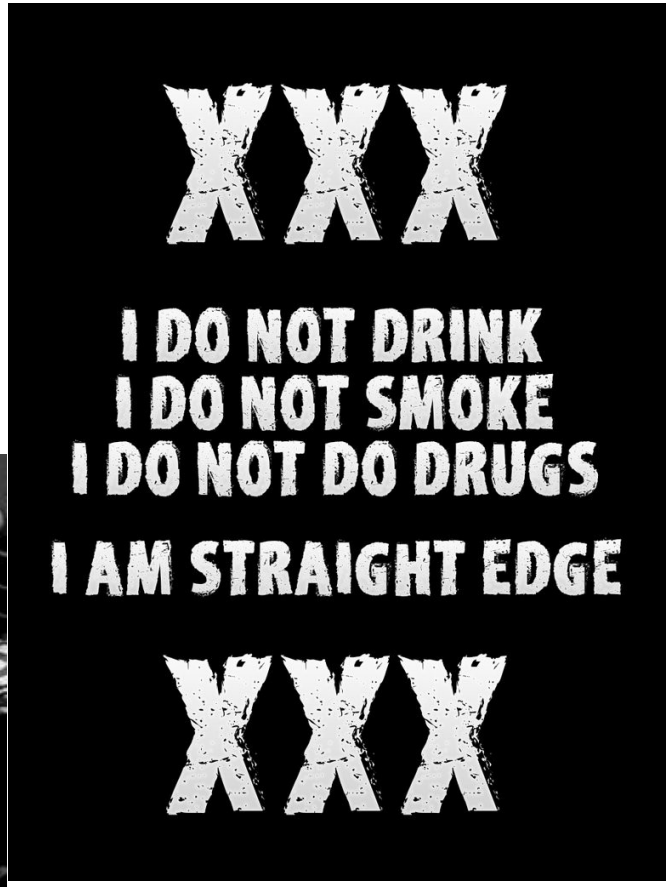
- In the most primitive form – preternatural model – the substances are demonic and can take possession over human mind (*demon alcohol*)
- Addict does not have ability to control him/herself
- Addiction is a form of involuntary mental condition.
- It is the substance to be blamed
- It is reasonable to abstain from the use completely
- Sympathize with addicts but rejects mild users

Temperance model of addiction

- Benjamin Rush (1745-1813)
- Founding fathers of the United States
- Founding father of American Psychiatric Association
- Alcohol use is behind poverty, health issues, violence, crime, family disruptions
- Addiction is also a disease – addicts should be treated
- *Taste not, handle not, and touch not!*



Temperance model of addiction



Illness & personality disorder models of addiction

- Evolved in 1800s in USA – asylums in rural areas that supported people with food and shelter. No access to the substance
- People in such treatment where in miserable conditions and had to accept themselves as ill. Often moral semi-religious treatment

- Addict has a personality disorder – excessive substance user often shows array of antisocial and maladaptive behaviours.
- The person is untreatable and unrepairable
- Rise of self-help communities

12 step program – Alcoholics Anonymous

- 1939 - *Alcoholics Anonymous: The Story of How More Than One Hundred Men Have Recovered from Alcoholism*

- self-help group
- admitting that one cannot control one's alcoholism, addiction or compulsion;
- recognizing a higher power that can give strength;
- examining past errors with the help of a sponsor (experienced member);
- learning to live a new life with a new code of behavior;
- helping others who suffer from the same alcoholism, addictions or compulsions.

- Steps 1 through 3 newcomers to becoming aware of their lack of ability to control their sexual behaviour.
- Steps 4 through 9 aim to expand self-examination and incorporate the outcomes of self-reflection into actions.
- Steps 10 through 12 focus on maintaining positive changes in behaviour and the recovery process. The recovery process includes attending meetings, listening to other members at different recovery stages and working on the 12 steps with a sponsor, who is an experienced member who is encouraged to complete all of the steps.

MARK RUFFALO TIM ROBBINS GWYNETH PALTROW JOSH GAD JOELY RICHARDSON PATRICK FUGIT AND ALECIA MOORE

FROM THE ACADEMY AWARD® NOMINATED CO-WRITER OF THE KIDS ARE ALRIGHT

A FILM BY STUART BLUMBERG

Thanks for Sharing

AN OLYMPUS PICTURES PRODUCTION A CLASS 5 FILMS PRODUCTION

A FILM BY STUART BLUMBERG "THANKS FOR SHARING" MARK RUFFALO TIM ROBBINS GWYNETH PALTROW JOSH GAD JOELY RICHARDSON PATRICK FUGIT WITH CAROL KANE AND ALECIA MOORE CASTING AVY KAUFMAN, C.S.A. MUSIC ROBIN URDANG EDITOR CHRISTOPHER LENNERTZ DESIGN PEGGY SCHNITZER DIRECTOR OF PHOTOGRAPHY ANNE McCABE, A.C.E. PRODUCED BY BETH MICKLE EXECUTIVE PRODUCER YARON ORBACH EXECUTIVE PRODUCER EDWARD NORTON PRODUCED BY WILLIAM MIGLIORE DAVID KOPLAN LESLIE URDANG DEAN VANECH MIRANDA DE PENCIER WRITTEN BY STUART BLUMBERG & MATT WINSTON DIRECTED BY STUART BLUMBERG

Life is a journey you never have to take alone.

Programs patterned after Alcoholics Anonymous

Fellowships in this section follow reasonably close variations of the Twelve Steps and Twelve Traditions of Alcoholics Anonymous.

- AA – Alcoholics Anonymous
- ACA – Adult Children of Alcoholics
- Al-Anon/Alateen, for friends and families of alcoholics
- CA – Cocaine Anonymous
- CLA – Clutterers Anonymous
- CMA – Crystal Meth Anonymous
- Co-Anon, for friends and family of addicts
- CoDA – Co-Dependents Anonymous, for people working to end patterns of dysfunctional relationships and develop functional and healthy relationships
- COSA – an auxiliary group of Sex Addicts Anonymous
- COSLAA – CoSex and Love Addicts Anonymous
- DA – Debtors Anonymous
- EA – Emotions Anonymous, for recovery from mental and emotional illness
- FA – Families Anonymous, for relatives and friends of addicts
- FA – Food Addicts in Recovery Anonymous
- FAA – Food Addicts Anonymous
- GA – Gamblers Anonymous
- Gam-Anon/Gam-A-Teen, for friends and family members of problem gamblers
- HA – Heroin Anonymous
- MA – Marijuana Anonymous
- NA – Narcotics Anonymous
- N/A – Neurotics Anonymous, for recovery from mental and emotional illness
- Nar-Anon, for friends and family members of addicts
- NicA – Nicotine Anonymous
- OA – Overeaters Anonymous
- OLGA – Online Gamers Anonymous
- PA – Pills Anonymous, for recovery from prescription pill addiction.
- SA – Sexaholics Anonymous
- SA – Smokers Anonymous
- SAA – Sex Addicts Anonymous
- SCA – Sexual Compulsives Anonymous
- SIA – Survivors of Incest Anonymous
- SLAA – Sex and Love Addicts Anonymous
- SRA – Sexual Recovery Anonymous
- UA – Underearners Anonymous
- WA – Workaholics Anonymous

Disease model of addiction

- Created in mid 20th century by Elvin Morton Jellinek
- Addiction comes from underlying disease processes
- At first, these processes were not understood. But it was assumed it is 1) brain disease and/or 2) genetic susceptibility
- Addicted person is a victim of this disease - it is not chosen and it is not an act of free will
- Loss of control & craving as the common processes in addictions
- Consumption of the substance (even a small amount) causes craving for further dozes (through at first unknown psychological and neurological mechanism)

Disease model of addiction

- Since the person is ill and suffering, he/she should be subject of medical treatment
- At first, the treatment was based on management of medical complications (stomach ulcer, liver disease,…) and raising patient health education – supervision of a physician
- Therapy-like approach heavily influenced by 12 step program and 12-step programs take ideological support from scientific approach of disease model

Disease model of addiction

- **Addiction as a primary disease** – addiction is not understood a result of another condition (other psychiatric condition, stress,…) but rather their cause
- **Addiction as a progressive disease** - addiction is understood as a disease that has its course. E.g.: 1) adaptive stage (increasing tolerance) 2) (withdrawal and maintenance usage) dependent stage 3) deterioration (resulting into major health and social problems)
- **Addiction as a chronic disease** – addiction is understood as a disease that will never disappear and the person will never be fully cured. Thus complete sobriety is the only way

Disease model of addiction - pros

- Big leap in understanding and knowledge
- Removes stigma from suffering people
- The classic disease model is still very simple to be understood by general public
- When addiction became a disease (1954 alcoholism as disease was acknowledged by American Medical Association), the help also became more accessible

Disease model of addiction - cons

- Despite huge advancement in knowledge (thanks to this model), it was only poorly incorporated into this model. E.g. proofed usefulness of light substance taking contradicts chronic disease; natural remission and maturing out contradicts progressive disease; much stronger environmental factors contradict primary disease
- Ignoring context - too little emphasis on psychological and social factors
- The treatment method, although advancement at the beginning, is way behind treatments based on psychological and social models

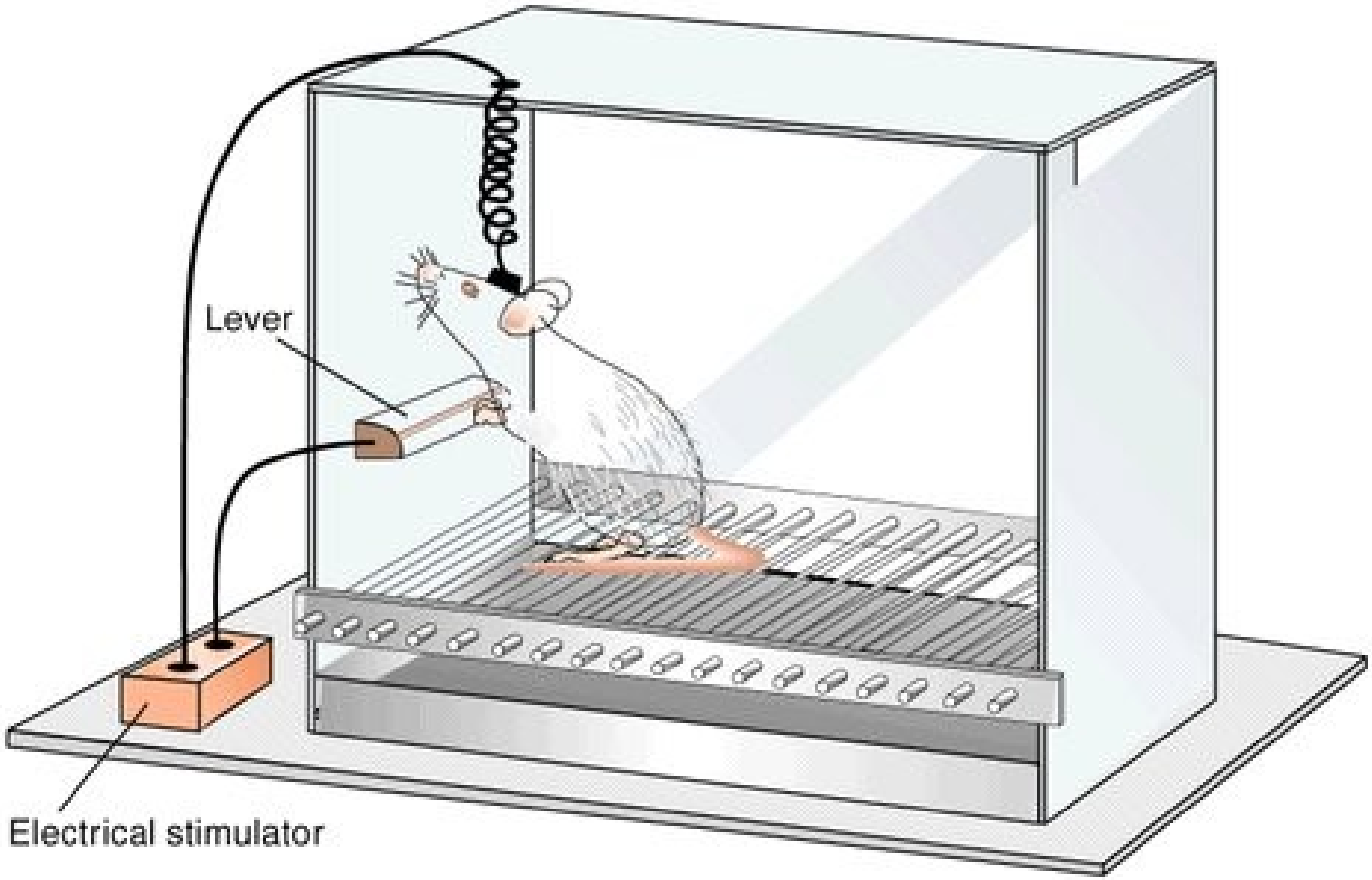
Physical dependency theory

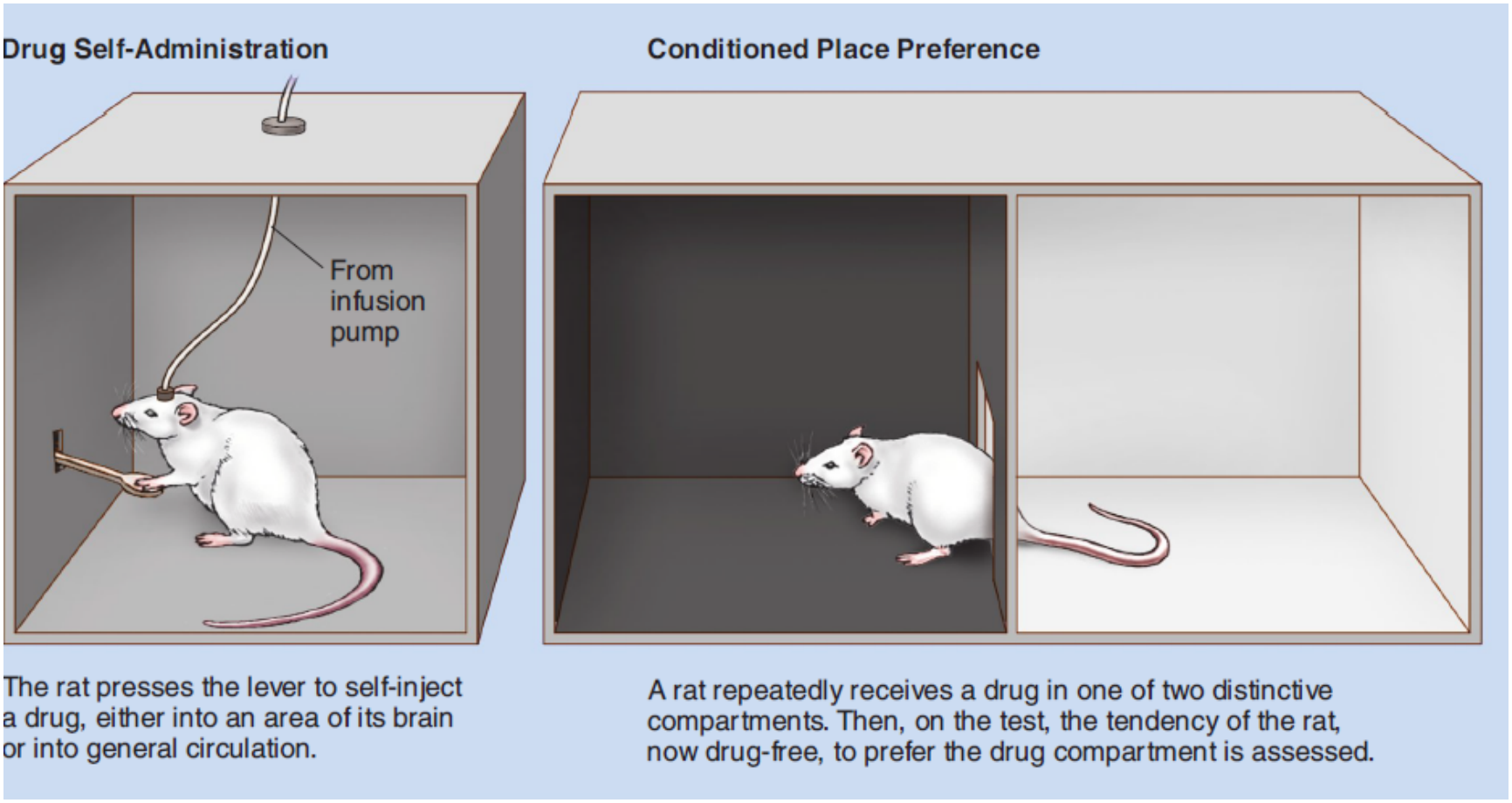
- By suing the substance, the person can gradually develop a physical dependence
- Physical dependence is a condition in which the person needs the substance otherwise suffers from various withdrawal symptoms
- This theory assumes that addiction = physical dependence
- NOT PROVED – many substances do not create physical dependence nor physical withdrawal symptoms. Many addicts return to addiction after period of treatment in which they were detoxified
- Avoiding negative effects plays a role, however, more crucial proofed to be the pleasure-seeking

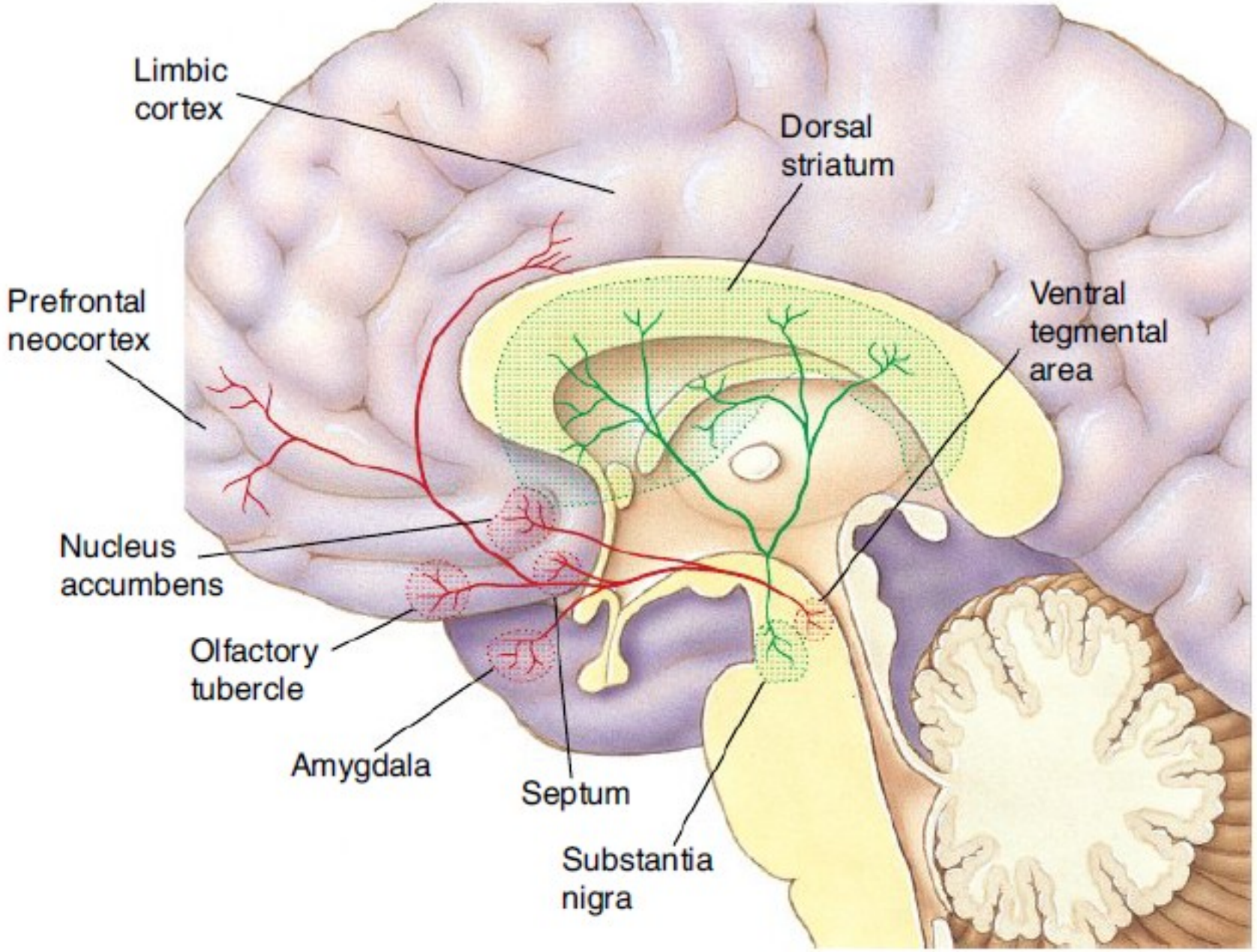
It is about (anticipated) pleasure

- Positive-incentive theory - all drugs have pleasurable effects
- Positive-incentive value is usually much higher than hedonic value – anticipated pleasure is much higher than actual pleasure
- Incentive-sensitization theory – repeated exposure to potentially addictive drugs leads to various changes in brain. The most important is **sensitization** = *hypersensitivity to the incentive motivational effects of drugs and drug-associated stimuli* that creates pathological *wanting.* Addiction is not about the drug effect, it is about the anticipation of the effect. Addiction is motivation disorder

Intracranial self-stimulation




Drug Self-Administration
From infusion pump
The rat presses the lever to self-inject a drug, either into an area of its brain or into general circulation.
Conditioned Place Preference
A rat repeatedly receives a drug in one of two distinctive compartments. Then, on the test, the tendency of the rat, now drug-free, to prefer the drug compartment is assessed.


Limbic cortex
Dorsal striatum
Prefrontal neocortex
Ventral tegmental area
Nucleus accumbens
Olfactory tubercle
Amygdala
Septum
Substantia nigra

Mesolimbic dopamine pathway

- Regulates motivation cognition and behavior and reinforcement learning – e.g. regulates behaviours related to food, drinks, safety, sex

- Primary neurotransmitter – dopamine

- The mesolimbic pathway connects the **Ventral Tagmental Area** near brainstem to the **Nucleus Accumbens** and to the **Prefrontal Cortex.** Important role further plays **amygdala** and **hippocampus**

Mesolimbic pathway and addiction

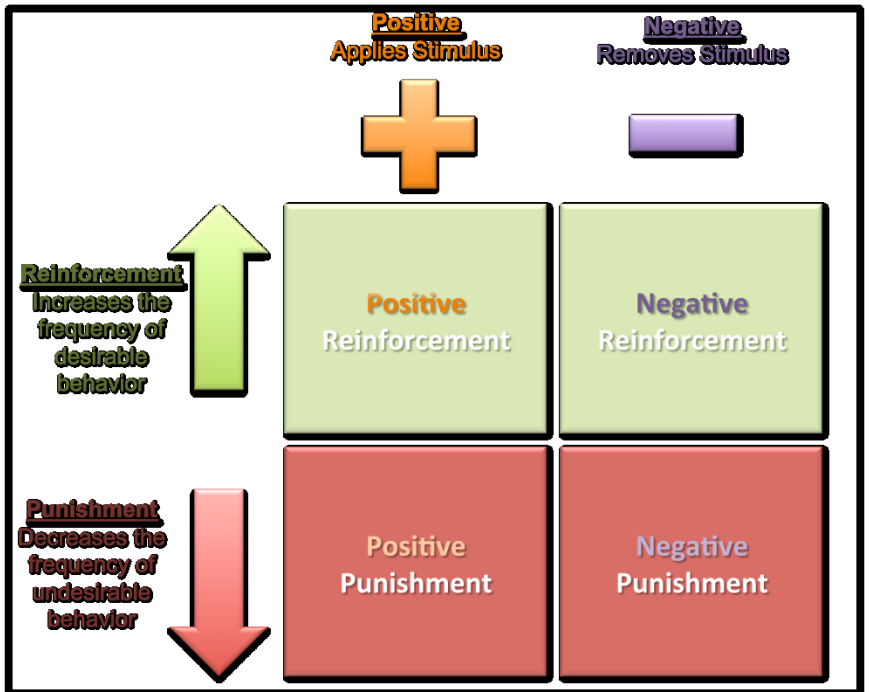
- In animals, drugs self-administered to nucleus accumbens had stronger effect and were preferred. It correlated with increase on dopamine release
- All drugs affect dopamine functions. Many drugs work as direct dopamine agonists and the rest of drugs have indirect effect
- Brain imaging technics showed massive dopamine involvement nucleus accumbens. They also showed decrease of dopamine D2 receptors availability in addicts leading to increasing tolerance
- Mesolimbic pathway gradually sticks to the addiction object to which it is hypersensitive while under sensitive to other stimuli – *highjacked brain*

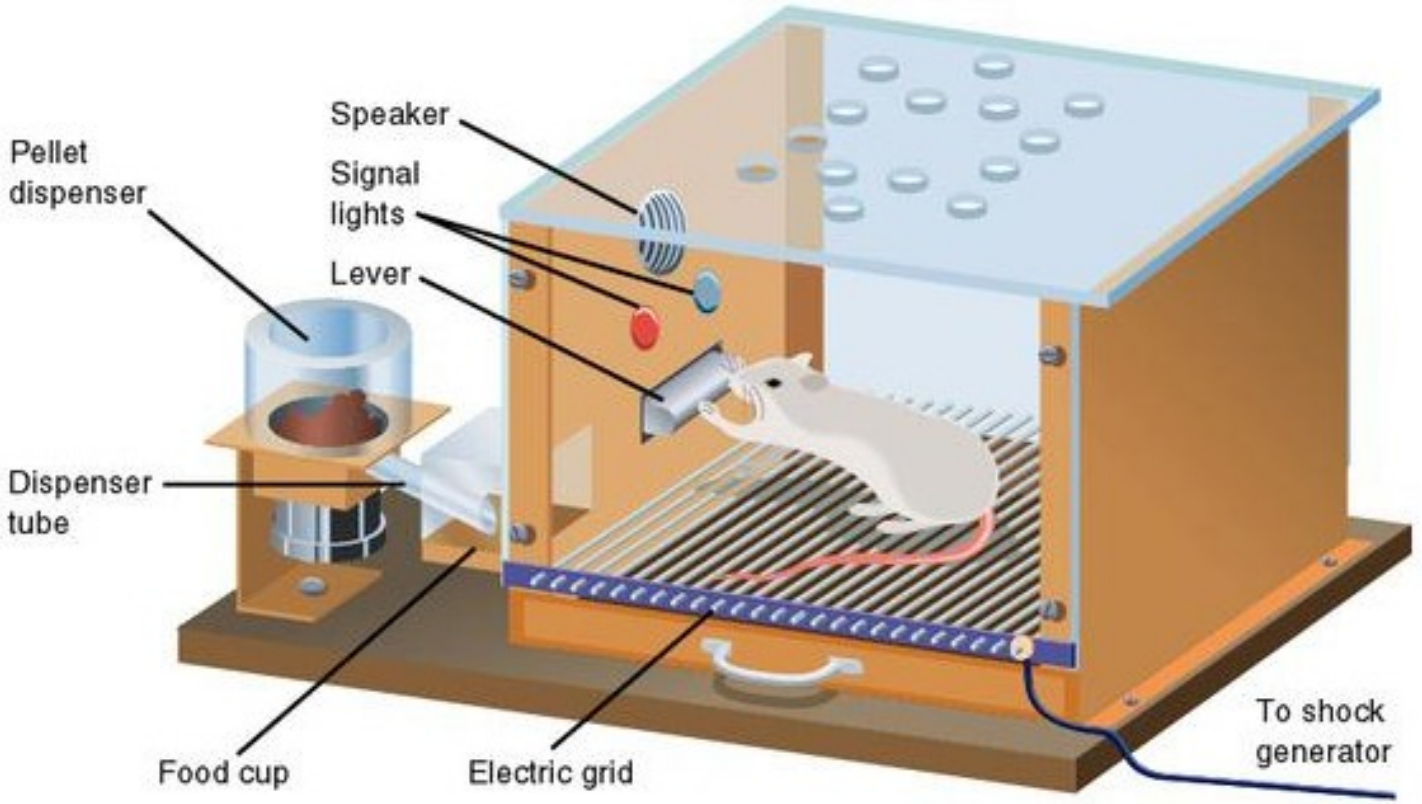

monitoring the future
a continuing study of American youth
NIH
National Institute on Drug Abuse
Dr. Nora Volkow
National Institute on Drug Abuse

ADDICTION AS LEARNED BEHAVIOUR

- Classical conditioning
- I. Pavlov & J.B. Watson
- Learning is a result of pairing of a unconditioned stimulus with a neutral / conditioned stimulus. After repetition of such paring, original reaction to unconditioned stimulus becomes conditioned.
- In addictions – drug effect is paired with environmental stimuli – **cues** and they may trigger **craving** – overwhelming desire for the substance/behaviour
- Cue reactivity – learned response that involves psychological and physiological reactions to drug related cues
- Cues are one the most important factors of relapse

- Instrumental conditioning
- B.F. Skinner
- Experience of reinforce or punishment increases or decreases likelihood of certain behaviour




Speaker
Pellet dispenser
Signal lights
Lever
Dispenser tube
Food cup
Electric grid
To shock generator

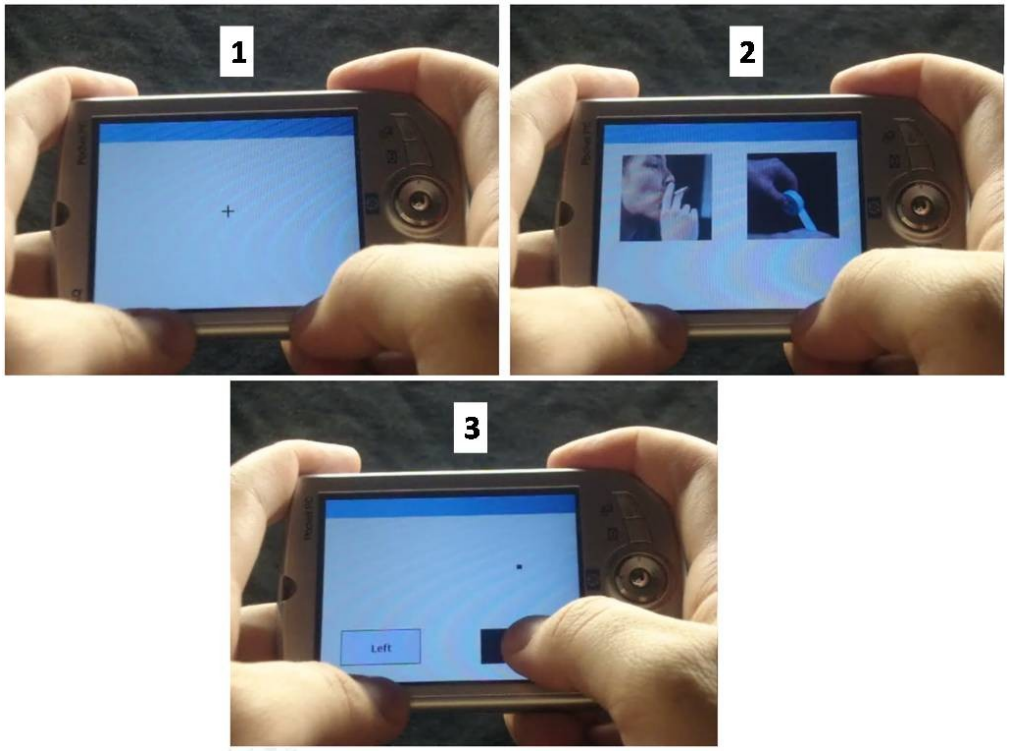
- Drugs and certain behaviours (sex, gambling) are strongly pleasurable and serve as positive reinforcer
- Decreasing level of drug in body after some time unbalances physiological system - **withdrawal symptoms** - and thus serve as negative reinforcer
- Occasional reinforcement – reinforcement is stronger when there is certain level of randomness - activity to get the reward increases. Especially strong in gambling and gaming addiction
- Secondary reinforcement – cues learned via classical conditioning may be experienced as reinforceres themselves

- Prevention and treatment should focus on blockade of cues – associations then gradually become weaker and weaker
- Drugs and certain behaviours are powerfully rewarding themselves, but addiction arises through experience and repetition
- Involved processes are automated and are not reflective
- Pre-conscious cue processing - addiction related cues are mentally prioritized without knowing

Red Red Blue Green Red Red
Yellow Green Green Green Yellow Green
Blue Blue Yellow Yellow Blue Blue
Green Red Red Blue Green Red
Green Blue Green Yellow Green Green
Yellow Green Blue Blue Blue Yellow
Blue Yellow Red Green Red Blue

Stroop test

Visual probe task



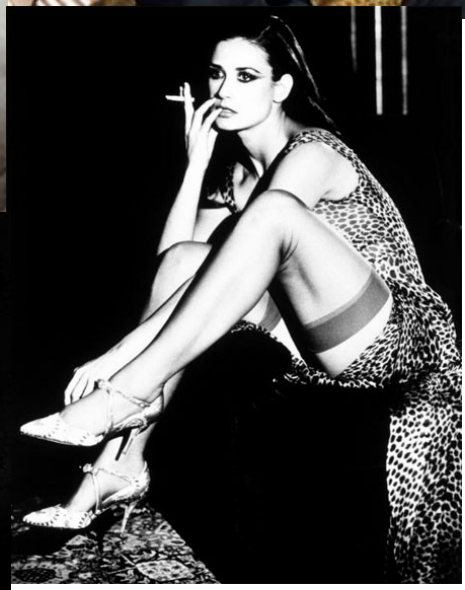

Drugs Ruin Lives


DRUGS...
THEY SHATTER LIVES

ADDICTION AS IMITATED BEHAVIOUR

- Social learning theory
- Albert Bandura
- Learning in social environment through observing and listening to others
- Addiction is learned through imitation of and identification with role-models
- Social identity – whom I follow, what is the group I belong to,…

https://www.youtube.com/watch?v=EJT0NMYHeGw



SELF-EFFICACY

- Albert Bandura
- Individual believe in own ability to perform certain behaviour
- High self-efficacy – set higher goals, invest more effort and energy. More resistant to stress and negative experience and able to try various coping strategies.
- Low-self efficacy – lower effort, cease treatment more quickly. Lower stress resistance, often use substances as the first coping strategy

- Interventions targeting self-efficacy have one of the best results – overcoming addiction is extremely difficult and an addict must believe he/she can do it

TAKING DRUGS AS COPING

- self-medication model of addiction
- Taking drugs or involvement in problematic behaviour is a coping strategy with negative and unpleasant mood states and/or negative life experiences
- People with some mood disorder or problematic affect regulation are more prone to develop addiction (e.g. higher depressiveness, higher anxiety, personality disorders like antisocial or borderline)
- People with experience of child abuse, trauma or childhood neglect are much more prone to develop addiction

- Psychodynamic psychology – emphasizes feelings and emotions as forces that shape our behaviour, focus on early child experience
- S. Freud – psychoanalysis - use of drugs with oral administration (alcohol, tobacco,…) are a form of regression to the first year of life (oral stage – when pleasure is experienced through mouth). Oral stage is about gaining trust in others – addicts usually have underdeveloped trust and show unhealthy relationship profiles (avoidance and/or overdependency).

- M. Klein – object relation theory
- Birth and first months are extremely stressful for the child. Chaos, anger, fear are the dominant emotions – they must be cultivated in contact with parenting figure. Parenting figure is internalised as a mental object – parent (mother) within
- Relationship with this internalized object affects social relationships throughout our lives - what develops in early childhood stays for lifetime
- Good object relation is good affect regulation (positive mood, ability to cope with unpleasant, more resilient), poor object relation is poor affect regulation.

- H. Harlow, J. Bowlby, M. Ainsworth – attachment theory

- Children internalize cognitive and affective representation of self and others based on their early attachment experiences.
- Attachment to the parenting figure (significant other) is created especially in the first 6 months.
- Attachment attitudes are persistent and lead our relationship to others and our affective regulation during our lives
- Insecure attachment is strongly related to lifetime depressiveness and affective disorders, low self-esteem, lower social support. It creates fertile ground for substance use and other behavioural addictions

- Self-medication model does not explain all cases of addiction – many addicts did not have affective difficulties, insecure attachment, child trauma or neglect.

DEVELOPMENTAL MODEL OF ADDICTION

- Two main risk periods – early childhood (attachment) and adolescence
- E. Erikson – psychosocial stages of development – adolescence is about identity crisis, time of storm and stress, and increasing power of peer groups. Substance use may develop as a mean to gain status in peer groups, it may become part of personal and social **identity**
- Addiction may be understood as an **externalized pathological behaviour**. Externalized behaviour includes conduct problems (verbal and physical aggression, lying, risk taking, vandalism), ADHD, various addictions
- Any externalized behaviour may be replaced by another externalized behaviour
- Externalized behaviour may occur in childhood as a reflection of internalized disorders (anxiety, trauma, neglecting parental approach)

Addiction as rational choice

- cost-benefit analysis – taken from economy theory. Addiction behaviour is consumer behaviour
- We do things because they bring some benefits. We know about the negatives, but benefits out-weight them
- Weighting benefits (pleasure) and costs (e.g. money, legal consequences, health consequences). In stressful times, benefits of drugs are getting higher. Why are some substances much more often used – costs are not that high (it is legal, health effects only slowly accumulates over time,…).
- Assumptions are rather vague. Detailed analysis (e.g. using mathematic formulas) usually wrong. E.g. theory predicts older people to be more involved in addictions, but in reality it is the opposite

Why do we engage in addictive behaviours?

- Improve social interaction
- Improved physical & sexual appearance
- Improved cognitive performance
- Improved sexual performance
- Improved self-esteem and feelings of self-worth
- Coping with stress
- Pleasure-seeking
- Sensation & novelty seeking
- Overcoming boredom
- Reduce psychiatric symptoms
- And others…

I prefer my life of a drinker

- To outsiders, it may seem out-of-control, but the person prefers the life that way. Person is happier with the drug that he/she would be without it.
- We imagine alternative life for the addict but the addict imagines different alternative for him/herself
- Language and discourse used by addicts serves some function (addiction vocabulary used for psychologist, family members, but totally different language among other addicts)

Is rat park model right?

https://www.youtube.com/watch?v=ao8L-0nSYzg