# Classificatory and biolooping in biopsychosocial model of addiction

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" …Is addiction a choice, a self medicating behavior, a moral failing, a drug hijacked brain, a learned/conditioned behavior, an "addictor" induced dysregulation of the drive-reward system, or a genetically reward deficient nervous system crossing paths with a rewarding behavior or substance? …Some even deconstruct the concept, denying its status as a valid psychiatric (or other medical) category."

Jcannavo, February 24, 2010
http://boards.medscape.com/forums?128@@.29fa7171!comment=1

# Goals of this presentation

- to increase integration between different disciplines studying addictive behaviours.

- to overcome the biology/culture and the realism/constructivism dualisms by focusing on the interaction between different levels of phenomena contributing to addictive behaviours.

# Indifferent and interactive kinds
## (Hacking 1999)

- Objects in the physical world are not aware of or altered simply by being classified as such (indifferent kinds)

- Objects in the social world are affected by the ways they are classified (interactive kinds)

- But this is not a one-way street!

  representations ⬌ psychobiological aspects of addiction

- Psychopathologies as simultaneously both indifferent and interactive classes of phenomena (Hacking 2009, 154)

# Drug use and society

- The results from the Epidemiological Catchment Area study by Robins & Regier (1991) display that…

- the likelihood of ever meeting the criteria for a drug abuse/dependence diagnosis was about fifteen times higher in the cohort born between 1952 and 1963 when compared to the cohort born between 1917 and 1936. (Heyman 2009, 33)

- The genetic and individual dispositions of Americans cannot have changed so radically between these two cohorts.

- So, the much higher prevalence of drug addiction in the later born generation must be due to societal and cultural changes affecting their mental and bodily processes.

# Social representations (Moscovici 1961, 1981)

- folk beliefs or systems of belief about a common object.

- describe the ways in which a community of people try to make sense of  new and threatening phenomena

- formed through communication by
  - **anchoring** it to a prevailing system of classifications
  - **objectifying** it with some form of concrete imagery.

  - **naturalization**

  Example: Heroin in Finland (Ylikangas 2009)

# Use of medical heroin in Finland (Ylikangas 2009)

- Finland became one of the world's highest consumers of medical heroin in the 1930's

- The consumption was several times higher than in the total of all the other Nordic countries. For a while it was the highest in the world.

- Heroin was regarded as a cheap and effective remedy of many common ailments (cough, pain, tuberculosis).

- Despite the high consumption of medical heroin, _morphine_ was about six times more common substance of abuse by the few drug addicts in Finland.

- Only 64 patients were treated for drug dependence in the Helsinki area mental hospitals from 1930-1939.

- The socio-cultural conditions of the thirties were apparently not ready for a real drug dependence epidemic to break out even though the availability of drugs was not a big problem
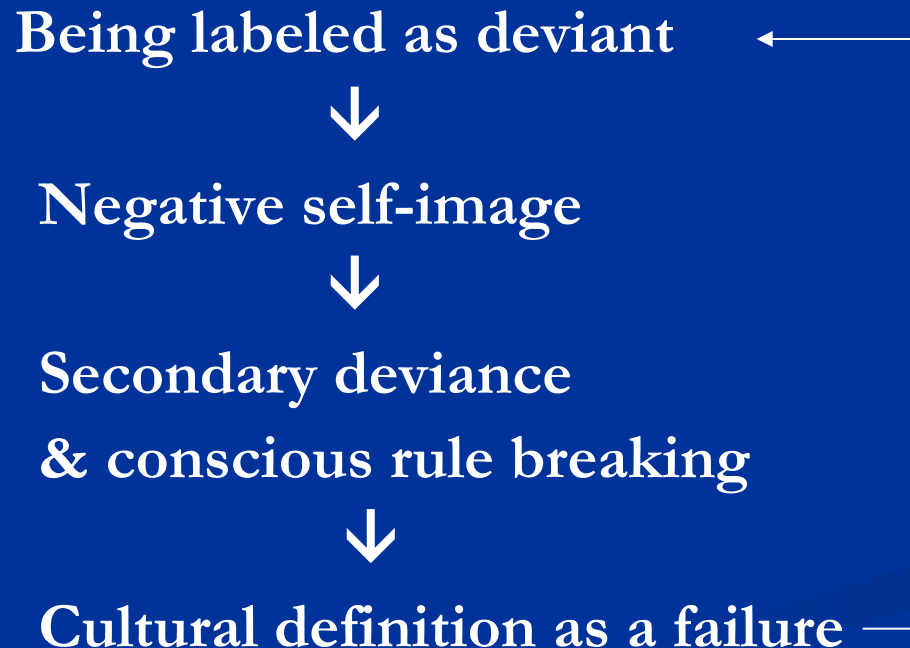
# Classificatory and biolooping (Hacking, 1999)

- **Classificatory looping –** social classifications interact with the behaviors that have been classified - e.g. labeling changes the behavior of the labeled person

- **Biolooping** - the interaction effects between body and mind

# Negative classificatory looping 1
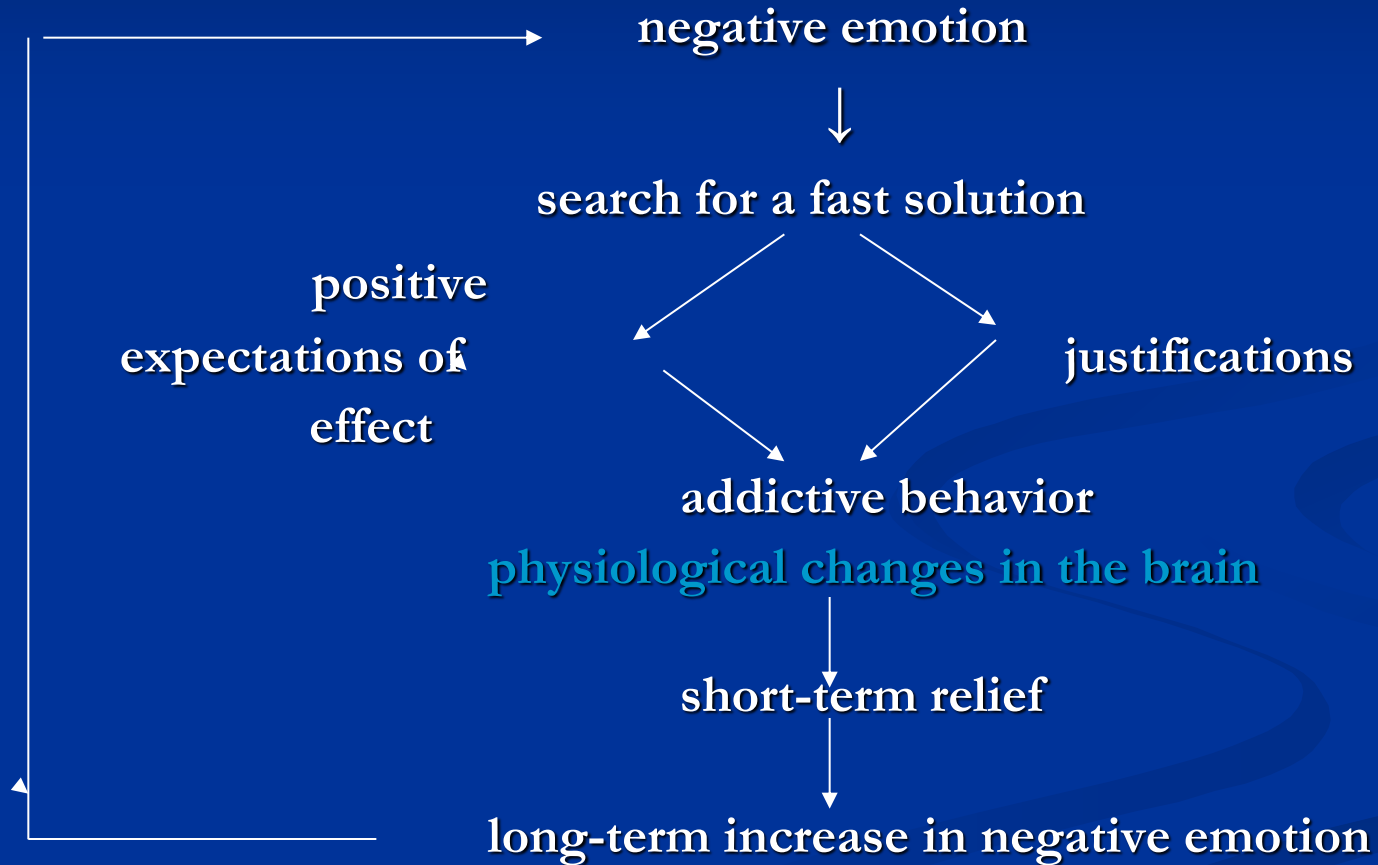## Spiral of social deviance (Goldberg 1999)

- **Society > individual > society**

Being labeled as deviant
↓
Negative self-image
↓
Secondary deviance
& conscious rule breaking
↓
Cultural definition as a failure

# Negative biolooping 1
## Drinker's trap

Trap =  self-perpetuating disturbance in aim  directed activity

negative emotion

↓

search for a fast solution

positive expectations of effect

justifications

addictive behavior

physiological changes in the brain

short-term relief

long-term increase in negative emotion

# Negative biolooping 2
## Gambler's trap

DREAMS OF A BETTER LIFE
↓
PAYDAY
↓
"THIS TIME IT MUST SUCCEED"
↓
GAMBLING
↙ ↘
\+ \-
"BY CONTINUING I     "BY CONTINUING I'LL
CAN WIN EVEN MORE"     WIN BACK WHAT I LOST"
(CHASING)
↘     ↙
PROBABLE RESULT: LOSS & INCREASE
IN NEGATIVE EMOTION
↓
Related neurophysiticsl changes

# Changing social representations of smoking

- **Previous social representation**
  - Classification: a luxury or enjoyment product
  - Imagery: Power, freedom, independence, intelligence

- **Current social representation**
  - Classification: addictive and poisonous substance, restricted by law
  - Imagery: Weakness of character, lack of responsibility, disease

  => Consequences:
  - increasing legal restrictions
  - large numbers have quit smoking
  - guilt, rationalizations and defenses in the persistent smokers
  => dependence may grow stronger in this minority

# Other examples of positive looping effects

Changing identity definitions of addicts

Adopting the identity of a helper instead of someone capable only of receiving help in self-help groups increases the probability of abstinence (Pagano et al 2004) => helping others aids the person also in solving his/her own existential problems.

# What is needed

- Ways to prevent and intervene in negative classificatory looping and biolooping processes that aid in producing excessive appetites

- Ways to produce positive classificatory and biolooping supporting recovery

- Integration of social, psychological and biological views on addiction since addiction is a truly interactive and changeable process.

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