

# MIND CHANGERS

## *Alcohol and Drugs*

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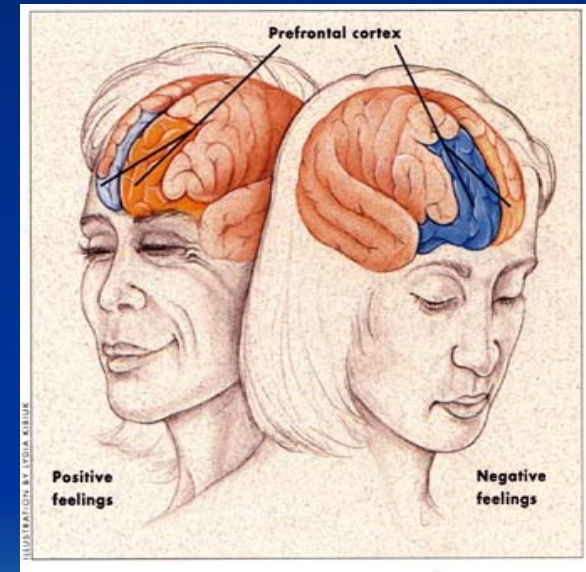
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# NACASA

“Native American Council on Alcoholism & Substance Abuse, Inc., envisions a time of Great Peace when the Sacred Fires in our hearts and minds shine brightly, unclouded by the mind changers (alcohol, drugs, hatred and jealousy), revealing the **wisdom of our ancestors**, the spiritual and natural laws, and the **inter-connectedness to all living things**, one to another, and one generation to the next. We see truly that the hurt of one is the hurt of all, and **the honor of one, is the honor of all.**”



# *Inter-connectedness To All Living Things*

- Principle of Non-locality
  - Two brains acting as a non-locally correlated quantum system
  - Two people correlated (connected) and then placed a distance apart
    - One is shown a light
    - The other may see the light as well without the stimuli



# ***Inter-connectedness To All Living Things***

- Two people meditate together for 20 minutes
- One goes into a Faraday Chamber
  - Blocks all electromagnetic signals
- One shown series of light flashes that produce an evoked potential (EEG)
- In one in four cases, the non-stimulated brain shows a “transferred” potential of same size and strength

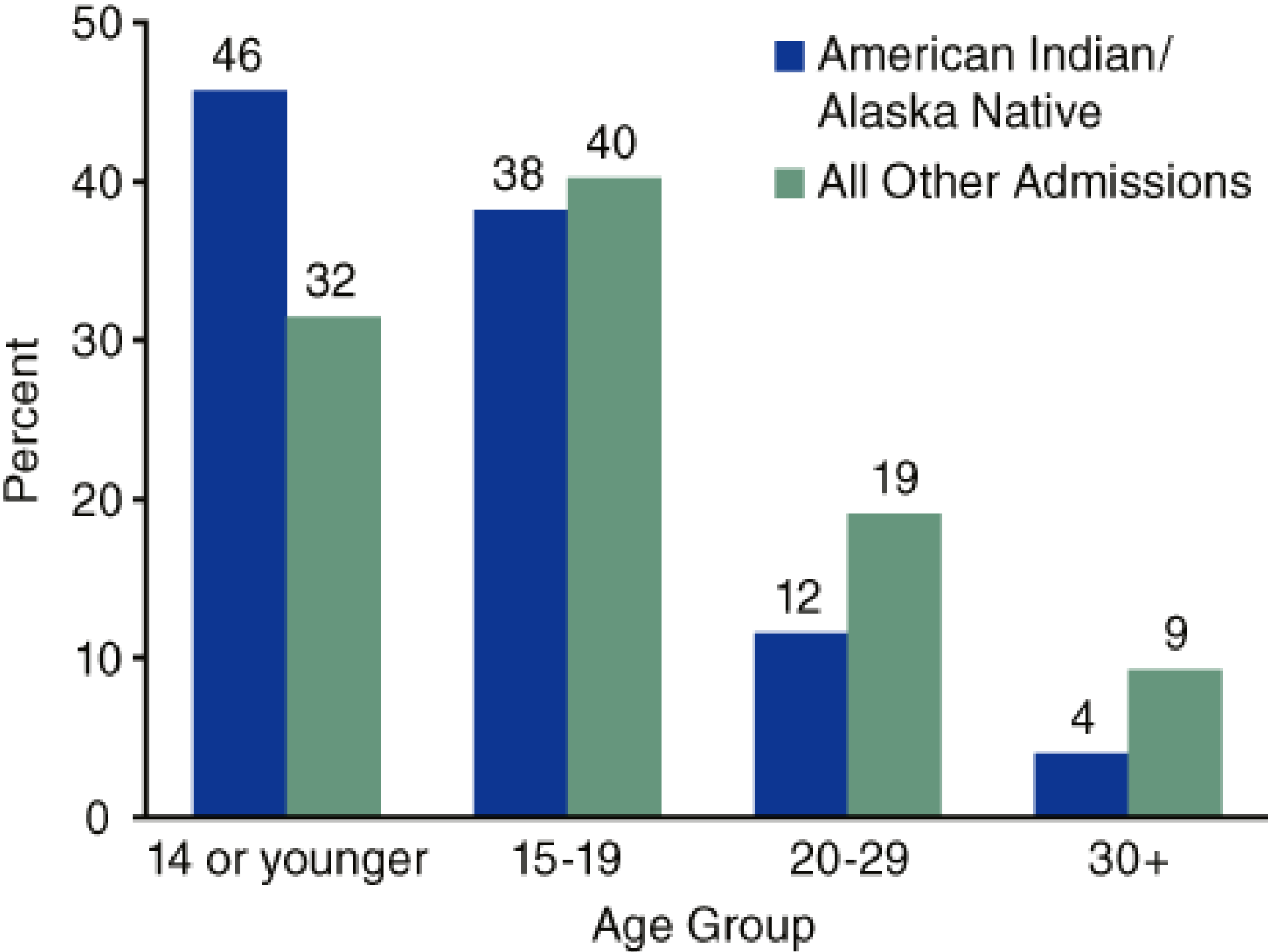


# Non-local Quantum System

***DOES THE WAY WE THINK AND FEEL  
EFFECT OTHERS NON-LOCALLY?***

***“hurt of one is the hurt of all, and the  
honor of one, is the honor of all”***





# NACASA

“.....the mind changers helped us cope with the despair and powerlessness that resulted from generations of unresolved trauma. The *illusionary sense of power and control induced by these mind changers was addictive and resulted in further destruction*. Ironically, the price we paid for the *illusion of power* was further disempowerment.”



# “The Illusion of Power”

## Power vs. Control (Force)

- Power
  - That which makes you strong
    - Love
    - Humility
    - Compassion
    - Forgiveness





# “The Illusion of Power”

## Power vs. Control (Force)

- Control (Force)
  - That which makes you weak
  - Always causes an opposite force
    - Arrogant
    - Self-serving
    - Exploitive



# Mirror of Memory

- ***One-half Second Lag*** between receiving a stimulus and verbally reporting the stimulus
- Reflection in the “Mirror of Memory” (EGO)
- Our EGO represents our distortions of reality based on life experience



# “Mirror of Memory”

- Total experience of self related to experience dependent neural sculpting
  - Babies attunement with parent’s right hemisphere
  - Creates social and emotional learning
  - Serves as foundation for development of affect regulation, attachment schema and self-identity



# Mirror of Memory

- We think that sights, sounds, etc. from outside of us constitute reality
- It is the brain that constructs what it perceives based on past experiences
- ***Nerve cells running from our brain to our senses outnumber the ones from the senses to our brain by a ratio of 10 to 1***



# Mirror of Memory

- Perception is manipulated by expectation
- Health resides within us
- It is not the system but our perception



# Emptiness

- Most is Space
  - *EMPTINESS*
- *Nothing with physical form*
- **Suffering comes from our attachment to physical things**
  - Money
  - Cars, etc.



# EGO

- Born without EGO and try to eliminate before we die
- ***EMPTINESS***
  - Taught that it is bad and associated with
    - Depression
    - Sadness
    - Loneliness



# Emptiness

- Fill the EMPTINESS with:
  - Sex
  - Food
  - Alcohol
  - Drugs
- BUT IT DOES NOT WORK!





# In Not Out

- Instead of going Out further, decide to go In
- Sort through the layers in our “Mirrors of Memory” (EGO)
- Is EGO useful?
  - Starting point from which we “peel back” our misconceptions of reality
- Back to **EMPTINESS**- *“wisdom of our ancestors”*



# “Core Mind”

- “State of Being”
- Beyond thoughts and feelings
- This is our “essence” or “Who we are”
- Find this “essence” between thoughts and feelings-***CONNECTEDNESS***



# Every Cell.....

- Contains 30,000 genes
- One cell differs from another based on which genes are turned “on” and “off”
- Retains capacity to change level of activation (expression) in **response to demand**

– **PLASTICITY**

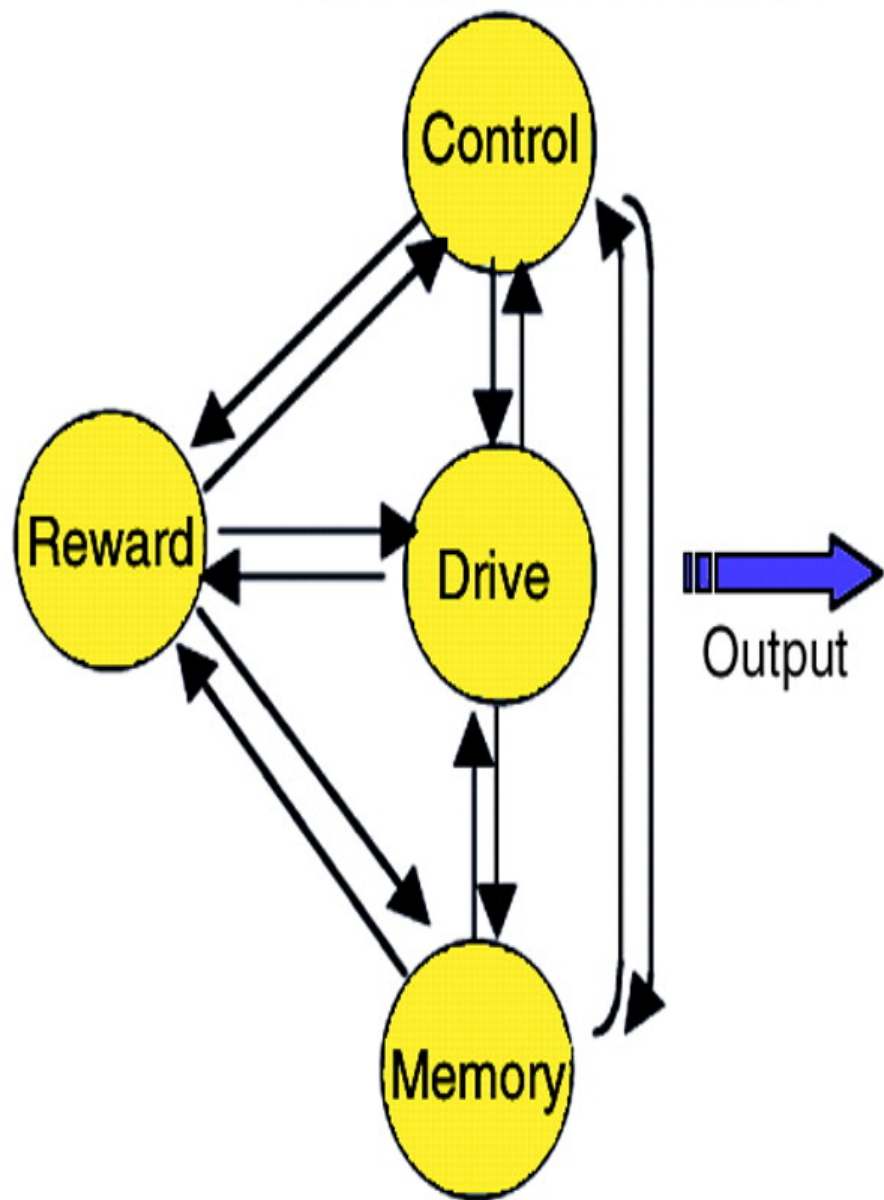


# Response To Demand

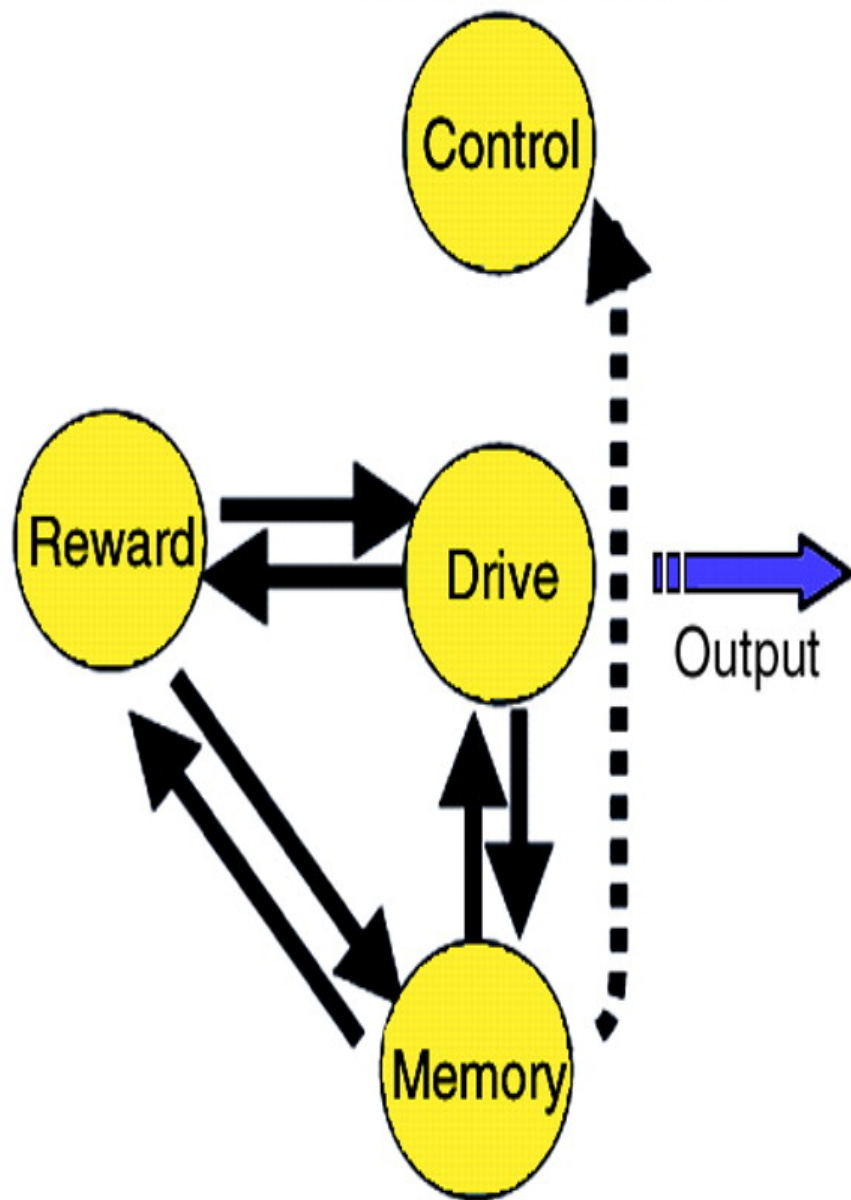
- **Environmental Risk Factors**
  - Neglect and other forms of trauma
    - Home
    - Community
  - Alcohol/Drugs



Nonaddicted brain



Addicted brain

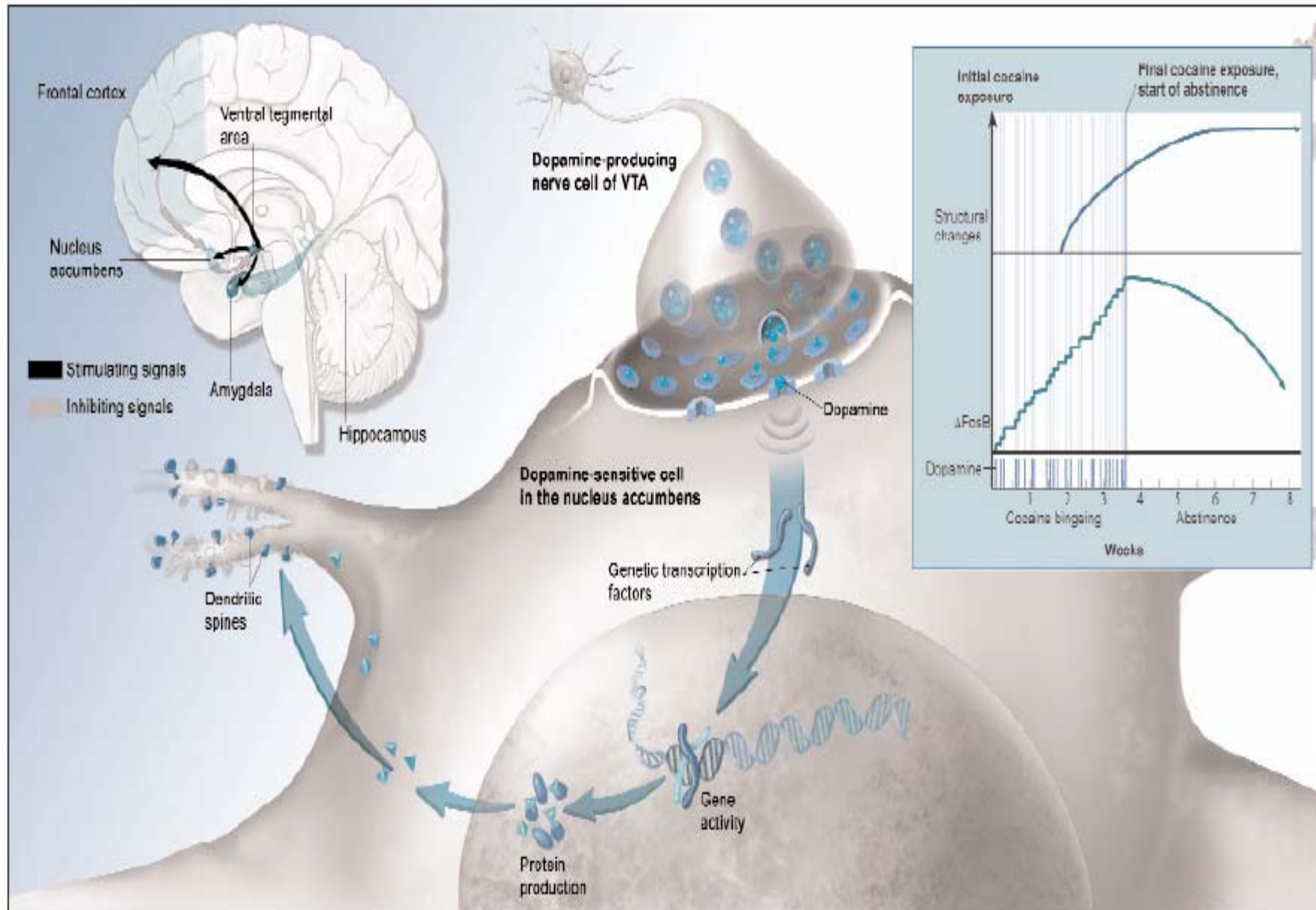


# The Prefrontal Cortices

- Coordinate the many brain activities needed to utilize:
  - **Executive Functions**
    - Set goals
    - Make plans to attain those goals
    - Organize steps to carry out the plans
    - Ensure that desired outcomes are achieved
  - **Conscience**
  - **Pursue reward within the law**



# FROM THE RUSH TO THE ADDICTION, COCAINE'S EFFECTS IN THE BRAIN



# Progression And Genetic Expression

- Drug is an environmental risk factor
- Alters gene expression inside cell
- Proteins and peptides utilized in support of addiction
  - Increased dopamine production
  - Increased dopamine receptor
  - Increased dopamine transporters





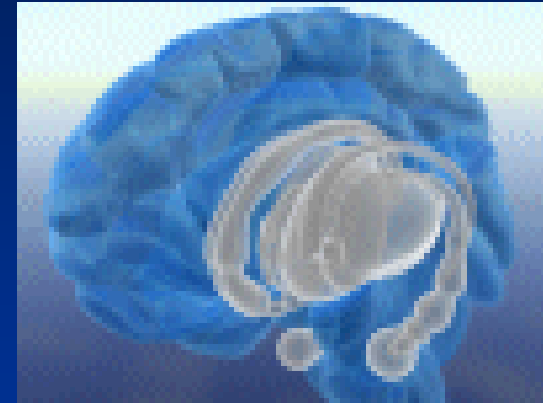
# What Happens When The Drug Is Gone?

- “What’s In It For Me?”
- Recovery Is Boring
- How can the addict achieve a higher energy state in recovery?



# Achieving A Higher Energy State

- By Inner Work
  - Integration of self
  - Neurogenesis or Epigenesis
- Leading to
  - “**Connections To Others**”
  - “**Connections With A Higher Power**”
- Transcendence



# Neurogenesis (Epigenesis)

- Facilitated by:
  - ***NOVELTY***
  - ***ENVIRONMENTAL ENRICHMENT***
  - ***PHYSICAL EXERCISE***



# Novelty-Examples

- Group Therapy
- Individual Counseling
- Sober Living
- Higher Power
- Assessment
  - Alcohol/Drug
  - Psychosocial



# Environmental Enrichment

- Baby mice separated from mother-changes the expression of genes developing the dopamine system
  - Increased anxiety
  - Increased aggressiveness
  - Increased vulnerability to addiction



# Environmental Enrichment- Examples

- Recovery housing
- Healthy milieu
- Self help meetings
- Church
- ***Most important-Positive Male and Female Role Models***



# Physical Exercise

- Stimulates production of brain-derived neurotrophic factor (BDNF)
  - Neurotrophin that governs maturation and development of neural systems
- Enhances executive functioning
  - Short term working memory
  - Multi-tasking
  - Self-directedness



# Physical Exercise

- Increases neurotransmitters
  - Monoamines
    - Serotonin
    - Dopamine
    - Norepinephrine

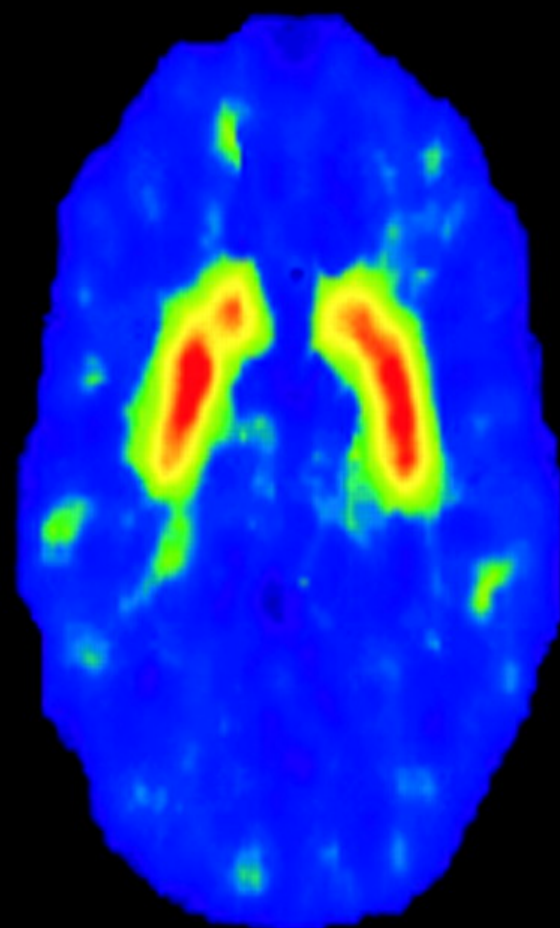




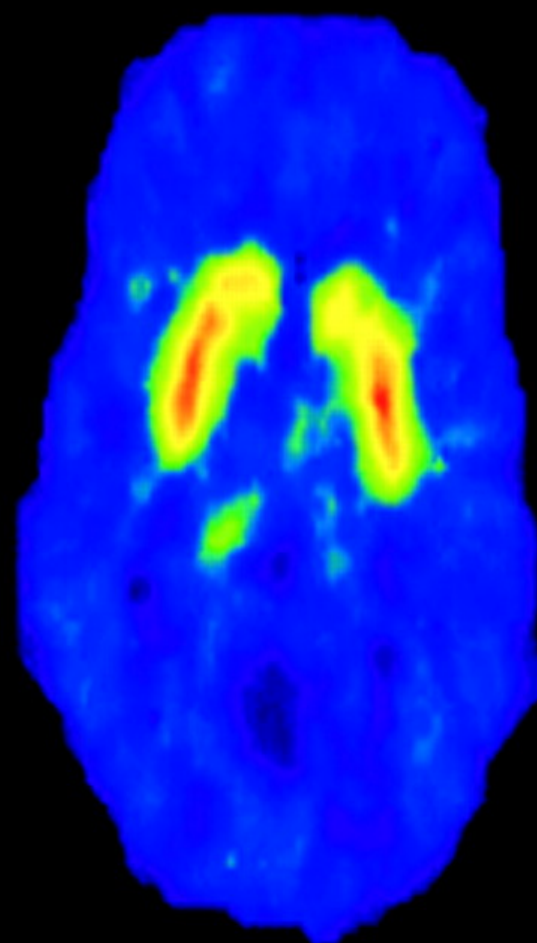
# Monoamines

- Determine the overall tone of the brain
- How you feel
- **Emotions are the language of the brain**
- Relationship between monoamines and addiction

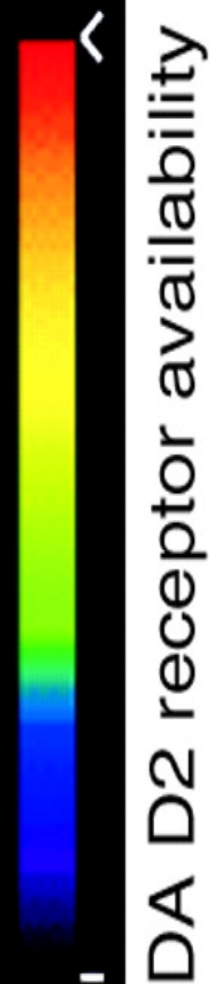




High receptor level  
unpleasant response



Low receptor level  
pleasant response

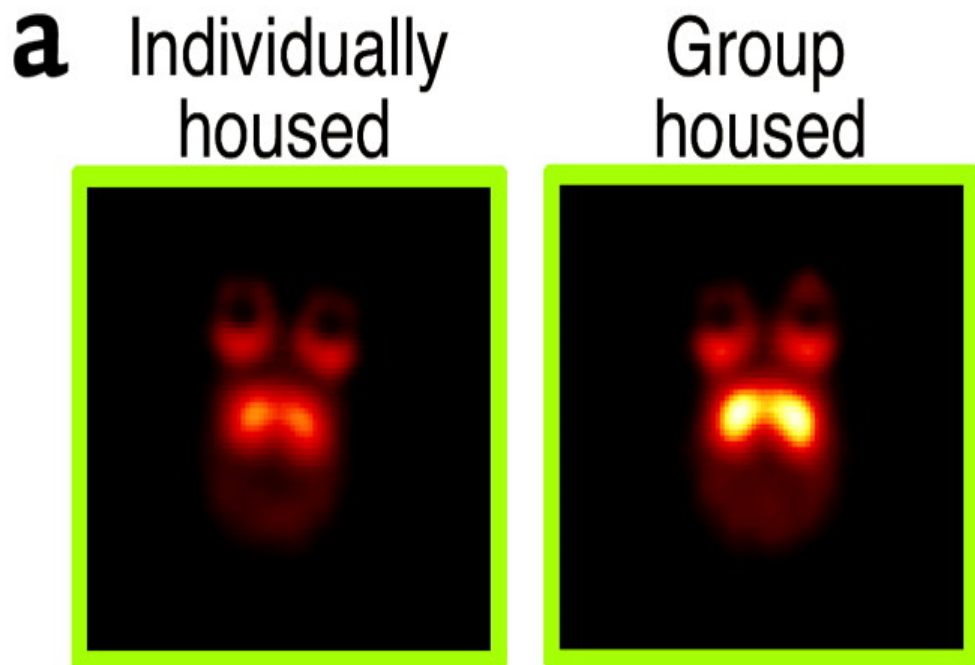


DA D2 receptor availability

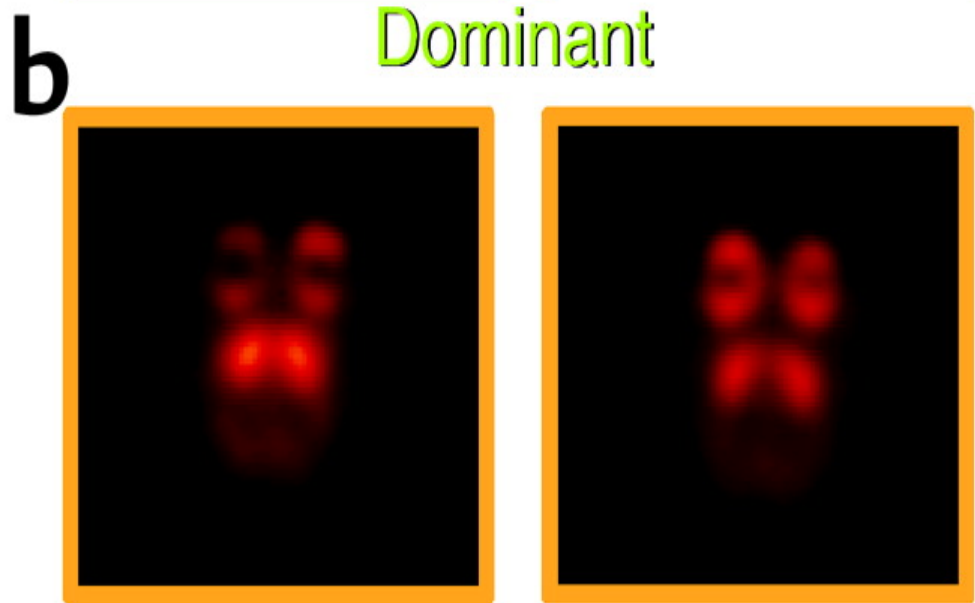
# Dopamine D2 Receptors

- Association between DA D2 receptor numbers and drug self-administration
  - Increased D2 receptors reduced alcohol consumption
  - Decreased D2 receptors higher risk
- ***DA D2 receptor levels influenced by stress and social hierarchy***
- **Helps explain influence of environment on genes**

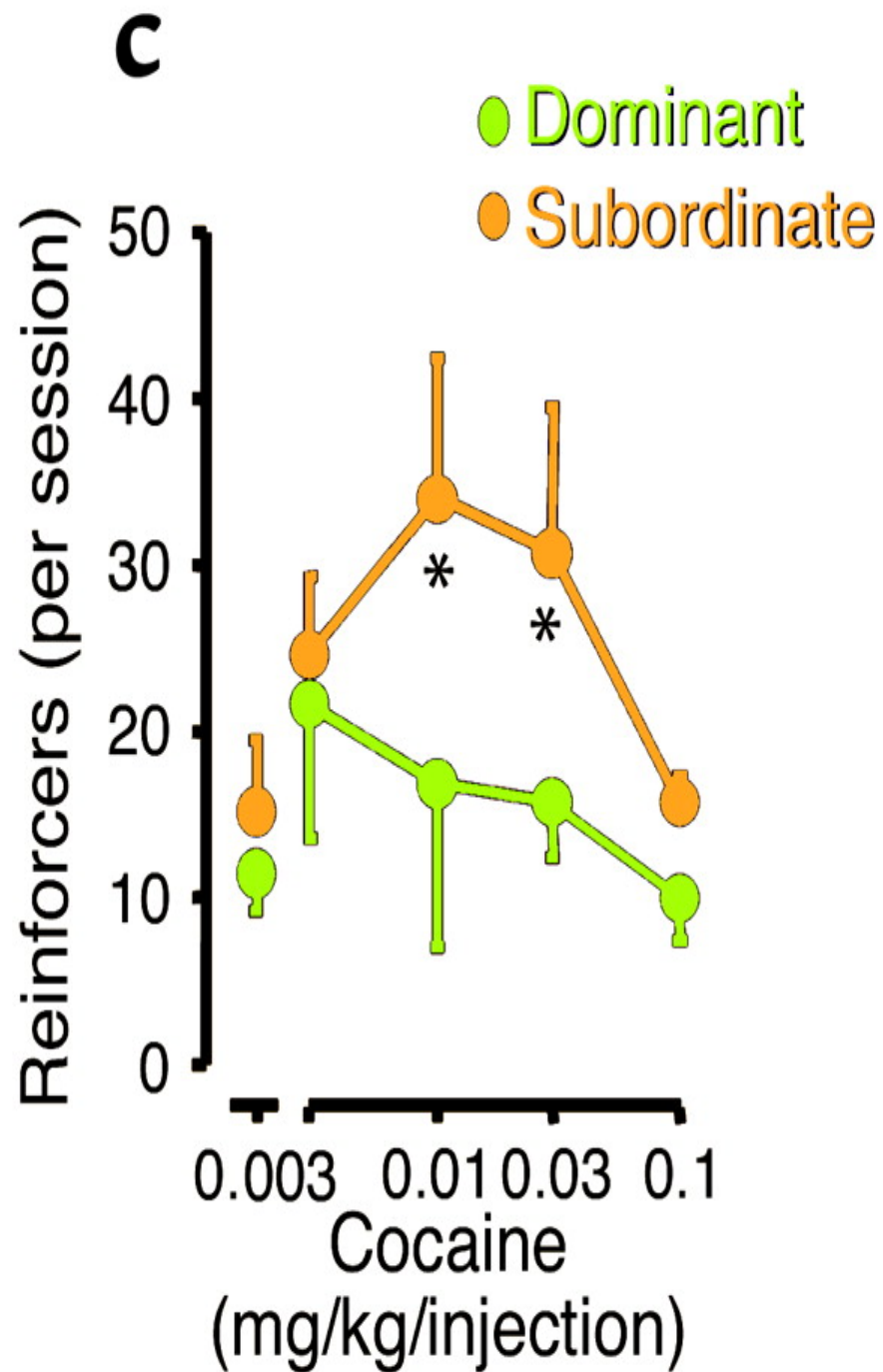




Dominant



Subordinate



# Environment And Social Status

- Subordinate animals more likely to self-administer cocaine
- Dominant animals no more likely to self-administer cocaine than placebo
- **Social interventions can change neurobiology**
  - Increased DA D2 receptors
  - Reduced self-administration
- ***Behavioral interventions could counteract the aversive effects of drug abuse and reinforce the power of group approaches***



# Love and Addiction

- Cocaine craving
  - Increased activation of anterior cingulate
    - Maternal behavior
    - Nurturance
    - Bonding



