

# Principles for Changing the Problem Drinking Behavior in the Criminal Justice System

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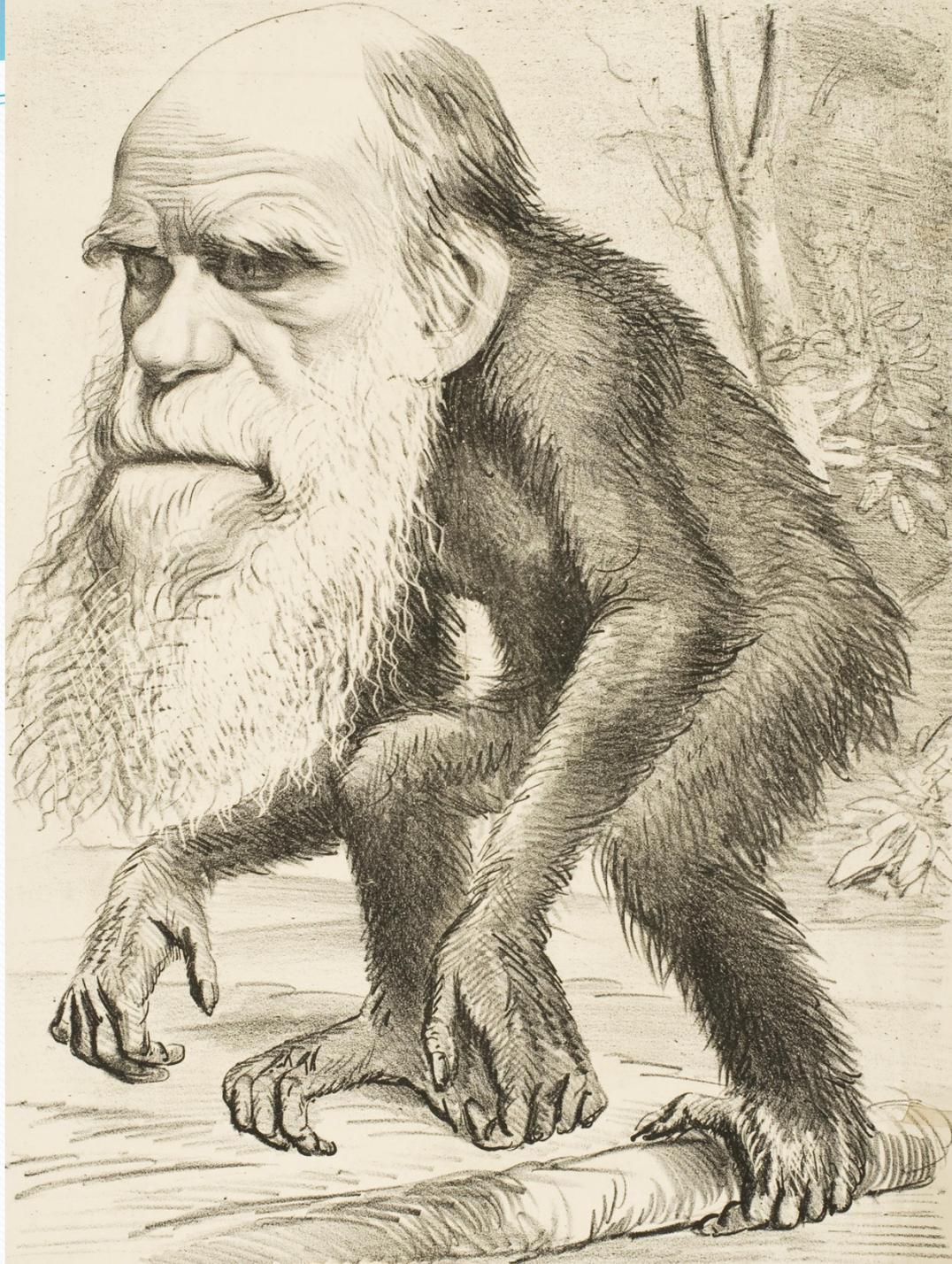
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# Organization of Talk

- The Evolution of Human Nature
- The Joys and Pains of Psychoactive Substances
- Drivers of Human Behavior Change



# What is conserved in the brain?

- Make linkages based on *immediate* effects
- Make linkages based on *consistent* effects
- Some ability to think long-term, but not the default



# The Joys and Pains of Psychoactive Substances



# Impact of Psychoactive Substances

- The most widely used substances bind to the same brain sites as natural neurochemicals
- Psychoactive substances are reinforcing (fun/relief)
- Speed and consistency of effect makes substances even more reinforcing
- Psychoactive substances are “overvalued”
- Heavy use exacerbates the universal human tendency to discount the future



**How does the criminal  
justice system typically  
try to compete?**

**If you don't clean up your  
room right now there is a  
40% chance that a month  
from now, I will ground you  
for two years!**

Criminologist James Q. Wilson's analogy for how  
we respond to criminal offenders

# The Clinical Parallel of an Ineffective Approach

- Wait for the drinker to have some disaster
- Detoxify him/her for a few days
- Discharge them with no further care
- Rinse and repeat

# The Moral of this Story

- Fighting a behavior that is consistently and promptly rewarded using inconsistent, slow consequences is usually a losing battle
- This is true even when the inconsistent, slow consequences are relatively large
- All of this is true for all human beings, but particularly so for people with *active* substance use disorders

# So What Would Work Better?

- Environments in which not using is consistently and promptly rewarded
- Environments in which using is consistently and promptly punished
- These can be “naturally-occurring” or created for the purpose

# The Economic Costs of Drinking

- Heavy drinkers spend about 80% less per unit of alcohol relative to light drinkers
- States where it “costs more” to buy alcohol have less consumption, even among heavy drinkers
- Dramatic drops in price increase consumption

# Heavy Drinking at College

“I got so drunk on Sunday night that I slept through my 11am Monday class!!!”

“Dude, you are such a party animal!!!”

# Heavy Drinking after College

“I got so drunk on Sunday night that I slept through my 11am Monday meeting!!!”

“Dude, you are so fired!!!”

# Alcoholics Anonymous

- Replaces social networks where drinking is approved of to one where it is disapproved of
- Reinforcements for abstinence
- Access to positive experiences contingent on not drinking

# Behavioral Marital Therapy

- Couples therapy for drinking targets the drinker and the relationship
- Therapy results in a changed environment
- Randomized clinical trials show better drinking outcomes when spouse is included in treatment



# Physician Health Plans

- Rate of physician addiction equal to general population
- Historically, doctors could get away with it until an undeniable catastrophe occurred
- PHPs designed to change this by putting them under a regime of swift and certain consequences for substance use

# Content of PHP

- Not treatment, though they arrange treatment
- Comprehensive, random drug and alcohol testing
- Immediate, graduated reaction to positive test

# Outcome Data on 802 Physicians *over five years*

- 80.7% (n=647) completed all five years of monitoring
- Only 19.5% of completers had even a single positive test
- Only 5.1% had more than one positive test
- Over 60,000 tests done total, 99.5% negative

# Contingency Management

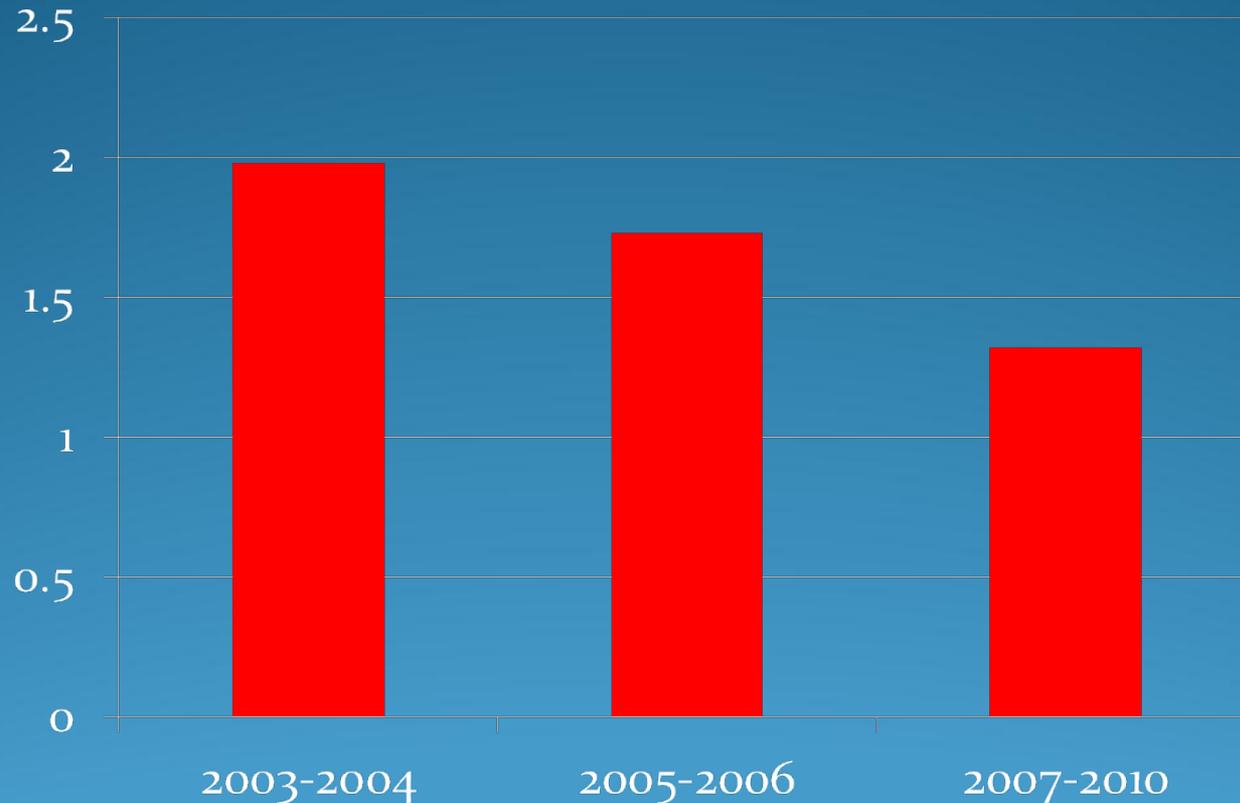
- Pioneered by Steve Higgins with cocaine dependent patients and monetary rewards
- Now used across a range of substances and rewards (including very small ones)
- Over 150 randomized clinical trials showing positive effects on behavior change



# 24/7 Sobriety for repeat drink drivers in South Dakota

- All offenders get careful orientation to program rules
- Drinking closely monitored
- Alcohol use or test no show results in *prompt* arrest and *certain, modest* punishment
- Nearly self-sustaining financially because offenders pay for own testing

# Ratio of Alcohol-Involved Motor Fatalities/Mile in South Dakota Versus the US as a Whole



2003-2004: Pre-24/7 Sobriety

2005-2006: 24/7 Piloted in an Increasing Number of Counties

2007-2010: 24/7 Operating Statewide

# Key Outcomes of RAND Studies

- Over 99% of tests are taken and are negative
- Repeat drink driving arrests down 12%
- Domestic violence arrests down 9%
- Population mortality down 4%

Source: Kilmer, B. et al. (2013). Efficacy of Frequent Monitoring With Swift, Certain, and Modest Sanctions for Violations: Insights From South Dakota's 24/7 Sobriety Project. *American Journal of Public Health*, Volume 103; Nicosia, N, (2016). Effect of a criminal justice alcohol abstinent programme with swift, certain, and moderate sanctions on population mortality. *Lancet Psychiatry*.

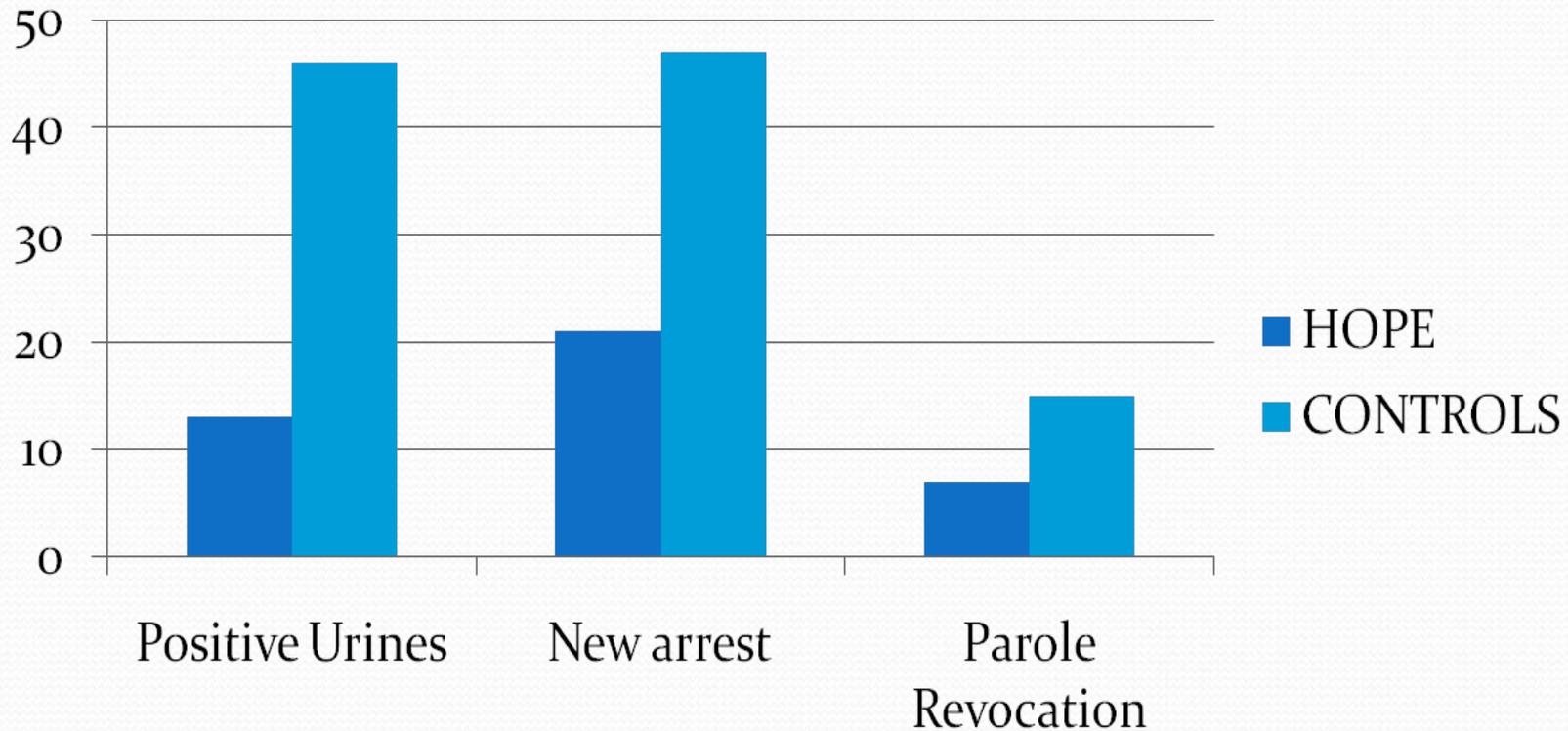
# What about motivation?

- Motivation matters for all behavior
- People are responsible for their decisions
- And at the same time environmental responses to decisions shape motivation and subsequent decisions
- Procedural justice, learned helplessness and oppositional behavior

# Do these principles always cause change? NO, because...

- Some people lack the skills to implement
- Some people lack the capacity to understand
- Some people are so substance dependent that even consistent negative consequences don't matter much
- Some people are sociopaths and punishment immune

# But effectiveness is always relative to usual practice (HOPE clinical trial)



# And also remember that co-occurring treatment can address

- Skill deficits
- Psychiatric problems
- Severe dependence
- Environmental features beyond the criminal justice system

# Why I think 24/7 Sobriety and Programs like it Work

- Flip of contingencies, abstinence rather than drinking is consistently reinforced
- Far off negative consequences are moved up in time
- The procedural justice of the program promotes motivation to change
- The modest nature of punishment is not a problem because of its swiftness and certainty

# Setting and type of consequences are different, but...

- The behavioral change principles underlying 24/7 Sobriety are quite similar to those underlying effective treatments
- Therefore treatment providers should welcome this program and be glad when one of their patients is in it
- Also, 24/7 Sobriety practitioners should draw on the similar treatment literature for ideas and evidence



**Thank you for your attention!**