

# SOCIAL INEQUALITIES AND BEHAVIORAL HEALTH PROBLEMS

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## First things first

- First, this is not training.
- It will be an educational session. Why the difference?
- Second, it must be a discussion. These are very complex topics. On our second day the discussion should shift to talking about how this perspective can inform how to talk with clients.
- What science is in support of what I will be saying.
- How I got here. Experiences as clinician, research, teacher, parent, grandparent, scholar.

## Our task

- **We are going to bridge**
  - large-scale social factors
  - Brain science/neuroscience
  - Psychological stress
  - Addiction science
  - Economics
  - How treatment centers policies affect clients

## A NEW PARADIGM

- Current behavioral health culture is heavily influenced by medical disease models

## A NEW PARADIGM

- Several forces are at play in the current practice world that pose challenges to providers.

## A NEW PARADIGM

- The risks of burnout, compassion fatigue, or vicarious trauma seem very great.
- Why?

## A NEW PARADIGM

- We often talk about the complexity of cases as a causative factor.
- There are also individual competence factors at play.
- More critically, the push for EBPs has left alone the question of the overall meaning of clinical work.
- Everyone assumes everyone knows what that is.

## Meaning?

- Most young clinicians know they can never master enough EBPS to be fully competent.
- Plus, co-occurring disorders are too numerous and too varied to lend themselves to an easy fit to any EBP.



# Meaning?

- There are unintended effects of our current medical models that are negatively affecting clients and providers alike.

## Implications of the medical disease model

- **First, the disease model assumes that conditions are discrete, bounded disorders.**
- **Second, if disorders are discrete, then there must be discrete, specific causes of the disorders.**
- **Third, if there are specific causes or at least mechanisms of disorder, there must be targeted interventions for the disorders.**
- **Fourth, if there are targeted interventions, then there must be evidence-based practices that tie research to treatment.**

Pros and  
cons:  
1. Discrete  
conditions

- Are behavioral health conditions  
boundaried and discrete disorders?
  - If so, what about co-occurring disorders?
  - What about people with multiple  
diagnoses over time or from different  
therapists?
  - What is the boundary line between  
depression and substance use disorders?  
And anxiety disorders? Between PTSD  
and depression?

## 2a. Specific causes of disorder - MH

- We have the pharmaceutical industry telling us the relationship between neurotransmitter 'disruptions' and symptom manifestation.
- We have been told this is 'true.'
- But the relationship between neurotransmissions and symptoms is entirely conjectural and theoretical.
- A better understanding of the brain DOES provide a wiser way for interventions, BUT
  - A more complete understanding of the brain does NOT support the idea that specific, narrow causes can be found.
  - The fact that the brain is constantly adapting to the environment means a two-way street at all times – not a one-way trip from cause to outcome.

## 2b. Specific causes of disorder - SA

- With substance use disorder, we have been led to think about it being another disease.
- Again, as with other behavioral health disorders, what are the specific mechanics and causes of this disease?
- Or is it that our way of thinking about the condition is simply easier if we use the term 'disease?'

## 3a. Targeted interventions - MH

- If the relationship between neurotransmissions and disorders is conjectural, what can be said about targeted interventions?
- Plus, every pharmacological intervention sets up negative 'side effects' that prove to be very damaging over time.
- Same can be said about psychosocial interventions. Is their effectiveness a function of match of intervention to specific causes of disorder?
- Or, do they work because under trial conditions, clinicians stay on task?

## 3b. Targeted interventions - SA

- How strange, that we use hard science to talk about the disease of addiction but almost every program relies on spiritual recovery approaches.
- Plus, the science fails to tell us really what works best.
- Lots of studies compare a new intervention against whatever is meant by 'treatment as usual' but they do not compare EBPs to each other. Why?

## 3C. Continued

- Remember, if there were specific causes for any of these diseases, there would be clear-cut targeted interventions.
- Instead, we have multiple interventions for any one disorder.
  - With psychosocial TX – everything from MI, to Seeking Safety, to other trauma-informed approaches for PTSD.
- It would be like saying for your stomach pains, use any of these - Pepto-Bismol, omeprazole, yogurt, and oxycodone.



## 4. Evidence-based practices

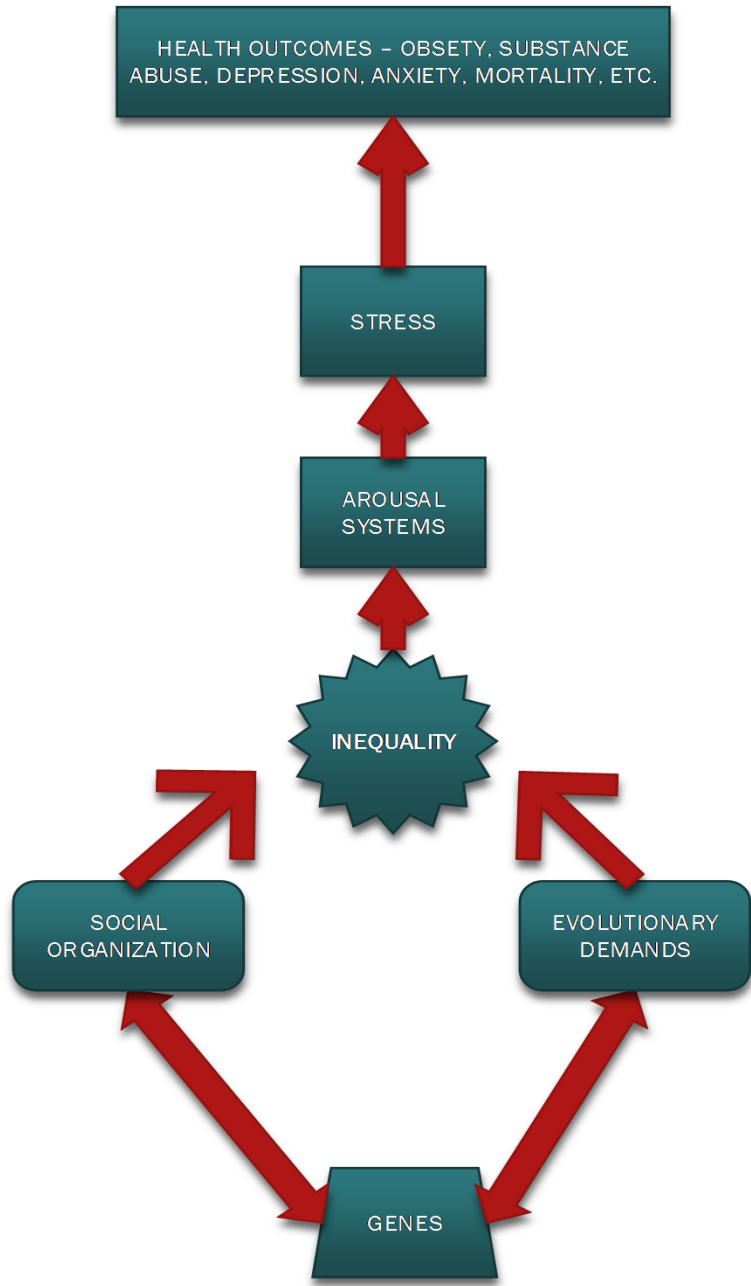
- If there are targeted interventions, there must be research to back them up.
- What is the nature of clinical trials?
  - Sample must not have co-occurring disorders
  - Interventionists well trained
  - Usually done against treatment as usual rather than another EBP
  - Subjects and interventionists know they are being watched

## Let's take a different look at things

- MAYBE THERE IS SOMETHING ELSE AFOOT.....
- It might be helpful to step back and approach all of this as if we were utterly new to the problems.
- And, we get to look at things with out the inherited baggage of medical models or psychological theories

## Three driving factors

- Evolution as one of the major shaping influences over behavior.
- Social rank and social interaction and their effects on human development.
- Neurophysiology – an evolved mechanism that is uniquely sensitive to social conditions.



# Deep structures and human behavior

- We tend to think about human behavior from what some call a 'folk psychology' perspective.
  - This perspective treats individuals as essentially rational, or at least quasi-rational, intentional agents.
  - I.e., individuals know what they want and then set out to achieve what they want and are the locus of control for change
  - But, on the face of it we know something is wrong with this model.
  - Something deeper is at play.

## What deeper structures?

- **There is an innate unease with looking at deeper motivations for behavior – forces that lie outside individual human consciousness.**
- **In the past psychoanalytic theories told us about forces beyond conscious control.**
- **Past social theories offered some guidance but it was always difficult to make the transition from large social phenomena to individual minds.**

## What's new about the science on deeper structures?

- We now have considerable information from evolution science to that tells us about the animalian aspects of human behavior.
- Recent neuroscience has further informed us about evolution contributions to human behavior.
  - The discovery of similarities between mammalian brains and mammalian behavior related to neurophysiology.
  - Neurophysiological processes are almost always attributable to survival functions

# Evolution

- **Fundamental survival processes may guide many human behaviors:**
  - Mating
  - Parent-child interactions
  - Affiliation-Individuation processes
  - Even the role of what we call mental disorders may actually be due to survival functions. (E.g., depression)
- **Almost every mental disorder can be shown to be merely an exaggeration of a natural neurophysiological process – not something alien to the innate biology - (E.g., depression).**



# Evolution

- What evolution science has reinforced is that every behavioral characteristic of humans is biologically based.
- Specifically, every thought, feeling, and action is a function of neurophysiological processes.
- Thus, we now must begin explaining human behavior with an eye on the complexities of the human brain.
- And every component of the human brain is a product of evolution within a social environment.

## Evolution & consciousness

- What is difficult to accept, is that evolution seems to disregard individual consciousness.
- But this is not so. Unique consciousness is one of the more interesting outcomes of evolution – the ultimate adaptational device.
- But, unfortunately, this adaptational device is also fragile and very sensitive to social environment.
- And consciousness itself can get derailed by substances.

## Evolution

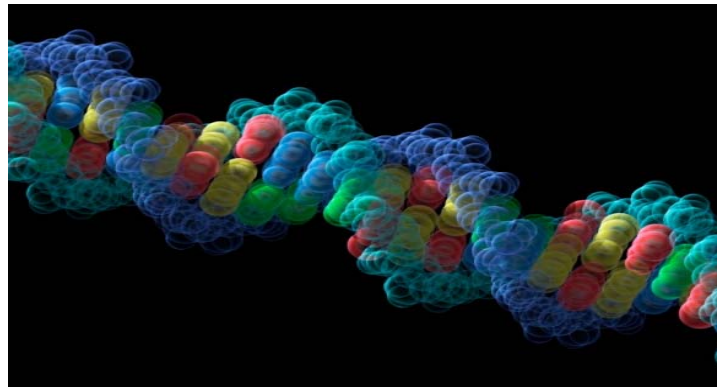
**Evolution science has taught us that mammals must be understood as social animals and that every component of their neurophysiology is affected by the their social environment.**

## The next step

- The idea of nature/nurture is dead as the two forces are continually interactive.
- So what this means is that the brain shapes social behavior AND....
- **Every social interaction shapes neurophysiology.**
- What you do, changes the kind of brain you wind up with.

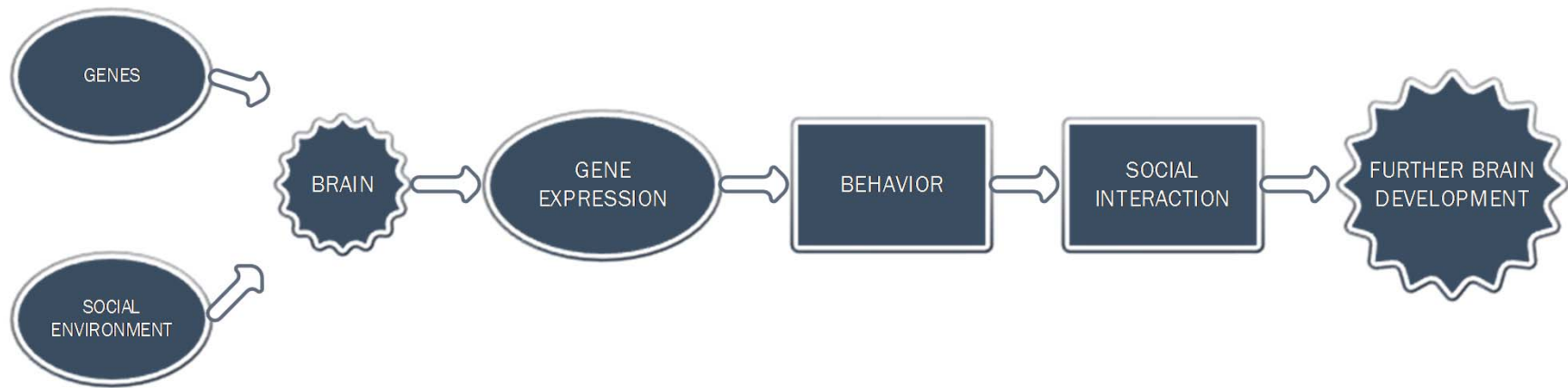
So, back to  
deep  
structures...

- So, one thing we take from this is that there are things going on in our brains that have to do with every aspect of our lives.
- Sensitivity to the social world is continuous and innately matched by brain responses.
- Thus, our brains tell us that everything about our social participation affects our moods, feelings, thoughts, and behavior.
- And, even our genes are modified by experience.



## Another deep structure

- Given the importance of social environment on our brains and thoughts, feelings etc. we must necessarily examine forces in the social world in a new light.
- It's no longer 'just an environment or stage' on which a life is led.
- The social environment is a constant presence in human consciousness.
- And it exerts influence over everything we think and feel.



## What is it about social structure?

- **First, we need to understand that our society and our culture don't just make up a mass of stuff within which we live and work.**
  - **An artefact of 19<sup>th</sup> C. science is that we tend to view 'society' just as early science viewed nature.**
  - **It was simply that within which humans lived – it was not seen as interactive.**
- **The entire social world - we act upon it and it upon us.**
- **The most critical factor is how we RANK in our social structure.**
- **Here is where we begin to see something very important and yet very disturbing about deeper structures.**



## From social structure to individual brains

- In every human interaction with another human being, rank is conveyed and perceived.
- So, where one fits in society is communicated to everyone you relate to.
- It's a process that is mediated by very primitive structures in the human brain.
- When we find ourselves higher than the other, we experience some degree of satisfaction; when we are lower, we experience anxiety.

## From social structure to individual brains

- We also know our rank within our families, within our communities, our workplaces, our towns, our churches, our neighborhoods, and our nation.
- Mass media has made social comparison far more extensive and complex.
- Our brains are sensitive to rank expression from any social source.
- So, what we see about others on TV affects how we see ourselves fitting in in society.

So, two vast  
and deeper  
structures

- Thus, there are two extremely powerful forces exerting influence over behavior – evolution and social structure.
- And the two are completely interactive.
- Social rank exerts a powerful effect on the evolved neurophysiological system.
- Distortions in the array of social rank create havoc in the mammalian brain and behavior.

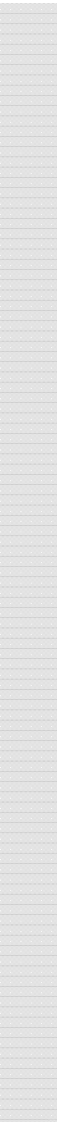
So, two vast  
and deeper  
structures

- Thus, there are two extremely powerful forces exerting influence over behavior – evolution and social structure.
- And the two are completely interactive.
- And where they meet is in human neurophysiology.

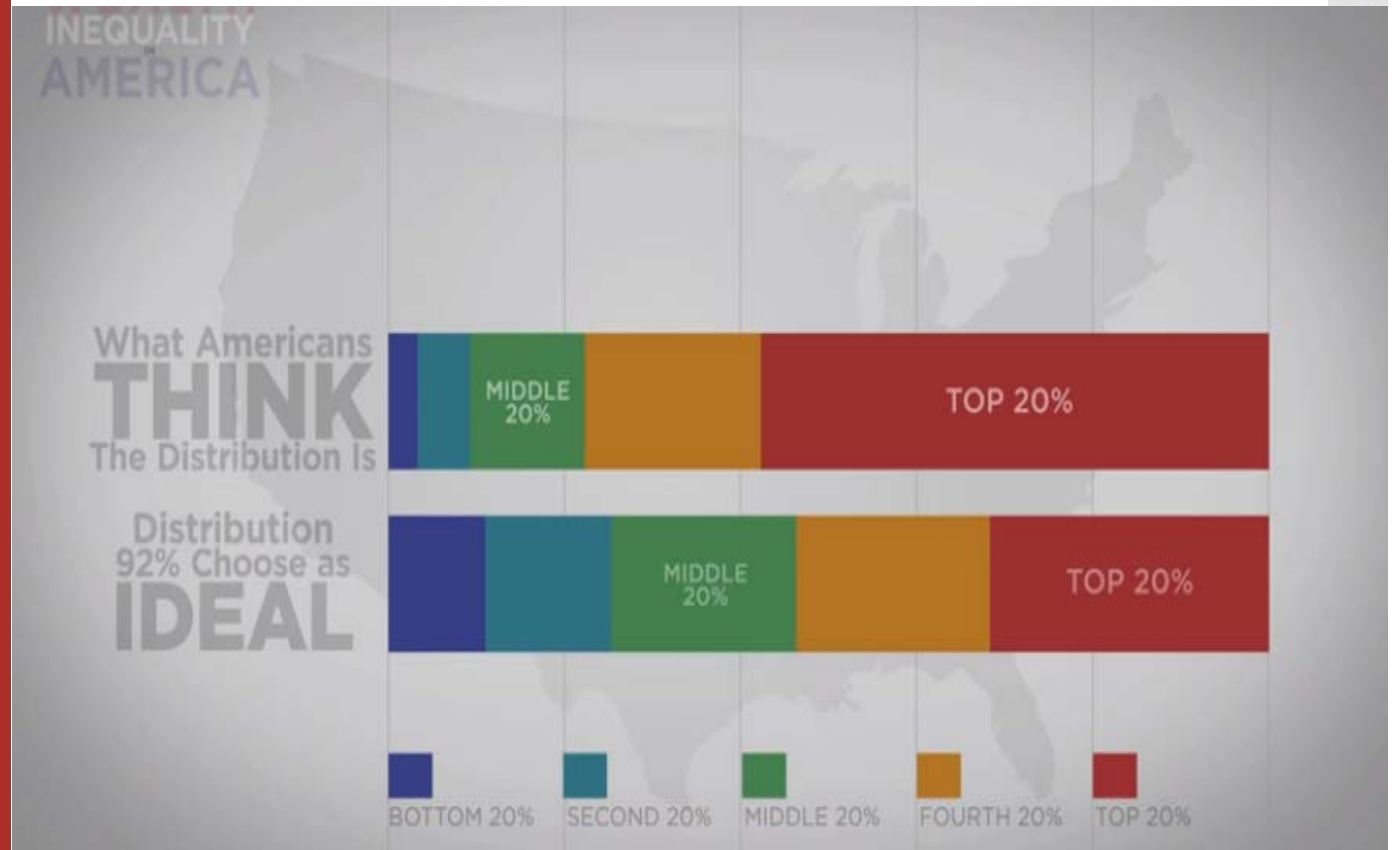
So, what about the distribution of social rank in the U.S?

- **Let's look at social rank as it is distributed by wealth in the U.S.**
- **Get ready for a ride on the social gradient.**

**The social  
gradient:  
a deep  
structure for  
human  
behavior**

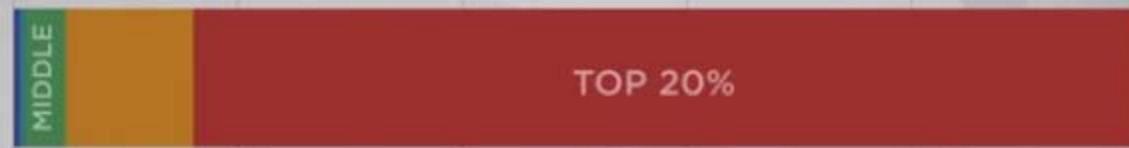


Charlie  
White on  
wealth in  
America:  
92% of  
Americans  
responding



# INEQUALITY AMERICA

**ACTUAL**  
Distribution of  
Wealth in the U.S.



What Americans  
**THINK**  
The Distribution Is



Distribution  
92% Choose as  
**IDEAL**



**BOTTOM 20%**    **SECOND 20%**    **MIDDLE 20%**    **FOURTH 20%**    **TOP 20%**

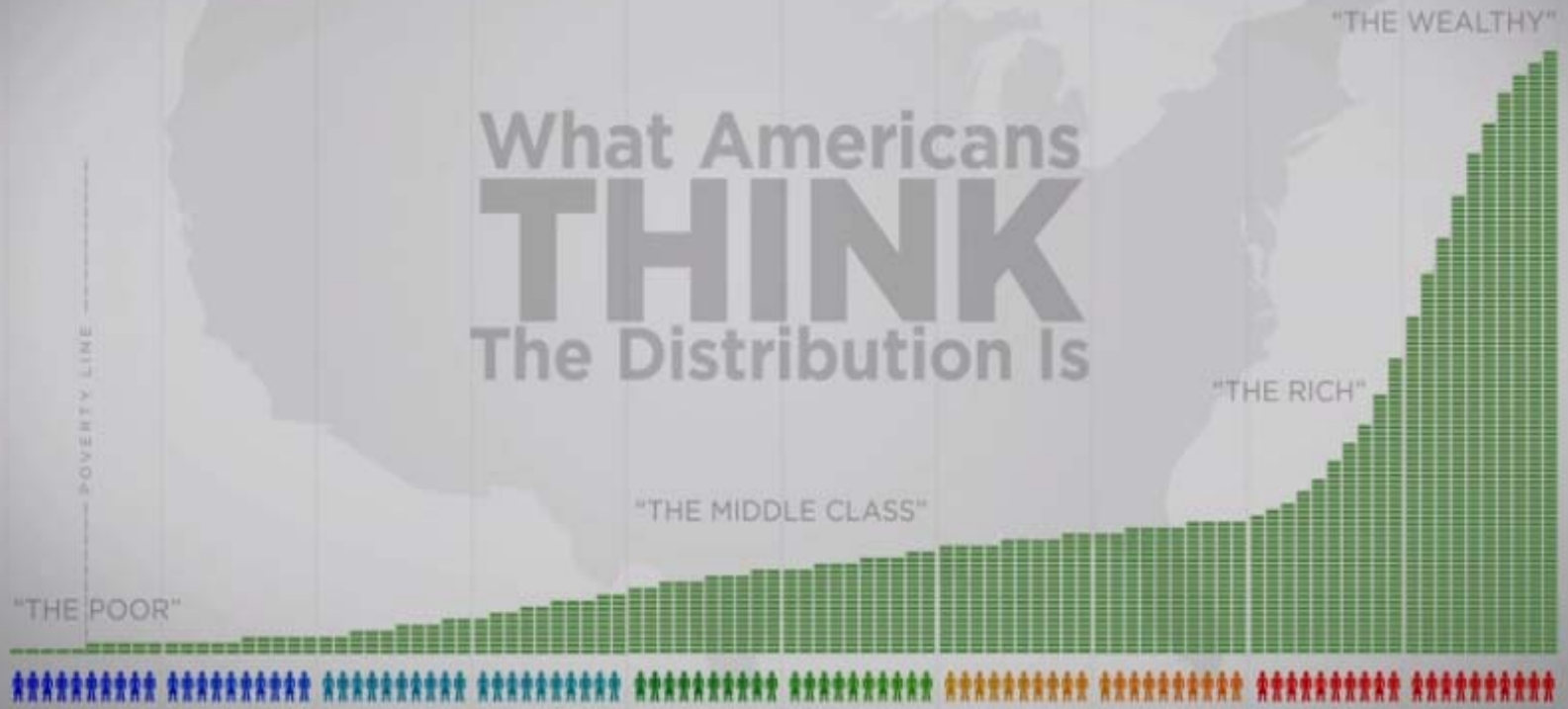


# With a focus on the top 1%



WEALTH  
INEQUALITY  
IN  
AMERICA

What Americans  
**THINK**  
The Distribution Is



# WEALTH IN INEQUALITY AMERICA

15.1%

POVERTY LINE

## ACTUAL Distribution of Wealth in the U.S.

"THE POOR"

IDEAL

THINK

"THE MIDDLE CLASS"

"THE RICH"



0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

# WEALTH INEQUALITY AMERICA

Distribution that **92%**  
of Americans Choose as  
**IDEAL**

POVERTY LINE

"THE POOR"

"THE MIDDLE CLASS"

"THE RICH"

"THE WEALTHY"

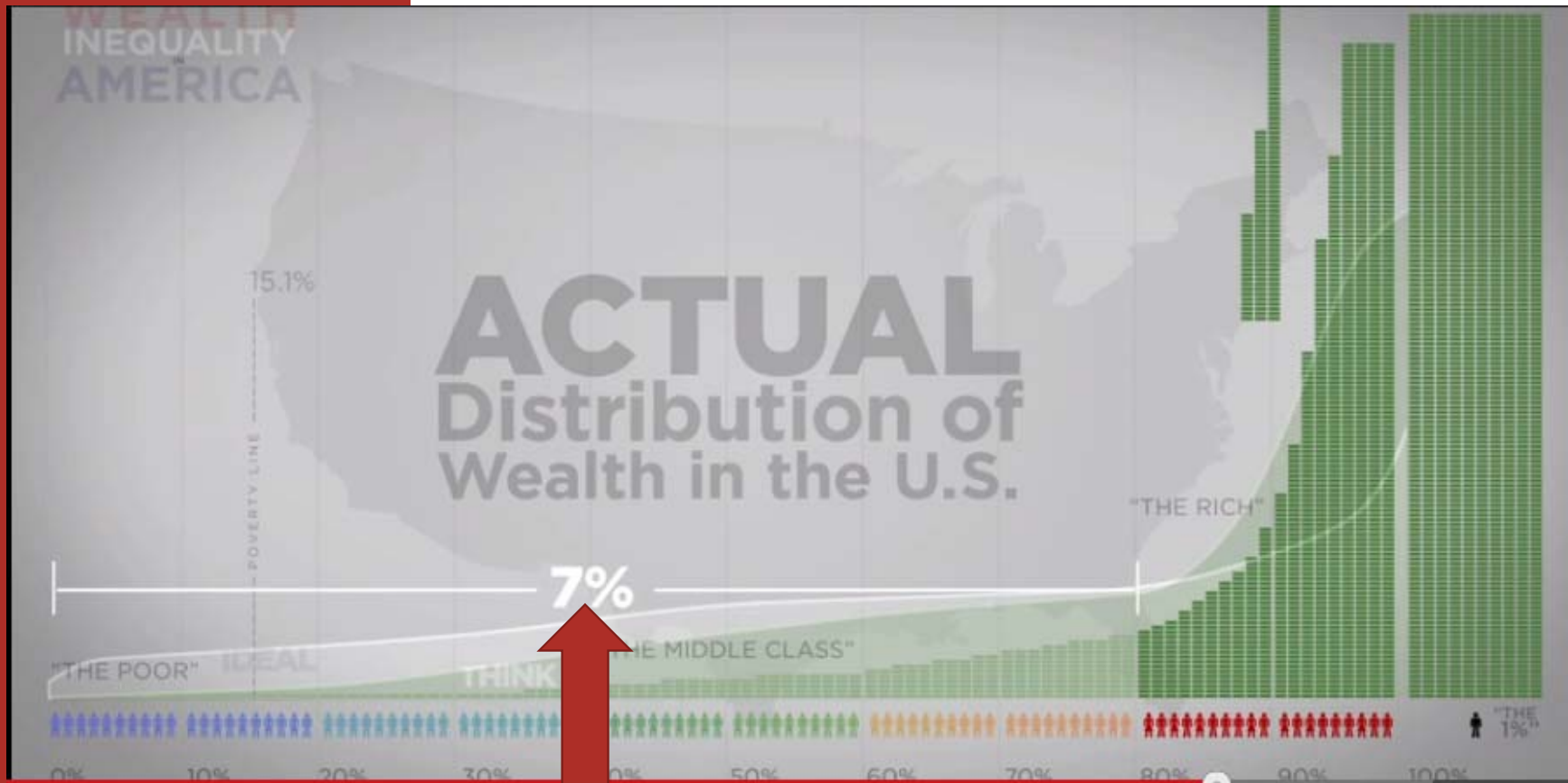


With a focus on the top 1%



With a focus on the top 1%

80% of Americans own only 7% of the wealth



But this is the  
tip of the  
iceberg

- Wealth and income are a part of the picture.
- For countries like the U.S. the role of wealth goes far beyond mere ability to buy things.
- Wealth and income are measures or emblems of social status.
- But education is the other indicator.
- Having high level of education but lower pay may still confer relatively higher social rank.

## Source materials

Michael Marmot

*The Status Syndrome: How Social Standing Affects Our Health and Longevity.* New York, NY: Henry Holt and Company.

Richard Wilkinson  
& Kate Pickett

*The Spirit Level: Why Equality Makes Societies Stronger.* New York, NY: Bloomsbury Press.

Martha Nussbaum

*Creating Capabilities.* Cambridge, MA: Harvard University Press.

Amartya Sen

*Development as Freedom.* New York, NY: Anchor Books



# The Whitehall Studies

- **Michael Marmot's Whitehall Studies - The status syndrome**
  - I - Over 18,000 civil servants (all male) in the UK. Study began in 1967. Males were selected due to bias about the prevalence of heart disease.
  - Whitehall II had men and women in it (n=10,308).

## The Whitehall Studies

- **The fundamental finding from the Whitehall studies was that:**
  - Social rank was linearly related to health (including mental health) and mortality with every step downward in social rank associated with poorer health and earlier mortality.
- Longevity is related to status - Academy Award winners live 4 years longer than nominees.

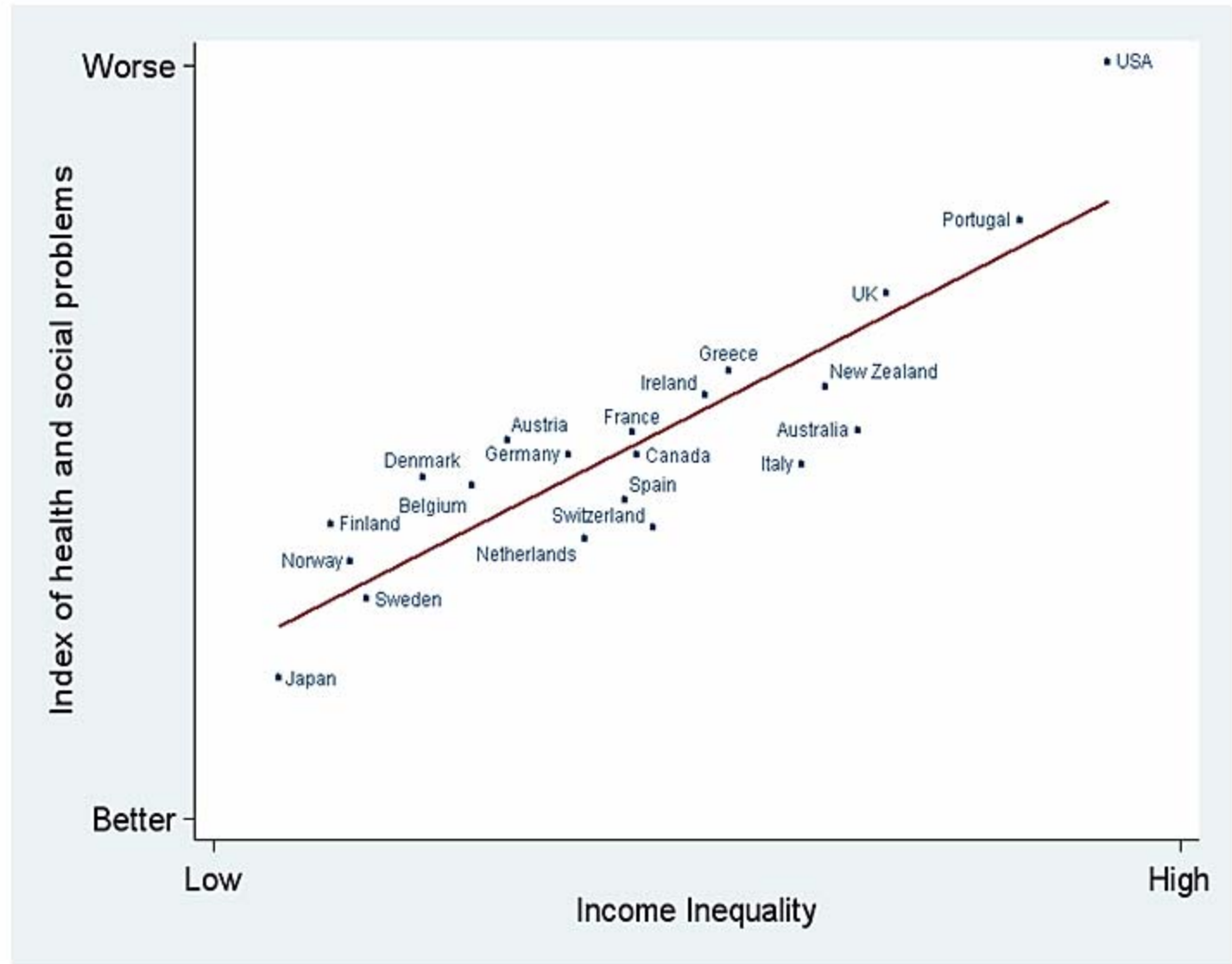
## Other international data

- **Wilkinson and Pickett used large data sets with indexes for most of their analyses.**
- **In most cases the indexes were developed by others and merely used by W & P – thus reducing possibilities of distortion of findings.**
- **The index for child well-being included 39 variables, for example.**
- **Their work coincides with Marmot's and underscores the critical element of inequality as the driving force behind health problems of almost every type.**

# Health and Social Problems are Worse in More Unequal Countries

## Index of:

- Life expectancy
- Math & Literacy
- Infant mortality
- Homicides
- Imprisonment
- Teenage births
- Trust
- Obesity
- Mental illness – incl. drug & alcohol addiction
- Social mobility

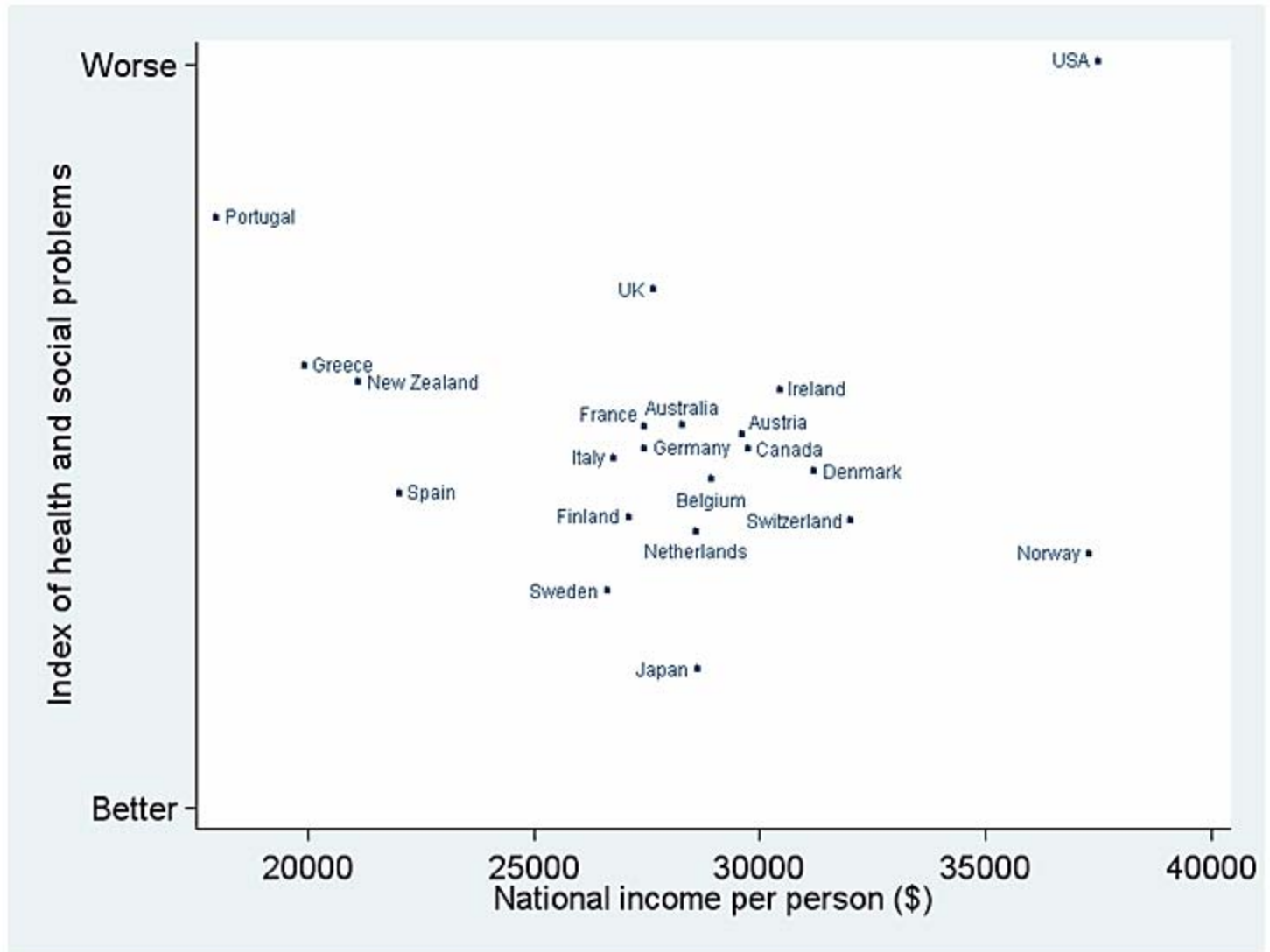


Source: Wilkinson & Pickett, *The Spirit Level* (2009)

## Health and Social Problems are not Related to Average Income in Rich Countries

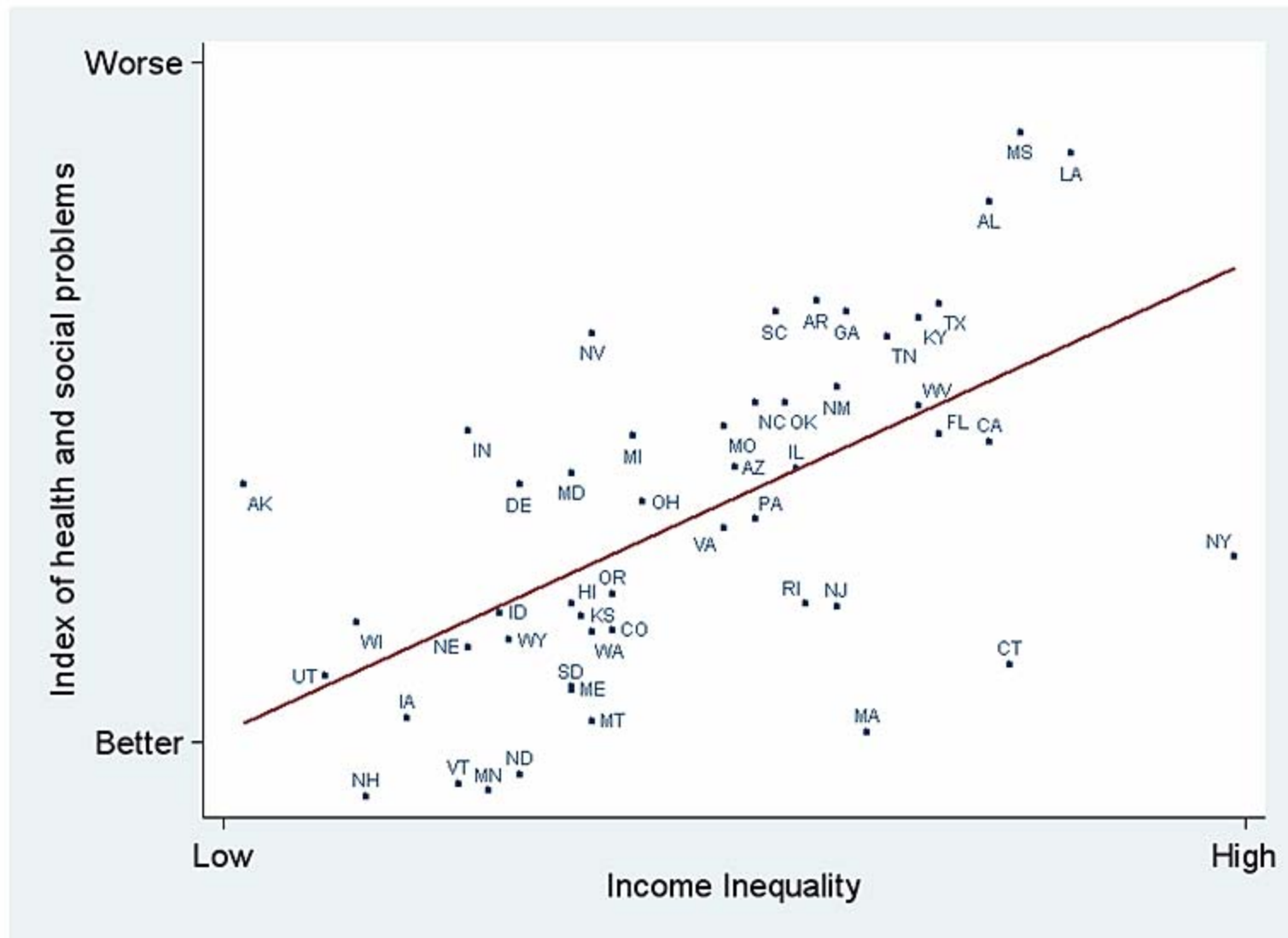
### Index of:

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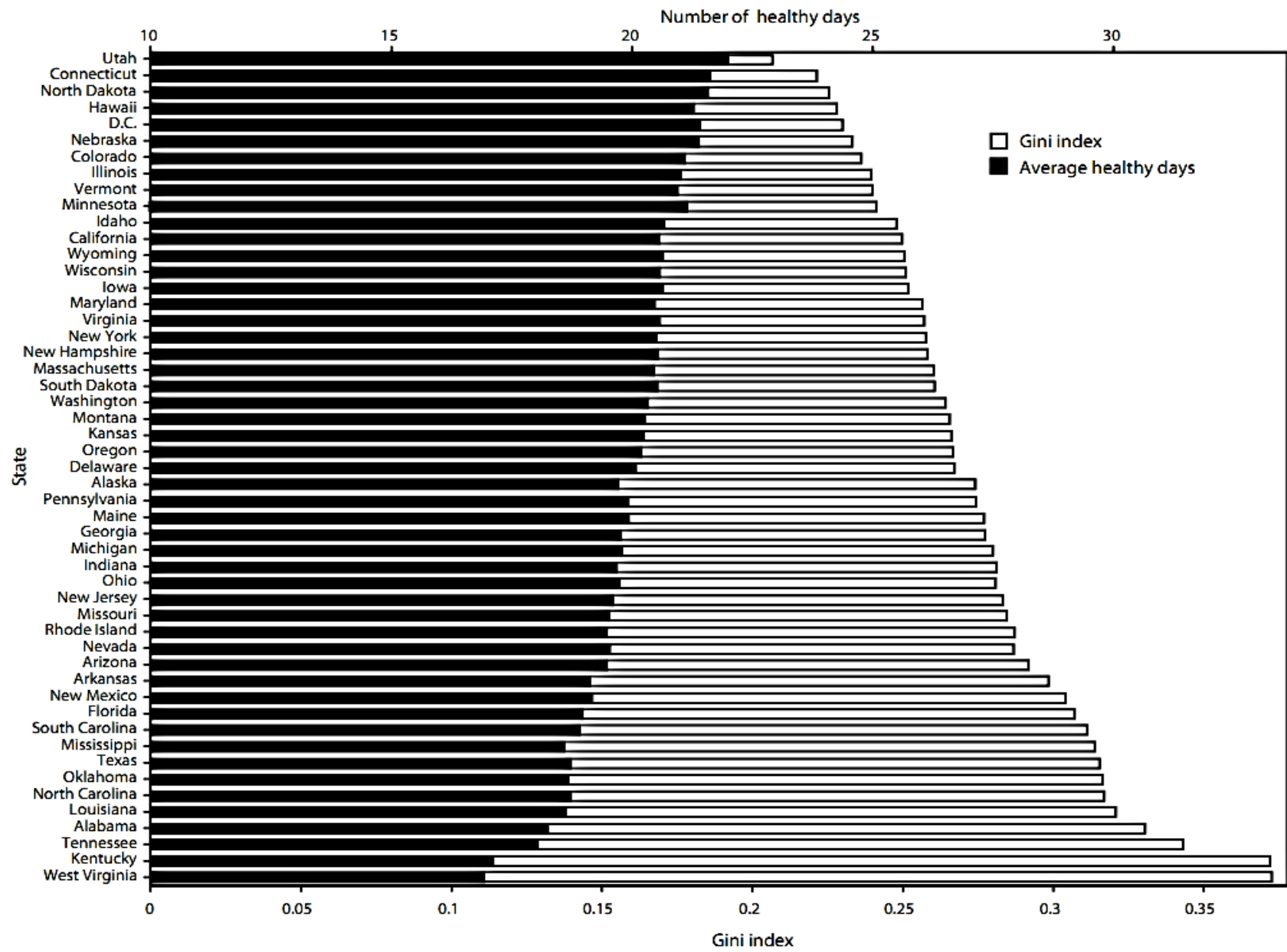
Source: Wilkinson & Pickett, *The Spirit Level* (2009)

## Health and Social Problems are Worse in More Unequal US States



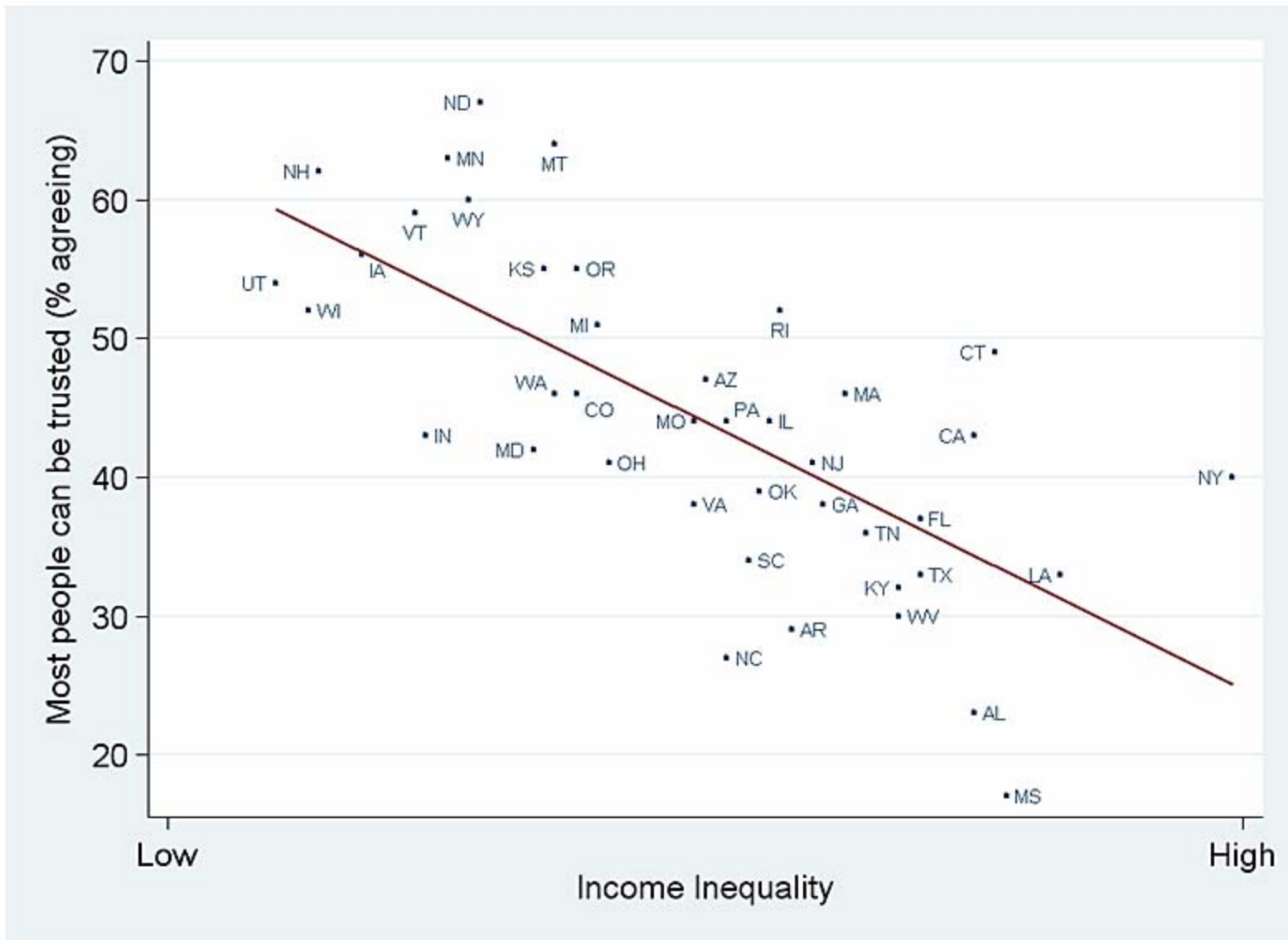
Source: Wilkinson & Pickett, *The Spirit Level* (2009)

**FIGURE 4. State-specific Gini index of inequality in number of healthy days and average number of healthy days — United States, 2007.**



Source: Gini index and mean of number of healthy days was estimated by using data retrieved from the Behavioral Risk Factor Surveillance System, 2007. Available at <http://www.cdc.gov/BRFSS>.

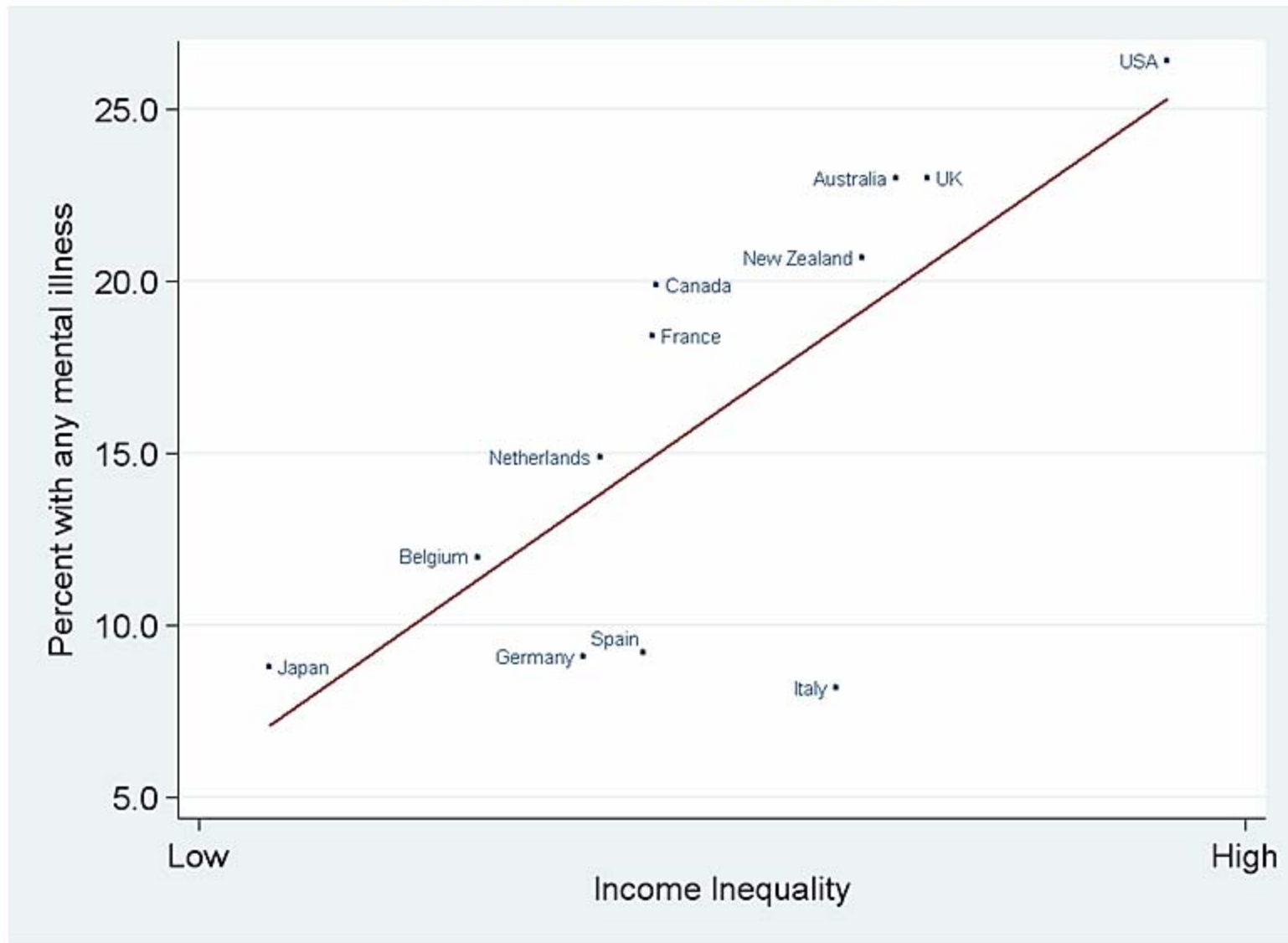
## Levels of Trust are Higher in More Equal US States



Source: Wilkinson & Pickett, *The Spirit Level* (2009)



## The Prevalence of Mental Illness is Higher in More Unequal Rich Countries



Source: Wilkinson & Pickett, *The Spirit Level* (2009)

## Drug Use is More Common in More Unequal Countries



Index of use of: opiates, cocaine, cannabis, ecstasy, amphetamines

## Origins of inequality in the U.S.

- The English settlers who founded the U.S., brought with them major cultural factors that have contributed to inequality.
- The first slaves in the U.S.
  - What date?
  - Who were they?

# Four Americas and Kentucky

- Puritan New England
- **Master/slave Virginia**
- Quaker Pennsylvania
- **Scots-Irish**

## Master/slave Virginia

- Virginia settled by latter born aristocracy AND indentured servants and slaves.
- 75% of the people settling Virginia had no property at all.
- Religion = Church of England – hierarchical version.
- Head rights exercised extensively here.

## Master/slave Virginia

- Power lodged exclusively among males with land holdings – cheap labor seen as a 'right'.
- Land was surveyed in the west and 'bought' by the aristocracy (Lee and Washington families).
- Settlers then had to buy the land from these absentee landlords.
- Even by 1820, 45% of Clay county was owned by people who never set foot in Kentucky.

## Scots-Irish

- They owe their origin to being marginalized English from the time of Henry VIII, through Elizabeth I and James I and then Cromwell following the English Civil War.
- They were pushed to border Scotland, then to Northern Ireland and then they left for America – mostly Virginia – West Virginia - Kentucky.
- They hated law and order, trusted no one but family, despised book 'larnin', and wanted unmediated religion – Calvinist background.
- Dispossessed for generations, they saw themselves as a law unto themselves.

These two =  
Kentucky

- Little appreciation for community.
- Default ethic - reliance on individual for everything.
- Belief that government should not interfere in anything.
- Hatred for taxation – by both the Scots-Irish and the wealthy Virginians.
- Greed is good – the wealthy, titled Virginian settlers strongly in favor of cheap labor and easy riches.
- Tradition is the rule.



## Culture + status syndrome

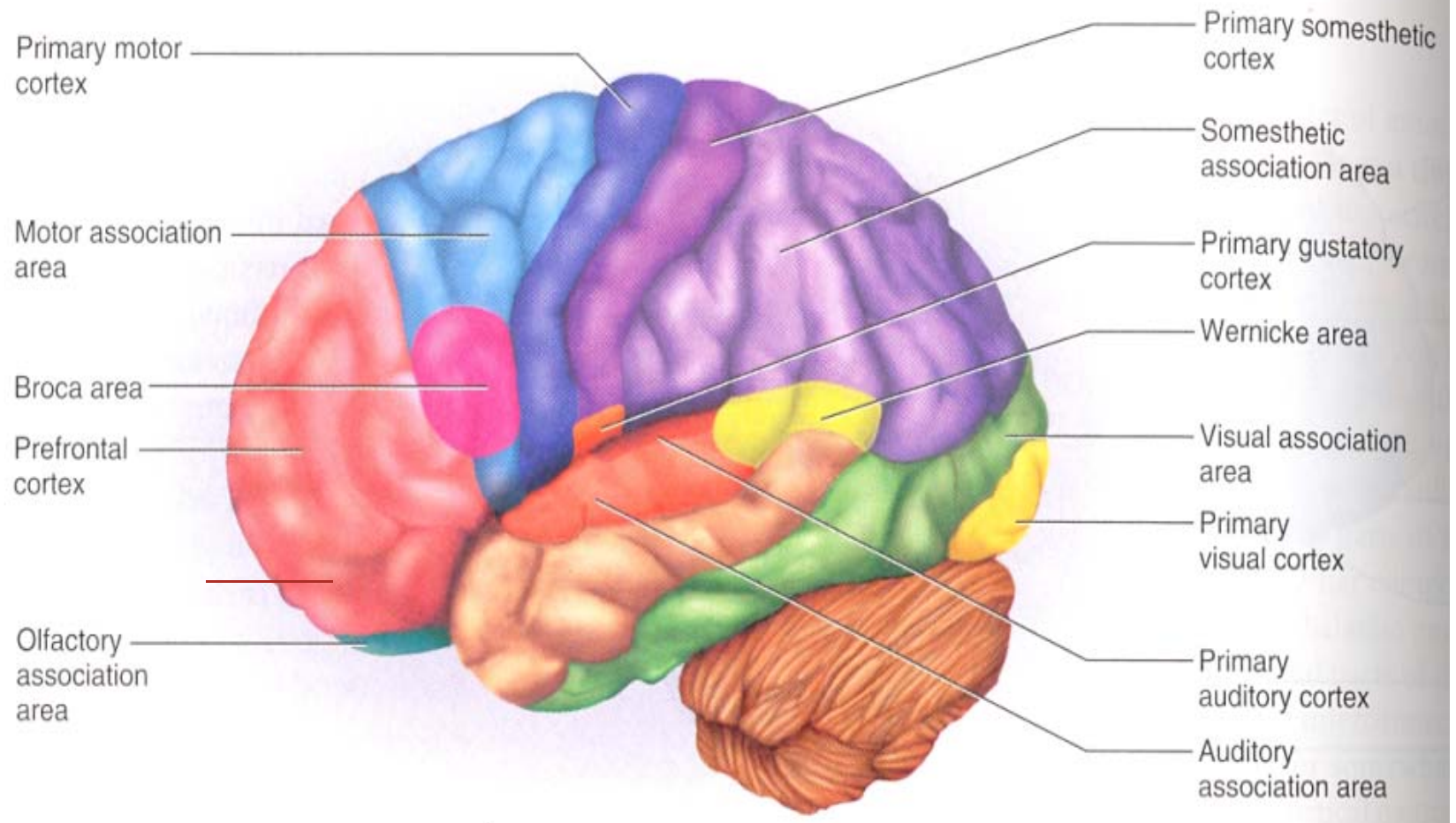
- The net effects of our history coupled with the effects of social status on health and well-being may explain much of the current social diseases in America.
- *Still, we must explain how these large social constructs affect individual lives.*
- And, we will see it isn't just 'culture' or historical, multigenerational poverty at play.

# What mediates all of this?

- Wilkinson, Pickett, and Marmot all show that *poverty is not the major contributing factor* to disability – it is the *inequality of incomes and social status* that drives disorder and dysfunction.
- The mediating factor in the 'status syndrome' is *consciousness* of social rank and a person's position among those ranks.
- Lower position is associated with greater distress as measured psychologically, socially, and neurochemically and physiologically.

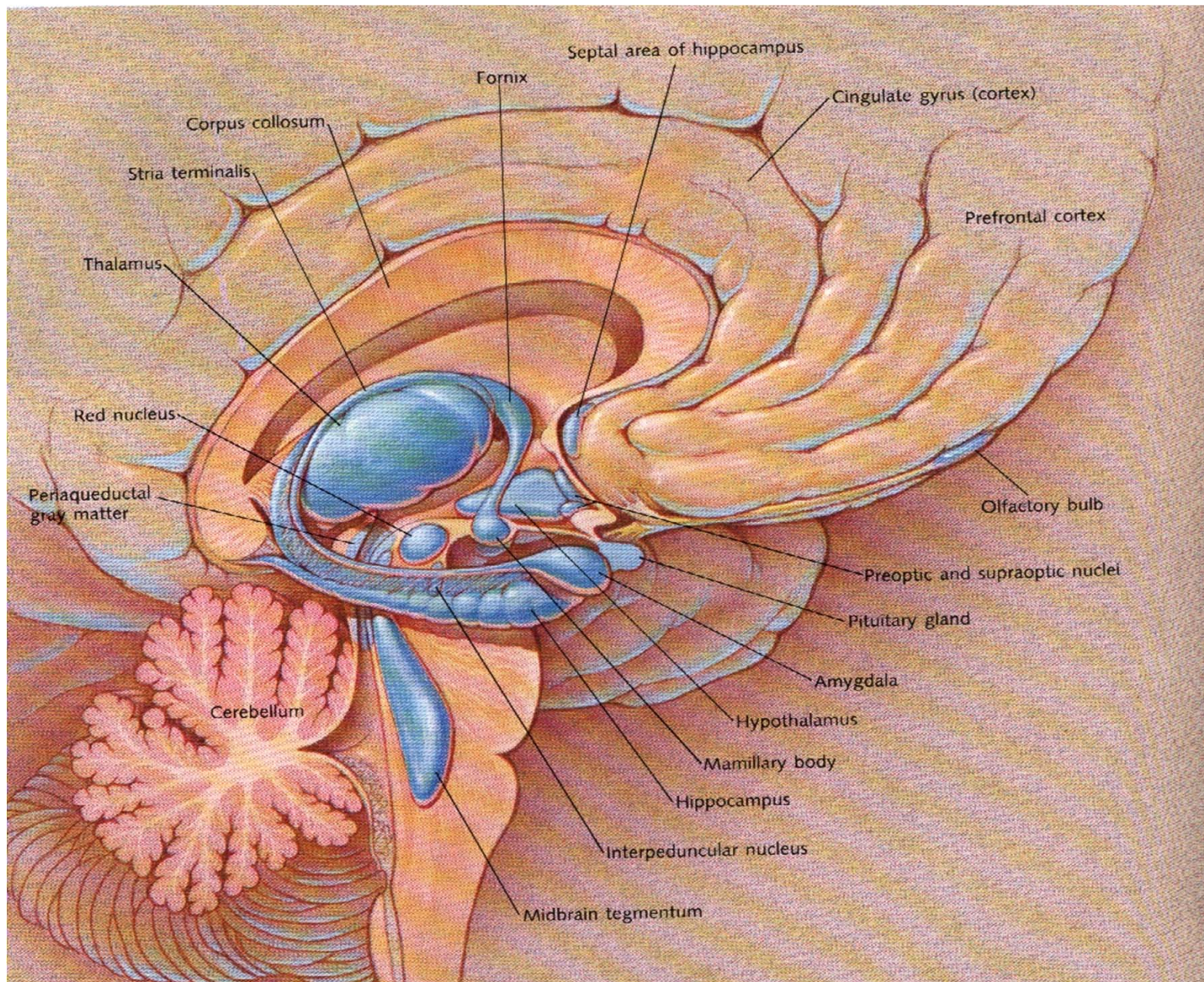
## Consciousness and social rank

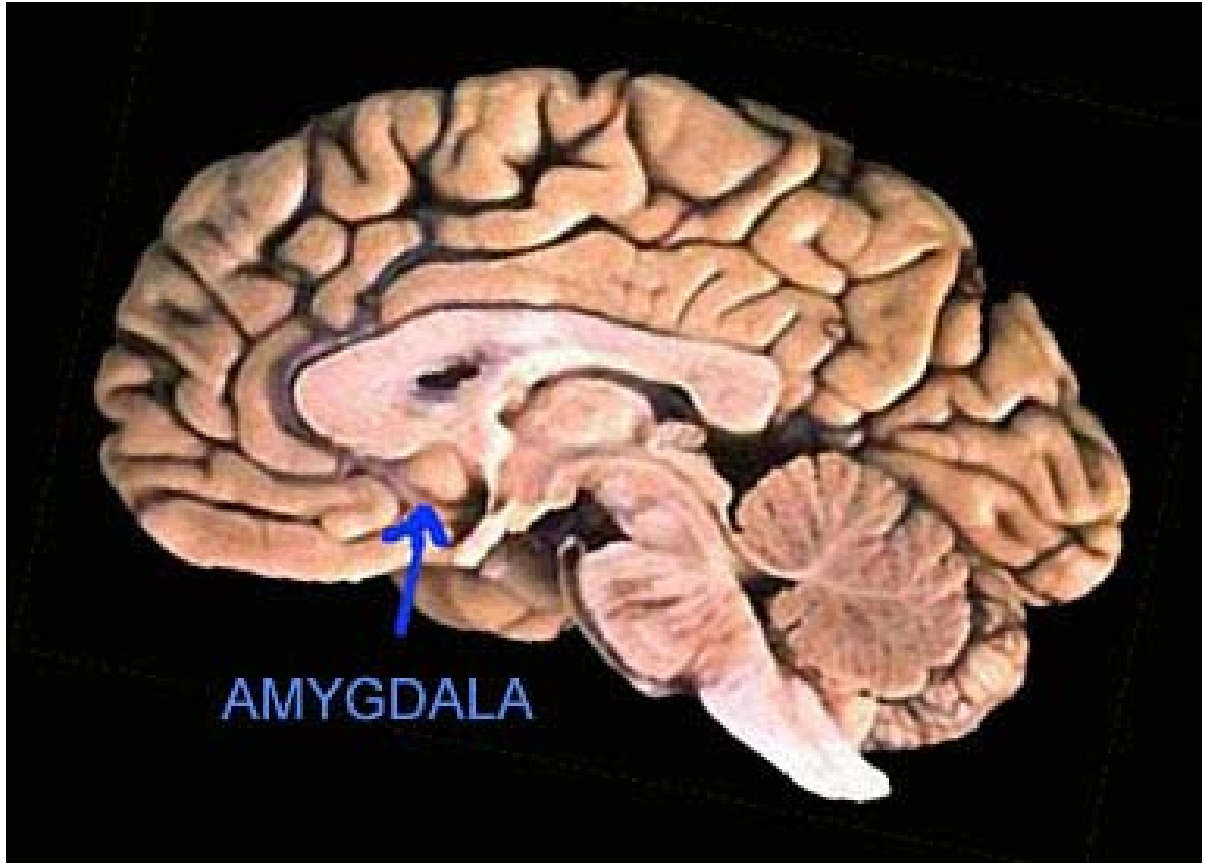
- Consciousness is very complex, with multiple layers.
- We usually think of self-aware consciousness.
- However, we also have many “background programs” that reflect conscious brain activity, but of which we are not aware or self-aware.
- The brain runs all of these programs and there are neural structures for accomplishing them.
- Among these structures are those which handle stress arising from social rank.



## What mediates all of this?

- We have innate neuroanatomical structures that detect social rank almost immediately upon contact with others.
- These structures operate outside of conscious controls.
- Lower rank is associated with increased stress-related neurotransmissions and other physiological responses.
- The more enforced or iterated the hierarchy, the more pronounced the effects of lower status.





## The arousal system

- The arousal system is one of the most primitive parts of the brain apart from basic physiological stasis regions.
- Once there are sensory stimuli (visual, etc), afferents to the amygdala are activated.
- The amygdala adds an emotion tag (positive, negative) to the perceived stimulus.
- If the tag is for 'threat', afferents to the locus coeruleus are activated.
- The locus coeruleus triggers release of norepinephrine (adrenaline) to all regions of the CMNS and PNS.



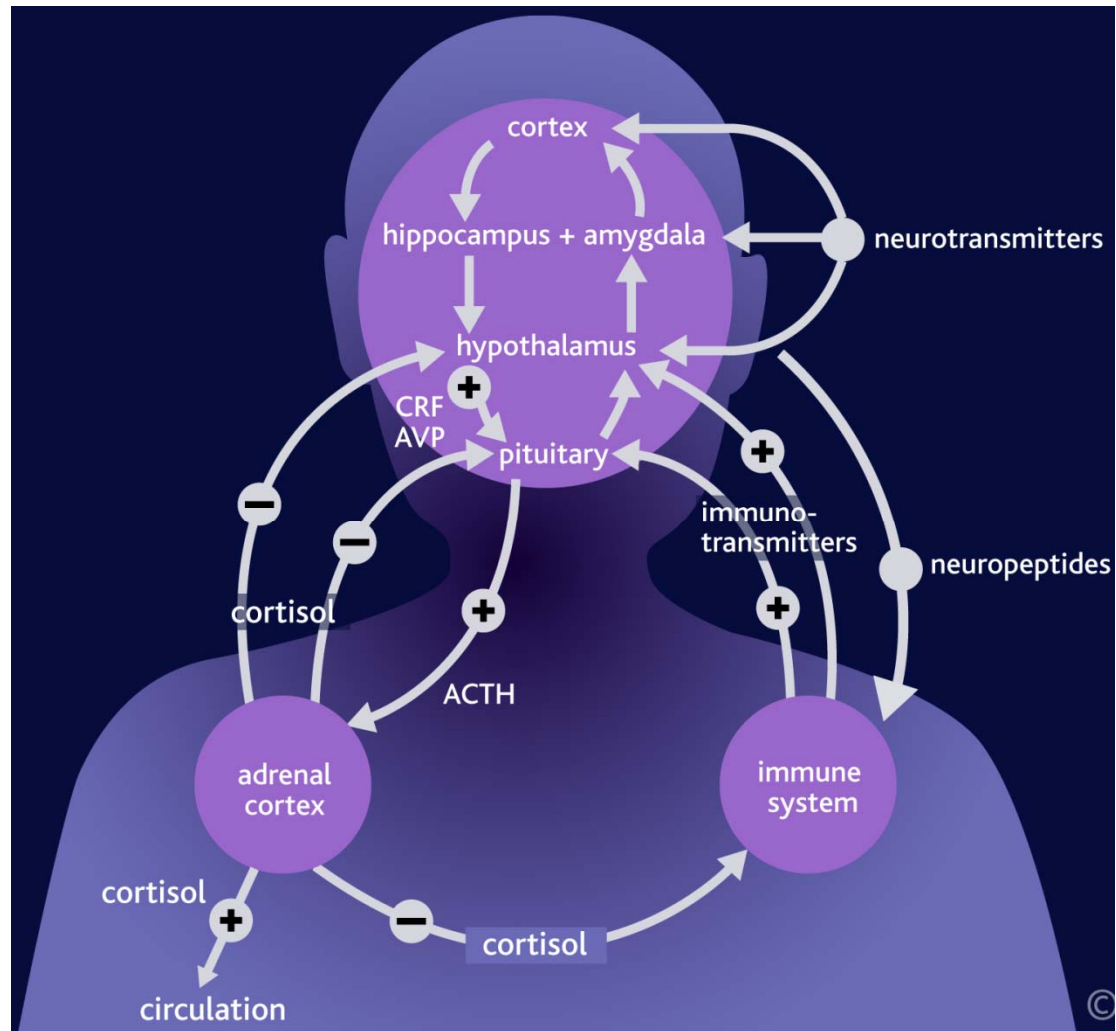
## The arousal system

- The release of norepinephrine (NE) also stimulates neurohormonal activity to moderate the effects of NE.
- Cortisol in the neural environment for too long causes shut down of neuronal metabolism, causing cell death. (Normal half-life of cortisol is 60-90 minutes)
- NE triggers activation of the HPA Axis
  - Hypothalamic-pituitary-adrenal axis
  - A sequence of feedback interactions among neuronal and hormonal nuclei.
  - Begins with locus coeruleus activation and afferents to the hypothalamus

## The arousal system

- The hypothalamus releases corticotrophin-releasing hormone (CRH) to the pituitary gland and to the adrenal gland.
- In response, the pituitary gland secretes adrenocorticotrophic hormone (ACTH) which then triggers
  - The adrenal gland to secrete corticosteroids such as cortisol which suppresses the hypothalamus.
- Cortisol increases glucose in the blood stream and decreases it in other tissues. It also regulates vascular smooth muscle tension to increase blood pressure.
- Cortisol decreases REM sleep and reduces sleep length.
- Cortisol reduces T-cell development and thus has a negative impact on the immune system.

# Image of HPA and arousal pathways



## And what is stress?

- **It's not the kind executives face. That's stimulus with threat, but also with opportunities for power and control.**
- **The damaging stress is a condition of high external demand and low control.**
- **This stress is a condition of life for many and the experience of no control is devastating to cognition, emotion, and to the human will.**
- **It's one reason why being unemployed for more than 2 years means an almost total destruction of employability.**

## Arousal and depression

- Heightened or sustained arousal states are associated with depression.
- About 50% of patients with anxiety disorders also have depression.
- **Has correlates with ego depletion.**
- The serotonin and norepinephrine systems are most involved with depressive states and the Raphe nuclei and locus coeruleus are two critical nuclei for this.
- Prolonged depression is associated with changes in gene expression and in decreased volume and functionality of the frontal lobes.
- Depression is a major risk factor for substance abuse.

## Chronically disturbed arousal conditions

- Chronically disturbed arousal conditions become major risk factors for mental disorders and substance abuse.
- The experience of low social rank is a pervasive, persistent contributor to increased arousal.
- The brain is evolved to seek pleasure and avoid pain.
- Disturbed arousal conditions (either type) lead to are anhedonic states that people try to modify.
- **Guess what's top on the list to modify bad brain states?**

- The net effect of the neuroanatomical and neurochemical actions in response to stress is harmful to mental and physical health in multiple ways.
  - Increased anxiety
  - Increased risk of substance use to moderate negative affects (including tobacco)
  - Increased risk taking (including gambling, lottery-playing) – and all the health consequences of risk taking (TBI)
  - Increased risk for obesity (carbohydrate loading)
  - Sleep disorder

# The basic structures involved throughout development

- We will discuss four central levels of the brain in the context of development.
- First is the brain stem, where basic survival functions are carried out.
- Next is the diencephalon that mediates key autonomic functions and arousability. Many different functions are linked to this region including the sensory systems such as the auditory, somatic, visceral, gustatory and visual systems.
- Next higher up is the limbic system where other basic emotions and declarative memory are mediated.
- Last, is the neocortex where logic, language, pattern detecting and analyzing occur.

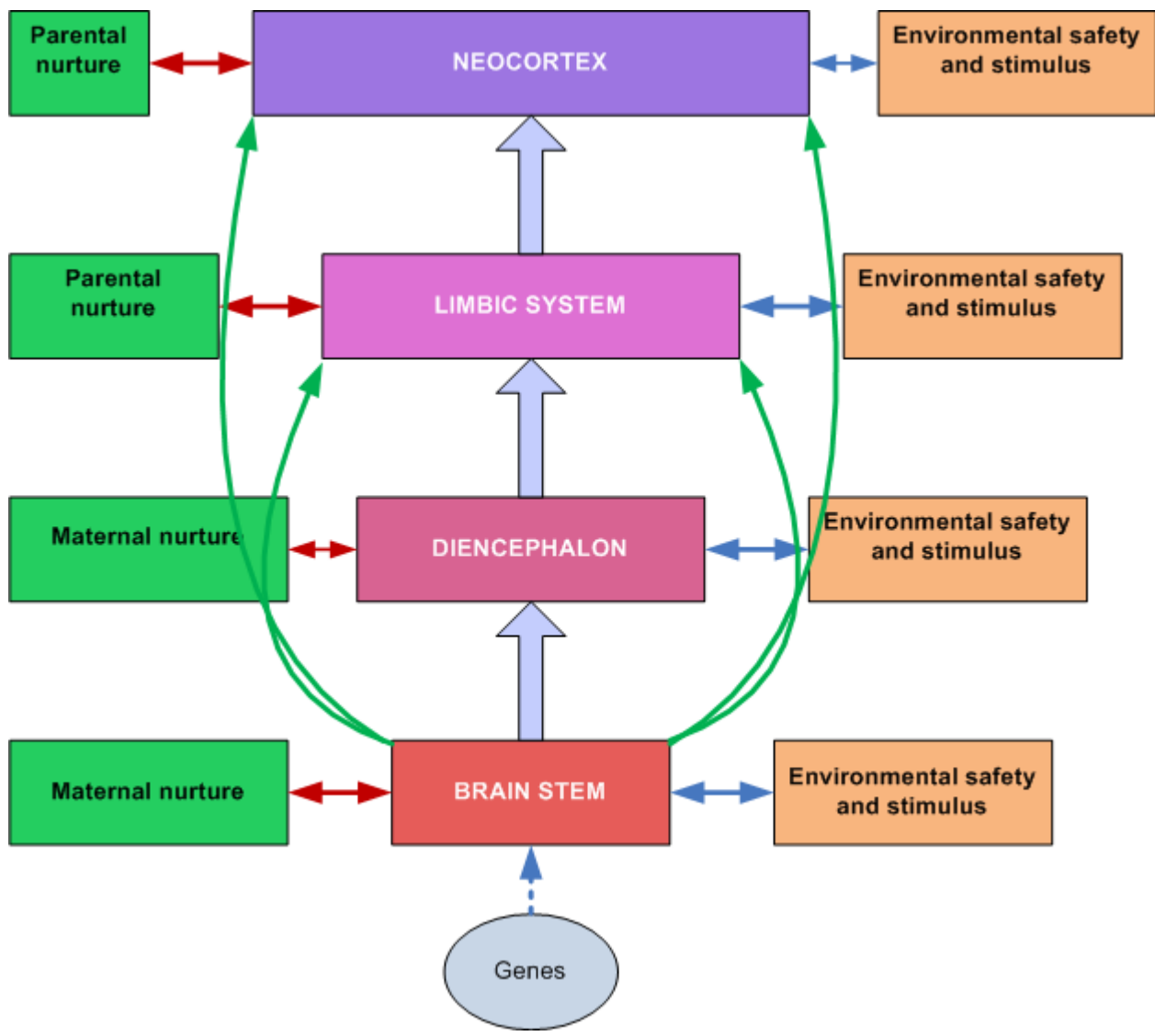


## The natural development: nature/nurture

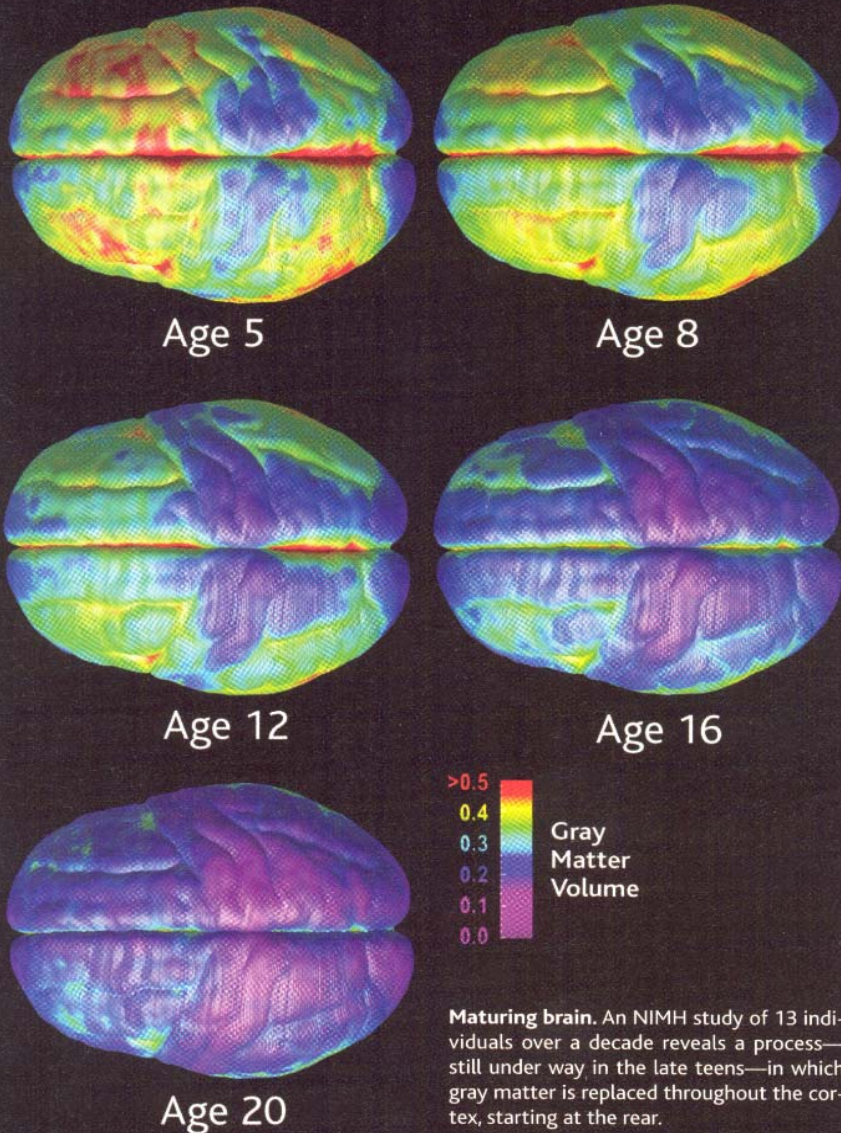
- Healthy infant stimulation guides this process toward nurture of positive neurobehavior and neurodevelopment.
- Mirroring enhances development of affective and cognitive pathways.
- Each stimulative act strengthens a neural pathway.
- Violent and/or under-stimulated (neglectful) environments affect this development very differently.
- Environments characterized by aggression, stimulate fight/flight pathways and the arousal system over-develops in one form or another.
- Social rank conditions in early childhood and adolescence carry over into adulthood.

## Each phase of development

- The tenor of the emotional environment shapes the way in which the brain develops its key functions.
- Environments of intense stress leave a footprint on brain pathways – not as concrete memorial events, but as a way of processing reality.
- It also leaves a footprint on the nature of self.
- Those footprints are lifelong.



## Normal Brain Development



**Maturing brain.** An NIMH study of 13 individuals over a decade reveals a process—still under way in the late teens—in which gray matter is replaced throughout the cortex, starting at the rear.

This set of images, a composite of 13 brains during development, shows how the cortex goes through changes during adolescence.

The purple color shows the development of mature gray matter in the cortex throughout development.

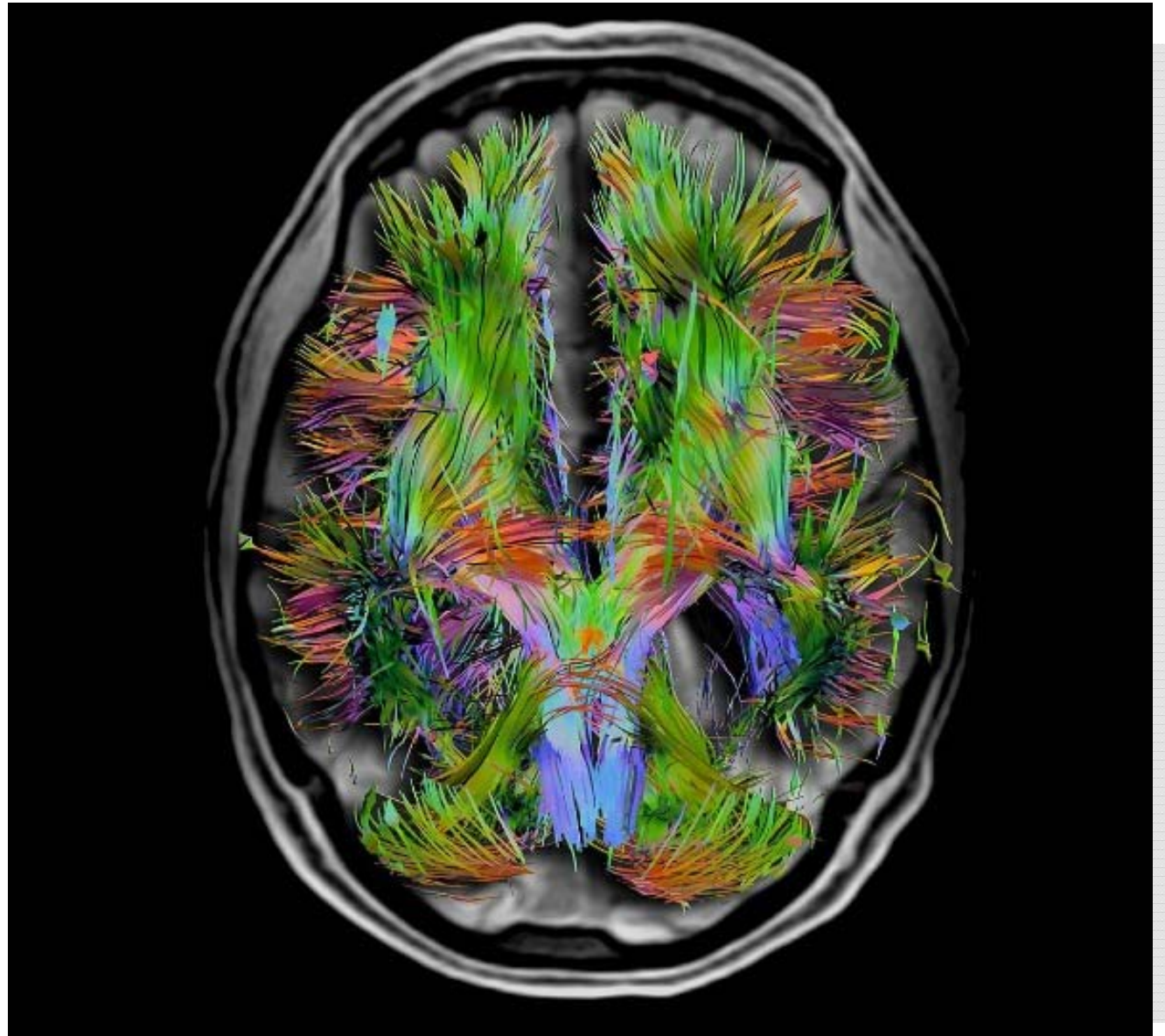
Note that the frontal lobes are last to be replaced by gray matter

By age 20, the brain is essentially complete in cortical development.

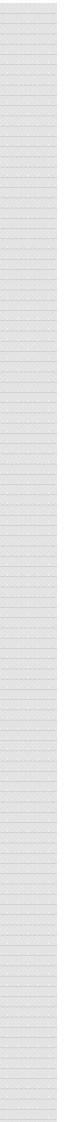
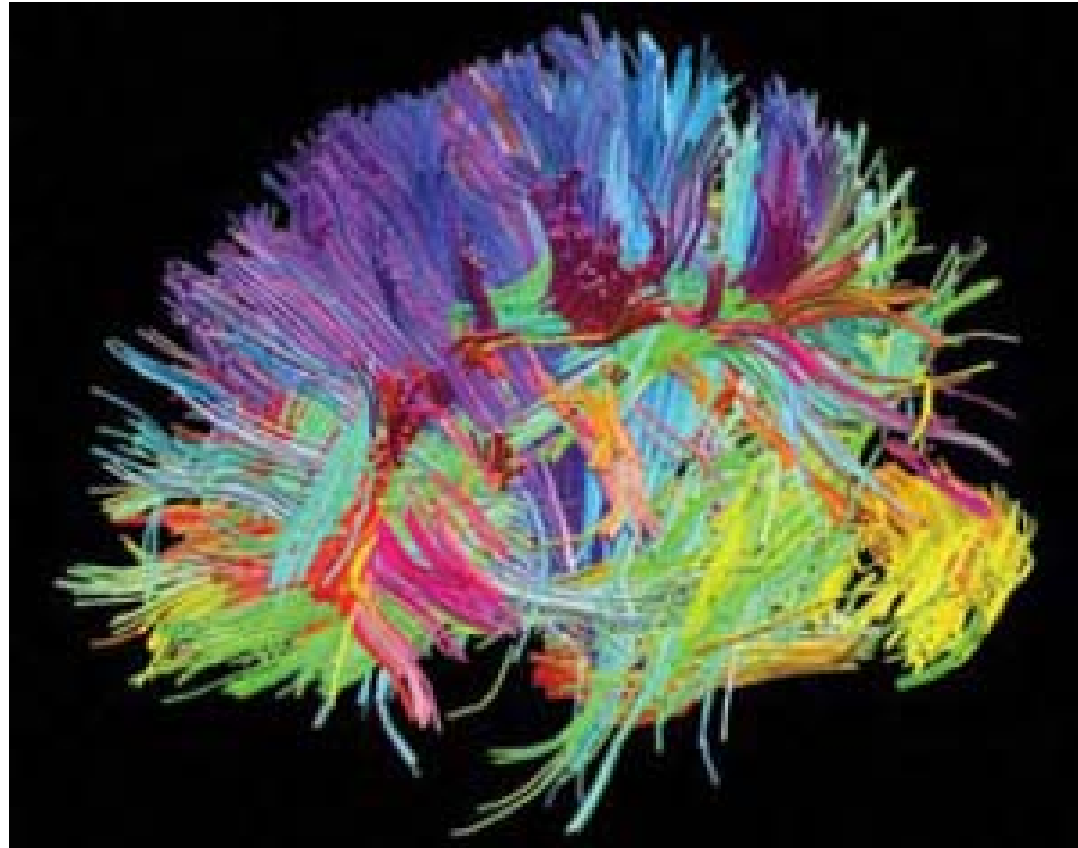
Note how late it is for final cortical development.

(Science, v305 2004, p.597).

Networks abound  
– all can be  
affected  
developmentally



Another view





# Trauma and memory

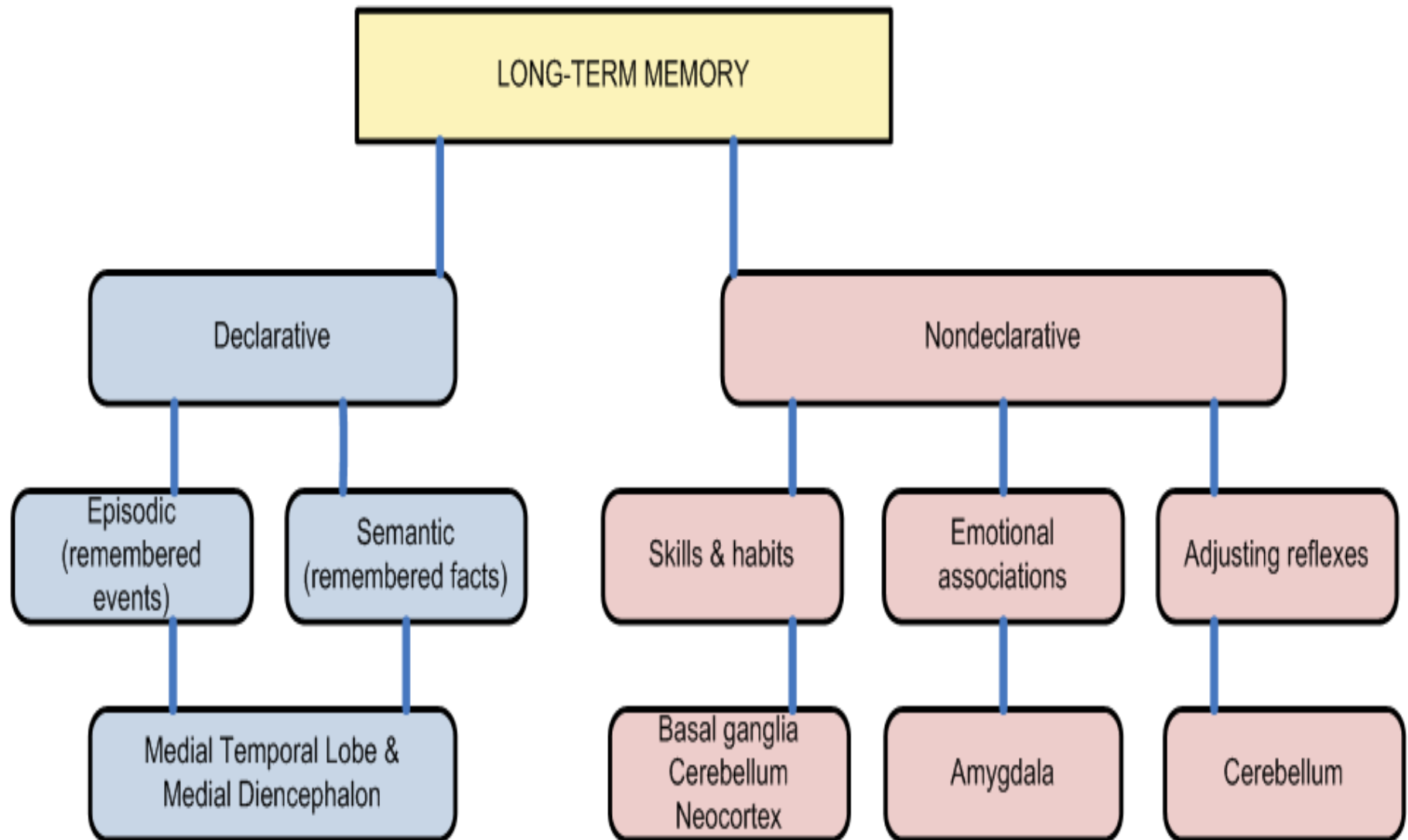
- Memory is not fixed. It does not exist like layers of deposited rock or library cards in a file.
- Every time a memory is brought to consciousness it is reconsolidated – re-formulated.
- Fundamental interpretive schemes for life can be overlaid onto memories.
- Negative memories are far more likely to be preserved and refreshed than positive memories.



# Memory and its structures

- All memorial functions have neurochemical and neuroanatomical correlates.
- Memory is widely distributed throughout the brain BUT all memory is mapped into neural pathways at specific regions of the brain.
- We begin with working memory.
- Next comes short-term memory.
- Last is long-term potentiation.
- Memory is largely keyed into brain structures around sensory and emotional flavoring. That is, experiences or facts that carry zero valence are very unlikely to be remembered.

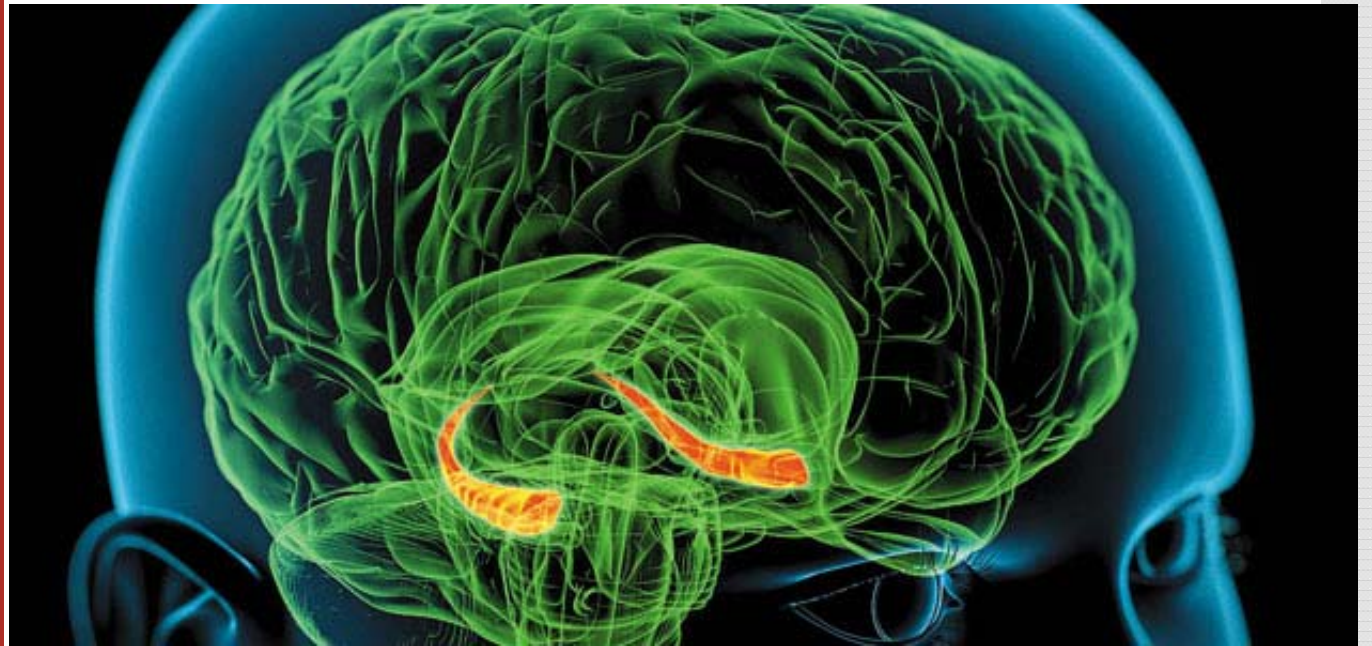
# Memory and related neuroanatomical structures



## Stress and memory encoding

- Stress conditions inhibit the development of new neurons in the hippocampus.
- Reduced development of these neurons is likely what accounts for poor short-term memory and poor addition of new information into memory.
- As the negative effects of low status accumulate, there are greater reductions in memorial capacity.

# The Hippocampus



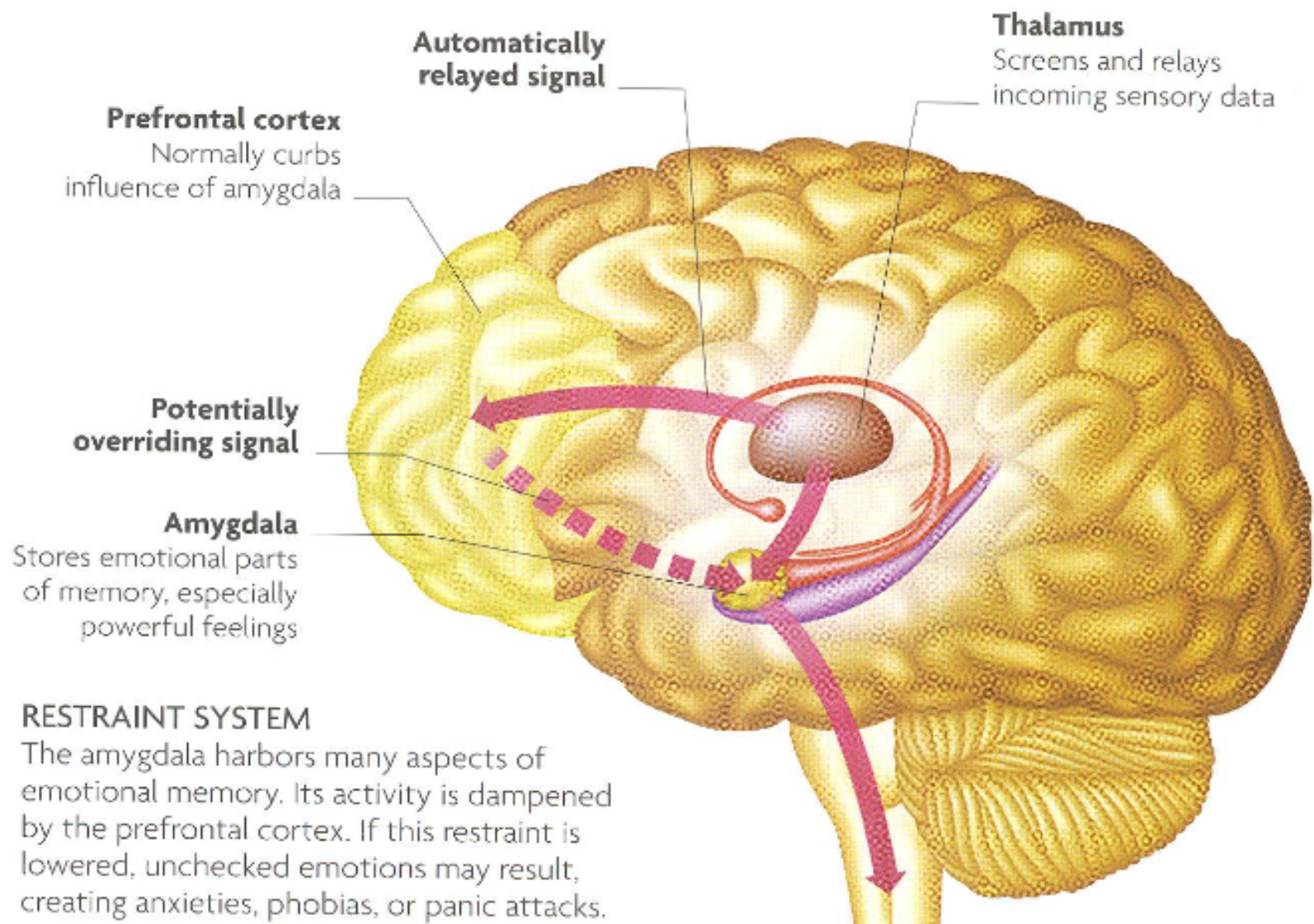
# Hippocampus

- The hippocampus is responsible for mediating short-term and working memory and encoding long-term potentiation (LTP).
  - Working memory and short-term memory are primarily mediated in the hippocampus but with attentional capacity mediated by the prefrontal and orbital frontal lobes.
  - This functions through continuous release of AMPA and glutamate throughout the memoral cycle.
  - Has some of the most densely packed neurons of any brain region.
  - N-methyl D-aspartate (NMDA) – facilitates depolarization of cells thus allowing influx of calcium which is associated with LTP. This chemical process stimulates LTP throughout the cortex.

# Hippocampus

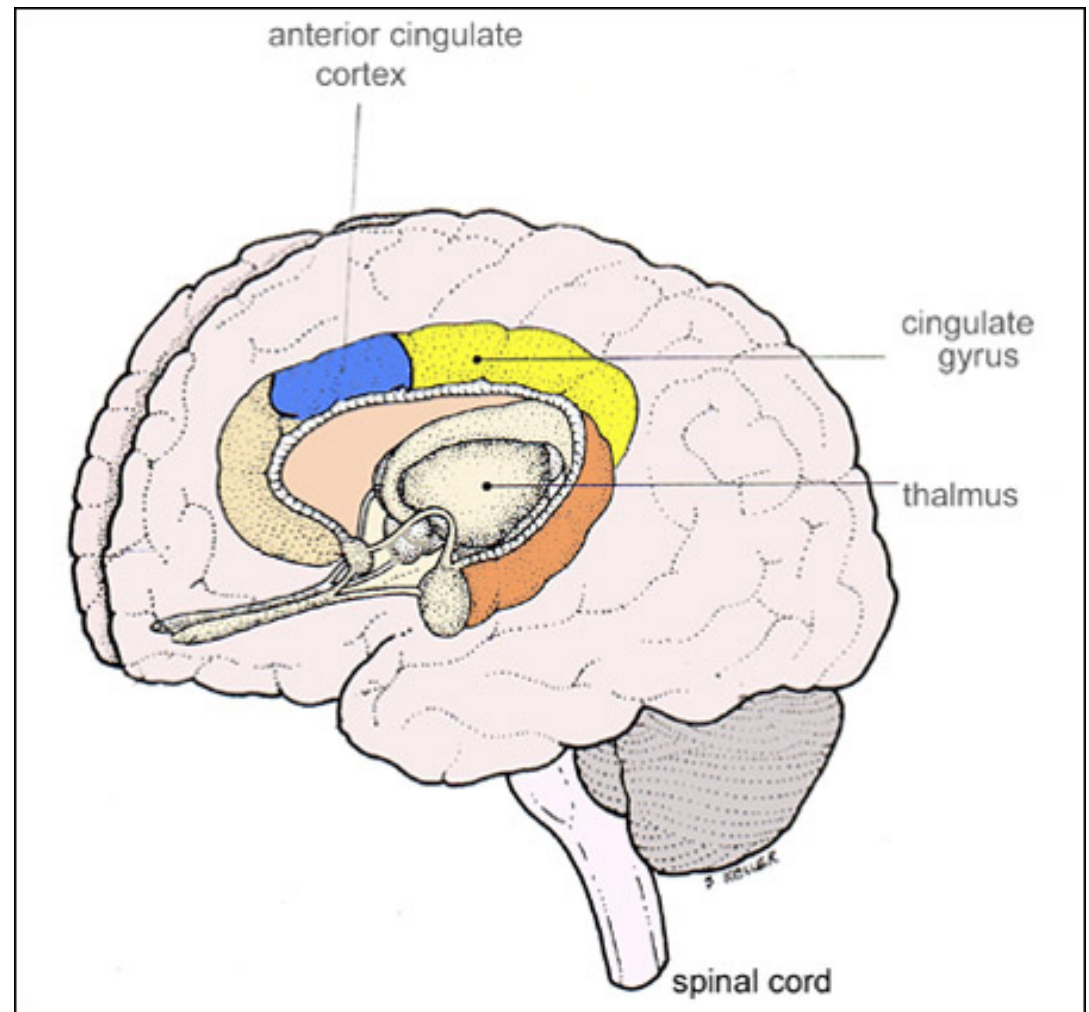
- The hippocampus also plays a role in retrieval of memories.
- It is sensitive to negative effects of cortisol and research has found decreased cell volume in the hippocampi of individuals with:
  - PTSD
  - Depression
  - Alcoholism
  - Chronic, heavy sustained use of marijuana
- The same finding for the amygdala, which is heavily involved with emotional memory.

# Emotional memory system



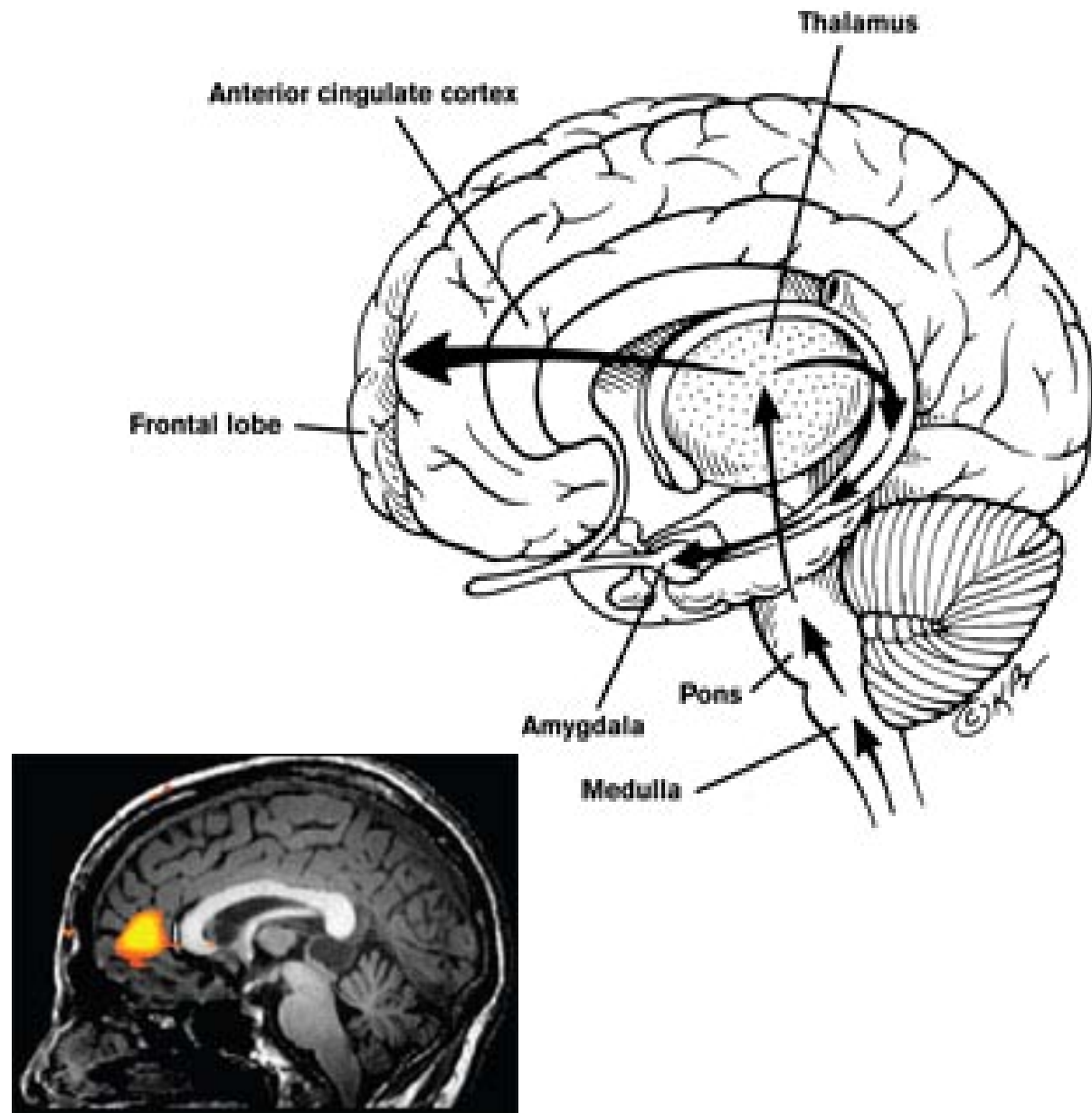
**Physical pain**, emotional pain, **social pain** are all mediated in the anterior cingulate gyrus.

This is also a critical region for addiction – it is where value is assigned to experiences that tags them as worth repeating in spite of risk, etc.





Another  
brain image  
of pain -  
  
Social and  
physical



## Development relays earlier life experiences

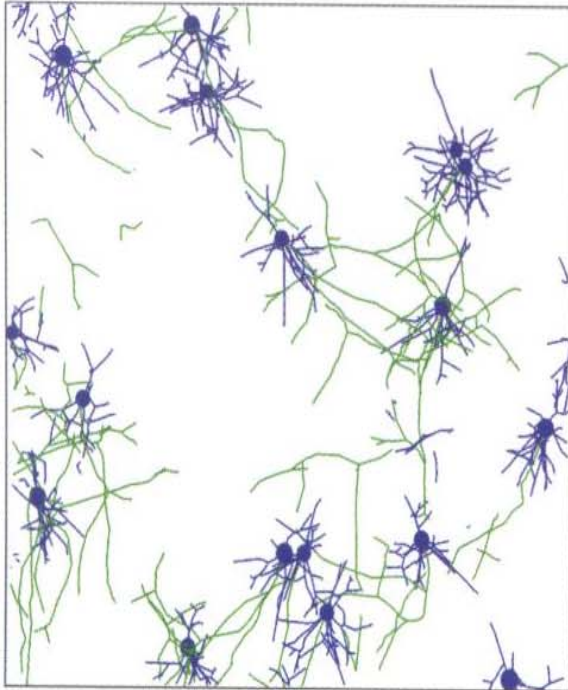
- But it's not just in the form of actual conscious memories.
- It is what the *body/brain* remembers.
- And experiences with arousal disturbances tend to bleed over from early life into adulthood.
- These conditions also cause multiple disorders in thinking, feeling and acting.

## Comorbidities abound

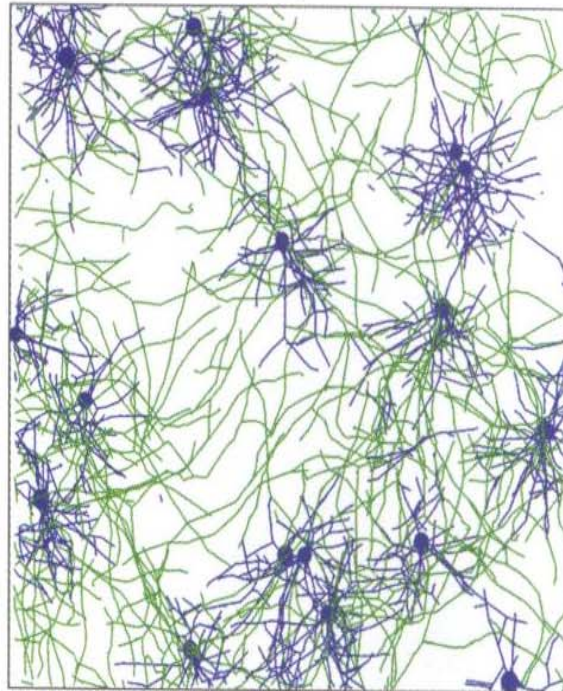
- With this broader perspective, the incidence of comorbidity makes even greater sense.
- **Heightened arousal conditions undergird almost every disorder.**
- The driving force behind the disorders is not what we thought – *it is far larger social constructs than the medical model.*
- The core damage of the social gradient is *reduced capabilities.*
- Decrements in social rank increase arousal, deplete ego reserves to cope, and are also associated with decreased socialization and therefore decreased neural growth.

# Neural dendritic growth and how it can go the other way

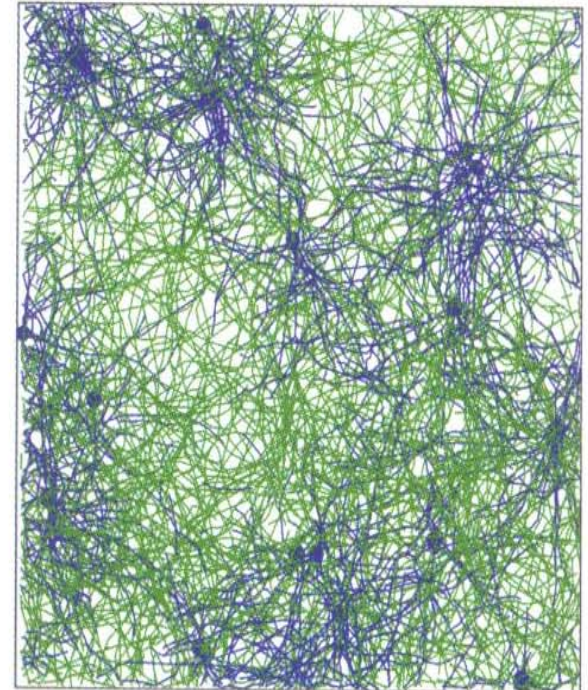
4 days



8 days



16 days



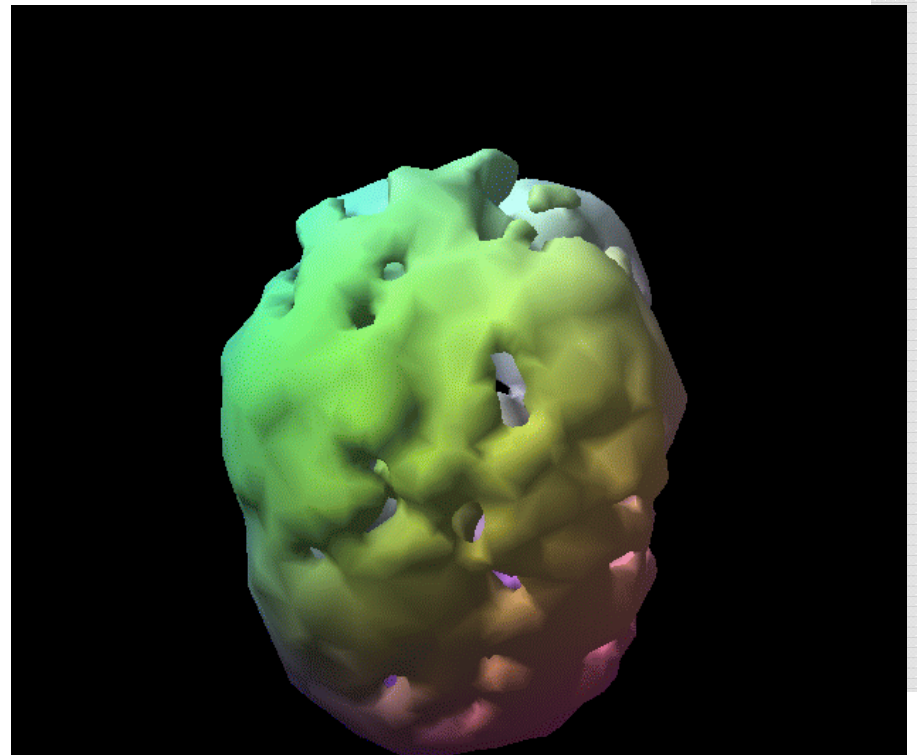
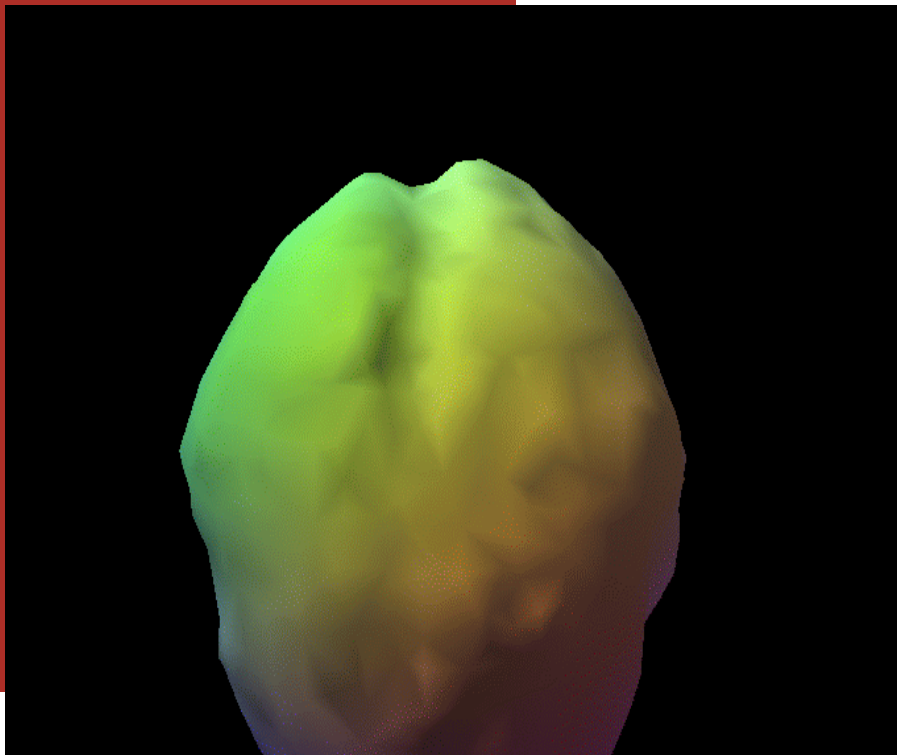
Sporns, O. (2011). Networks of the Brain. Cambridge, MA: MIT Press.

# SPECT images of two brains

But social gradient effects may drive this neurological difference


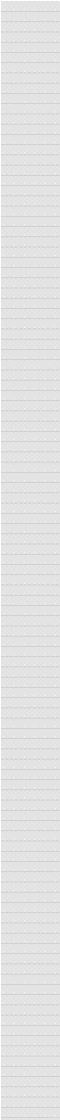
Healthy



Drug User



## Implications of inequality for intervention thinking

- Amartya Sen, a Nobel Prize winning economist developed a theory of justice aimed at clarifying the importance of human capabilities.
- Any idea about justice or rights or liberties must go beyond thinking about the generic idea of freedom; it must consider people's ability to make capable uses of those rights and freedoms.
- The American variant of freedom – freedom to be what you want to be without governmental impediment does not take capabilities into account.
- Our current account of freedom - The ends justify the means – unrestrained capitalism may result in losses, but holds the promise of great gains and that end justifies the means of obtaining gains.

- 
- 
- If liberty is actually derived from capabilities, then factors limiting capabilities become critical targets for interventions.
  - Capabilities are limited by health and behavioral health conditions that are the effects of large scale inequalities.
  - However, Sen's idea suggests that simply dumping more services or utilities on people may have little or no effect.
  - *Plus, we have to worry about the ways that services are delivered to actually increase capabilities.*

- 
- 
- What must be assessed is people's ability to benefit from the utilities and to actually have increased capabilities as a result of services or goods.
  - This goes far beyond simply dishing out services.
  - It means we must ask carefully about the individual effects of our services and how they can enhance capabilities – a difficult challenge.
  - This is a different version of 'outcomes'.





**What are the capability-limiting conditions among the people we serve?**

## Conditions that reduce capabilities

1. **History of arrest/conviction**. Reduces lifetime earnings by \$179 k. Loss of right to vote – you become a non-person in the political world. Plus greater exposure to sexual assault – 216,000 in 2008 assaulted in U.S. prisons.
2. **Divorce**. Fragments family income, multiplies family costs for basic necessities.
3. **Violence victimization**. Increases likelihood of behavioral health disorders, reduces employment, reduces social supports.
4. **Mental illness**. Reduces income, employability – increases health care needs, reduced quality of life.
5. **Cognitive difficulties**. Reduces employability, increases risk for multiple disorders and social problems.

6. **Low educational attainment**. Reduces employability, social mobility. Increases risk of legal problems.
7. **Lack of employability skills** – both social skills and technical skills. Reduces income potential in the short and long term.
8. **Having disabled children or adult dependents**. Reduces employability, increases health care needs.
9. **Lack of accessible utilities** (jobs, community wealth, recreational areas).
10. **Poor dentition**. Reduces ability for healthy diet, reduces employability and socialization.
11. **Detrimental and habitual behavioral adaptations** to negative life events and affects (smoking, drinking, drugging).

## Conditions that reduce capabilities

12. **Persistent stress** from loss of control over one's life. Increased health care needs, increased behavioral health care needs. Reduced employability. Increase risk of legal problems.
13. **Lack of validating self-worth**. Reduced socialization, reduced employability, increase risk of behavioral health problems.
14. **Lack of power** to influence how family and personal needs are met – lack of choices.
15. **Having young children**. Reduced employability, reduced educational opportunities, greater risk for welfare rut.
16. **Pregnancy**. This used to be an asset-building factor for adults. Now it limits income, access to jobs and creates increased costs.
17. **Unemployed person** versus unemployed carpenter. Damage to self and reduced future employability after about 2 years.

## Conditions that reduce capabilities

### **18. Physical disabling conditions:**

- Diabetes
- Hypertensive disease
- Obesity
- Asthma
- Chronic nonmalignant pain
- Brain injury
- Metabolic syndrome
- Cardiovascular disease

### **19. Lack of transportation to gain access to:**

- Employment
- Health care services
- Health promoting services (exercise, etc)
- Social connectivity
- Family connectivity

## What must we ask?

- Given this broader understanding, there are several questions about our current policy thinking about substance abuse.
  1. Does the disease model get it?
  2. Is more treatment the solution?
  3. Does the use of evidence based practices address the problem?
  4. Can we arrest our way out of the problem?
  5. What are the many unintended effects of the current intervention systems?

## 1. Does the disease model get it?

- For many years, we have tried to educate the public about addiction as a disease.
- We have contrasted this model with the moralistic and legalistic ways of viewing the problem.
- But, given the large-scale factors surrounding substance abuse, does the individual disease model offer a potent intervention perspective?
- The same question might be raised with each of the health conditions associated with the status syndrome.

## 2. Is more treatment the solution?

- Many of us have argued so.
- But if the source of the conditions is vastly greater than the individual, are individual treatment strategies the right approach?
- **Is substance abuse treatment essentially palliative?**
- Treatment or recovery supports?
  - Recovery supports at least offer counter identity to help ward off negative stigma and status syndrome effects.
  - Recovery becomes a source of pride and self-validation.
  - Treatment removes symptoms.



### 3. Do evidence based practices address the problems?

- The administration of evidence based practices is dogmatic; that is, programs are told to apply them.
- Evidence based practices arise from:
  - Clinical trials under strict research conditions with well-trained, well-qualified providers, *narrow subject eligibility* criteria (usually ruling out co-occurring disorders), and under 'watched' conditions.
  - Effectiveness studies are usually conducted by the persons who develop the interventions and use data to sell their copyrighted approaches and materials.

### 3. Do evidence based practices address the problems?

- Evidence based practices are largely one-size-fits-all with a few notable exceptions (Motivational interviewing and MET).
- They also are usually targeted to a narrowly-defined problem, usually meeting DSM-IV criteria or not. Success can mean reduction in ASI score or dropping 1-2 DSM criteria.
- Or, they are smorgasbords or collages of a host of approaches bundled into a 'practice' (MATRIX, Seeking Safety).
- Others are boiled down 12-step ideas (Recovery Dynamics, Seven Challenges).

## 4. Can we arrest our way out of this?

- The nation has spent at least \$3 trillion dollars on interdiction since Nixon initiated the war on drugs.
- 1% of the U.S. adult population is in prison and 2.7 million children have parents behind bars (1 in every 28 versus 1 in 125 25 years ago) (Pew Trust, 2010).
- It reduces men's lifetime income by 40% and by age 48, the average former inmate has earned \$179,000 less than if he had never been incarcerated (Pew Trust, 2010).
- Drug Courts have been touted as a great answer, but they routinely fail 70% of the clients who enter them. The consequences for failure vary, but are usually increased criminal justice sanctions and stigma of a record of failure.

## 5. What are the unintended effects of interventions?

- What are the effects of agency practices if viewed within a context of the status syndrome?
  - Professionals who have power and clients who do not....
  - How much freedom of choice in even defining service needs?
  - How much freedom of choice of providers?
  - Freedom of choice in times and places for services?
  - Opportunity for informed pursuit of alternative care (including medications)?
  - Ability to craft one's own service plan?
  - The walk-away effects of being 'disordered' and consequences of this on feeling low on the status rank to begin with?

## And what about trauma?

- Does the addition of a focus on PTSD advance or further disable people's capabilities?
- Most who are labeled with trauma-related disorders have faced extremely stressful events and natural human responses would include the factors that are noted in diagnoses.
- Have we pathologized natural responses to horrific environments? What are the unintended effects of these well-intentioned clinical instincts?

## And what about depression?

- Depression is one of the few 'faultless' mental disorders.
- But depression is a natural response to loss – and even loss of meeting desired goals and aims in life.
- Plus, we now see it in an evolutionary light as a way of communicating need to other people – to reduce the load, get support, etc.
- Have we pathologized natural responses to loss – something EVERY human being will encounter?
- What are the unintended effects of these well-intentioned clinical instincts?

Let's reflect  
on what  
we've  
covered

- The role of evolution science in changing how we view behavioral health problems.
- That is, of seeing them as essentially adaptive to experiences and situations.
- And, of seeing them as signaling devices to others in the social environment.

Let's reflect  
on what  
we've  
covered

- Secondly, we have seen that social rank may be a very potent contributing factor to all sorts of behavioral health problems and physical health problems.
- The more exposure to low social rank, the greater the likelihood of serious problems.
- The effects of low social rank even early in life are carried over into later life.
- Our individual awareness of social rank is often very poor.



Let's reflect  
on what  
we've  
covered

- Both of these deeper structures can inform how we treat our clients.
- We need increased awareness of how our own behavior invokes social rank.
- We also need to think about how to work with individuals differently so as to not fall into social ranking patterns.
- We must re-learn how to be people in our professional lives.

## Three levels

- Let's look at steps we can take to detoxify the effects of social rank.
- We'll do this by taking it in three chunks.

What to  
do?

Think  
about it  
at three  
levels

- Micro level
- Mezzo level
- Macro level

## Micro level

- Carefully re-examine agency practices to see if they are genuinely crafted with clients (David Mee-Lee's client-directed approach). This will usually put us at odds with evidence-based practices.
- Do assessment strategies begin in an open-ended way – that is asking what is on the person's mind, not what is on the form?
- Do we describe options to see what the person selects as closest fit between what is available and what is desired.

## Micro level

- Do we make wrap-around available to address basic needs? Project ACLADDA at KRCC was great example – low number of clients, high intensity of wrap-around and social inclusion.
- How does our program address social inclusion?
- Do we maximize individual choice in sessions? How often are sessions a variant of psycho-education – talking to or even at clients?
- How do we navigate with clients the ways to achieve changes in social rank? We talk about 'socializing' as part of recovery, but that may backfire.

## Micro level

- What are the social rank aspects of getting an appointment for services?
  - The UK experience.....
- What are the social rank aspects of intake?
  - Forms, forms, forms.....
  - What are the effects of forms?
- How about the psychiatric interviews?
- To what extent is the psychosocial about the person?
  - Versus, about symptom sets?

## The room for narrative

- For most of us, our identity is found in narrative forms.
- We tell someone about ourselves by telling stories, incidents, happenings.....
- The narrative is a way to deal with the person.
- Symptom counting is a way to objectify or reify clients.
- When we reify the other, we impose social rank differentials.

## Mezzo level

- When we develop program ideas, do we build in flexibility or try to 'tighten' up services and eligibility?
- Do agency structures create dialogue around multiple and interactive co-occurring disorders?
- Can we do more with basic Maslovian needs? Housing? Food?
- Do staff have freedoms in order to extend them to clients?
- Are programs designed around rules? What about revising these dramatically? Residential programs are plagued with these. Clients can be 'fired' for their disorders.



## EXAMPLE – A DRUG COURT SET OF PARTICIPANT RULES

Any infractions of the following rules will be reviewed by the team and may result in sanctions.

Appropriate clothing is expected at all times.

You must attend all scheduled counseling sessions, educational sessions, and Court sessions, unless you obtain prior approval. You must arrive on time and not leave until the meeting is over.

*If you are late, you may not be allowed to attend the session and may be considered absent.* You are responsible for making arrangements to make up missed sessions before your next Court appearance.

All participants must comply with curfew times set by the team.

You are expected to maintain appropriate behavior at all times during Drug Court sessions and while in the courthouse.

The Judge shall be addressed with respect. Unless prior approval is given, you must remain for the entire proceeding. There will be no talking while seated in the audience.


*You will be permitted to show support and encouragement to fellow participants by applause, but only during appropriate times.*



## Macro level

- We may need to think of ourselves as agents of justice, not just an agency director or clinician or case manager.
- We might need to change the shape of our policy thinking away from just beating the treatment drum and more toward highlighting the need for people to have power and control of resources.
- We also might need to be more vocal in protesting current directions in treatment.
- The contemporary provider is horribly compliant.

# Justice

- Justice is far more than just non-discrimination.
- Justice is about the use of self in treatment organizations to increase or enhance other individual's capabilities.
- If your agency does not do this, it is unjust, not just clinically ineffective.

- 
- 
- Take as many liberties with funding structures as possible rather than toeing the straight line.
  - The value placed on compliance is excessive and justifies doing nothing rather than doing something.

- 
- 
- Re-examine the degree to which staff can become part 'owners' of agencies rather than feeling themselves like cogs in a hierarchical system.
  - Devoted effort is needed to network primary care and behavioral health care. The current divide is a Cartesian anachronism. Even tiny steps may prove valuable.
  - Managed care poses a potential threat by behavioral health being overwhelmed by physical health care needs.

- We also need to educate policy makers about these larger effects of *income inequalities and their consequences for whole communities.*
- We need to understand and talk about the social equivalent of an endemic pollution – an effect of run-away freedom for those with top earning power - the license for unlimited greed.
- *It's not just the poor who are harmed. The inequality equation draws all but the very top parties down.*

We, too, are affected

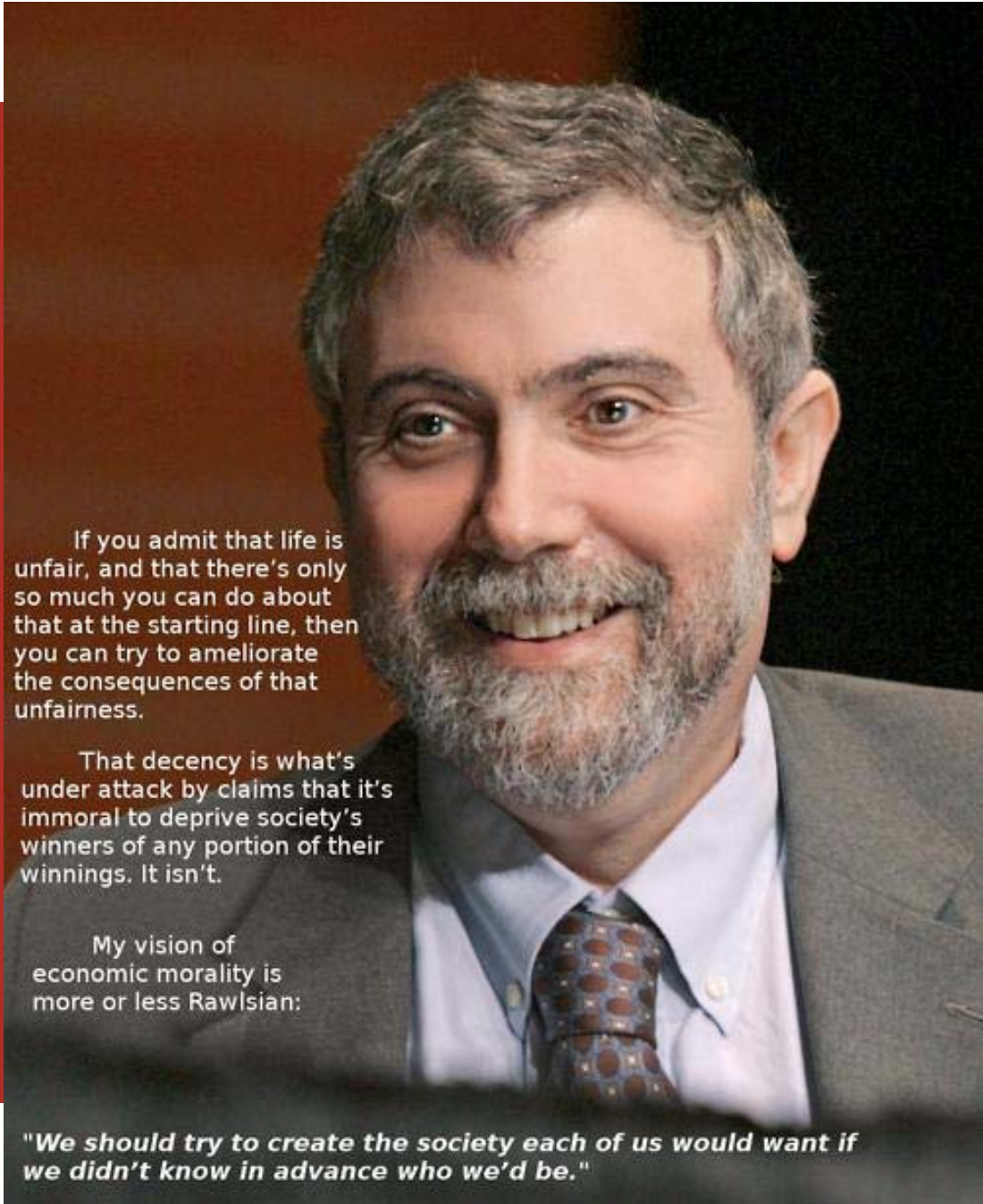
- The pervasive effects of social rank affect providers as well as clients.
- In fact, one of the more toxic effects of low pay among providers is what it does to their social status.
- An inevitable effect of this is to try and create differences between providers and clients as a way of asserting some form of social dominance.

- Government pays the price – even the middle class ends up paying a price for the spill-out damages caused by inequality.
- *Treatment pulls a few stragglers out of the river; inequality is dumping legions into the river.*



## Conclusion

- Inequality may be the engine that drives the entire process of limited capabilities and subsequent health problems.
- We may need to think more about enhancing capabilities and less about throwing services at people.
- Our worries about moral hazard need to be revised and placed in a different context.
- The so-called 'accountable care' model may be a more useful model for service thinking.

A portrait of Paul Krugman, a middle-aged man with grey hair and a beard, wearing a suit and tie. The image is set against a dark background with a red vertical bar on the left and a grey vertical bar on the right.

If you admit that life is unfair, and that there's only so much you can do about that at the starting line, then you can try to ameliorate the consequences of that unfairness.

That decency is what's under attack by claims that it's immoral to deprive society's winners of any portion of their winnings. It isn't.

My vision of economic morality is more or less Rawlsian:

*"We should try to create the society each of us would want if we didn't know in advance who we'd be."*

From Paul  
Krugman

For a copy of  
this

[Robertwalkerpresentations.com](http://Robertwalkerpresentations.com)