

Bio: Charles J. Vella, PhD

- Neuropsychologist
- 34 years, Kaiser San Francisco, 1975-2009
 - Chief Psychologist/Manager
 - Director, Neuropsychology Service
- www.charlesjvellaphd.com
 - All pdfs downloadable
 - Logon: Kaiser Password: Kaiser

Neuropsychology and Neurobiology of Personality Disorders

Charles J. Vella, PhD

Consultant, Psychiatry Dept.

Kaiser Hospital, San Francisco

2018

The background of the slide features a blue gradient with several concentric white circles of varying sizes, resembling ripples on water, scattered across the lower half of the page.

Greek Temperaments

Sanguine

Melancholic

Choleric

Phlegmatic

Freud

Oral

Anal

Phallic

Genital

Jung's Typology

Introversion

Extroversion

Sensing

Intuiting

Myers-Briggs Test: Beware!

Ted Millon's Theory

- **The Millon Fifteen Personality Styles/Disorders and Subtypes**
- Retiring --- Schizoid
- Assertive --- Sadistic
- Eccentric --- Schizotypal
- Pessimistic --- Melancholic
- Shy --- Avoidant
- Aggrieved --- Masochistic
- Cooperative --- Dependent
- Skeptical --- Negativistic
- Sociable --- Histrionic
- Capricious --- Borderline
- Confident --- Narcissistic
- Conscientious --- Compulsive
- Suspicious --- Paranoid
- Exuberant --- Hypomanic
- Non conforming --- Antisocial

Temperament

- Alexander Thomas and Stella Chess: the “how” of behavior:
 - Harm avoidance (fear)
 - Novelty seeking (anger)
 - Reward dependence (attachment)
 - Persistence (mastery)
- Temperament is known to be:
 - Heritable,
 - observed in early childhood,
 - stable over time,
 - predictive of adult behavior,
 - culturally consistent

Metaanalysis: Personality is Stable

- Stability of personality across adulthood is high, with only modest change.
- By contrast, personality during childhood is significantly more changeable.
- Both normal personality and personality disorders are highly stable across the life span
- Patients in therapy experienced no more personality change than did non-patients.
- Personality shows stability cross-culturally
- But see OCEAN data

Adjectives were the first DSM of PDs

- Dramatic, Emotional
- Self Centered
- Detail Oriented
- Irresponsible
- Odd, peculiar
- Suspicious
- Stormy, Empty
- Eccentric
- Detached
- Submissive
- Avoidant

Neurology of Personality: Personality is brain based

Neurological ways to radically change Personality:

Alzheimer's: Total Loss of Personality

Traumatic Brain Injury: Personality Change = disinhibition

Frontal Dementia:

End of social empathy, impulsivity

Alcoholism: Disinhibited personality, lack of insight

Borderline Personality Disorder

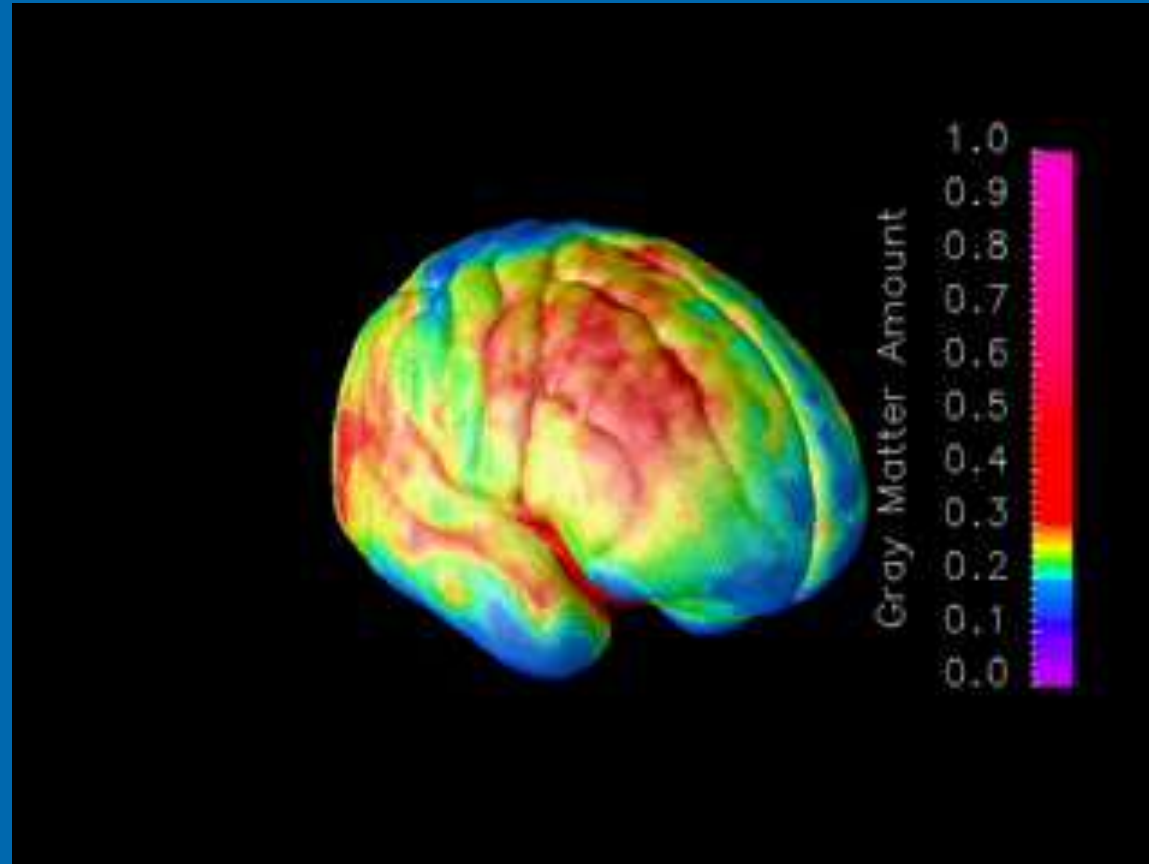
Core brain contributions to Personality

- Procedural Memory:
 - All non-conscious behavioral learning
- Amygdala:
 - Emotional reactivity, fearfulness
 - Emotional salience
 - Left amygdala volume correlates with positive emotionality

Core brain contributions to Personality

- Prefrontal:
 - Behavioral inhibition
 - Apathy
 - left medial orbitofrontal cortex thickness correlates with negative emotionality

Great Pruning: Age 5 to 22



Neurobiology of Childhood Abuse

- Long term effects of early trauma/stress
- Effects Limbic circuits:
 - Amygdala = emotional reactivity (50 ms vs. 600ms consciousness = 12 x faster),
 - Hippocampus = higher cortisol levels & stress sensitivity
- Chronic Stress = Smaller hippocampus, more reactive amygdala (GABA↓ = less inhibition), greater R Hemisphere Activation during trauma review
- Adverse Childhood Experience (ACEs) predict adult health and longevity

Trauma and Brain Response

- Evocation of traumatic memory:
 - Right Hemisphere increased activation of limbic, amygdala, and visual centers
 - Decreased Left Broca's area

ACES: 9 Adverse Childhood Experiences

- 1 Emotional abuse or neglect
- 2 Physical abuse or neglect
- 3 Sexual abuse
- 4 Witnessing domestic violence
- 5 Parental separation or divorce
- 6 Growing up with drug-abusing parent
- 7 Growing up with mentally ill parent
- 8 Growing up with suicidal parent
- 9 Having criminal household members

Adverse Childhood Experiences Are Common

Household dysfunction:

Substance abuse	27%
Parental sep/divorce	23%
Mental illness	17%
Battered mother	13%
Criminal behavior	6%

Abuse:

Psychological	11%
Physical	28%
Sexual	21%

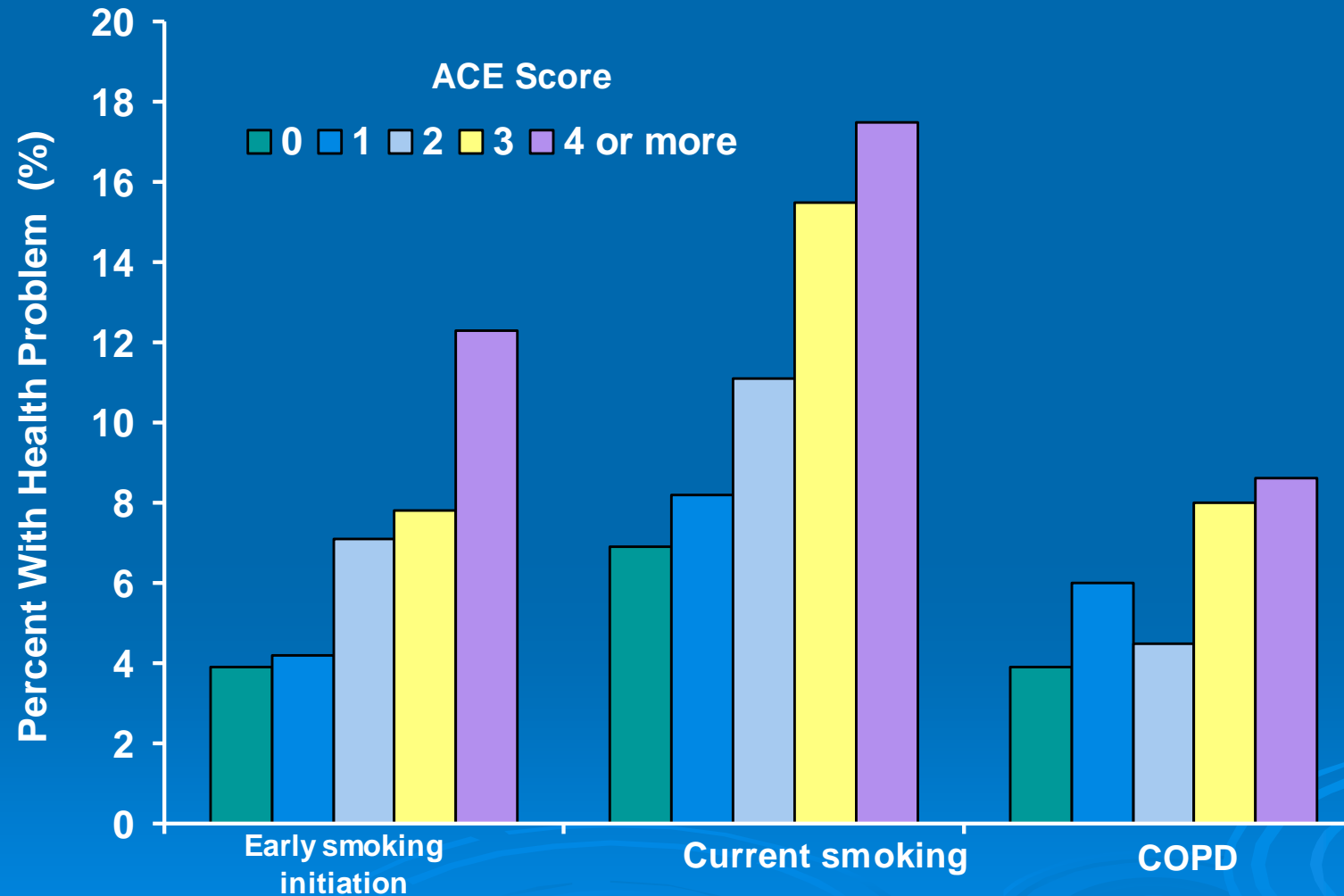
Neglect:

Emotional	15%
Physical	10%

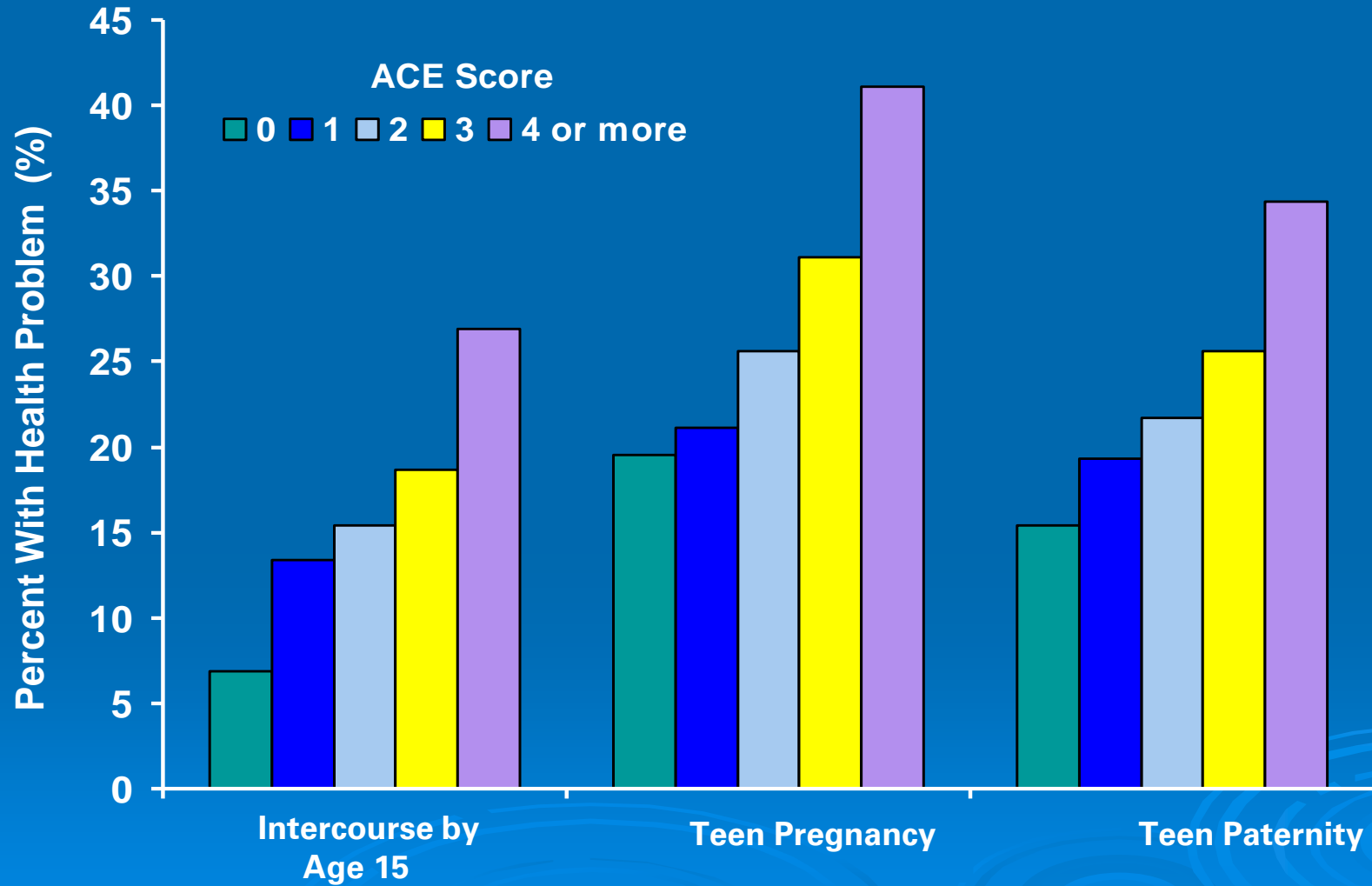
ACES

- 1 Fabulous predictors of adult health status
 - Felitti believes they are better predictors than medical variables
- 2 Predictors of adult behavior

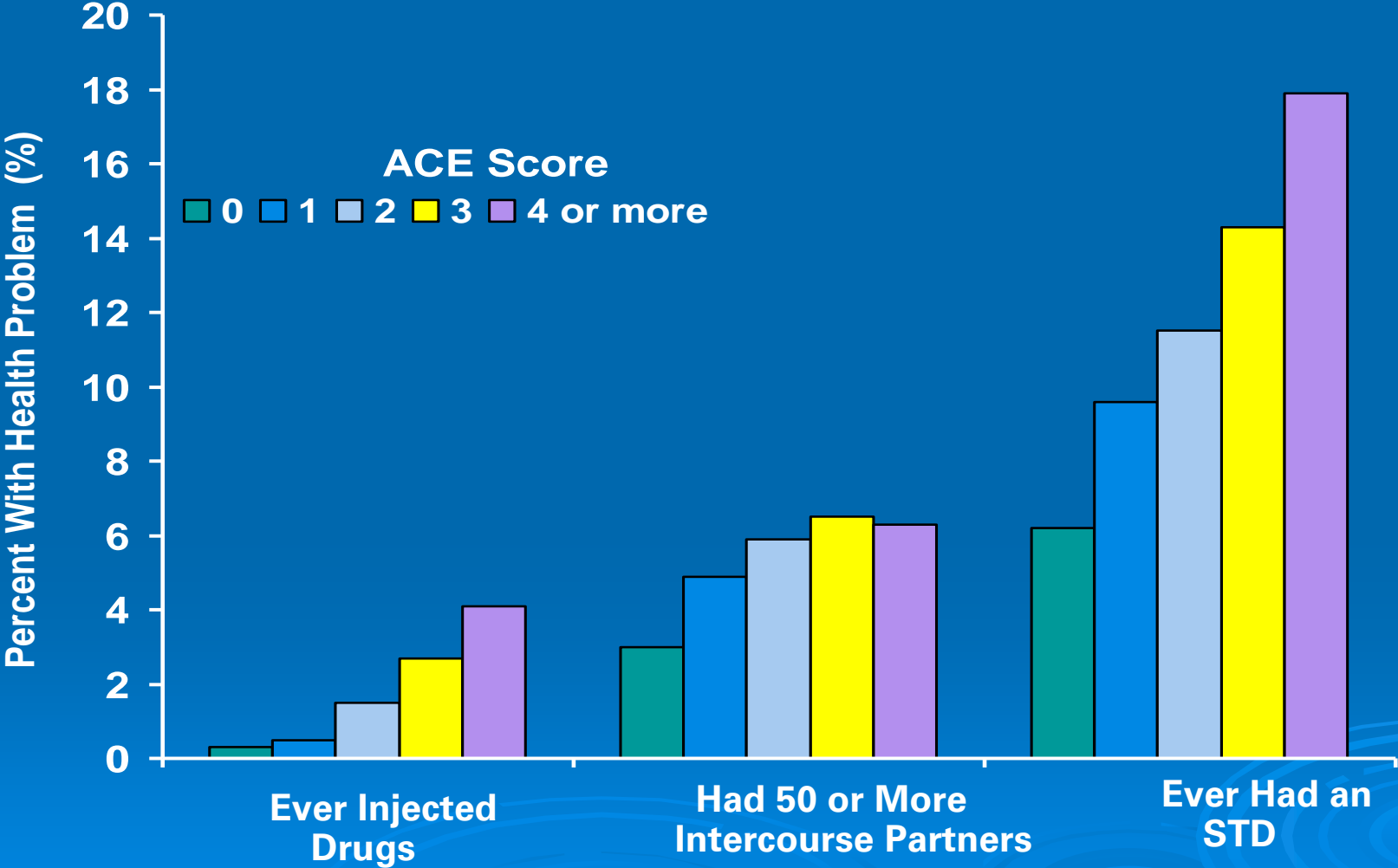
Relationship Between Number of Adverse Childhood Experiences and Smoking Behaviors and Smoking-Related Lung Disease



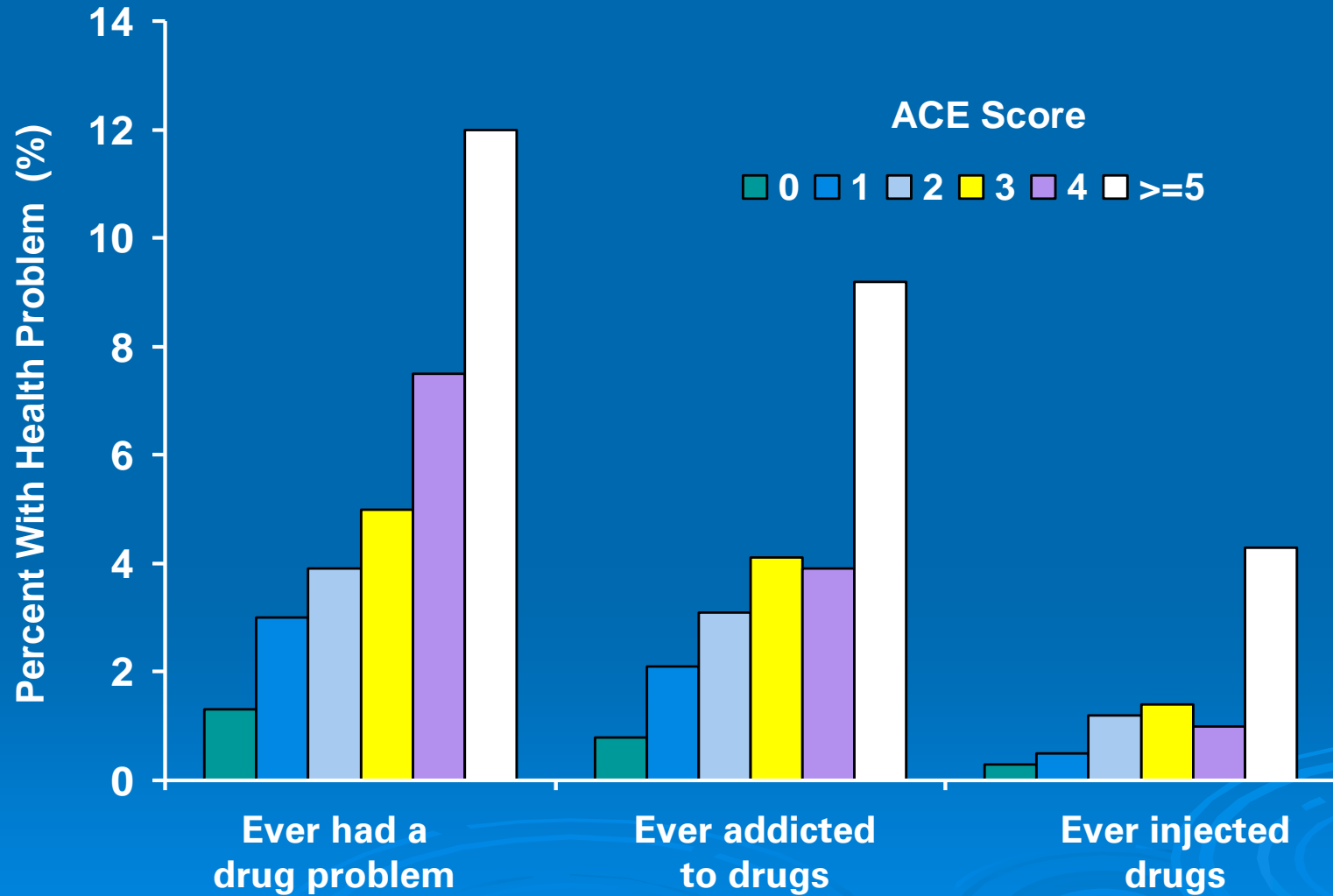
ACE Score and Teen Sexual Behaviors



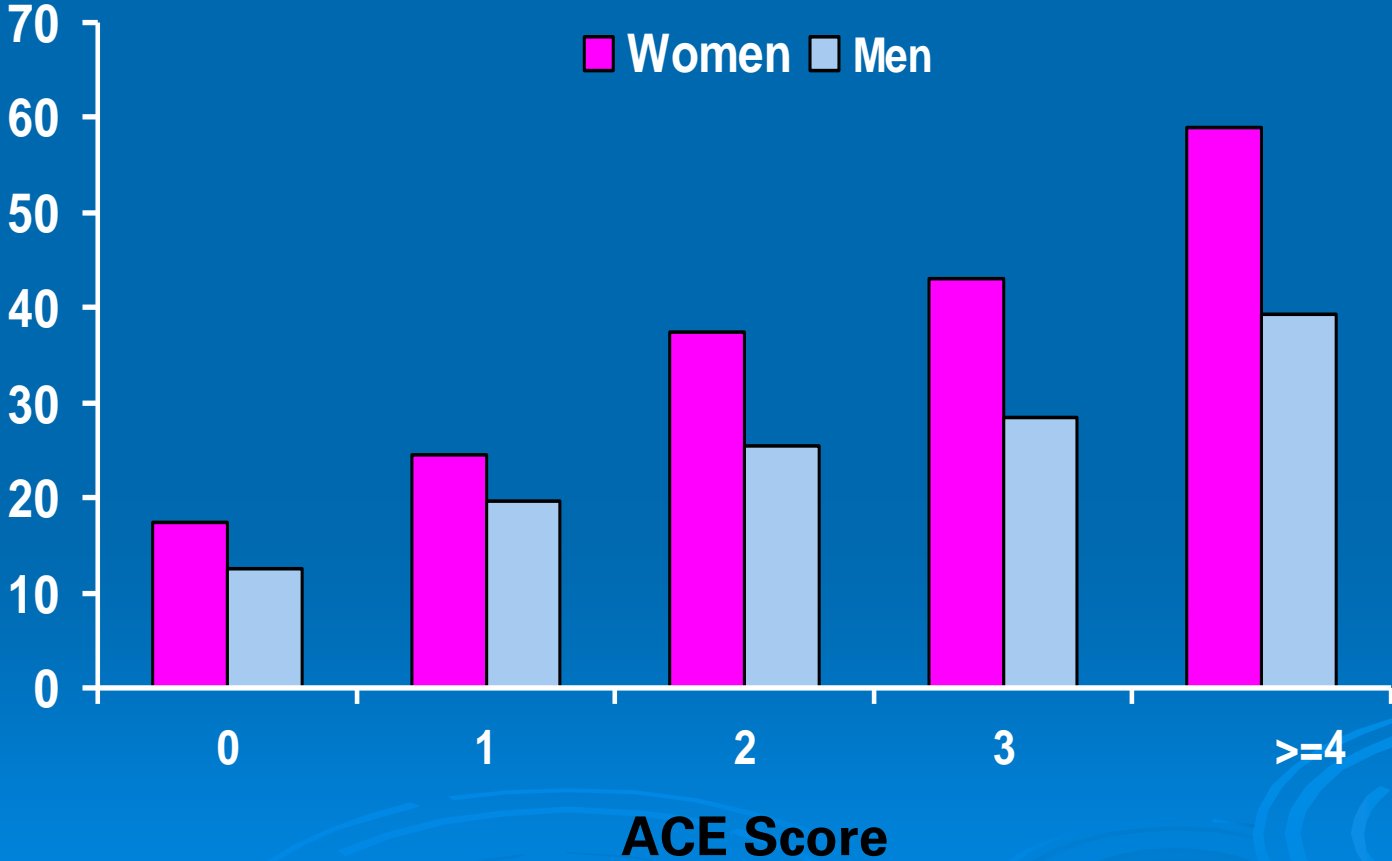
ACE Score and HIV Risks



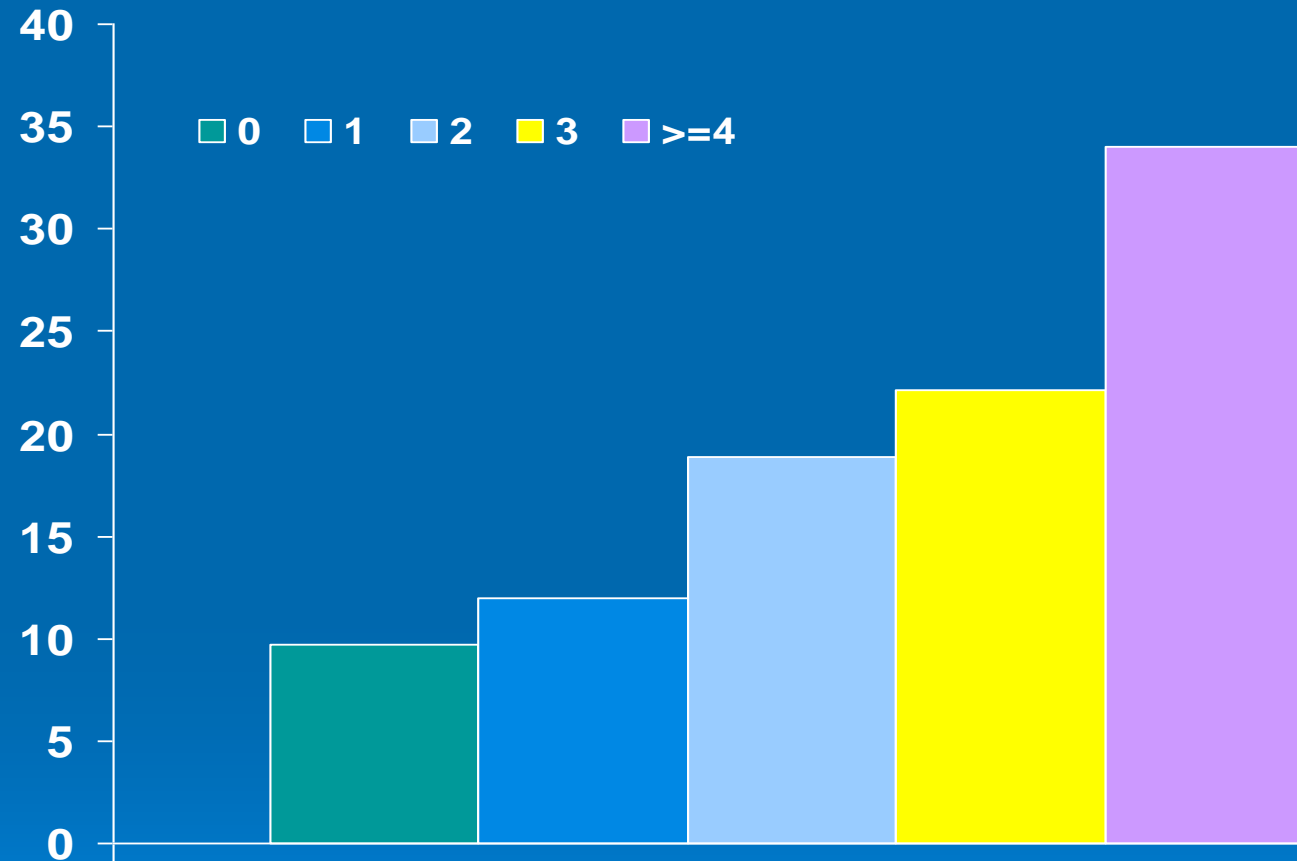
ACE Score and Drug Abuse



Depression and ACEs

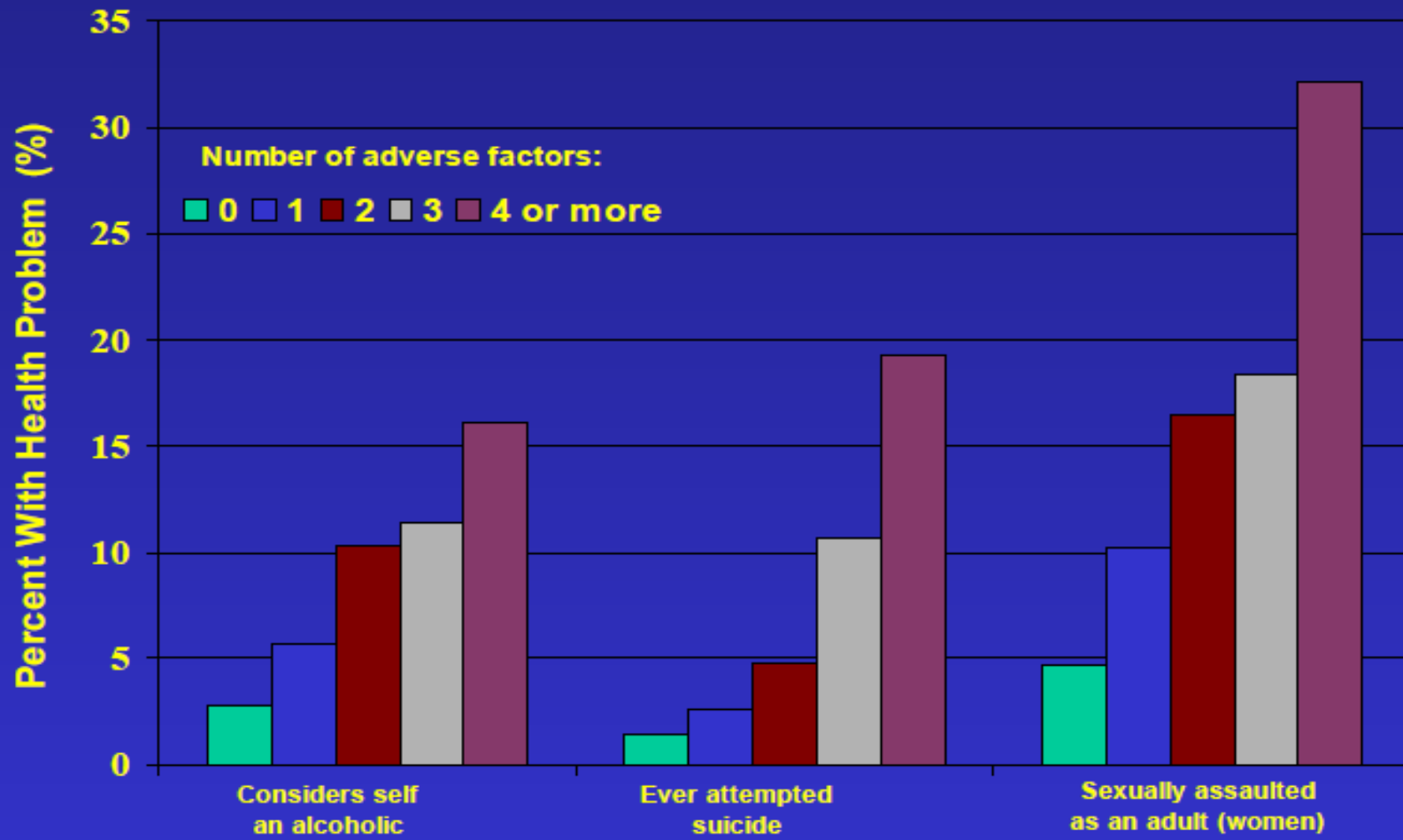


ACE Score and Impaired Memory of Childhood



ACE Score

ACE Score and Alcoholism, Suicide Attempts, or Sexual Assault



Low-SES and Cortisol levels

- Study: Cortisol in a group of children every 6 months for 2 years.
- They found that cortisol levels nearly doubled in low-SES compared with high-SES children over 2 years.

Childhood Poverty: Worse Working Memory

- Chronic stress from growing up poor appears to have a direct impact on working memory.
- The longer the children lived in poverty:
 - the higher their stress load
 - the lower they tended to score on working-memory tests.
 - Those who spent their entire childhood in poverty scored about 20 percent lower on working memory than those who were never poor;
 - 20% thinner cortex

Personality & Genes

- DRD4 (dopamine): novelty-seeking, such as drug abuse and attention-deficit hyperactivity disorder
- DRD2 (dopamine): linked to drinking, and preferring drinkers for company
- 5-HTTLPR (serotonin transporter gene): neuroticism and other anxiety-related traits, such as harm avoidance (1-2% variance)
- CYP2A6: extraversion, openness, gregariousness
- Neuroticism and depression share 60 % of same genes

Marshmallow Test



1 Marshmallow at age 4

- Study conducted at Stanford University by psychologist Walter Mischel in the 1960s, when a marshmallow was provided to a group of 4-year-olds.
- Each time the kids were promised a second marshmallow - but only if they could wait 20 minutes before eating the first one. Some could wait, others couldn't.
- Researchers tracked these kids into adolescence and found that those who delayed gratification and waited for the second marshmallow later turned out to be better adjusted, more dependable - and even scored an average 210 points higher on the SAT standardized assessments used for college admissions.
- Measure of prefrontal impulse control and planning?

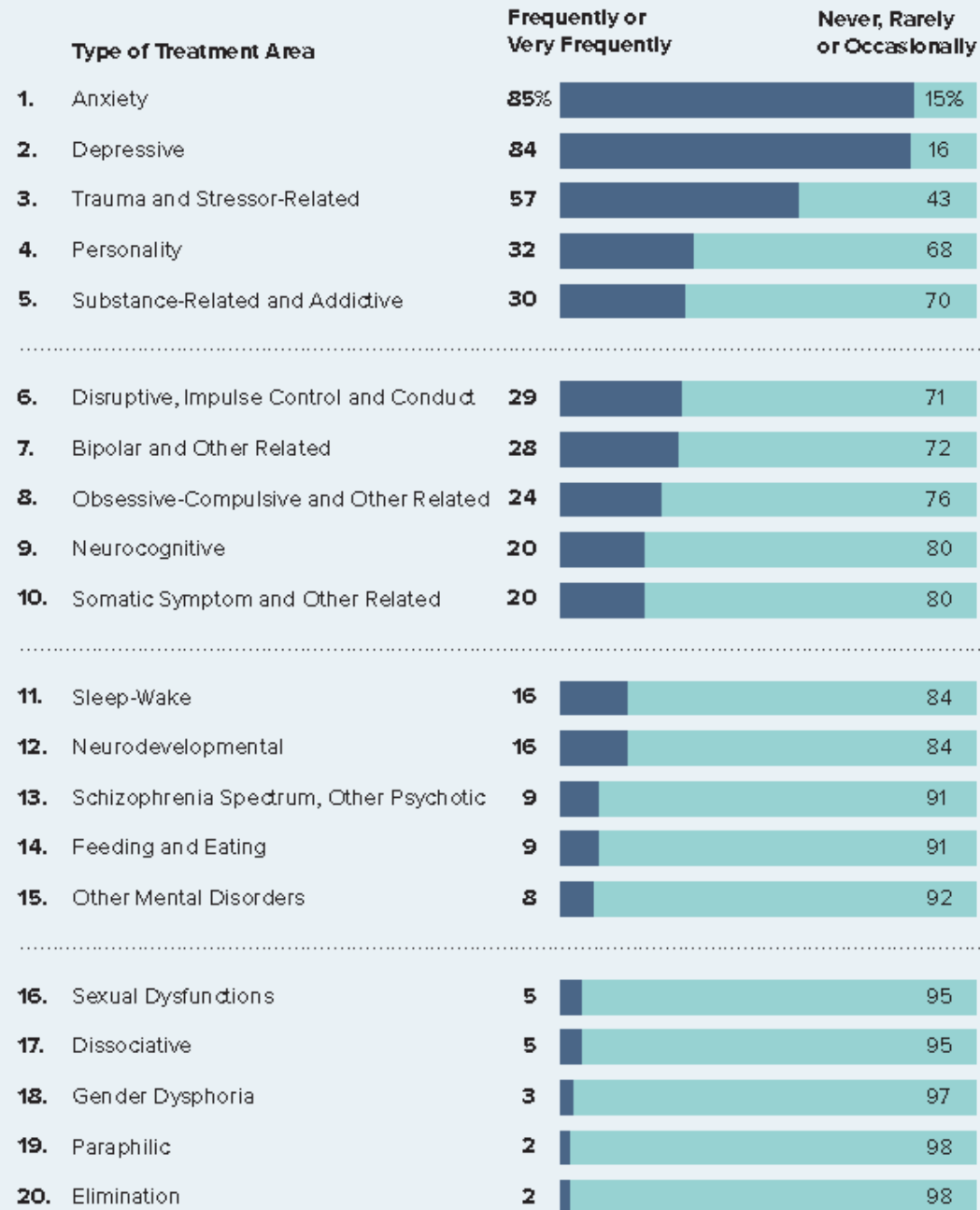
Marshmallow Test 2012: Environment important

- C. Kidd: Children lasted on average for 6 minutes
- New procedure: Half dealt with unreliable experimenter who failed to deliver on promises; rest had reliable experience
- Those with unreliable experience lasted 3 minutes (only 1 of 14 lasted 15 min.), others 12 minutes (9 of 12)
- Consistent with Mischel, 1961: 8 y old boys without fathers went for immediate reward

Mental Disorders
Most Frequently
Treated by
Psychologists:

Personality = #4

Top Mental Disorder Treatment Areas



Personality Disorders and Psychiatry

- **Personality Disorders:**
- The majority of people with a personality disorder never come into contact with mental health services, and those who do usually do so in the context of another mental disorder or at a time of crisis, commonly after self-harming or breaking the law.
- 15% of population; PD present in 50% of all Psychiatry patients
- Interfere with Tx of Axis I syndromes
- Increase disability, morbidity & mortality
- Predispose to Suicide attempts, Suicide and Mood disorders

Personality Disorders and Psychiatry 2

- PD perceived as:
 - more difficult to work with,
 - rejected by therapists as “poor prognosis”,
 - elicit inappropriate responses from therapists (rescue urge, sexual interest, rejection)
- Test limits of therapists skills
- Therapists needs: low narcissism, high energy, high tolerance

Psychiatric disorder = Die sooner

- 20 review papers were identified, including over 1.7 million individuals and over 250,000 deaths.
- The average reduction in life expectancy in people with
 - bipolar disorder is between 9 and 20 years,
 - it's 10-20 years for schizophrenia,
 - between 9 and 24 years for drug and alcohol abuse,
 - and around 7-11 years for recurrent depression.
 - The loss of years among heavy smokers is 8-10 years.
- All diagnoses studied showed an increase in mortality risk, though the size of the risk varied greatly. Many had risks equivalent to or higher than heavy smoking
- The stigma surrounding mental health may mean people aren't treated as well for physical health problems when they do see a doctor.'

Mental Disorders and Length of Life

- 16 state research, 2006: On average, people with severe mental illness die 25 years earlier than the general population
- Causes: cigarette smoking, obesity, diabetes
- 75% of those with severe MI smoke vs. 22% in general population
- 44% of all cigarettes in US are consumed by people with psychiatric histories.
- People with depression or bipolar disorder are 2x more obese than the general population; Schizophrenia, 3x. Psychotropic medications cause weight gain.
- Self worth as variable — Often report they don't feel like they are worthy of taking care of themselves.

Personality Disorders and **Primary Care**

- Increased risk for:
 - CAD
 - Angina
 - HIV
 - Psoriasis
 - Ulcerative colitis
 - “Psychosomatic” diseases

Prevalence of PD

Historical Range of Estimates:

- 1-3% of General Population (most textbooks)
- 10-20% Psychiatric Outpatients; Cloninger: 50% of all psychiatry pts, frequently comorbid with anxiety and depression
- 10-60% Psychiatric Inpatients

National Co-morbidity Survey Replication, 2005: Axis I

- The estimated lifetime prevalence of some other DSM-IV psychiatric disorders in American adults:
- 2 % obsessive-compulsive disorder
- 4 % bipolar disorder
- 6 % generalized anxiety disorder
- 13 % alcohol abuse
- 17% major depressive disorder

2001-2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC): Wave 1

- The NESARC-Wave 1 (random community dwelling) found that the personality disorders are pervasive in the general population:
- 30.8 million American adults (15 percent) meet standard diagnostic criteria for at least one personality disorder
 - 16.4 million individuals (7.9 percent of all adults) had obsessive-compulsive personality disorder;
 - 9.2 million (4.4 percent) had paranoid personality disorder;
 - 7.6 million (3.6 percent) had antisocial personality disorder;
 - 6.5 million (3.1 percent) had schizoid personality disorder;
 - 4.9 million (2.4 percent) had avoidant personality disorder;
 - 3.8 million (1.8 percent) had histrionic personality disorder;
 - 1.0 million (0.5 percent) had dependent personality disorder.
 - 48 percent of drug abusers and 30% of depressed had at least one personality disorder.
 - 13 percent had experienced MDD at some time during their lives
- Excluded from the study were borderline, schizotypal, and narcissistic disorders (later study to come).

Other Statistics

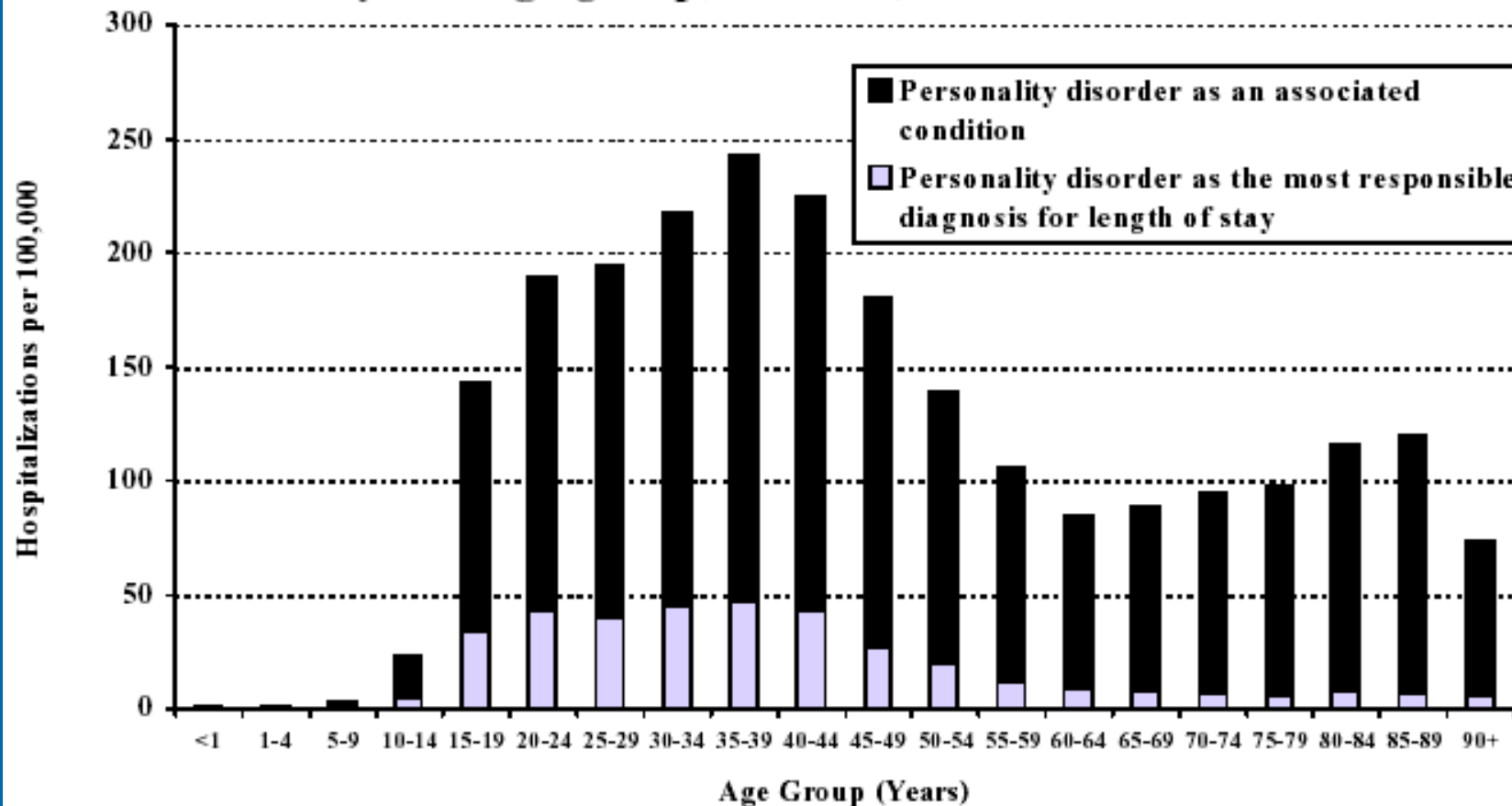
- Antisocial personality disorder is 3 times more prevalent in men than in women.
- Old theory: Borderline personality disorder is 3 times more common in women than in men. Current: equivalent rates
- Narcissistic personality disorder: 50-75% are male.

PD in young adults

- N = 5,000 young people ages 19 to 25
- 20% have a personality disorder (obsessive compulsive, #1; 8%, anti-social and paranoid behaviors)
- 30% abuse alcohol or drugs
- 50% had a psychiatric condition
 - 12% anxiety, 8 % bipolar, 8 % had phobias and 7 % had depression
- Fewer than 25 % with mental problems get treatment

PD, Age and majority of Psych. Hospitalization

Figure 5-2 Hospitalizations for personality disorders in general hospitals per 100,000 by contribution to length of stay and age group, Canada, 1999/2000



PD: Generally recognized

- Personality disorders are common conditions.
- However, there is a large variation in severity, in degree of distress and dysfunction (hence the ranges in the prevalence data).
- People with a personality disorder are:
 - More vulnerable to other clinical problems, especially depression.
 - Experience more relationship, housing, and employment difficulties.
 - More likely to suffer from alcohol/drug problems

Common Presenting Problems: Think PD

- Think PD if patient:
- Those with more severe problems
- Complex interpersonal difficulties
- Deliberate self-harm
- Risk of suicide
- Risk to others (aggressive/violent or take risks that endanger others)
- High use of medical & mental health resources

Challenges for Therapist

- PD pts pose challenges for therapist:
- Poor treatment compliance
- Constant shifting of problems & goals
- Focus of therapy often lost because of recurrent “crises”
- Therapist becomes demoralized: “nothing seems to work”

Definitions

- Personality – “Usual” Emotional + Behavioral Characteristics: enduring way of being in the world
- Personality Trait - Personality Component (i.e. obsessive, perfectionistic, shy, entitled)
- Temperament - Affective Tone, Intensity, Reactivity
- Character - Moral + Personality Traits, i.e. honest

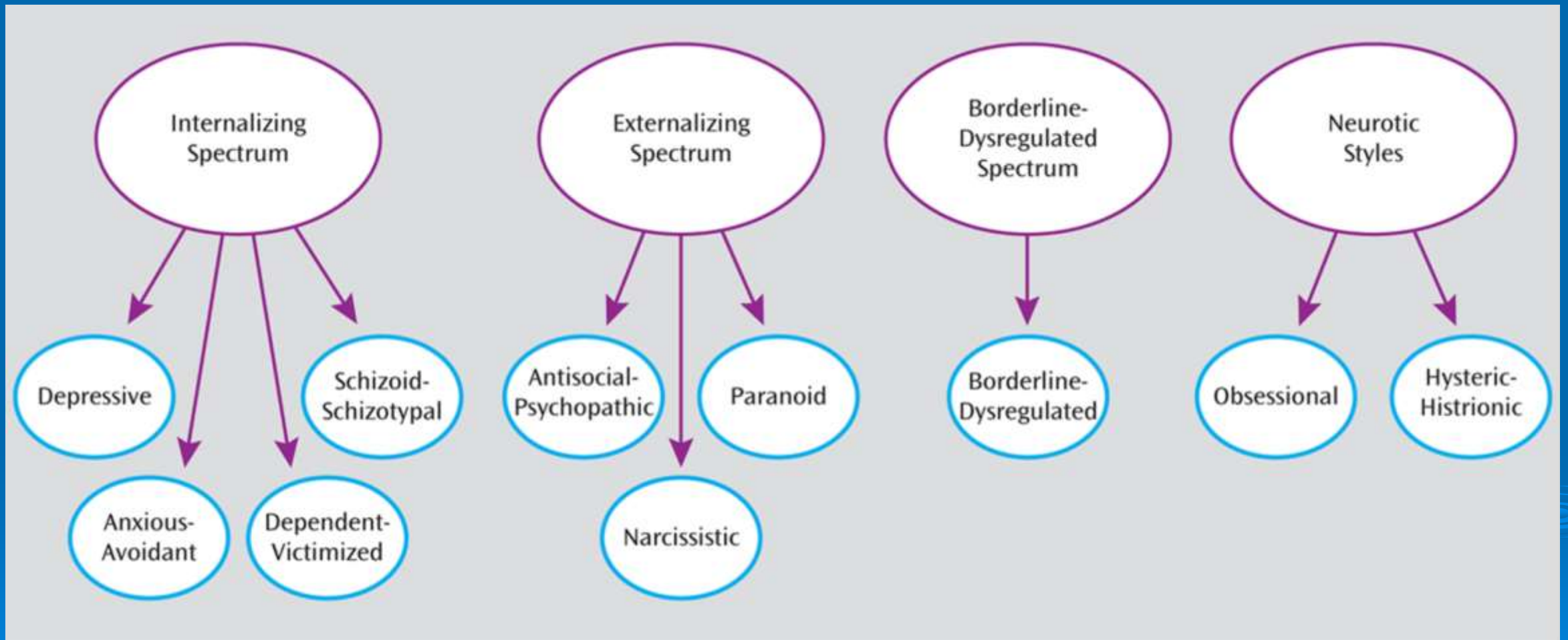
Personality Disorders

- Onset in Teens
- Enduring, Inflexible, Consistent, Maladaptive
- Causes Significant Impairment and/or Distress
- Personalities don't come in black and white, but instead operate in shades of grey
- “Too Much” of a personality trait

Personality Disorder 2

- Lack insight into their own PD (seek treatment for Depression, Anxiety or relationship problems)
- PD symptoms are ego syntonic = feels like a normal part of oneself
- Most have interpersonal problems = externalize blame
- Intractable, difficult to treat; can affect treatment of other disorders

From: An Empirically Derived Taxonomy for Personality Diagnosis



Interpersonal dysfunction in personality disorders

- 2017 Metaanalysis: associations between personality disorders and interpersonal functioning - 127 published and unpublished studies.
- A **distinct profile of interpersonal style** consistent with its characteristic pattern of symptomatic dysfunction
- Overall, results support the construct and discriminant validity of the personality disorders in the current diagnostic manual, as well as the proposed conceptualization that disturbances in self and interpersonal functioning constitute the core of personality pathology.

The “3P’s” = Not PD unless:

- Problematic (clinically significant distress or problems for self or others; difficulties in social life, work, law)
- Persistent (pattern is stable & long-standing; present since early adulthood or adolescence and continues to adulthood)
- Pervasive (pattern is inflexible; & in broad range of personal or social situations)

DSM-5

- A. Enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture. This pattern is manifested in two (or more) of the following areas:
 - Cognition (perception and interpretation of self, others and events)
 - Affectivity (the range, intensity, lability, and appropriateness of emotional response)
 - Interpersonal functioning
 - Impulse control
- B. The enduring pattern is inflexible and pervasive across a broad range of personal and social situations.
- C. The enduring pattern leads to clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The pattern is stable and of long duration and its onset can be traced back at least to adolescence or early adulthood.

DSM-5

- E. The enduring pattern is not better accounted for as a manifestation or consequence of another mental disorder.
- F. The enduring pattern is not due to the direct physiological effects of a substance or a general medical condition such as head injury.
- People under 18 years old who fit the criteria of a personality disorder must have it for at least 1 year.
- Antisocial personality disorder cannot be diagnosed at all in persons under 18.
- No longer Axis II

CLUSTER A

odd, eccentric

- Paranoid
- Schizoid
- Schizotypal

CLUSTER B

dramatic, erratic

- Histrionic
- Narcissistic
- Borderline
- Antisocial

CLUSTER C

fearful

- Avoidant
- Dependent
- Obsessive/Compulsive
- (not the same as Obsessive-compulsive disorder)

DSM-5: 10 Types, 3 Clusters

Problems with DSM

- Different personality types were poorly defined.
- Categorical structure (yes-no)
- Not based on research-derived criteria.
- Individual symptoms were vague,
- The idea of checking off abstract criteria such as "an exaggerated sense of self-importance" were difficult.
- **Criteria overlapped heavily.** A person meeting criteria for one personality disorder usually met criteria for 3 or 4 others, as well.

DSM-5: Promise of a Dimensional System

- Recommendation to exclude new PD dx system from the main text and instead publish it in a section describing diagnoses requiring further study.
- Two major problems with the proposal.
 - First, the proposed classification is unnecessarily complex, incoherent, and inconsistent.
 - It consists of the juxtaposition of two distinct classifications (categorical and dimensional) based on incompatible models without any attempt to reconcile or integrate them into a coherent structure.

DSM-5 PD: Lack of evidence

- Second, the proposal displays a truly stunning disregard for evidence.
- Important aspects of the proposal lack any reasonable evidential support of reliability and validity. For example, there is little evidence to justify which disorders to retain and which to eliminate.
- Evidence does not support the use of categorical constructs of the kind recommended by the current proposal.

Alternative Model: ICD

- A new system of diagnosing personality disorders for the next edition of the World Health Organization's International Classification of Diseases (ICD), due out in 2015.
- A system that rates the scale of patients' personality problems – but its proposal is simpler. It is based on a four-point scale rating people's problems relating to others, running from "personality difficulties" through mild, moderate and severe personality disorder.
- This would be supported by ratings for "domains" of personality, linked to extremes on four of the "big five" personality traits recognized by psychologists: extraversion, agreeableness, conscientiousness, neuroticism and openness to experience.

PDs and Therapist countertransference

- Patients' specific personality pathologies are associated with consistent emotional therapist responses, which suggests that clinicians can make diagnostic and therapeutic use of their responses to patients.

- | ■ PD patient | Your response |
|--|---|
| ■ Paranoid & ASD | You feel criticized/mistreated countertransference, |
| ■ BPD | helpless/inadequate, overwhelmed/disorganized,
and special/overinvolved countertransference. |
| ■ Schizotypal & narcissistic personality | Disengaged |
| ■ Dependent & histrionic personality | Engaged |

Therapist response

- | <u>Them</u> | <u>You Feel</u> |
|-------------------------|--|
| ■ Schizoid personality | helpless/inadequate |
| ■ Avoidant personality | positive, parental/protective & special/overinvolved |
| ■ OCPD | negatively associated with special/overinvolved |
| ■ Lower functioning pts | stronger negative feelings |

DSM-5: Cluster A

- Main feature is oddness or eccentricity
- Isolation, ideation, live in thoughts
- 3 PDs in this cluster:
 - Paranoid PD – distrust and suspiciousness, poor cognitive filtering disorder
 - Schizoid PD – detachment from social relationships (does not *want* them), social indifference with affect restriction
 - Schizotypal PD – social deficits and perceptual distortions or eccentricities, nonpsychotic schizophrenia

Cluster A: Don't Seek TX

- Paranoid (4%):
 - do not seek help, suspicious & distrustful of others
 - If do present then tend to drop out of therapy
 - i.e. Santa Clara MUNI bus driver; or pt who notices my hypnosis book
- Schizoid (3%):
 - socially withdrawn,
 - tend not to engage with therapy,
 - treatments offered at present leads to little progress.
- Schizotypal (2-4%, more males)
 - Nonpsychotic schizophrenia

Treatment of PD

- Overall therapy goal:
Change “disorder” into a “style”

Cluster A: Research & Treatment

- Very little research on Cluster A
- Rarely present for treatment
- If present to services then you offer help for mood, anxiety
- Help with the social consequences of their condition e.g. Family disruption; Loss of employment; Loss of housing

Cluster B

- Main feature is dramatic, emotional, or erratic
- Intense interpersonal, exchange of affect
- TX by emergency telephone calls
- 4 PDs in this cluster:
 - Antisocial PD – disregard for social norms and rights of others
 - Borderline PD – instability in relationships, self-image, and mood; impulsivity
 - Histrionic PD – excessive emotionality and attention seeking
 - Narcissistic PD – grandiosity, need for admiration, self-centered

Cluster B and Comorbidities

- Antisocial PD: risk for anxiety disorders, substance abuse, somatization disorder, and pathological gambling.
- Borderline PD: risk for substance abuse, eating disorders (particularly bulimia), and posttraumatic stress disorder. Suicide is a particular risk in borderline patients.
- Histrionic personality disorder is associated particularly with somatoform disorders.
- Narcissistic PD: at risk for anorexia nervosa and substance abuse as well as experiencing depression.

Cluster C

- Main feature involves anxiety or fearfulness
- 3 PDs in this cluster:
 - Dependent PD – submissive, need to be taken care of
 - Avoidant PD – social inhibition and inadequacy
 - Obsessive-compulsive PD – orderliness, perfectionism, need to control things

Cluster C and Comorbidities

- **Cluster C: comorbid anxiety disorders**
 - Avoidant PD: associated with anxiety disorders (especially social phobia).
 - Dependent PD: risk for anxiety disorders and adjustment disorder.
 - Obsessive-compulsive PD: at risk for myocardial infarction because of their common type A lifestyles. They may also be at risk for anxiety disorders.
 - Not at increased risk for OCD (obsessive-compulsive disorder).

PD and childhood abuse

- N= 600 male college students, nonclinical: relationship between childhood experiences of sexual and physical abuse and presently reported personality disorder symptoms.
- Childhood abuse was definitively associated with greater levels of symptomatology.
- Child abuse and neglect were risks for personality disorders in adulthood.
- The sexually abused group demonstrated the most consistently elevated patterns of psychopathology.
- Verified physical abuse showed an extremely strong role in the development of antisocial and impulsive behavior.

Criticisms of PD Diagnoses

Limits of categorical model

- Inadequate research base for some personality disorders
- Core features not clearly defined
- High degree of overlap between PDs
- Most commonly diagnosed PD in DSM-IV was PD-NOS
- Overlap between old axis I and axis II diagnoses

Criticisms of PD Diagnoses 2

- Diagnoses have low reliability
- Thresholds are not adequately justified
- PD criteria are gender biased
- Application of PD criteria is open to gender bias

DSM-5: Categorical Assumption

- The DSM adopts a categorical classification system, assuming that personality disorders are "qualitatively distinct clinical syndromes"
 - criteria present or absent:
 - "pregnant or not" in medicine
- The result is excessive comorbidity:
 - people often receive multiple PD diagnoses (4.6 dxs per person in MH settings).
 - This casts doubt on the assumption that the diagnostic categories correspond to independent disorders.

Lots of Comorbid Diagnoses

Common diagnoses	Number with dx	<u>% with at least 1 comorbid dx</u>
Somatization Disorder	67	100
<i>Antisocial PD</i>	628	93
Panic	304	91
Schizophrenia/Schizophreniform D.	340	91
Dysthymia	703	86
Agoraphobia	1,281	84
Obsessive-compulsive D.	571	79
Drug abuse/dependence	1,316	75
Depressive episode	1,258	75

Categorical Assumption 2

- **Most common overlap:**
 - Narcissistic PD & Antisocial PD,
 - Histrionic PD & Borderline PD,
 - Avoidant and Dependent;
 - Borderline PDs in 1 study: 81% met criteria for 3 other PDs
- PDs are the least reliable diagnoses.
- Atheoretical model
- This model is not true

Dimensional Model of Personality

- Most research supports dimensional nature of personality traits
- Personality traits can be viewed as dimensional constructs, as a continuum, from too little to too much; normal to abnormal
- Personality trait depends on contextual appropriateness:
 - Kindness is not virtue on battlefield
 - Early bird gets worm, but its 2nd mouse who gets cheese.

Disorder vs. Trait

- Trait: Conscientiousness in small doses is advantageous
- Disorder: In the extreme, leads to paralyzing over attention to detail with interferes with finishing tasks
- Some traits are maladaptive at either extreme:
 - Too little trust: paranoid
 - Too much trust: gullibility leading to being taken advantage of

Personality & Gender

- Compared with women, **men exhibit:**
 - higher risk taking higher,
 - higher sensation seeking;
 - higher self-esteem;
 - higher assertiveness,
 - lower nurturance;
 - lower emotional intelligence;
 - lower neuroticism;
 - preference for working with things as opposed to people;
 - higher narcissism, driven by men's heightened sense of entitlement and authority

5 Factor Theory –

Most Massively Researched Personality Factors
“OCEAN”

High	<u>Personality trait</u>	Low
Curious	<u>O</u> penness	Conventional
Reliable	<u>C</u> onscientiousness	Unreliable
Sociable	<u>E</u> xtraversion	Shy-quiet
Good natured	<u>A</u> greeableness	Uncooperative
Nervous	<u>N</u> euroticism	Calm

5 Factors & Brain

- Extraversion: Reward sensitivity: medial OFC
- Neuroticism:
 - reduced volume in dorsomedial PFC and LM Temporal related to cingulate
- Agreeableness:
 - reduced volume in posterior left STS (Mirror neurons)
 - increased volume in posterior cingulate cortex
- Conscientiousness:
 - volume of the left lateral PFC (middle frontal gyrus)
- Openness: only factor association with intelligence;
 - Associated with parietal cortex

Extraversion

- **Extraversion** is linked to the tendency to experiencing **positive emotions** (stem from experiences of reward or the promise of reward)
- **Reward sensitivity** is at the core of Extraversion.
- An **array of approach tendency traits**, such as assertiveness, sociability, and talkativeness,
- Covaries with
 - volume of medial orbitofrontal cortex, reward processing center, dopamine
 - Lateral paralimbic group implicated in motivation and reward
 - Fusiform gyrus (social attention and face recognition).

Neuroticism: Sensitivity to threat & punishment

- Neuroticism is linked to the tendency to experience negative emotions, and includes such traits as anxiety, self-consciousness, and irritability.
- Low self-esteem, rumination, and emotional dysregulation are all hallmarks of Neuroticism
- Associated with brain systems associated with sensitivity to threat and punishment:
 - reduced volume in dorsomedial PFC
 - left medial temporal lobe including posterior hippocampus
 - Part of cingulate linked to the detection of error and response to pain,

Agreeableness

- Agreeableness related to altruism: one's concern for the needs, desires, and rights of others
- Positive pole of Agreeableness describes prosocial traits, such as cooperation, compassion, and politeness;
- Negative pole describes antisocial traits, such as callousness and aggression.
- Underlies empathy, theory of mind, and other forms of social information processing
- Associated with Mirror Neuron System:
 - reduced volume in posterior left superior temporal sulcus
 - increased volume in posterior cingulate cortex.

Conscientiousness

- Conscientiousness: self controllability and tendency of individuals to inhibit or constrain impulses in order to follow rules or pursue nonimmediate goals.
- Linked to both academic and occupational success, health behavior and longevity.
- Traits such as industriousness, orderliness, and self-discipline, versus impulsivity, distractibility, and disorganization.
- Related to volume of the middle frontal gyrus in left lateral PFC, medial temporal lobe
 - subsystem involved in future-oriented episodic judgment and planning.

Conscientiousness & self control

- Low Marshmallow resistance: Low levels of conscientiousness in youngsters as young as age 3 herald high rates of physical health problems, substance abuse, financial woes, criminal arrests and single parenthood by age 32
- But 7 percent of youngsters in the long-term study developed notably better self-control as they got older. Members of this group displayed better health, made more money and had fewer criminal run-ins as adults than would have been predicted by their self-control levels as young children.

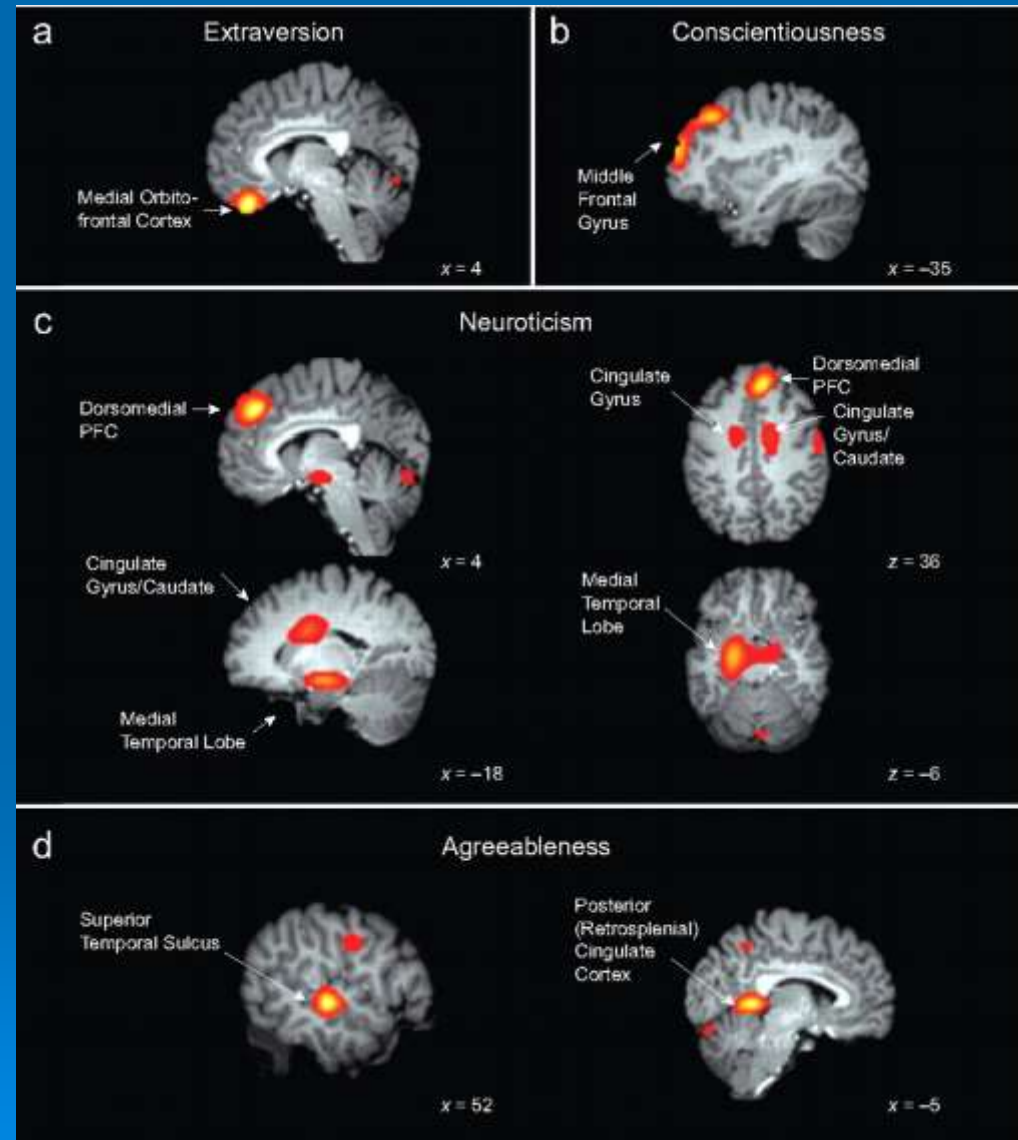
Poor Self-control in childhood

- Kids who scored low in self-control were the most likely to make life-changing mistakes as teens, including starting to smoke cigarettes, becoming parents of unplanned babies and dropping out of school.
- Prominent physical health problems later in the New Zealand sample included gum disease, sexually transmitted infection, inflammation, overweight, high cholesterol and elevated blood pressure.
- Financial problems centered on difficulties with saving money, planning for retirement, making credit card payments and avoiding bankruptcy.

Openness

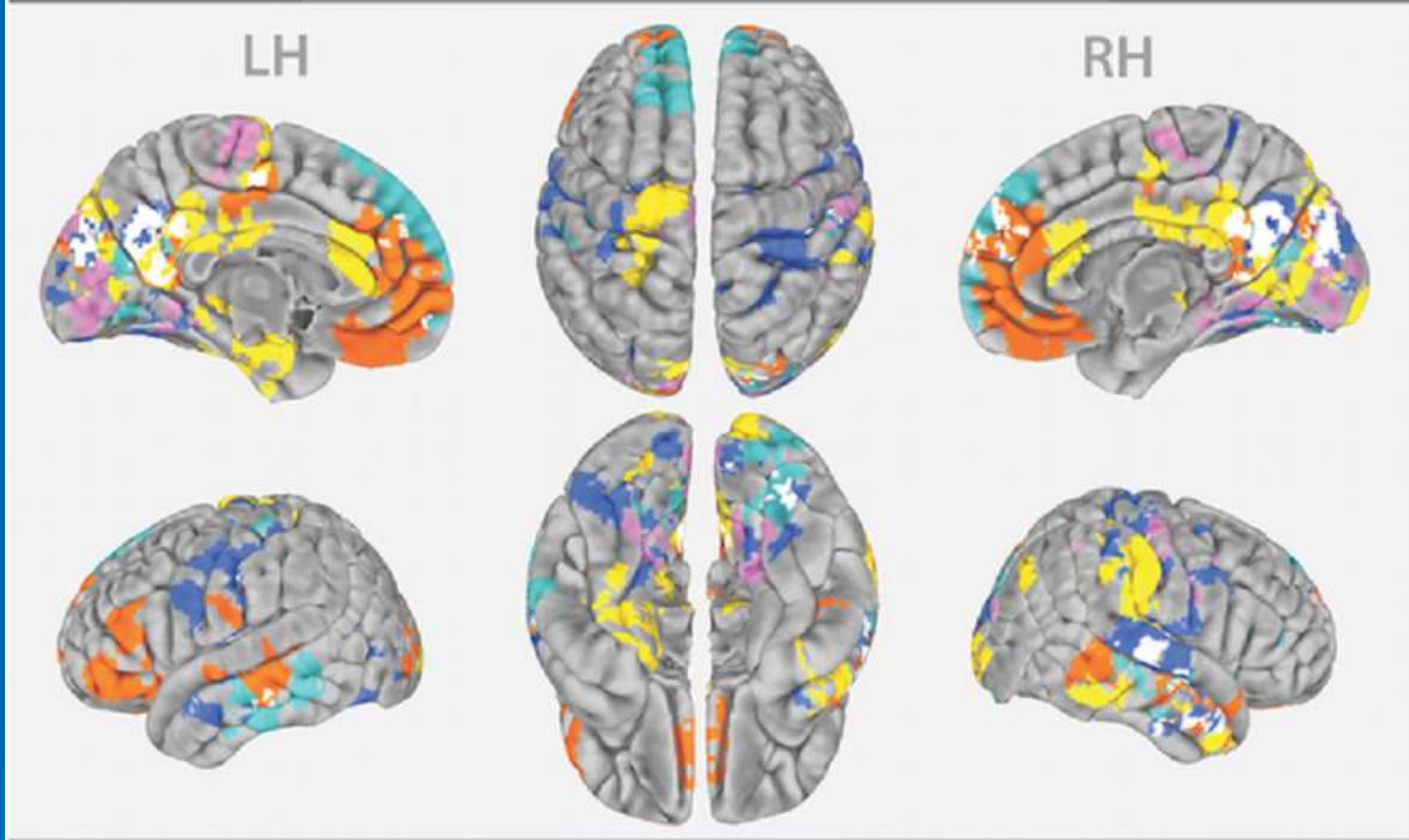
- Openness/Intellect: tendency to process abstract and perceptual information flexibly and effectively, and includes traits such as imagination, intellectual engagement, and aesthetic interest.
- Larger bandwidth of information processing
- Only Big Five trait to be consistently and positively associated with intelligence
- Associated with an area of parietal cortex involved in working memory and the control of attention.
- Correlates with Default mode network (integration of the self and the environment) & the dorsolateral PFC

Brain regions in which local volume was significantly associated with (a) Extraversion, (b) Conscientiousness, (c) Neuroticism, and (d) Agreeableness.



Psychological
SCIENCE

Neuroticism **E**xtraversion **O**penness **A**greableness **C**onscientiousness



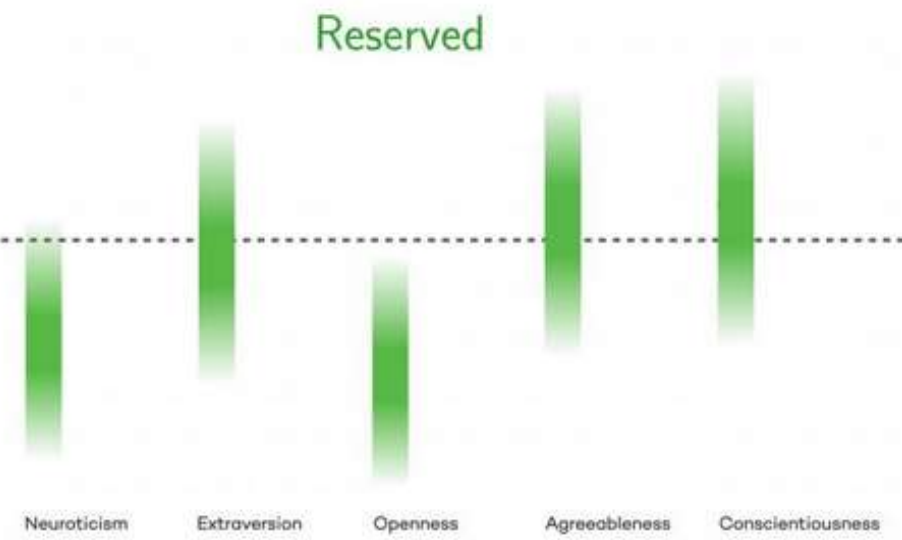
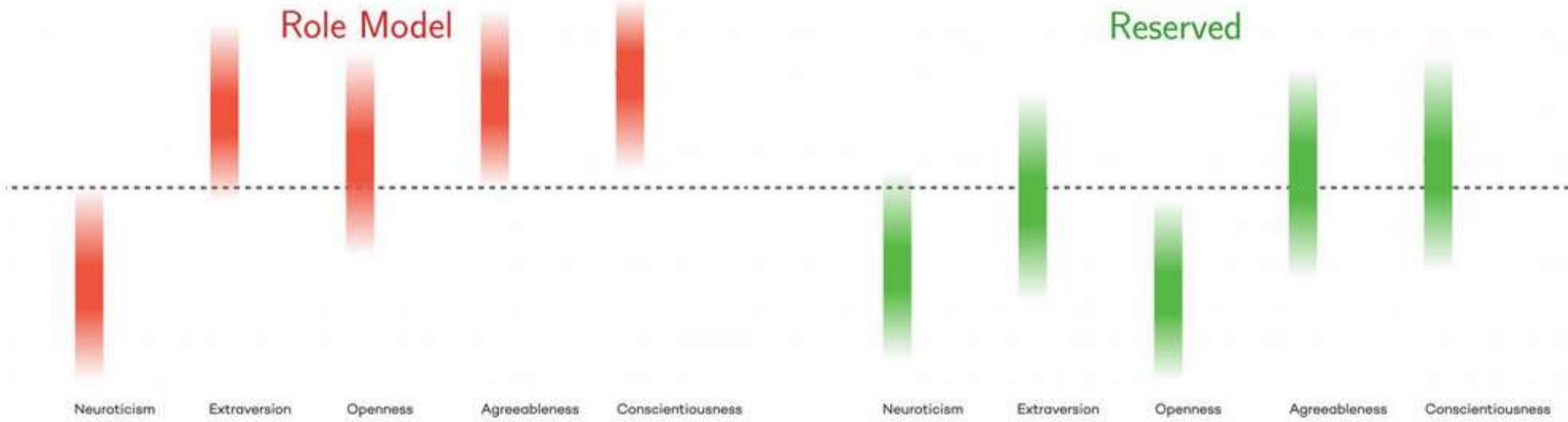
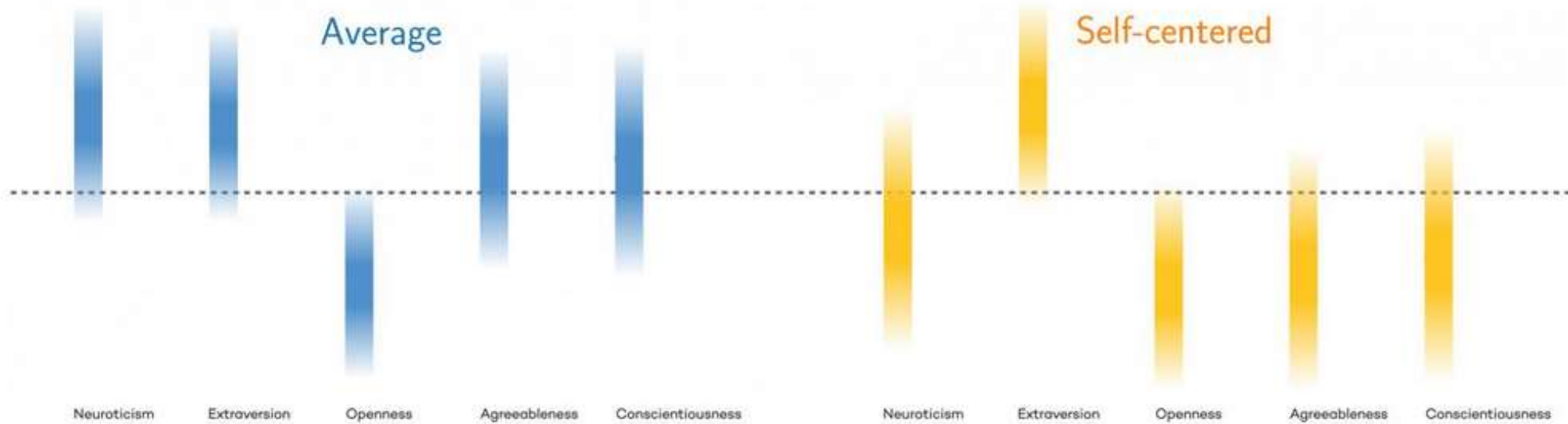
Across all domains, the pattern of regions whose connectivity was predicted by personality corresponded with functional subsystems in the brain, particularly default-mode network fractionations

Four new personality types based on 1.5 M OCEAN data

- 1.5 M online personality questionnaire responders; four clusters emerged
- Four distinct clusters of personality types exist: average, reserved, self-centered and role model.
- **Average**--high in neuroticism and extraversion, while low in openness. The typical person would be in this cluster. Females are more likely than males to fall into the Average type.
- **Reserved**--emotionally stable, but not open or neurotic. They are not particularly extraverted but are somewhat agreeable and conscientious.
- **Role Models**--low in neuroticism and high in all the other traits. The likelihood that someone is a role model increases dramatically with age. They are dependable and open to new ideas. These are good people to be in charge of things. In fact, life is easier if you have more dealings with role models. More women than men are likely to be role models.

Four new personality types based on 1.5 M OCEAN data

- • **Self-Centered**--very high in extraversion and below average in openness, agreeableness and conscientiousness. These are people you don't want to hang out with. There is a very dramatic decrease in these traits as people age, Teenage males are overrepresented in this group on replication.
- **As people mature**, their personality types often shift. Older people tend to be less neurotic yet more conscientious and agreeable than those under 20 years old.



Does our popularity in high school affect us later in life?

- Research findings suggest that **how popular folks were in high school:**
 - **even forty years later, we can predict who will graduate from high school or college, who will succeed at work, who will apply for welfare/social services, and who may suffer from debilitating mental health difficulties or addictions.**
 - **Our popularity even predicts our physical health – those who were least popular in childhood are more likely to have cardiovascular and metabolic illnesses decades later than those who were well-liked. Equivalent effect as smoking!**
-
- What may be most surprising, however, is that **our popularity plays a role that cannot be accounted for by our socioeconomic status, IQ, family background, prior mental health difficulties, or our appearance.** There's something about the way we are regarded by others that changes our life trajectories quite meaningfully and substantially.

Big Five & Dementia

- Higher Neuroticism or lower Conscientiousness increase risk for AD neuropathology.
- A resilient personality profile is associated with lower risk or delay of clinical dementia, even in persons with AD neuropathology.

PD as pejorative term

- In the mental health field, the category of personality disorder has become a pejorative concept.
- Borderline PD and Antisocial Personality PD have become the most negatively identified categories. Judith Herman called BPD "the sophisticated insult"
- PDs are nouns, not adjectives: i.e. not “person is borderline” but “person has a borderline personality disorder”
- Diagnostic bias: research shows gender equivalence of many PDs,
 - women are more often dx-ed Histrionic,
 - and men, Narcissistic and ASPD

Politics & Personality: Different Psychologies

- Chris Mooney authored *The Republican Brain*
- It is a survey of the extensive research linking political views to personality types.
- Modern American conservatism is highly correlated with authoritarian inclinations — and authoritarians are strongly inclined to reject any evidence contradicting their prior beliefs.
- Conservatives are more sensitive to threats while liberals are more open to new experiences.

Openness vs. Conscientiousness

- Openness to new experiences and fastidiousness are better predictors of political preference than income or education.
- Liberals are more likely to be open to new experiences, new cultures, and new ideas. They embrace uncertainty, ambiguity and messiness.
- Conservatives are more likely to exhibit Conscientiousness: "highly goal oriented, competent, and organized--and, on average, politically conservative."

NEO & Politics

- The better educated a conservative is, the more likely he is to dismiss climate change concerns
- “Smart idiot” effect: due to motivated reasoning—the psychological phenomenon of preferring only evidence that backs up your belief
- People more wedded to certainty tend to become conservatives; people craving novelty, liberals.

Personality as Styles

- Sylvia Wilson and colleagues (2017): interpersonal styles associated with each personality disorder.
- So much of what can go awry in personality involves relationships with others.
- Propose that all personality traits can be catalogued on the **dimensions of agency (ranging from domination to submissiveness) and communion (ranging from warmth to coldness)**.
- These dimensions form a “circumplex,” or circle with two dimensions that, in turn, can be divided into 8 sections, The closer you get to the extreme ends of any dimension, the less desirable the trait becomes.
- Personality disorders are associated with dysfunctional interpersonal styles and core disturbances in self

Wilson, S., Stroud, C. B., & Durbin, C. E. (2017). Interpersonal dysfunction in personality disorders: A meta-analytic review. *Psychological Bulletin*, 143(7), 677-734. doi:10.1037/bul0000101

DSM-5 Personality Disorders

Enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, with onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment

Same 10 Personality Disorders

- DSM-5 will maintain the categorical model and criteria for the 10 personality disorders included in DSM-IV
- Section 3: Includes the new trait-specific methodology
- Major changes in personality disorders held over until next revision, the DSM 5.1 (or maybe 5.2)

10 Personality Disorders

- Paranoid
- Schizoid
- Schizotypal
- Antisocial
- Borderline
- Histrionic
- Narcissistic
- Avoidant
- Dependent
- Obsessive-Compulsive

DSM-5: Personality Disorders

- Enduring pattern of inner experience that deviates markedly from cultural experiences, > 2 manifestations
 - Cognition
 - Affectivity
 - Interpersonal functioning
 - Impulse control
- Pattern, inflexible & pervasive across broad range of personal & social situations
- Distress/impairment
- Pattern stable & enduring; from adolescence/early adulthood

Cluster A

Paranoid PD

Pervasive Distrust + Suspiciousness, Interpret motives of others as malevolent

4 + of :

Suspicious

Feels Attacked

Preoccupation with Distrust

Jealous of partner

Won't Confide

Grudges

Misinterprets Motives

- Core: suspicious distrust
- Watching out for injustice

DSM-5 Paranoid Personality Disorder

- Distrust and suspiciousness of others, motives interpreted as malevolent
- > 4 sx's
 - Suspicious without basis of being exploited/harm/deception; preoccupied with unjustified doubts about loyalty; reluctant to confide, fear information used against; reads hidden demeaning threatening meaning in remarks; bears grudges; attacks on character; suspicious of fidelity

Ultimate Paranoid: The Conversation



Conversation (1974): Gene Hackman

Paranoid PD

- Be careful in diagnosis of: Ethnic minorities, immigrants, political refugees – real reason for fear
- Familial: increased prevalence in relatives of Schizophrenics and Delusional Disorder
- Prevalence:
 - DSM-5 (Nat. Comorbidity Study): 2.3% in population, 10-30% inpatient, 2-10% outpatient,
 - NESARC: 4.4% in population, more female

Paranoid PD Issues

- Ideational disorder: ignore contradictory data
- Pervasive distrust, hypervigilant, restricted affect, need control
- Not schizophrenic spectrum
- Genetic components with delusional disorder
- More men in clinic, more women in community
- 75% comorbidity (schizotypal, agoraphobia (3.5x))
- Cognitive nets of connectedness (others always think of you)

Paranoid: Treatment

- Poor outcomes
- Medications don't help
- Be honest, don't justify their paranoia
- Don't psychologize or describe projection
- Use "we"
- Emphasize how anyone would experience that situation

Paranoid Treatment

- Acknowledge your mistakes.
- Be open and honest.
- Have a professional and not overly warm style.
- Don't confront the paranoia.
- Set limits.
- Clearly explain procedures, medications and results.

Paranoid PD: Testing

- MMPI: 6↑, persecutory ideas, poignancy
- MCMI: paranoid
- PAI: paranoid
- Rorschach:
 - synthesis responses
 - clothing
 - hypervigilant
 - lots of H
 - overincorporation (2 women cooking with BF flying by with culinary spirits consulting)

Schizoid PD

Social Detachment + Restricted Affect

4 + of :

Eschew Closeness No Close Friends

Solitary Indifferent

No Sex Interest Cold

Not Enjoy Activities

Coldness with social avoidance. Will not try to exploit you.

DSM-5 Schizoid Personality Disorder

- Social and interpersonal deficits,
- Acute discomfort with/reduced capacity for close relationships; (cognitive/perceptual distortions/behavior eccentricities)
- ≥ 5
 - Ideas of reference, odd beliefs/magical thinking, influences behavior; unusual perceptual experiences; odd thinking and speech; suspiciousness/paranoid delusion

Prevalence of Schizoid PD

- DSM-5 (Nat. Comorbidity study):
 - 4.9 % in general population
 - More males
- NESARC:
 - 3.1% in general population

Schizoid PD issues

- Most profound development deficit
- Basic deficit (not conflictual): inability to relate to others
- Anhedonia
- Don't reproduce or marry
- Dysthymic
- Outsiders, not participants
- Not schizophrenic spectrum
- Reduced social yawning

- Low mirror neurons?; touch of Asperger's?
- Asperger syndrome = inability to empathize while schizoid PD = apathy toward other's emotions

Schizoid: Treatment

- Uncommon in clinical settings
- TX goal:
 - Emphasize positive emotions
 - Understand their need for isolation.
 - Maintain a quiet, reassuring, and considerate interest in them.
 - Don't insist on reciprocal responses.
 - Don't expect therapy relation to improve them.

Schizoid PD: Psych.Testing

- What's not there
- MMPI: Introversion, 8↑, 9↓
- MCMI: Schizoid
- PAI: Paranoid-hypervigilance subscale
- Neo PI: Openness ↓
- Rorschach: pure F, L>1.0, Human 0-1, Cop ↓, Ag ↓

Schizotypal PD

Discomfort with Relationships, Cognitive Distortions + Eccentric behavior

5 + of :

Ideas of Reference

Odd Magical Beliefs

Perceptual Disturbances

Odd Thoughts/Speech

Paranoia

Inappropriate Affect

Odd Behavior/Appearance

Loner

Anxious Socially

Also coded under Schizophrenia and Other Psychotic Disorders

DSM-5: Schizotypal Personality Disorder

- Social & interpersonal deficits,
- acute discomfort with/reduced capacity for close relationships;
- cognitive/perceptual distortions/behavior eccentricities
- > 5:
 - Ideas of reference, odd beliefs/magical thinking, influences behavior; unusual perceptual experiences; odd thinking and speech; suspiciousness/paranoid delusions
- Also under Schizophrenia and Other Psychotic Disorders

Ultimate Schizotypal: Taxi Driver



Taxi Driver (1976): Robert DeNiro

Schizotypal PD 1

- “Touch of schizophrenia”; non psychotic version of schizophrenia;
- Schizophrenic spectrum disorder
- Cognitive/perceptual distortions & behavioral eccentricities
- More research due to
 - behavior having similarity to schizophrenia
 - genetic link with schizophrenia
- Schizotypal personality disorder is more common in families with a history of schizophrenia.
- Evidence for dysregulation of dopaminergic pathways

Prevalence

- DSM-5:
 - .6% Norwegian samples
 - 4.6% US community
 - 0 to 1.9% in clinical populations
 - More common in males
- NESARC: 3.9%
- Higher rates in females with Fragile-X

Schizotypal PD 2

- Micro psychotic episodes; but not delusional
- GM Atrophy: Reduction of left Superior Temporal and frontal gray matter volume and enlarged Ventricles in SPD subjects; greater R prefrontal activation
- Anti-psychotic drugs → can help, but very limited improvement (also side-effects!)
- Therapy: Aim to reconnect client to social world & recognize limits of their thinking (but expect limited success); social skills education, reality orientation

Schizotypal PD: Testing

- WCST↓
- MCMI: schizoid scale
- PAI: Schizophrenia scale
- MMPI: 8↑
- Rorschach: introversive, lot of M and M-, poor Form, level 1 special scores, odd language, tangential; poor H form

Cluster B

Antisocial PD (ASPD)

Disregard Rights of Others (and meet Conduct Disorder)

3 + of :

Unlawful

Reckless

Deceitful

Irresponsible

Impulsive

Lack Remorse

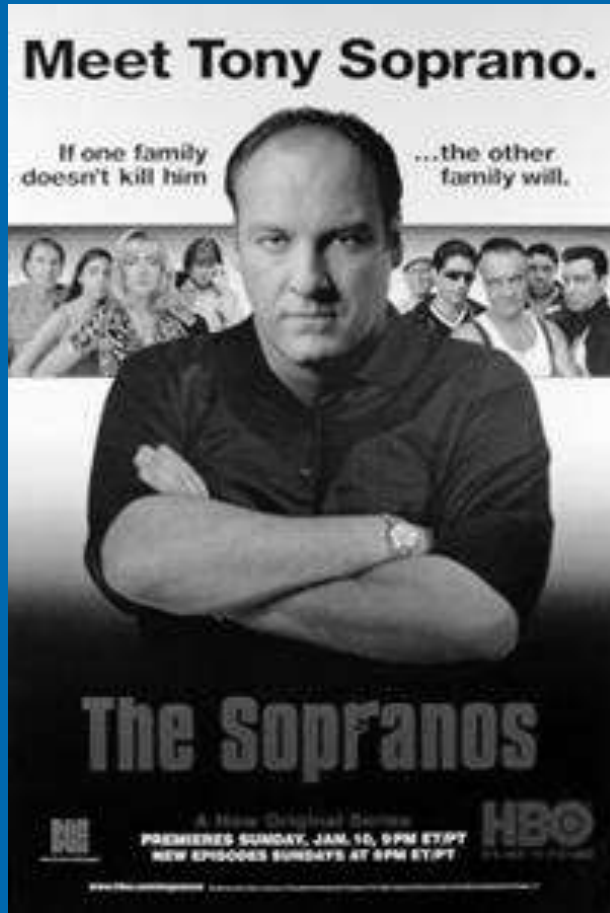
Aggressive

- Crucial: lack of empathy, arrogant self appraisal
- ≥ 18 y; Evidence of conduct disorder before age 15
- Relationships: domineering, vindictive, and intrusive, higher on coldness.

DSM-5: Antisocial Personality Disorder

- Disregard for and violation of rights of others
- Since age 15
- ≥ 3 sx's:
 - Failure to conform to social norms related to lawful behaviors; deceitfulness; impulsivity; irritability/aggressiveness; reckless disregard for safety of self/others; consistent irresponsibility; lack of remorse
- ≥ 18 years
- Evidence of conduct disorder < 15 years
- Note: no psychopathy or sociopathy in DSM-5

ASPD: Diagnosis by Rap Sheet



Ted Bundy,
killed 16 women
aged 12-23



ASPD in film and TV



Monster (2003) - Charlize Theron



Dexter

Psychopathy



Trustworthiness

- “In spite of the hardness and ruthlessness I thought I saw in his face, I got the impression that here was a man who could be relied upon when he had given his word.”
- An error in judgment: English Prime Minister Neville Chamberlain on first meeting Hitler
- Formula to predict untrustworthiness: hand touch, face touch, arms crossed, lean away. The more often a player expressed this set of cues, the more selfishly they played in economic risk games.

ASPD vs. Criminality

“Criminal” is a legal term denoting conviction for breaking a law:

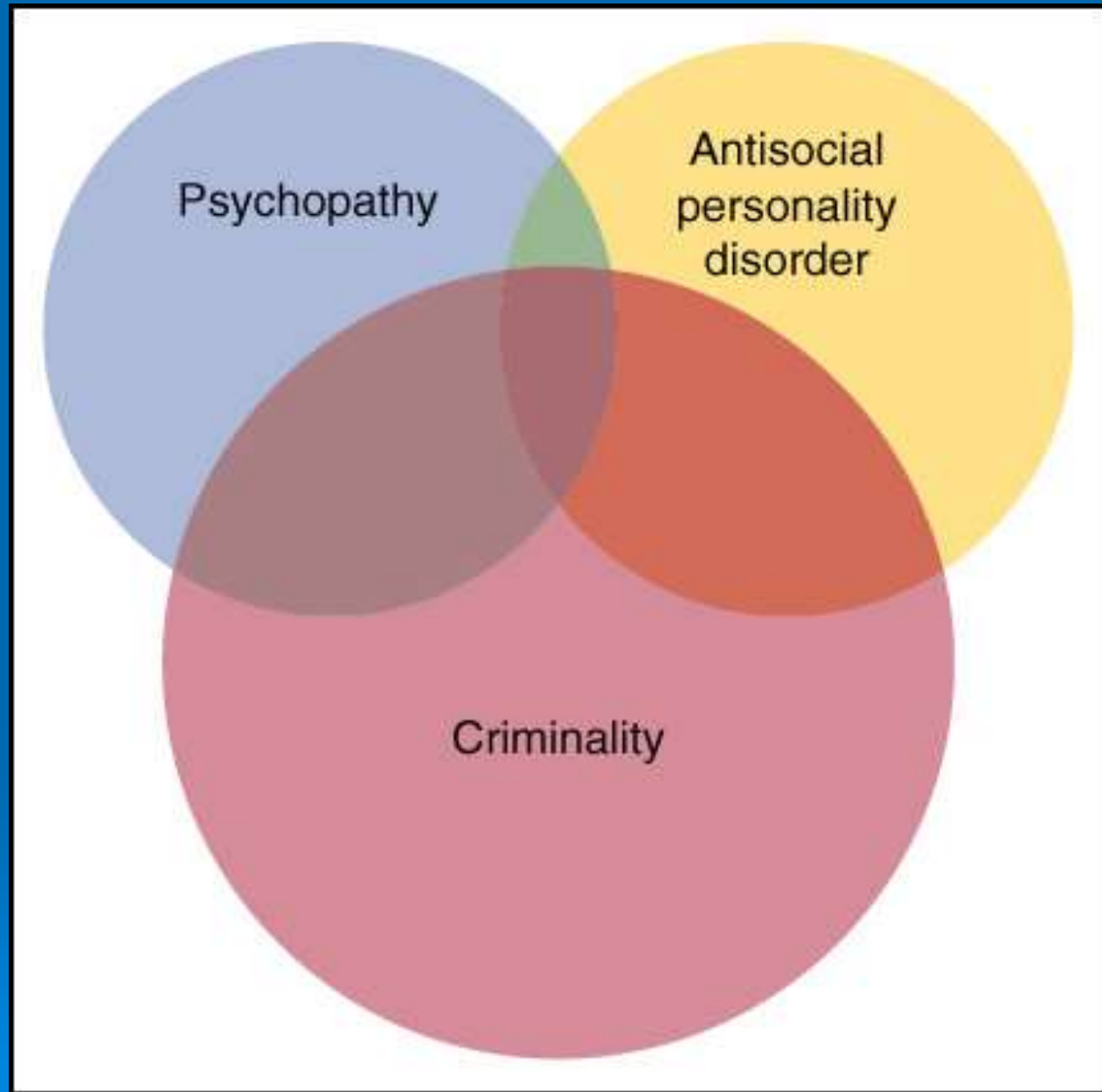
- Not all people with ASPD are criminals (or in jails), i.e. *Snakes in Suits*
- Not all people in jail or considered criminal have ASPD, i.e. drug bust
- Not all people with ASPD are psychopaths

Are these people psychopaths?

- • Door to door sales person
- • Wall street or corporate executive
- • Skilled crime solver
- • Politician

What's differentiates "failed" from "adaptive" psychopaths?

- • Impulsive antisociality
- • Fearless dominance
- Serial killer



Psychopathy

Antisocial
personality
disorder

Criminality

Dark Tetrad: Dark Personalities

- Machiavellianism,
- Narcissism,
- (subclinical) Psychopathy
- Everyday sadism

Table 1. Key Features of the Dark Tetrad of Personalities

Feature	Narcissism	Machiavellianism	Psychopathy	Sadism
Callousness	++	++	++	++
Impulsivity	+		++	
Manipulation	+	++	++	
Criminality		Only white-collar	++	
Grandiosity	++		+	
Enjoyment of cruelty				++

Dark Factor

- Some people are predisposed to behave in ways that hurt others associated with patterns of unethical, anti-social behavior can arise from low empathy, manipulativeness, moral disengagement, narcissistic entitlement, impulsivity, and a number of other dark traits. Not all bad people are the same.
- All of these antisocial traits share a common core, which can be called the **Dark Factor of Personality**: degree to which people single-mindedly focus on achieving their goals – whatever those might be at the moment – while callously disregarding the fact that their actions hurt other people or even by intentionally hurting other people to get what they want.
- D is the tendency for people to maximize their own desired outcomes at the expense of other people and to justify their harmful behaviors and the damage they cause through a set of anti-social beliefs. But just think of D as a particularly harmful and malignant form of selfishness.

Moshagen, M., Hilbig, B. E., & Zettler, I.

The dark core of personality. *Psychological Review*. (doi: 10.1037/rev0000111).

D

Psychological characteristics that involve D, including:

Machiavellianism – endorsing the use of deceit and manipulation to get what one wants

Moral disengagement – an orientation to the world in which people don't consider the moral and ethical implications of their actions

Narcissism – a pervasive sense of superiority and grandiosity, coupled with the belief that one is entitled to use, if not mistreat, other people to get what one wants

article continues after advertisement

Psychological entitlement – the belief that one deserves to have more and to be treated better than other people

Psychopathy – a disregard for other people that is characterized by very low empathy and very low self-control (or high impulsivity)

Spitefulness – behaving in ways that harm other people, often for purposes of revenge, even when hurting others also harms oneself

Sadism – insensitive, cruel, or demeaning behavior in which people inflict physical or psychological pain or suffering on others in order to assert power or for pleasure

This is obviously an unusually troubling set of characteristics. The interesting thing is that people who score high on each of them, as well as some others, score high in D.

Hot ASPD vs Cold Psychopaths

- Can describe:
 - those without psychopathy as 'hot-headed' and
 - those with psychopathy as 'cold-hearted'.
- The 'cold-hearted' psychopathic group begin offending earlier, engage in a broader range and greater density of offending behaviors, and respond less well to treatment programs in adulthood, compared to the 'hot-headed' group.
- Profound deficits in empathizing with the distress of others.

ASPD vs Psychopaths

- ASPD+P offenders displayed significantly reduced grey matter volumes in the anterior rostral prefrontal cortex and temporal poles compared to ASPD-P offenders and healthy non-offenders.
- Damage to these areas is associated with:
 - impaired empathizing with other people,
 - poor response to fear and distress
 - and a lack of 'self-conscious' emotions such as guilt or embarrassment.

ASPD

- Diagnosis by rap sheet, behavior
- Adult extension of conduct disorder (age>18)
- Emphasizes antisocial, rule breaking behavior
- Conduct disorder before age 15
- After age 15:
 - unlawful behavior
 - lying, deceitful, use aliases
 - impulsive, fail to plan ahead
 - aggressive, fights
 - reckless disregard for safety of self or others
 - irresponsible, don't honor debts, inconsistent job record
 - lack remorse – indifferent to having hurt others

Causes of ASPD

Genetics

Birth trauma

Sensation-seeking

Family dynamics

Modeling and media

ASPD

- Twin, family, and adoption data show strong genetic influence; higher for women; higher rates of Substance Abuse and Somatization disorders
- Lee Robins' work in mid-1960's formed basis of current ASPD criteria
 - Most antisocial adults were antisocial in childhood
 - But most antisocial children are not antisocial as adults
- ASPD is not Psychopathy: "having a cold versus pneumonia"

Prevalence

- Prevalence is 3.6% (NESARC); higher in men; lower in women; underdiagnosed in women
- DSM-5: 12 month rates: .2 to 3.3%
- Highest: (greater than 70%) among most severe samples of males with alcohol use disorder & substance abuse clinics, and prisons
- Higher in poverty and migration samples

ASPD+P

- Psychopathy is a neurodevelopmental disorder characterized by structural abnormalities from a young age.
- Reduced GM volume of bilateral anterior rostral medial prefrontal cortex (arMPFC) and the bilateral temporal poles among the violent offenders with ASPD+P
- GM volume reductions in the bilateral insulae.

Psychopathy

- Psychopathy is a personality disorder characterized by a combination of
 - superficial charm,
 - persistent instrumental antisocial behavior,
 - marked sensation-seeking
 - poor reflection,
 - blunted empathy and punishment sensitivity,
 - and shallow emotional experiences.
- Markedly increased risk of developing substance use problems.
- Hyper-reactivity of the dopaminergic reward system may comprise a neural substrate for impulsive- antisocial behavior and substance abuse in psychopathy.
- Mesolimbic DA is critical for the expression of aggression

Kent Kiehl, PhD & his 1100 Psychopaths



Kent Kiehl in front of the semi-trailer that houses a portable MRI scanner at the Western New Mexico Correctional Facility.



Psychopathy: “Suffering Souls”

- Condition of moral emptiness that affects between 15-25 % of the North American prison population, and 1% of the general adult male population. (Female psychopaths are thought to be much rarer.)
- Kent Kiehl: 1 in 100 in normal population; 1 in 20 prison
- Their main defect is "severe emotional detachment"--a total lack of empathy and remorse.
- The average psychopath: convicted of four violent crimes by the age of forty.
- Criminal life style factor (lower after age 40): SES, bad friends, Chem. Depend.
- Callous aggressive narcissism: predator-prey

If fearless, born to be bad? Amygdala & low fear conditioning deficit

- In the framework of a large birth cohort study, Gao et al. tested fear conditioning in children at age 3. Twenty years later, they probed the association of poor fear conditioning in early childhood with adult criminal behavior.
- Skin responses to the conditioned stimulus were significantly lower in children who became criminal later on.
- Deficient amygdala function: renders individuals unable to recognize cues that signal threat, making them relatively fearless; do not recognize distress in others

No perception of distress

- Dr Amy Dawel of the ANU Research School of Psychology said the results showed people with high levels of psychopathic traits don't respond to genuine emotions in the same way as most people.
- "For most people, if we see someone who is genuinely upset, you feel bad for them and it motivates you to help them," Dr Dawel said. "People who are very high on the psychopathy spectrum don't show this response."
- "We found people with high levels of psychopathic traits don't feel any worse for someone who is genuinely upset than someone who is faking it. They also seem to have problems telling if the upset is real or fake. As a result, they are not nearly as willing to help someone who is expressing genuine distress as most people are."
- Interestingly, these problems in responding to other peoples' emotions seem to be just for people who are sad or afraid.
- "For other emotions such as anger, disgust, and happy, high psychopathy individuals had no problems telling if someone was faking it. The results were very specific to expressions of distress."

Reduced spontaneous but relatively normal deliberate vicarious empathy in psychopathy

- fMRI has shown that witnessing the emotions of others triggers neural activations in insula and cingulate cortex (Mirror Neurons) normally associated with feeling similar emotions oneself, and witnessing what others do
- Study: that psychopathy is:
 - not a simple incapacity for vicarious activations
 - but rather reduced spontaneous vicarious activations co-existing with relatively normal deliberate counterparts.

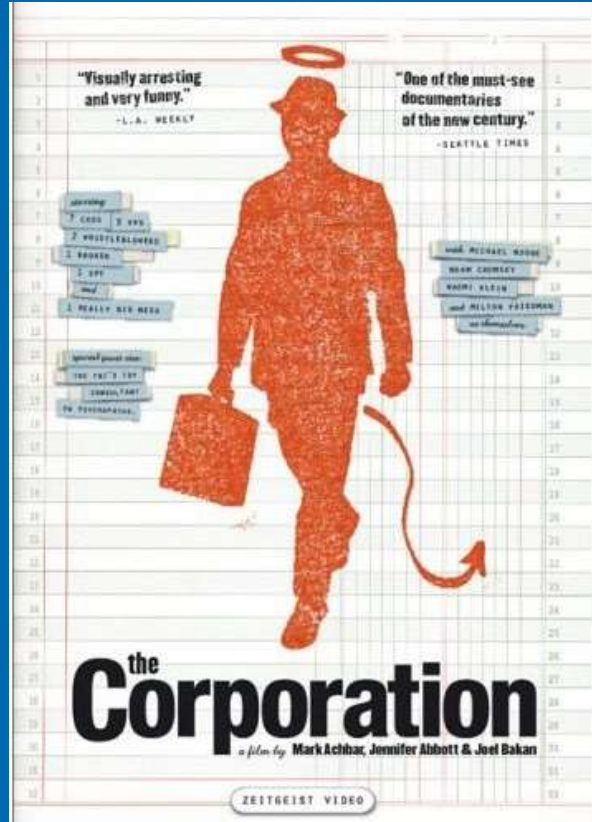
Psychopathy 2: **What did you do with your Pet**

- Psychopathy Checklist, or PCL-R, a twenty-item diagnostic instrument created by Robert Hare
- The “gold standard” measure of psychopathy, which has been found to predict future violent behavior among adult male offenders. ($r = .30$ for violent recidivism)
- More recent instrument that does not require a history of criminal behavior for completion is a self-report questionnaire known as the Psychopathic Personality Inventory–Revised

Psychopathy 3

- Occupations: professions likely to attract psychopaths are law enforcement, the military, politics, and medicine.
- The most agreeable vocation for psychopaths is business ("Snakes in Suits: When Psychopaths Go to Work")
- Traits that may be desirable in a corporate context, such as ruthlessness, lack of social conscience, and single-minded devotion to success, would be considered psychopathic outside of it
- Examples: Tobacco, Oil, Pharma

Documentary about Corporations modeling Psychopathy



Bernie Madoff

[The Wisdom of Psychopaths: What Saints, Spies, and Serial Killers Can Teach Us About Success](#) by Kevin Dutton

Psychopathy checklist

Psychopathy checklist:

Interpersonal	Emotional	Lifestyle	Antisocial
Glibness/superficiality /charm	Lack of remorse or guilt	Need for stimulation/prone to boredom	Poor behavioral control
Grandiose sense of self-worth	Shallow affect	Parasitic lifestyle	Early behavioral problems
Pathological lying	Callousness/lack of empathy	Lack of realistic long-term goals	Juvenile delinquency
Conning/manipulative	Failure to accept responsibility for own actions	Impulsivity	Revocation of conditional release
		Irresponsibility	Criminal versatility

Source: R. Hare, J. Skeem *et al*/PSPI 2011

PCL Factors

- *Factor 1 - Arrogant and Deceitful Interpersonal Style*
 - Impression Management
 - Grandiose Sense of Self-Worth
 - Pathological Lying
 - Manipulation for Personal Gain
- *Factor 2 - Deficient Affective Experience*
 - Lack of Remorse
 - Shallow Affect
 - Callous/Lack of Empathy
 - Failure to Accept Responsibility
- *Factor 3 - Impulsive and Irresponsible Behavioral Style*
 - Stimulation Seeking
 - Parasitic Lifestyle
 - Lacks Goals
 - Impulsivity
 - Irresponsibility
- *Factor 4 – Antisocial Behavior*
 - Poor Anger Control
 - Early Problem Behaviors
 - Juvenile Delinquency
 - Serious Violations of Conditional Release
 - Criminal Versatility

Evolution of predation in the brain



Evolution favored male brains who hunted well

Kiehl on Psychopaths

- Psychopathy: Score of 30 of 40 on Hare's Psychopathy Checklist-Revised (PCL-R) (normals score 4)
- Psychopaths typically exhibit impulsivity, poor planning, little insight and an utter absence of guilt or empathy.
- Most had engaged in sexual activity by the age of 12 and showed early signs of violence, including a predilection for arson and animal torture.

Kiehl on Psychopaths 2

- Prevalence:
 - 1-2% of the general population,
 - 15 to 20 % of prisoners in minimum to medium security prisons qualify as psychopaths,
 - 30 percent for those in maximum security.
- Impairment (under activation) in the paralimbic system (ACC, Orbital F, Amygdala).
- Limbic system is not engaged during moral or emotional trigger

Michael Caldwell

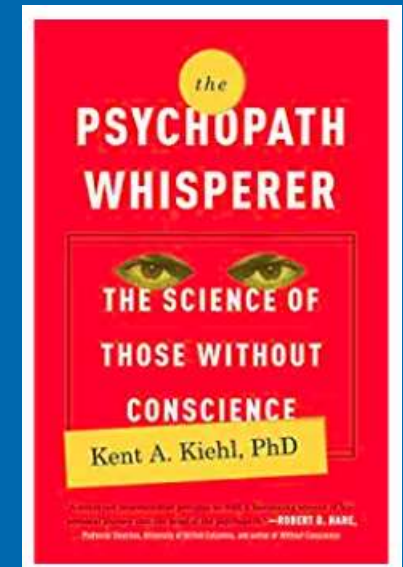
- Fledgling Psychopath Studies: age 6-12
 - HIA (hyperactive, impulsive, attention deficit)
 - Conduct Disorder
 - Callous/unemotional
- Psychopathy can be changed in the young
- CBT for 9-12 months reduced recidivism by 50%

Parenting

- **How parenting affects antisocial behaviors in children**
- In a study of identical twins, the **child who experienced harsher behavior and less parental warmth was more aggressive**, and exhibited **more callous-unemotional traits**.
- Less parental warmth and more harshness in the home environment affects how aggressive children become, and whether they lack empathy and a moral compass, a set of characteristics known as callous-unemotional (CU) traits
- But a **parent who is warm and positive may have a hard time maintaining those behaviors if the child never reciprocates**.

Definitive Works

- The Anatomy of Violence: The Biological Roots of Crime by Adrian Raine (2013)
- The Psychopath Whisperer: The Science of Those Without Conscience (2015) by Kent A. Kiehl



Psychopathic Personality Disorder: Reduced Prefrontal Gray



- Raine, 2000: The ASPD group showed an 11% reduction in prefrontal gray matter volume and reduced autonomic activity during the stressor. This prefrontal structural deficit may underlie the low arousal, poor fear conditioning, lack of conscience, and decision-making deficits that have been found to characterize antisocial, psychopathic behavior.

Real Life Psychopaths

David Berkowitz



ED



Beltway Snipers



Charles Manson



Aileen Wuornos



TED



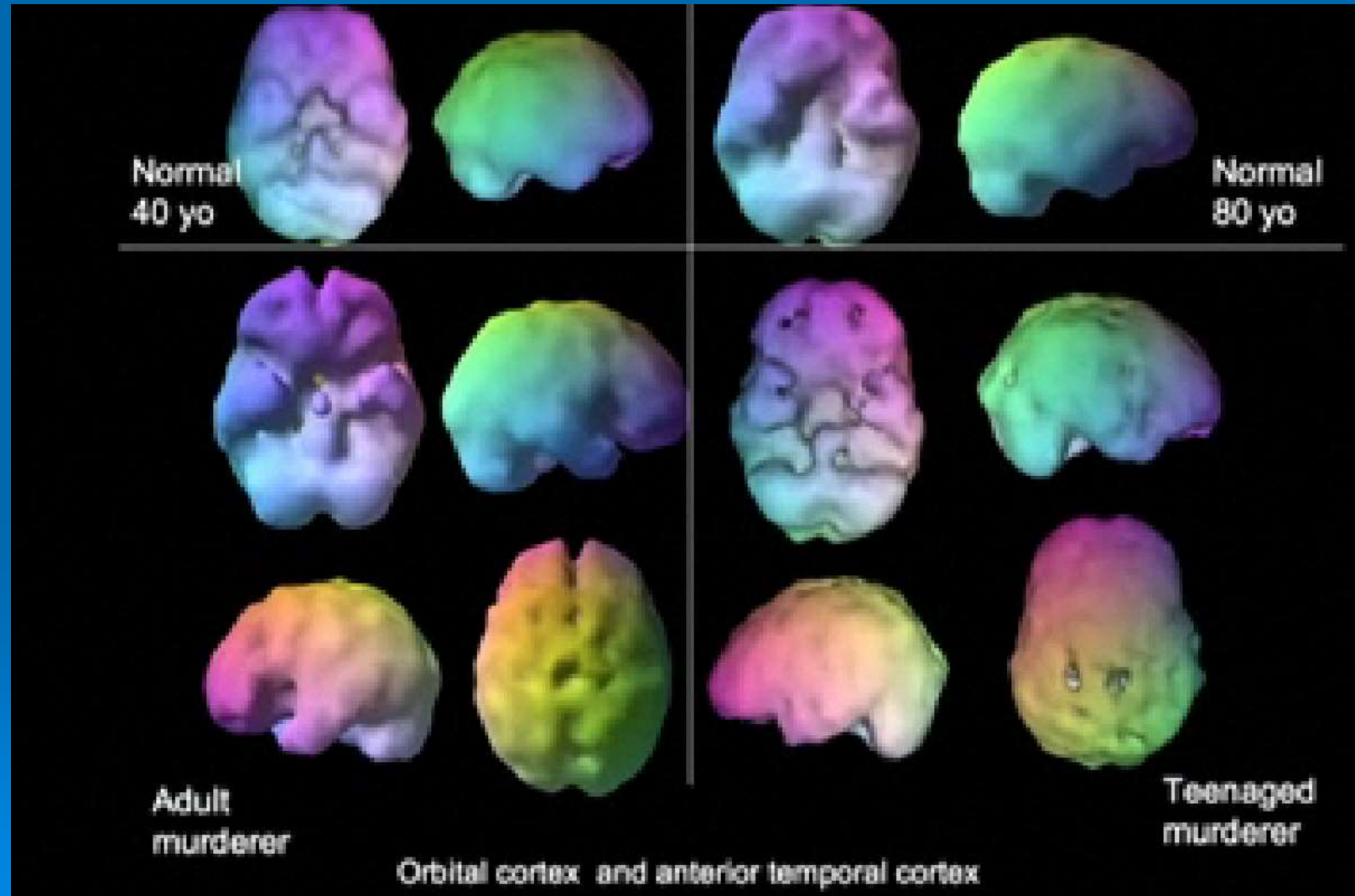
Albert Fish



John Gacy

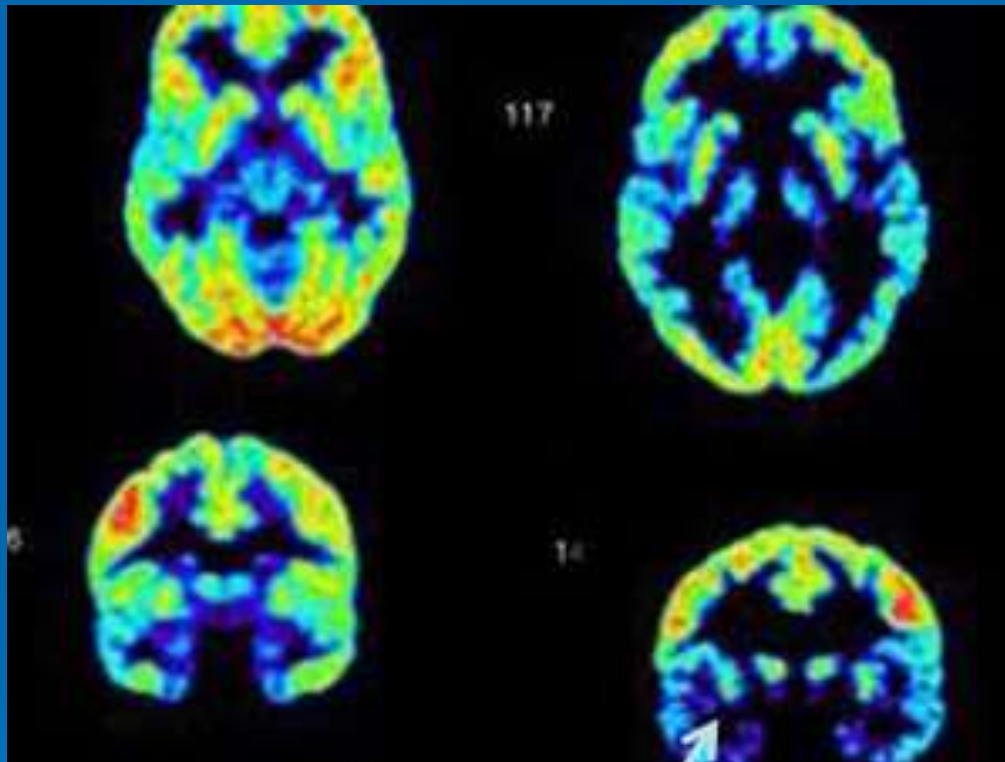


Psychopathy: Orbital cortex and Anterior Temporal cortex Low Activation



Brains of James Fallon PhD and son (cousins of Lizzy Borden): Thwarted Sociopathy

Son's



Left: Low Orbital Frontal
Activation in Fallon



Fallon's brain (on the right) has dark underactive patches in the orbital cortex. This is the area that Fallon says is involved with ethical behavior, moral decision-making and impulse control. The normal scan on the left is his son's. His is on right.

Lizzy Borden: tried and acquitted for the 1892 axe murders of her father and stepmother i

Fallen on Psychopathy: Combination of Factors

- 1 – Low Orbital Frontal activation pattern
- 2 - MAO-A gene (monoamine oxidase A):
high-aggression variant (low Serotonin), Warrior gene
- 3 – Mother transmission to son
(X chromosome), too little Serotonin:
higher rates among males
- 4 – History of childhood abuse or seeing lots of traumatic violence

Neurobiology of ASPD

- Genetic contribution to antisocial behaviors is strongly supported (75% monozygotic).
- Right temporal/limbic hypometabolism (less affective processing: emotions don't affect them)
- Reduced autonomic activity. This may underlie the low arousal, poor fear conditioning, and decision-making deficits described in antisocial personality disorder. Lower skin conduction in socially stressful situation
- Low levels of behavioral inhibition may be mediated by serotonergic dysregulation (low levels) in the septohippocampal system. No harm avoidance.
- Reduced Prefrontal volume (11%): poor behavioral inhibition

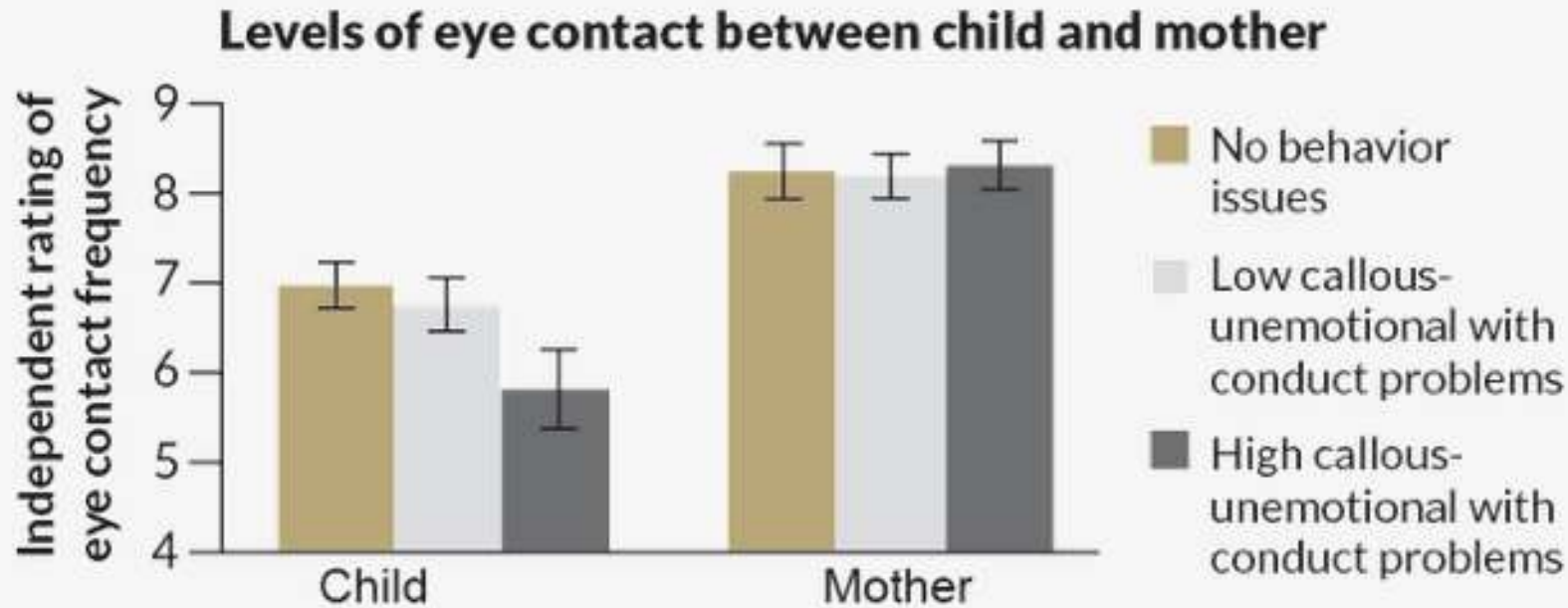
Neurobiology of Antisocial PD 2

- Fairchild, 2008: Adolescents with severe antisocial behavior do not exhibit the same increase in cortisol levels when under stress as those without antisocial behavior.
- Doan, 2002: Subjects with ASPD displayed impairments on DLPFC executive function tasks of planning ability and set shifting. Impairments were also seen in VMPFC Go/NoGo tasks and in visual memory tasks.

ASPD + Psychopathy: starts in **childhood**

- This subgroup meets diagnostic criteria for conduct disorder with callous-unemotional traits in childhood and for the syndrome of psychopathy as defined by the Psychopathy Checklist - Revised (PCL-R) in adulthood (ASPD+P).
- Begin offending earlier, engage in a broader range and greater density of offending behaviors, and respond less well to treatment programs in childhood and adulthood compared with those with ASPD without psychopathy (ASPDP).
- Conduct problems coupled with callous-unemotional traits are highly heritable,
- There is stability in childhood psychopathic traits into adolescence and early adulthood.

Callous Kids: Less eye contact with Mom



EYE SPY Callous-unemotional kids with conduct problems looked their mothers in the eyes less than well-behaved kids and less than kids with conduct problems who had few callous-unemotional traits (left). Mothers of callous-unemotional children tried to make eye contact as much as other mothers did (right).

SOURCE: M. R. DADDS ET AL./J. CHILD PSYCHOL. PSYCHIATRY 2014

Callous kids

- Elevated callous-unemotional traits are found in 10 to 32 percent of children in community samples. Those rates remain fairly stable during childhood and early adolescence,
- Only 20% of 13-year-old boys who scored in the top 10 percent of callous-unemotional traits relative to their peers scored on the high end of psychopathy at age 24.
- A majority of callous-unemotional kids won't grow up to be psychopathic, but they have serious behavior and family problems and are at increased risk of entering the juvenile justice system
- 6 studies: children and teens high in callous-unemotional traits show a range of improvements after participating in intensive family and justice-system interventions

Trolley Problem 2: vmPFC active



9 of 10 people say it's not O.K. to kill one person to save five;
Individuals with vmPFC damage 3x more likely to push the person off; low
level of empathic concern; 60% will smother a baby to save 50 people

Neurobiology of Psychopathy

- Kiehl: a defect in what he calls "the paralimbic system," a network of brain regions, stretching from the orbital frontal cortex to the posterior cingulate cortex, that are involved in processing emotion, inhibition, and attentional control.
- Atypical responding within the amygdala and ventromedial prefrontal cortex (vmPFC).
- VM PFC deficit : push people off bridge in bridge paradigm
- But know right from wrong

Anatomic areas in morality network

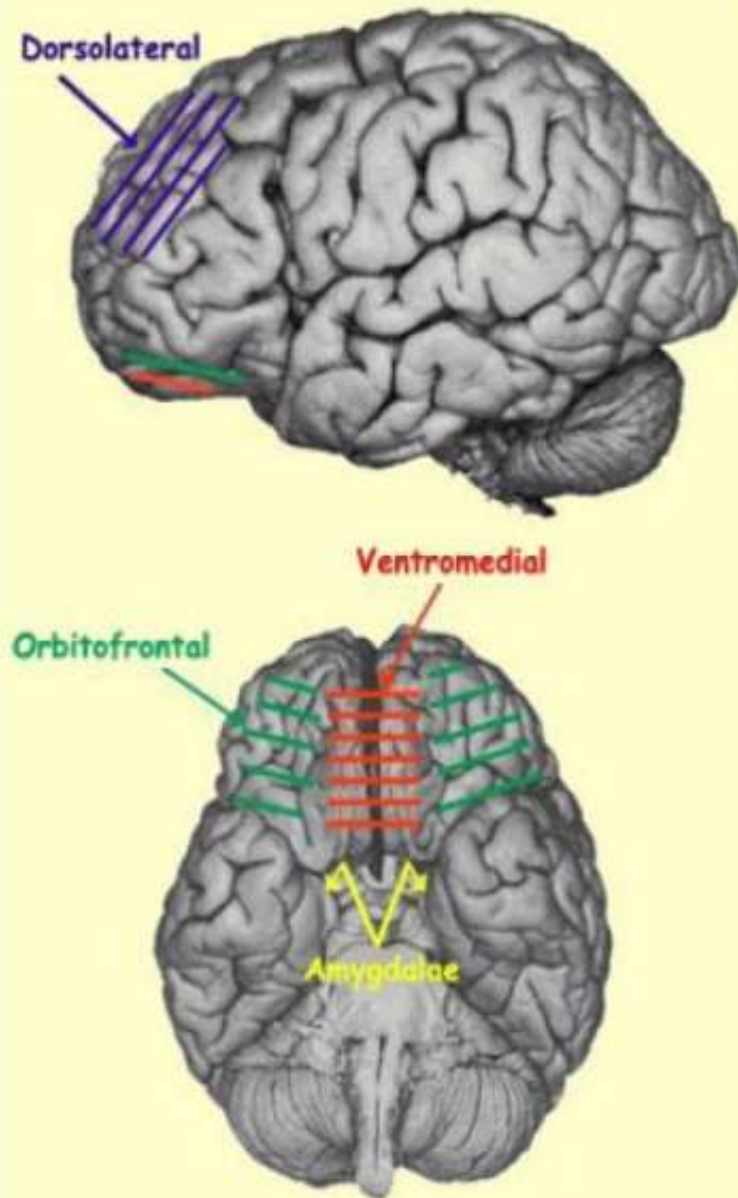


TABLE 4.

Sociopathic Acts among 16 Patients with Frontotemporal Dementia¹⁴⁵

<i>Number</i>	<i>Type</i>
3	Unsolicited sexual approach or touching
3	Traffic violations including hit-and-run accidents
2	Physical assaults
1	Shoplifting
1	Deliberate non-payment of bills
1	Pedophilia
1	Indecent exposure in public
1	Urination in inappropriate public places
1	Stealing food
1	Eating food in grocery store stalls
1	Breaking and entering into others' homes

Mendez MF. *CNS Spectr.* Vol 14, No 11. 2009.

Psychopathy & FMRI

- Amygdala: 17% smaller in psychopaths; psychopaths are hypolimbic (emotional deactivated)
- White collar psychopaths: better prefrontal (EF)
- VL OFC activates with lying in normals, but not in psychopaths
- Limbic, Anterior Cingulate, Orbital Frontal activation when experience event of negative emotional response in normals; not in Psychopaths

Psychopathy & FMRI 2

- R insula and L anterior Temporal volume loss (no visceral response to dead body)
- Lateral OFC and R FPC (lying inhibition) less active (due to genetics or non-use??)

Course of ASPD

- Progression or career of deviancy - oppositional defiant disorder, → conduct disorder, → ASPD
- Burnout response – as they age, people with ASPD become less involved in criminal activity

ASPD and Treatment

- Most don't seek treatment for ASPD (usually for substance abuse)
- Focus is on prevention – target antisocial children
- (a) the diagnosis of psychopathy is even more controversial in children (Salekin & Lynam, 2010) and
- (b) **early findings hold promise that the key personality traits—particularly callous-unemotional traits—may respond to treatment** (Hawes & Dadds, 2007).

Tx of Psychopaths

- 1979 12-year Canadian study: **Nudity, mind-altering drugs and encounter groups bring out the worst in psychopaths behind bars.** Tried those tactics to prepare men for life on the outside. 78% of offenders with psychopathic personalities graduated from the program more violent than ever. **Part of what lead to opinion that psychopaths exploit psychological treatments to become better criminals.**
- Clinicians today emphasize that people with psychopathic personalities can be fearless, impulsive, emotionally shallow, charmingly manipulative, hot-headed and cold-hearted.
- Mounting evidence indicates, however, that better-designed prison programs can help criminals with psychopathic personalities live less violently once released

Tx of Psychopaths 2

- Psychopaths in prison tend to get far more belligerent and aggressive when criticized or punished than nonpsychopathic criminals do.
- Two types of psychopaths: One group is callous, deceitful and emotionally shallow; the other is highly anxious and impulsive
- TX attempts to readjust personal goals and control anger. This approach works best with nonpsychopathic criminals, but psychopaths appear to benefit as well. **New tx results in 30% less violent crime.**
- CBT: work on ways to control anger and meet needs, such as feeling in control, without breaking the law.
- “It’s not illegal to be an asshole. It’s illegal to beat people up and steal from them.”

Tx for psychopaths

- Staff members report back to the therapists on their social interactions; continued positive improvement leads to benefits. Simultaneous Tx for other psych disorders.
- “It’s not illegal to be an asshole. It’s illegal to beat people up and steal from them.”
- Nearly 75% completed treatment. An average of 10 years after being released from prison, roughly 60 percent of treatment completers had been arrested for violent crimes, versus 92 percent of men who didn’t finish treatment. The disparity in rearrest rates specifically for sex crimes was smaller: 42 percent for treatment completers versus 50 percent for the others.

ASPD Treatment

- Set firm limits.
- Try not to be manipulated.
- Have high level of skepticism.

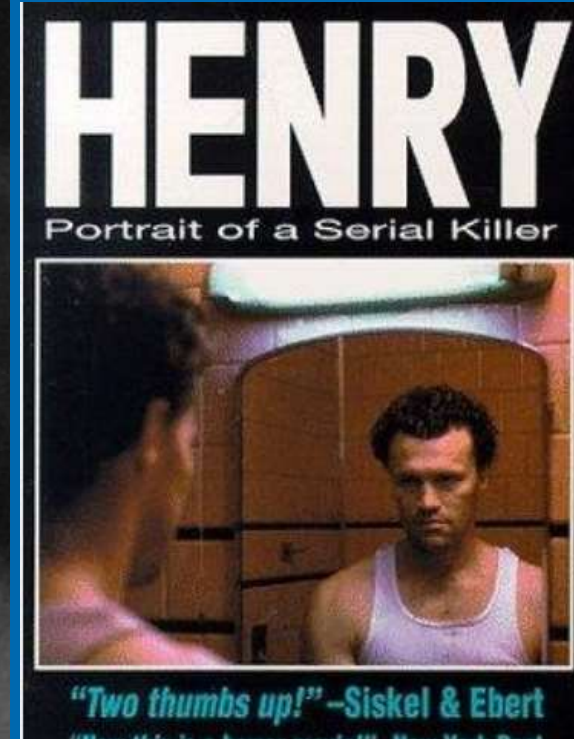
Best Psychopaths in Film



Javier Bardem
Anton Chigurh
No Country for Old Men



Peter Lorre
Hans Beckert
M



Michael Rooker
Henry
Henry

Borderline PD

Unstable Relationships, Affect, Self-Image Plus Impulsiveness

5 + of :

Fears Abandonment

Mood Shifts

Unstable Relationships

Feels Empty

Changing Self-Image

Anger

Impulsive Sex, Spending

Temporary

Paranoia/Dissociation

Suicidal Behavior

* Note: 256 possible combinations in DSM traits

DSM-5: Borderline Personality Disorder

- Instability of interpersonal relationships, self-image, & affect; marked impulsivity
- ≥ 5 sxS:
 - Frantic efforts to avoid real or imagined abandonment; unstable and intense interpersonal relationships, alternate between extremes of idealization and devaluation; identity disturbance; impulsivity in 2 areas; recurrent suicidal/self mutilating behavior; affective instability due to marked reactivity of mood; chronic feelings of emptiness; inappropriate, intense anger; transient, stress related paranoid ideation, severe dissociative symptoms

BPD

- Impulsivity
- Affective instability
- Cognitive distortions
- Unstable interpersonal relationships: vindictive and intrusive
- Complex comorbidities & high suicide rates

BPD: 3 major traits

- 1 Fragile self identity
- 2 Intolerance for being alone/abandoned
- 3 Affective instability (impulsive, self harm): Faulty emotional brakes, hemorrhage emotion

- No empirical foundation for DSM BPD traits; task force chose traits

- Part object orientation: splitting
- Robust ability to be in crisis
- Parasuicidality: interpersonal, manipulative (but 3-10% suicide)

Borderline Personality

- Clinicians frequently view borderline personality disorder symptoms as signs of badness, not sickness, and as a code to route patients out of mental health care.
- Many borderline personality disorder patients receive no treatment despite the availability of effective forms of psychotherapy

Ultimate BPD



Glenn Close's character Alex
in *Fatal Attraction* (1987)

BPD: Girl Interrupted



[Girl, Interrupted](#) (1999) - [Angelina Jolie](#),

**(NESARC) Wave II, 2004-2005:
Borderline Personality Disorder: # 2**

- Prevalence of lifetime BPD was 5.9% (2nd highest PD)
- Associated with substantial mental and physical disability, especially among women.
- High co-occurrence rates of mood and anxiety disorders
- Associations with bipolar disorder and schizotypal and narcissistic personality disorders remained strong and significant (odds ratios \geq 4.3).

BPD: most common PD

- In clinical populations, BPD is the most common personality disorder:
 - 6% in primary care
 - 10% of all psychiatric outpatients
 - 15%-25% of inpatients.
- 6% in non-clinical sample: do not seek psychiatric treatment.
- Reduction in older age groups

Prevalence

- **Overdiagnosed in women: 75% of those *diagnosed* are women** (this does not mean 75 % of people with BPD are women!)
- NESARC: No sex differences in the rates of BPD among men (5.6%) and women (6.2%).
- BPD men are diagnosed as Narcissistic or ASPD
- Adults with BPD are also considerably more likely to be the victim of violence, including rape and other crimes.

BPD: High rates of remissions

- High rates of remission were reported in both short-term and long-term follow-up studies.
- Most prevalent and stable: Affective features (eg, anger, anxiety, depression) and interpersonal features indicative of abandonment and dependency
- Least prevalent: Impulsive symptoms (eg, suicide efforts, self-injury) and interpersonal features indicative of treatment regressions

Borderline PD

- Abrupt and extreme mood changes,
- Stormy interpersonal relationships,
- An unstable and fluctuating self-image,
- Unpredictable and self-destructive actions
- Great difficulty with their own sense of identity.
- Experience the world in extremes, viewing others as either “all good” or “all bad.”
- May form an intense personal attachment with someone only to quickly dissolve it over a perceived slight.
- Fears of abandonment may lead to an excessive dependency on others.
- Self-mutilation or recurrent suicidal gestures may be used to get attention or manipulate others.
- Impulsive actions, chronic feelings of boredom or emptiness
- Bouts of intense inappropriate anger
- Micro psychotic episodes

Risk Factors for BPD

- No single psychosocial or biological factor is either necessary or sufficient to cause BPD.
- 5 x more common in 1st degree biological relatives of those with the disorder; increased familial risk for SA, ASPD, Mood Disorders
- BUT...
- Retrospective recall of childhood events and more objective information (e.g., court records) suggest:
 - Family breakdown
 - Neglectful parenting (not loving and supportive)
 - Overprotective parenting (not encouraging independence and autonomy)
 - History of severe physical, emotional and/or sexual abuse

Causation

- 40 to 71 % of BPD patients report having been sexually abused, usually by a non-caregiver.
- Subjects with borderline personality disorder exhibited distinctive responses in the anterior insula associated with failure to recognize social norms and to cooperate.

BUT need for caution

- None of these risk factors are specific to BPD.
- Many clinicians came to believe that a history of sexual abuse was specifically linked with development of BPD but...
- 20-40% of those diagnosed BPD do not report childhood abuse.
- Many who experience childhood sexual abuse do not develop personality disorder
- One third meet PTSD criteria
- BPD is most frequent PD among gamblers

Borderline Childhood & Adolescence

- Goodman found signs of emotional sensitivity in young children who were later diagnosed with borderline personality disorder.
- She found that as infants, the children who were later diagnosed with borderline personality disorder tended to be self-soothing – they sucked their thumbs or had attachments to objects, such as a blanket --compared to unaffected siblings.
- They were also more sensitive, had excessive separation anxiety and were moodier.
- They had social delays in preschool and many more interpersonal issues in grade school, such as few friends and more conflicts with peers and authorities.
- As teenagers they were more promiscuous, aggressive and impulsive, and more likely to use drugs and alcohol.
- Cutting and suicide became common. By their 20s, people with the disorder are almost five times more likely to be hospitalized for suicidal behavior compared to people with major depression.

Gambling & BPD

- BPD is most frequent PD among gamblers
- Same biological and social factors are at play in causing problem gambling and personality disorders.
- These include poor parental relationships during childhood, possible abuse, difficulty in controlling emotions, substance abuse, depression and anxiety disorders. Members of both groups tend to be socially isolated, have problematic relationships with their peers, lower self-esteem and feelings of hopelessness and dissociation. They are also emotionally more vulnerable, and struggle with anger issues and feelings of shame.
- People with gambling problems also tend to be impulsive, revert to interpersonal violence and often commit suicide.

BDP Pathology

- A core defect in emotion regulation
- Reduced serotonergic responsivity

*.....normal modes of regulating the amygdala are not used...
amygdala activity when coupled to prefrontal areas may be less
differentiated and not confined to areas usually involved in the
expression of emotion..*

Neurobiology of BPD

Early abuse & adaptation to adverse environment: fight-flight, aggression, alert to danger, stress response

- Frontal hypometabolism, smaller volume (less inhibition)
- Abnormal temporal metabolism
- Smaller hippocampal (16%) and amygdala (8%) volume
- Abnormal amygdala functioning
 - Elevated oxygenation bilaterally
 - Activates more quickly (irritability and anger↑)
 - Slower to baseline
- Reduced R/L Hemisphere integration, smaller Corpus Callosum
- Abrupt shifts to R Hemisphere negative emotional states

Neurocognitive profiles of people with borderline personality...

- Meta-analysis: BPD had marked clinical heterogeneity with high comorbidity.
- 1 - Executive dysfunction linked to suicidality and treatment adherence, and may serve as an endophenotype.
- 2 - Cognitive distortions such as risky decision-making, deficient feedback processing, dichotomous thinking, jumping to conclusion, monocausal attribution and paranoid cognitive style.
- 3 - Social cognition deficits include altered social inference and emotional empathy, hypermentalization, poorer facial emotional recognition and facial expressions.

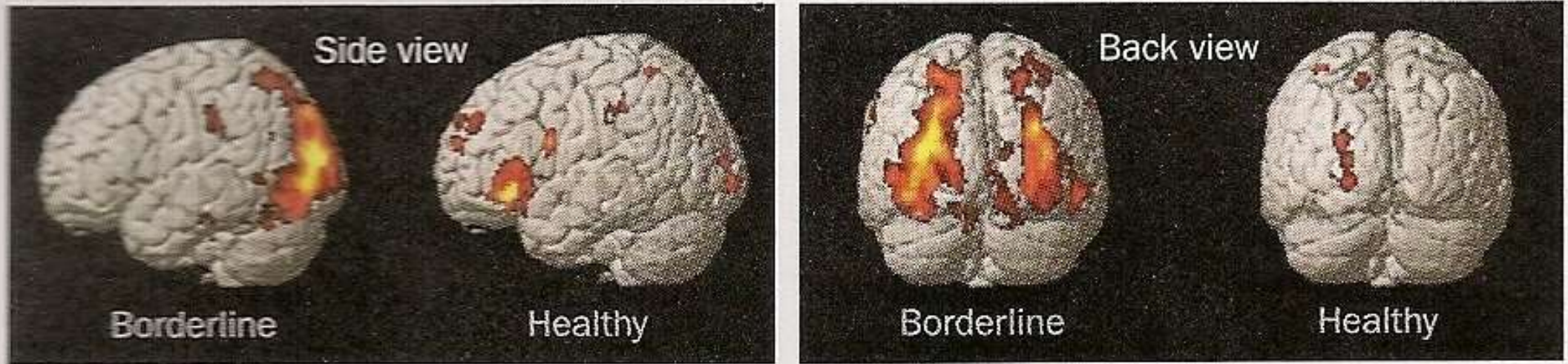
Neurocognitive profiles of people with borderline personality...

- In electrophysiological studies, BPD was found to have predominantly right hemispheric deficit in high-order cortical inhibition.
- Reduced left orbitofrontal activity by visual evoked potential and magnetoencephalography correlated with depressive symptoms and functional deterioration.
- Brain structures implicated in BPD include the hippocampus, dorsolateral prefrontal cortex and anterior cingulate cortex.
- Abnormal anatomy and functioning of frontolimbic circuitry appear to correlate with cognitive deficits.

BPD and Visual Analysis

- FMRI: visual system and amygdala activation
- Borderline personality disorder patients detect brief emotional expressions on others' faces that, typically, emotionally healthy people do not notice. Borderline patients may have a visual system that lets them see others' facial emotions through a fast high-powered lens.

Borderline Occipital Hyper-Activation



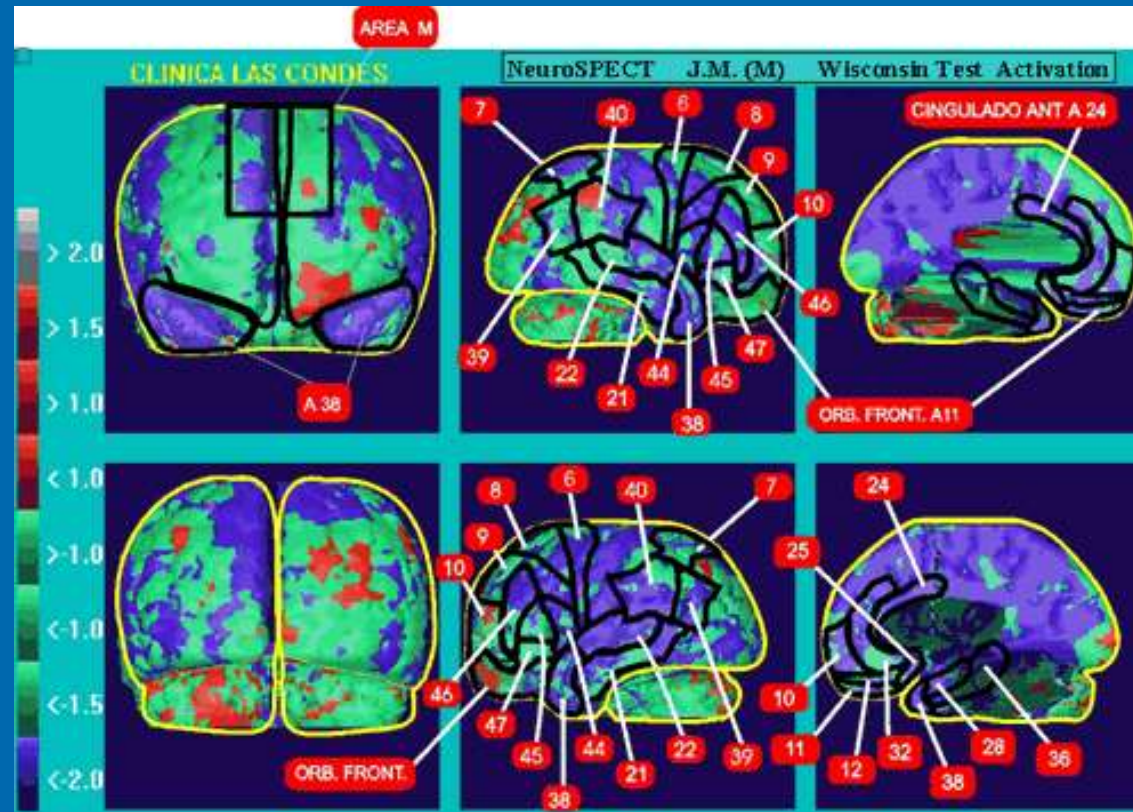
KOENIGSBERG ET AL.

While viewing disturbing images, patients with borderline personality disorder show greater activity in the brain's visual system than emotionally healthy volunteers.

BPD & PET Studies: Frontal Hypometabolism

- Hypometabolism in frontal glucose metabolism: a frontolimbic dysfunction in BPD patients.
- Autobiographical memories of abuse events in traumatized women without borderline personality disorder:
 - large hypermetabolism in the prefrontal cortex (right anterior cingulate, left orbitofrontal, right dorsolateral prefrontal cortex)
 - decrease in the left dorsolateral prefrontal cortex compared with traumatized women with borderline personality disorder.

BPD and frontal hypoperfusion



- Wisconsin Card Sorting Test. Same pt. Male Borderline Personality Disorder. , SPECT. There is extensive hypoperfusion of anterior cingulate gyri, area 24, both anterior temporal lobes, area 38, area 28, in the frontal lobes there is hypoperfusion in area 46 and 10. Paradoxically there is an overall diminution of perfusion in both frontal lobes, in particular in both executive areas.

Impaired NP functions in BPD

- A meta-analysis of 10 studies: selected neuropsychological measures comprising six domains of functioning: attention, cognitive flexibility, learning and memory, planning, speeded processing, and visuospatial abilities.
- BPD participants performed more poorly than controls across all neuropsychological domains
- These deficits may be more strongly lateralized to the right hemisphere

BPD: Presenting problems

- Those with more severe problems
- Complex interpersonal difficulties
- Deliberate self-harm
- Risk of suicide
- Risk to others (aggressive/violent or take risks that endanger others)
- High use of medical & mental health resources

BPD as affective disorder

- Disorder of affective dysregulation
- More related to affective disorders
- Bored, emptiness = like vegetative experience of depression
- Depression experienced actively & ragefully
- Conflictual depression
- Significantly lower Serotonin in male BPD (impulsivity)
- Note: Unidentified ADHD is very prevalent in adolescent girls who cut

BPD: Treatment

- Clear rules, limit setting
- Active stance, present focus
- Don't respond defensively
- Confront suicidality
- Confront consequences
- DBT Therapy: Marsha Linehan
- Schema Therapy: Jeff Young: 70% WNL results
- BPD on 1000 mg of acetaminophen display greater trust in their partners

Medication of BPD

- Medications:
 - cognitive-perceptual symptoms - neuroleptics
 - affective symptoms - SSRIs
 - impulsive- behavioral dyscontrol - SSRIs and low-dose neuroleptics

Recovery

- 50% experienced a recovery from borderline personality disorder and that recovery was relatively stable (less 30% relapse)
- 50% experienced recovery (which was defined as a 2-year symptomatic remission and the attainment of good social and vocational functioning),
- More than 90% experienced a 2-year symptomatic remission and 86% experienced a 4-year symptomatic remission.
- Good social and vocational functioning is more difficult to attain than a substantial reduction in symptom severity

Transference-focused Psychotherapy: fMRI changes

- These patients were treated for one year with **transference-focused psychotherapy (TFP)**, an evidence-based treatment proven to reduce symptoms across multiple cognitive-emotional domains in BPD. Treatment with TFP was associated with relative activation increases in cognitive control areas and relative decreases in areas associated with emotional reactivity. According to researchers, these findings suggest that TFP may potentially facilitate symptom improvement in BPD.
- Analyses **demonstrated significant treatment-related effects with relative increased dorsal prefrontal (dorsal ACC, dlPFC, and frontopolar cortices) activation, and relative decreased vlPFC and hippocampal activation following treatment.**
- Clinical improvement in constraint correlated positively with relative increased left dorsal ACC activation. Clinical improvement in affective lability correlated positively with left posterior-medial OFC/ventral striatum activation, and negatively with right amygdala/parahippocampal activation. Post-treatment improvements in constraint were predicted by pre-treatment right dorsal ACC hypoactivation, and pre-treatment left posterior-medial OFC/ventral striatum hypoactivation predicted improvements in affective lability.

Histrionic PD

Excessive Emotionality, Attention Seeking

5 + of :

Needs Attention

Preens

Seductive

Dramatic

Mood Shifts

Suggestible

Impressionistic

Exaggerates Relationships Speech

DSM: emphasis on primitive exhibitionist type, not higher functioning object constancy type

Latin *histrionicus*, 'pertaining to the actor'.

DSM-5: Histrionic Personality Disorder

- Excessive emotionality and attention seeking
- ≥ 5 sxS:
 - Uncomfortable when not center of attention; interaction with others characterized by inappropriate sexual behavior; rapidly shifting and shallow expression of emotions; uses physical appearance to draw attention to self; speech style excessively impressionistic and lacking in detail; self dramatization, theatricality; suggestible; considers relationships more intimate than they are

Ultimate Histrionics



Vivian Leigh as Scarlett O'Hara in
Gone with the Wind (1939)



Vivian Leigh as Blanche DuBois in
Streetcar Named Desire (1951): "I always
depend on kindness of strangers."

Histrionic

- This personality disorder is rarely diagnosed, and was almost eliminated in the new DSM.
- Interpersonal trait profile showed distinctly high scores on domineering and, particularly, intrusiveness.
- These individuals are unlikely, in contrast, to be cold and socially avoidant.

Histrionic 2

- Excessive sensitivity to others' approval
- Attention-grabbing, often sexually provocative clothing and behavior
- Excessive concern with their physical appearance
- False sense of intimacy with others
- Constant, sudden emotional shifts
- Conflict avoidant

Hemispheric Personality Differences

- Right Hemisphere: Gestalt, Connotation
- Left Hemisphere: Details, templates
- Cognitive/Emotional continuum:
 - Right Hemisphere:
Histrionic (Emotions), approach, mania, no facts
 - Left Hemisphere:
Obsessional (Thinking), avoidance, depression, only facts

Histrionic PD Diagnosis and Prevalence

- Females are clinically more frequently diagnosed, but research shows equivalent gender diagnosis
- Sex role stereotyping: would you diagnosis a male who dresses in macho style and seeks attention as histrionic?
- Prevalence:
 - DSM and NESARC: 1.84%
 - 10-15% inpatient and outpatient
 - More frequently diagnosed among women

Histrionic Information Processing

- Impressions, not facts, not details: “wonderful”
- Live in nonfactual world, transient emotional reactions: “music of encounter”, not facts
- Hunches are their cognitive processing product
- Impressionistic, suggestible, labile
- Most emotionally charged carries the day
- Therapist office: “place of dark intrigue” (vs. paranoid spotting your book on hypnosis)
- Henry James: “everything in her head had a strong French accent”

Treatment

- “Let’s reflect on that”
- Goal: use emotions volitionally
- Don’t give advise
- Don’t get caught up in drama
- Factual role playing: “meeting the creep”

Histrionic: Testing

- MCMI: Histrionic
- MMPI: Scale 3, Hysteria
- PAI: Somatization
- Rorschach: unmodulated C, vagues, “Oh” to color

Therapist response to Cluster B

- Cluster B was associated with therapist feelings of being overwhelmed, helplessness, hostility, disengagement, and sexual attraction
- In general, cluster B was associated with a broader range of therapist emotional responses than the other two clusters.
- Clinicians working with patients with narcissistic personality disorder reported feelings of inadequacy, devaluation, and ambivalence.
- Patients with cluster A and B disorders evoke more negative therapist reactions than cluster C patients

Therapist responses

- Cluster B patients evoke more mixed feelings in therapists.
- Cluster B patients, especially those with borderline pathology, elicited higher levels of anger and irritation and lower levels of liking, empathy, and nurturance and tend to be perceived as more dominant, hostile, and punitive than patients with depressive disorders .
- Borderline patients seem to arouse stronger and more heterogeneous reactions in clinicians, who tend to feel overwhelmed with high levels of anxiety, tension, and concern.

Therapist Response to Cluster B

- Clinicians treating borderline patients report feeling incompetent or inadequate and experiencing a sense of confusion and frustration in sessions. They report apprehension about failing to help these patients, and they experience guilt when they see these patients distressed or deteriorating.
- This heterogeneity among therapists' emotional responses could reflect the contradictory self and other representations that characterize borderline patients

Echo and Narcissus



Narcissistic PD

Grandiose sense of self, Needs Admiration, Lack Empathy

5 + of :

Self Important

Exploitative

Fantasies of Success

Lacks Empathy

Feels Special

Envious

Needs Admiration

Arrogant

Entitled

*Note: focus on exhibitionistic type (not hypervigilant type)

Grandiosity and Entitlement are core features

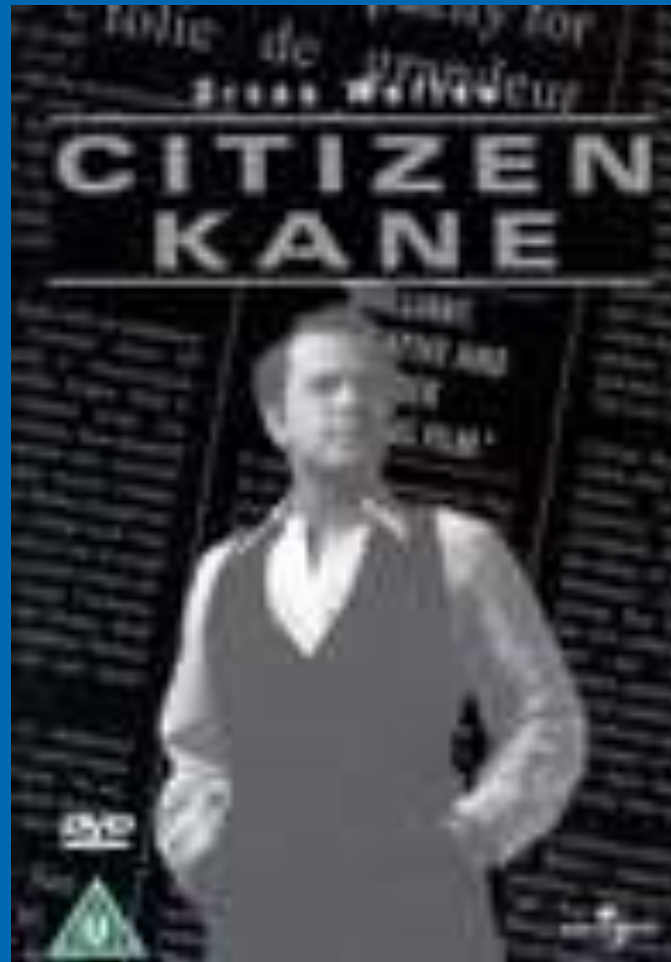
DSM-5: Narcissistic Personality Disorder

- Grandiosity (fantasy or behavior),
- need for admiration,
- lack of empathy
- ≥ 5 sxS:
 - Grandiose sense of self-importance, preoccupied with fantasies of unlimited success, etc.; believes is special/unique; requires excessive admiration; sense of entitlement; interpersonally exploitative; lacks empathy; envious of others; arrogant

Narcissistic: Interpersonal

- Remarkably similar to antisocial in the interpersonal style model.
- High in domineering, vindictive, cold, and intrusive interpersonal style traits.
- These qualities are ones that you'll almost invariably encounter when dealing with people who fit this diagnostic category.

Ultimate Narcissist



Citizen Kane (1941): Orson Welles

NPD: To Die For



To Die For (1995): Nicole Kidman

Gender & Narcissistic Personality

- 2014 study: summarized 31 years of narcissism research (including 355 independent samples and 470,846 participants) to reveal that there was a consistent gender difference in narcissism, with men scoring a quarter of a standard deviation higher in narcissism than do women
 - Entitlement: More likely to exploit others and to believe that they themselves are special and therefore entitled to privileges
 - Authoritative: More assertiveness, motivation to lead, and a desire for power and authority over others.
 - both genders were almost equally likely to endorse characteristics consistent with vanity, exhibitionism, and self-absorption.

Prevalence of NPD

- Higher rates among:
 - Highly talented
 - Beautiful
 - Highly intelligent
- Decreases after age 40: increased pessimism related to physical and occupational limitations. Reality hits.

Parent: “You are special”

- 2015 Twenge study: First prospective longitudinal evidence on the origins of narcissism in children. (ages 7–12)
- Results support social learning theory and contradict psychoanalytic theory: Narcissism was predicted by parental overvaluation, not by lack of parental warmth.
- Narcissism in children is cultivated by parental overvaluation: parents believing their child to be more special and more entitled than others. In contrast, high self-esteem in children is cultivated by parental warmth: parents expressing affection and appreciation toward their child.
- Children seem to acquire narcissism by internalizing parents' inflated views of them (e.g., “I am superior to others” and “I am entitled to privileges”).
- Self-esteem was predicted by parental warmth, not by parental overvaluation.

NPD: Treatment

- Targets: grandiosity, entitlement, lack of empathy, oversensitivity
- Confront Oblivious (arrogant) type; empathy for quiet Hypervigilant (sensitive)
- “How do you think they felt” technique
- Therapist feels left out (their satellite) with Oblivious; walk on eggshells with Hypervigilant

Cluster C

Avoidant PD

Inhibited, Inadequate, Sensitive

4 + of :

- Avoids Social Activity
- Reluctant Relationships
- Fears Intimacy
- Fears Criticism
- Avoids New Activities
- Sees Self as Inferior
- Fears Embarrassment

Relationships: high on coldness and social avoidance, but low on domineering and intrusiveness

DSM-5: Avoidant Personality Disorder

- Social inhibition, feelings of inadequacy, hypersensitivity to negative evaluation
- ≥ 4 Sxs:
 - Avoids occupational activities that require interpersonal contact, fear of criticism, disapproval, rejection; unwilling to get involved with others unless certain liked; restraint in intimate relationships, fear of being shamed/ridiculed; preoccupied with being criticized or rejected in social situations; inhibited in new interpersonal situations due to feelings of inadequacy; views self as socially inept/personally unappealing/inferior to others; unusually reluctant to take risks/engage in new activities

Prevalence of APD

- DSM-5 & NESARC: 2.4%
- 10% of outpatient
- Equivalent gender diagnosis

Avoidant PD: Comorbid Conditions

- Research suggests that approximately:
 - 10-50% of the people who have a panic disorder and agoraphobia have APD
 - 20-40% of the people who have a social phobia (social anxiety disorder).
 - Up to 45% among the people with a generalized anxiety disorder
 - Up to 56% of the people with an obsessive-compulsive disorder (Van Velzen, 2002).

Avoidant Issues

- Avoidant avoid embarrassment/criticism, not people (which Schizoids do)
- Avoidant are socially inactive, external locus of control (vs. Dependents who are active, don't fear criticism)
- Shame as underlying dynamic
- Overlap with Social Phobia
- Temperament: shyness
- Parent: “you're incompetent” in APD; vs. “I'll do it for you” in DPD

Neurobiology of Avoidant PD

- Temperament: shyness
- Low Noradrenergic: low reward stimulation

Dependent PD

Needs to be Taken Care of, Fears Separation

5 + of :

Indecisive

Seeks Nurturance

Avoids Responsibility

Fears Solitude

Avoids Relationships

Frantic for Disagreements

Lacks Initiative

Fears Abandonment

Relationship: highest scores on intrusiveness and lowest on domineering.
Readily submit to others. Their second highest score was on vindictiveness

DSM-5: Dependent Personality Disorder

- Excessive need to be taken care of, submissive and clinging behavior and fears of separation
- ≥ 5 sx's:
 - Difficulty making everyday decisions, needs excessive advice and reassurance from others, needs others to assume responsibility in most areas of life; difficulty expressing disagreement with others due to fear of loss of support; difficulty initiating projects or doing things on own, lack of self confidence; excessive lengths to obtain nurturance and support from others; uncomfortable/helpless when alone, fears of being unable to care for self; urgently seeks another relationship as soon as one ends; unrealistically preoccupied with fears of being left to care for self

Dependent PD: Zelig



Zelig (1983)

Prevalence of Dependent PD

- NESARC: .49% of general population
- More women
- Among the most frequent PD in MH clinics

Obsessive-Compulsive PD

Orderliness, Perfectionist, Inflexible

4 + of :

Detail Oriented

Unable to Discard

Perfectionism

Can't Delegate

Work Oriented

Miserly

Over Conscientious

Rigid/Stubborn

Obsessive-Compulsive Personality Disorder

- Preoccupation with orderliness, perfectionism, mental/interpersonal control; at expense of flexibility, openness, efficiency
- ≥ 4 sx's:
 - Preoccupied with details, rules, lists, order, organization, schedules that major point of activity lost; perfectionism that interferes with task completion; excessively devoted to work and productivity to exclusion of leisure activities and friendships; overconscientious, scrupulous, inflexible about matters of morality, ethics, values

Relationship research

- **Relationships**: those with excessive perfectionism, inflexibility, and restricted expression of emotions may have trouble at work or in relationships.
- They may also, however, achieve higher status and wealth, as other research has indicated.
- There's a trade-off then, when an individual has such an extreme work ethic that he or she may pay less attention to relationships.

OCPD: As Good As It Gets



[As Good as It Gets \(1997\) - Jack Nicholson](#)

OCPD

- **OCPD (7.9%):**
 - Ego syntonic: “what problem?”
 - Don't do emotions, like histrionics don't do facts
 - Higher in monozygotic
 - DLPF executive deficits, left hemisphere detail orientation
 - Physician study: 11% take vacation “for vacation”
 - Depression common in midlife

OCPD: Examples

- Pt with spreadsheet of all clothes he ever bought: price, how long they lasted, cost, etc.
- OCPD & Histrionic attract:
 - Car purchase: She chose color, I pick the rest
 - Divorce: emotional outburst by wife, he wants to leave: She says: “He means it, I didn’t mean it when I get angry”

Obsessive Compulsive PD

- Excessive concern with order, rules, schedules and lists
- Perfectionism, often so pronounced that you can't complete tasks because your standards are impossible to meet
- Inability to throw out even broken, worthless objects
- Inability to share responsibility with others
- Inflexibility about the "right" ethics, ideas and methods
- Compulsive devotion to work at the expense of recreation and relationships
- Financial stinginess
- Discomfort with emotions and aspects of personal relationships that you can't control

Prevalence of OCPD: most common PD

- DSM:
 - 2.1 to 7.9% of community samples
 - 3-10% of MH clinics
 - Male: 2x more diagnosed
- NESARC:
 - 7.9% of general population
 - (most common PD)

OCD: Adrian Monk



OCD vs. OCPD

- **OCD** (1,2%):
 - Ego dystonic,
 - They don't like their obsessions & compulsions
 - Don't present as obsessive
 - Neurological disorder (BG & orbital frontal)
 - Behavior therapy works (PET scan evidence)
 - OCD, particularly when it has an early age at onset, has a pervasive and profound association with decreased achievement across all educational levels.

Hoarding is not OCD

- Many hoarders live relatively typical lives, hold steady jobs and maintain ties to friends and family, even if their habits create tension.
- 5-14 million people in the U.S. are compulsive hoarders—twice the rate OCD (1.2% prevalence). (2 to 6% prevalence in DSM-5; more males in community, females in clinic; 3x more common in older)
- Average age of hoarders in published studies is 50; but can start at 10
- Hoarders do not primarily collect and store junk. Hoarders stash specific varieties of things, including cats.
- Not OCD; hoarding thoughts are ego syntonic; OCD fluctuates, but hoarding tends to get progressively worse; hoarding is inherited as a recessive trait, whereas OCD is dominant trait
- Hoarders tend to see meaning and have emotional attachments to far more items; more anxious about getting rid of and grief over loss

Hoarding

- Anterior cingulate cortex (ACC) and insula show unusually high activation when they make decisions about objects: an inflated sense of risk and excessive fear of making the wrong decision.
- SSRIs & CBT don't work as well
- Best TX (Hoarding specific CBT): *Compulsive Hoarding and Acquiring: Therapist Guide* by Gail Steketee & Randy O. Frost
- *Buried in Treasures* peer lead workshops

DSM-5: Personality Change due to Another Medical Condition

- Persistent personality disturbance that represents a change from person's previous characteristic personality pattern.
- Evidence that it is due to direct consequence of another medical condition
- Specify:
 - Labile type
 - Disinhibited type
 - Aggressive type
 - Apathetic type
 - Paranoid type
 - Other type
 - Combined type
 - Unspecified type

DSM-5: Other Specified Personality Disorder

- Sxs of a personality disorder predominate, but do not meet full criteria
- Clinician lists specific reason why it does not meet criteria

DSM-5: Unspecified Personality Disorder

- UPD: Old PD NOS:
- Sxs of a personality disorder predominate, but do not meet full criteria
- Clinician does not list specific reason why it does not meet criteria

(Passive-Aggressive PD)

Negative Attitudes with Passive Resistance to Demands

4 + of :

Passive

Envious, Resentful

Misunderstood,
Unappreciated

Exaggerated
Complaints

Sullen, Argumentative

Defiant then Contrite

Scorns Authority

Signal Sxs: Frequent Physical Fighting

- Narcissistic
- Histrionic
- Antisocial
- Paranoid
- Borderline

Attention Seeking Variable

- Histrionic: 92%
- Dependent: 88%
- Borderline: 80%
- Passive Aggressive: 79%

Signal Sxs: Will Flirt with You

- Narcissistic
- Histrionic
- Antisocial
- Borderline

Impulse Control Disorders

- Impulse control disorders are common and disabling behaviors experienced by approximately 5% to 15% of the US population, or between 14 million and 42 million persons.
- These disorders include pathological gambling, kleptomania, intermittent explosive disorder, pathological hair pulling (trichotillomania), and pyromania.
- Other disorders such as compulsive Internet use, compulsive sexual behavior, pathological skin picking, and compulsive buying have been proposed as belonging to the same category.

Summary I

Paranoid	Suspicious, Jealous, But Not Psychotic or Unlawful
Schizoid	Unemotional, Cold, Indifferent
Schizotypal	Odd + Magical Beliefs, Behaviors, Not Paranoid
ASPD	Aggressive, Unlawful, Impulsive
Borderline	Unstable, Chaotic, Impulsive, Not Aggressive or Unlawful
Histrionic	Dramatic, Seductive But Not Chaotic

Summary II

Narcissistic Chaotic	Self-Centered, Entitled, Lacks Empathy But Not Unlawful or
Avoidant	Needs People But Fears Relationships
Dependent	Needs Relationships, Indecisive, Fears Abandonment
Obsessive- Compulsive	Rigid, Perfectionist + Inefficient

Internet and Personality Tests

- Personality Disorders and Big 5 Factor tests:
<http://similarminds.com/>
- Paid testing: <http://www.mentalhealth.com/p71.html>
- Psych. Information:
<http://psychcentral.com/>
- Support Groups:
http://psychcentral.com/resources/Personality/Support_Groups/

The End

- Tell me what you pay attention to and I will tell you who you are.”
- — José Ortega y Gasset