



# **Mental Disorders**

**Honors Psychology**

# Cecil's Riddle

## "Cecil & Sally" (1928):

- *Cecil*: Did I tell you I'm a whiz at inventing riddles?
- *Sally*: I don't know Cecil. Only people really smart can invent riddles.
- *Cecil*: Nothing doing! Anybody can invent a riddle!



# Cecil's Riddle

## **"Cecil & Sally" (1928):**

- *Cecil*: A tall, well-dressed man follows a woman and steals her scarf. He then goes to a restaurant, scarf in hand, and orders a sandwich and a cup of coffee, but he departs before the sandwich is brought to him. He stops at a traffic light, and throws the stolen scarf into a dilapidated car driven by two disreputable characters. He runs away. When the clock strikes 2, he walks into the best jewelry store in the neighborhood and asks for another sandwich and a cup of coffee.
- *Cecil*: Why did the man do all this?
- *Sally*: I don't know. I give up.
- *Cecil*: Because the man was crazy.

# Where did Cecil go wrong?

1. **Cecil seemed to think that a riddle should be very difficult to solve, so he made one that was impossible by including random, unintelligible events**
2. **His solution, “The man was crazy”, is simply a synonymous with “The man was behaving randomly”**

# Where did Sally go wrong?

- **Sally was thinking like a good psychologist**
- **Unusual behavior (like that of the man in the riddle) can be understood using the same concepts that we use to understand ordinary behavior**
- **“Crazy” behavior is *not* random or unintelligible**

- **To understand human behavior (even “crazy” behavior), you have to think like Sally and not like Cecil**

# The Sally Principle

- **The explanations that psychologists offer for abnormal behavior do not differ from their explanations for normal behavior**
- ***The symptoms of many (maybe most) mental disorders are not qualitatively different from the experiences that most of us have had; they differ only in degree.***

# What are mental disorders?

- **A mental disorder is a set of problems that**
  - Has an internal source (staying up at night due to worry rather than noisy neighbors)
  - Is not directly voluntary
  - Involves clinically significant detriment
    - Distress, impairment, or both
    - Clinically significant



# What are mental disorders?

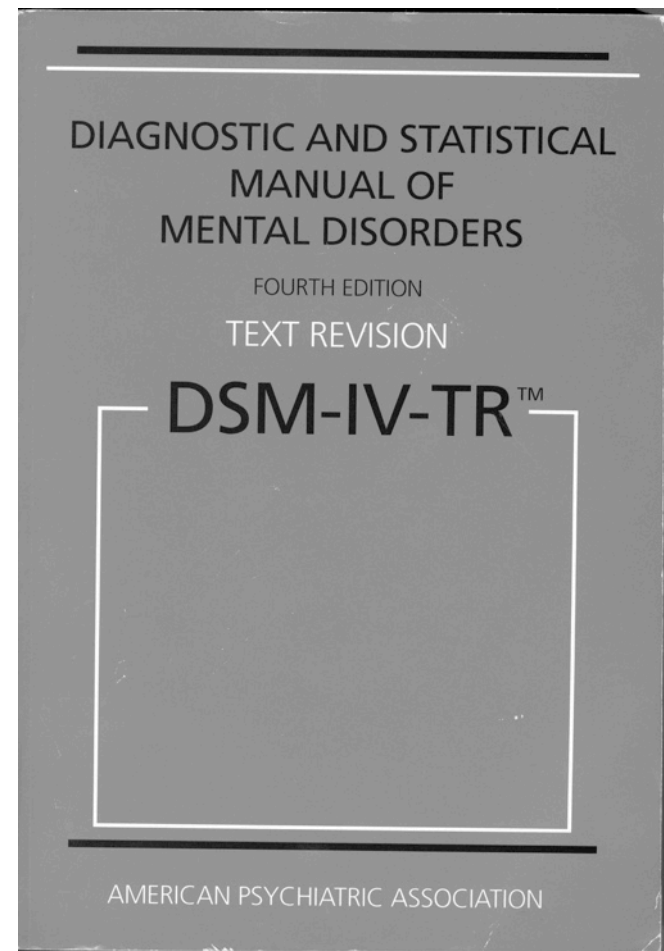
- **Wakefield's (1992) concept**
  - A "clinically significant" problem is one that significantly interferes with the patient's work and love life
  - Problems with potential for clinical significance include:
    - sleeplessness
    - forgetting
    - difficulty concentrating
    - fear of other people
    - sadness
    - thoughts of suicide
    - etc

# What are mental disorders?

- **A symptom is any characteristic of a person's actions, thoughts or feelings that could be a potential indicator of a mental disorder.**
  - daily sleeplessness
  - daily inability to concentrate
  - recurring thoughts of suicide
- **A syndrome is a constellation of interrelated symptoms manifested by an individual.**

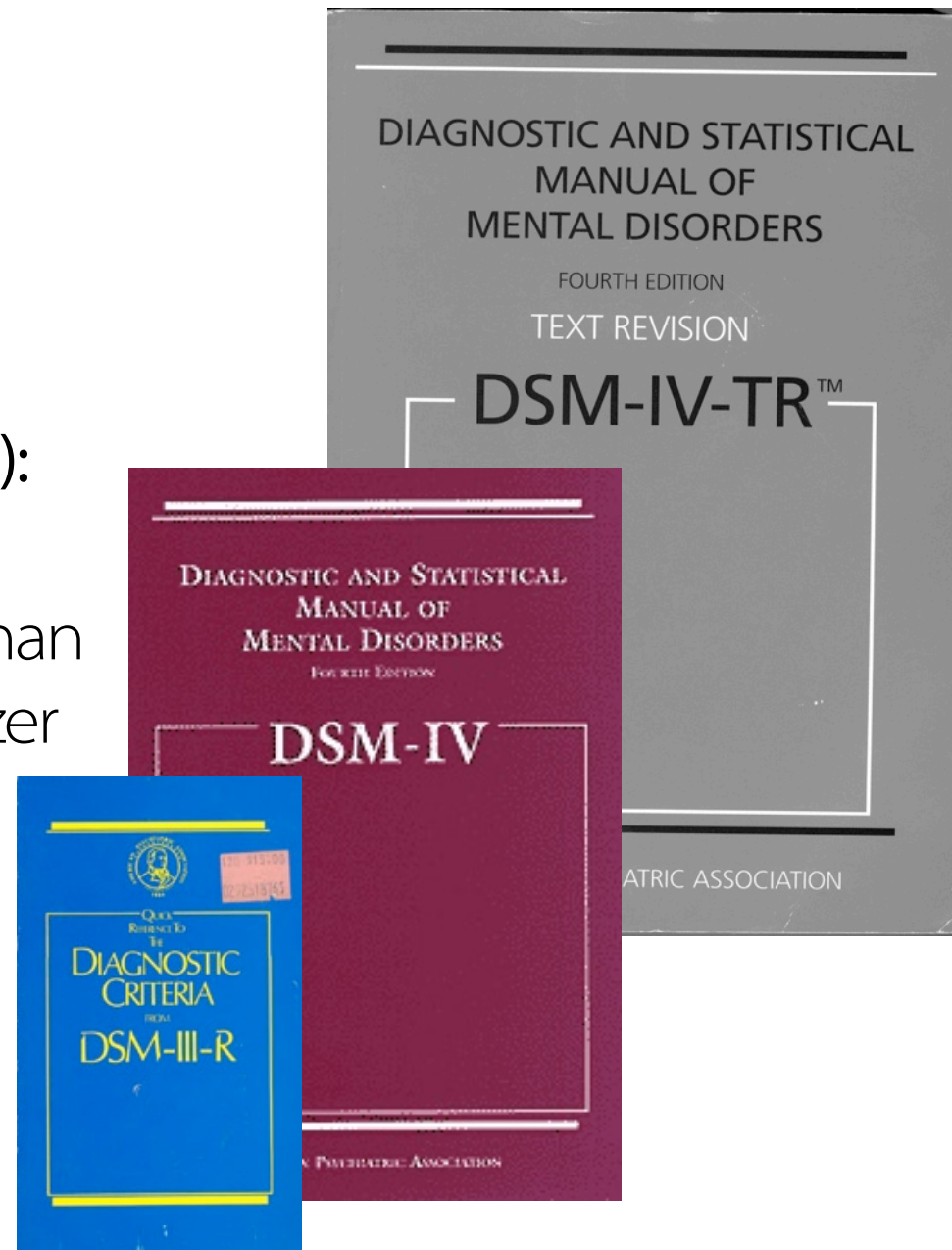
# Diagnosing Mental Disorders

- **DSM-IV-TR lists about 300 mental disorders:**
  - Detailed diagnostic criteria
  - Information about prevalence and prognosis
  - Purpose is to suggest course of treatment



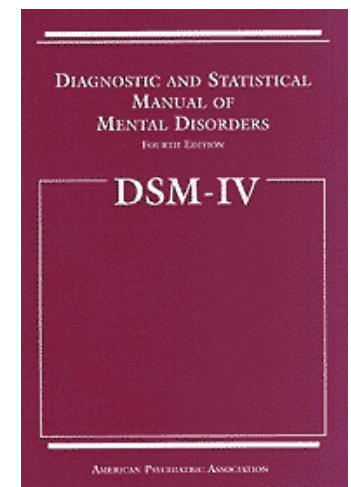
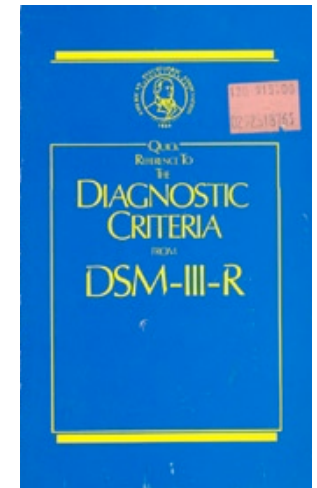
# Categorization

- **Evolution of the DSM-IV**
  - Before 1952, psychosis and neurosis
  - DSM-I (1952) and DSM-II (1968):
    - Largely Freudian
    - Reliability scarcely better than expected by chance (Spitzer & Fleiss, 1974)



# Categorization

- **DSM-III (1980)**
  - Subjects suspected of disorders were independently diagnosed by a number of clinicians, each using different diagnostic systems. The systems that produced that greatest reliability were retained.
  - Psychosis and neurosis were dropped.
  - The resulting diagnostic reliability is as high as diagnosing physical disorders (Matarazzo, 1983)
  - The validity of the diagnoses were improved through extensive research, and these changes were incorporated in subsequent editions--the DSM-III-R (1987) and DSM-IV (1994).



- Axis I: Major depressive disorder

- At least five of the following symptoms have been present during the same two-week period and represent a change from previous functioning:

- Depressed mood most of the day, nearly every day
    - Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day
    - Significant weight loss when not dieting, or weight gain, or decrease or increase in appetite nearly every day
    - Insomnia or hypersomnia nearly every day
    - Psychomotor agitation or retardation nearly every day
    - Fatigue or loss of energy nearly every day
    - Feelings of worthlessness or excessive or inappropriate guilt nearly every day
    - Diminished ability to think or concentrate, or indecisiveness, nearly every day
    - Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

- The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

- Axis II: Dependent personality disorder

- Axis III: Diabetes

- Axis IV: Problem related to the social environment (termination of engagement)

- Axis V: GAF = 55 (moderate difficulty in social, occupational, or school functioning)

# Mental Disorders

- **Phobias**
- **Depression**

# Phobias

- **Intense, irrational fear that may focus on:**
  - category of objects
  - event or situation
  - social setting



# Specific Phobias

- **Specific phobias - fear of specific object**
  - animals (e.g., snakes)
  - substances (e.g., blood)
  - situations (e.g., heights)
  - more often in females than males

# Some Unusual Phobias

- **Ailurophobia - fear of cats**
- **Algobphobia - fear of pain**
- **Anthropophobia - fear of men**
- **Monophobia - fear of being alone**
- **Pyrophobia - fear of fire**

# Where do phobias come from?

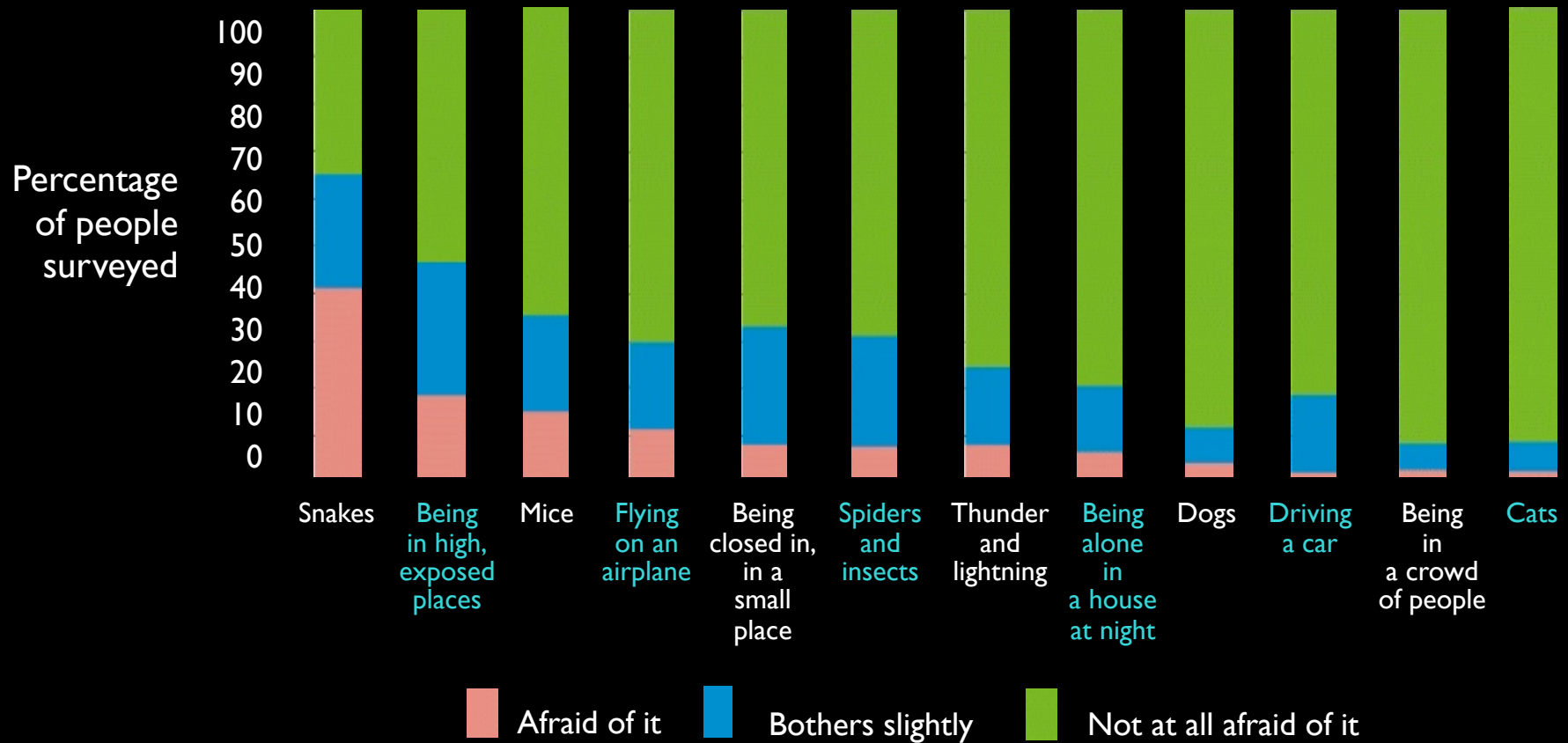
- **Insights from studies of learning**

# Development of Phobias

- **Simple classical conditioning model**
  - e.g., bee = CS, sting = UCS
  - problems:
    - often no memory of a traumatic experience
    - traumatic experience may not produce phobia
    - prevalence of phobias bear little relation to real risks of harm

# Phobias

Study of normal anxieties



# Development of Phobias

- **Modern learning theories (Rescorla)**
  - Phobics have faulty expectancies about the CS
    - e.g., a bee-phobic believes that bees are much more likely to sting than bees actually do
  - **Appraisal of the UCS is inflated**
    - e.g., a bee-phobic believes that the harm done by a bee sting is much greater than it actually is

# Treatment of Specific Phobias

- **Treatment**
  - Systematic Desensitization
    - places patient under an extinction schedule
    - relaxation training, construction of a fear hierarchy, and graded priming
  - Modeling
- **Efficacy**
  - Each treatment is effective, and new problems do not arise. Close to 75% of people with specific phobias improve with desensitization therapy. In one study, rat flooding induced 70% of rat-phobes to pick up a rat compared to 15% who were flooded in neutral images.

# Social Phobias

- **Social phobias - fear of failing or being embarrassed in public**
  - public speaking (stage fright)
  - fear of crowds, strangers
  - meeting new people
  - eating in public
- **Considered phobic if these fears interfere with normal behavior**
- **Equally often in males and females**



# Treatment of Social Phobias

- **Treatment**
  - Doing what you fear
  - Social skills training: greetings, exchanging compliments, small talk
- **Efficacy**
  - Either alone is insufficient, but in combination therapy beats placebo.

# Phobias

- **Rather than seeing phobias as a random fear, progress in treating phobias came about from viewing them as an ordinary instance of learning**

# Depression

- **Symptoms include many common experiences taken to a high degree:**
  - sadness
  - feelings of worthlessness
  - changes in sleep
  - changes in eating
  - anhedonia
  - suicidal thoughts

# Three Perspectives on Depression

- **Behavioral View**
  - People are depressed because of their situation
  - Change the situation->reduce depression
- **Biological View**
  - People are depressed because of their brains
  - Change what happens in the brain->reduce depression
- **Cognitive View:**
  - People are depressed because of their thinking
  - Change how people think->reduce depression

# Situational Bases for Depression

- **Does life stress cause depression?**
  - Positive correlation between stressful life events and onset of depression
  - Most depressogenic life events are losses
    - spouse or companion
    - long-term job
    - health
    - income

# Depression

- **Behavioral View of Depression**

- Lewinsohn (1984) claims that depression results from fewer positive rewards being provided to a person.
  - For example, he followed depressed patients into their homes and observed their mealtime dinner conversations.
  - Depressed patients were less likely to receive positive comments than anyone else at the dinner table.
- Depressed people tend to have more unpleasant experiences than others in health, finances, social interactions, and professional and academic pursuits.

# Depression

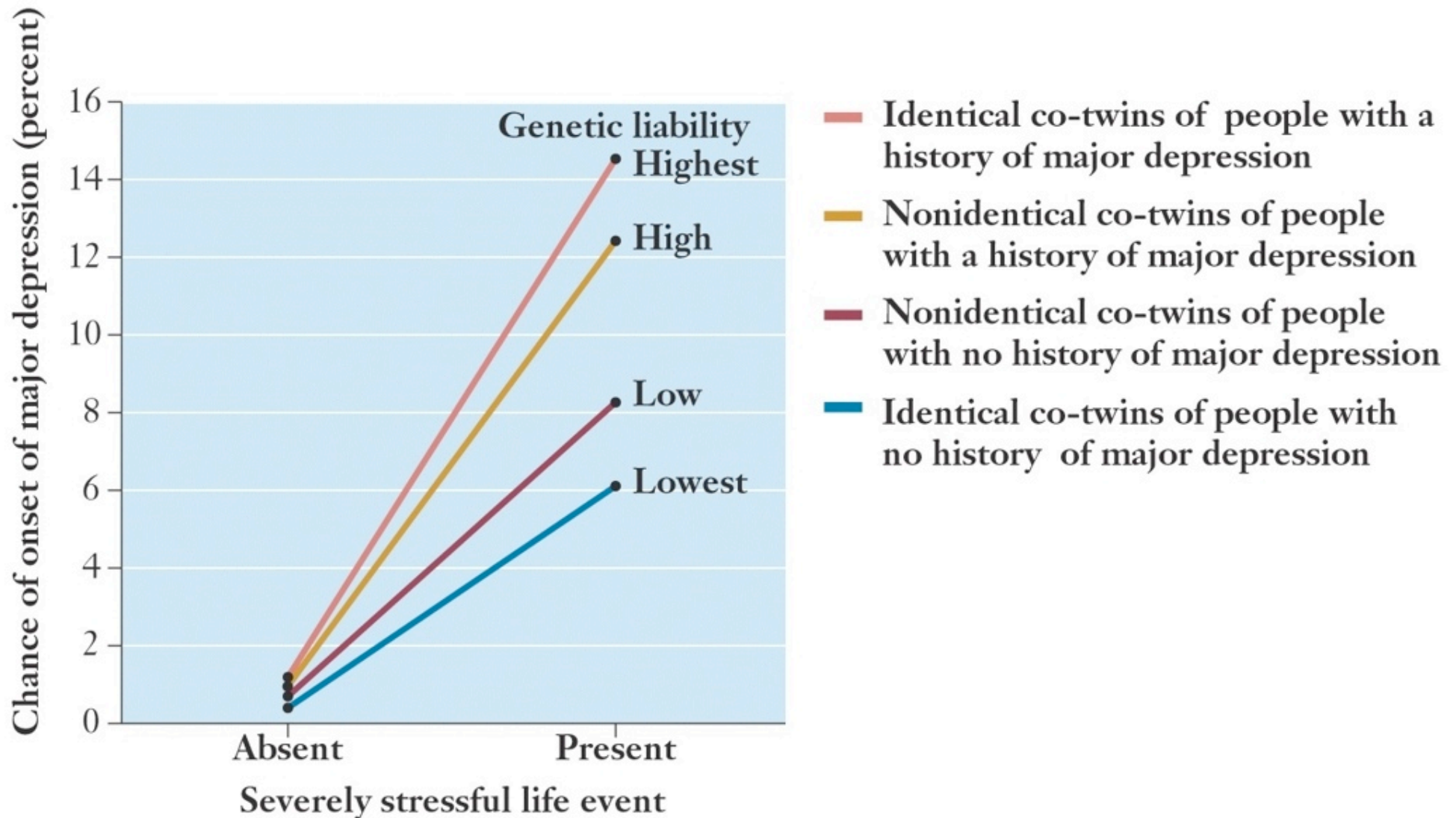
- **Behavioral Therapy**

- Prescribing Pleasurable Activities
- Ignore Depressive Behavior (complaining, crying, and self-deprecating), Reinforce adaptive behaviors
- Personal Effectiveness Training

- **Therapy Efficacy**

- Simply increasing the number of pleasant activities makes no difference (Hammen & Glass, 1975)
- With mildly to moderately depressed patients (only), depressive symptoms can be reduced 80%, but only when all aspects of therapy are practiced in combination with lectures, classroom activities, homework assignments, and a textbook.

# Biological Bases for Depression





# Biological Bases for Depression

- **Neurotransmitter theories**
  - **Cortisol theory:**
    - Stressful events typically evoke a cortisol response, which is adaptive in the short-term, but toxic to certain types of cells in the brain
    - Under chronic stress, elevated levels of cortisol induces clinical depression by affecting serotonergic transmission

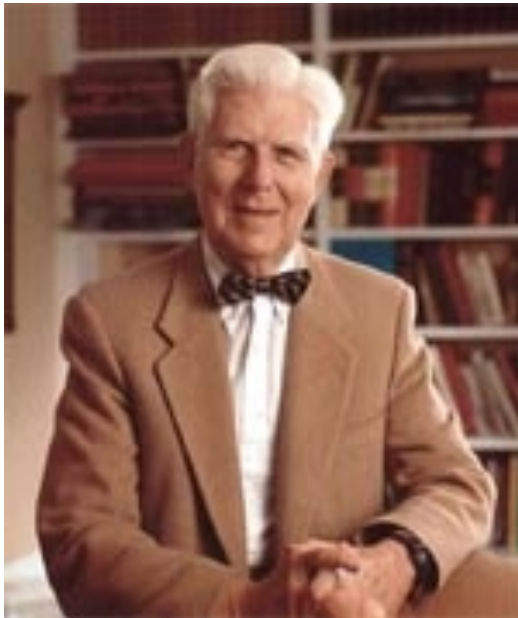
# Biological Bases for Depression

- **Drug Treatment**
  - Serotonin re-uptake inhibitors like Prozac have proven to be very success in treating depression
    - Side effects (e.g., loss of sex drive)
    - Depression returns after patients go off the drugs

# The Cognitive Hypothesis

- **Habitual, maladaptive patterns of thought provide part of the basis for psychological problems, including depression**
- **Changing these habitual patterns of thought is one of the central goals of treatment**

# Cognitive Bases for Depression



- **A.T. Beck: depressed people hold pessimistic views of**
  - themselves
  - the world
  - the future
- **Depressed people distort their experiences in negative ways**
  - exaggerate bad experiences
  - minimize good experiences

# Cognitive Bases for Depression

- **Maladaptive Attitudes**

- “My general worth is tied to every task I perform”
- “If I fail, others will feel repelled by me.”
- “Happiness is obtained by doing nothing wrong.”
- “Certain people are bad and must be punished for their villainy.”
- “A person’s worth depends on the opinions of others.”

# Cognitive View of Depression

- **Errors in Thinking**

- Overgeneralization: General conclusions are drawn from single events.

- “Yes, once again, my talk was a failure, just like my whole career and general life.”

- Selective Abstraction: The larger context is ignored in favor of selective negative details.

- “Yes, I got an A in the course, but I got a B on one of the exams—I’m an idiot!”

# Errors in Thinking

- **Magnification: Negative details are used to predict failure**
  - Vasey: Everyone in the study was asked what would happen if he didn't do well on a test, and what would follow from that, and from that, and so on until the person couldn't come up with anything else or just started to repeat themselves or refused to continue

# Transcript from Non-Worrier

1. I might do poorly on a test.
2. I'd get a bad grade in the class.
3. That would lower my grade-point average.
4. I'd have less of a chance of getting a good job.
5. I'd end up in a bad job.
6. I'd get a low salary.
7. I'd have less money to spend on what I want.
8. I'd be unhappy.
9. It would be a strain on me.
10. I'd worry more.



# Transcript from Worrier

1. I won't live up to my expectations.
2. I'd be disappointed in myself.
3. I'd lose my self-confidence.
4. My loss of self-confidence would spread to other areas of my life.
5. I wouldn't have as much control as I'd like.
6. I'd be afraid of facing the unknown.
7. I'd become very anxious.
8. Anxiety would lead to further loss of self-confidence.
9. I wouldn't get my confidence back.
10. I'd feel like I wouldn't have any control over my life.
11. I'd be susceptible to things that normally wouldn't bother me.
12. I'd become more and more anxious.
13. I'd have no control and I'd become mentally ill.
14. I'd become dependent on drugs and therapy.
15. I'd always remain dependent on drugs.
16. They'd deteriorate my body.
17. I'd be in pain.
18. I'd die.
19. I'd end up in hell.

# Errors in Thinking

- **Minimization: Positive details are used to excuse success**
  - My talk went well because my topic was easy and the audience was being nice.
- **Personalization: All negative events are interpreted as caused by the self.**
  - Instead of "I messed up"--> "I'm an idiot/failure/loser"

# Cognitive View of Depression

- **Self-Defeating Feedback System**
  - People think their lives are bleak, they take no action, their lives become bleak, they feel bleak, they take their feeling of bleakness as proof that life is bleak, they take no action, ...

# Depression

- **Self-Defeating Feedback System**
  - Swann, Wenzlaff, & Tafarodi (1992)
    - Gave depressed and non-depressed Ss the choice either to participate in a study with a person who had just given them much negative feedback, or to participate in another study.
    - Depressed Ss were more likely to prefer working with someone who had treated them badly than others.
    - Then, when both groups were given positive feedback, depressed Ss were more likely to discount feedback than non-depressed Ss.
    - “At some level depressed persons want rather negative appraisals.”

# Cognitive-Behavioral Treatment

## – **Phase 1: Increasing Activities and Elevating Mood**

- Therapist and client plan the patient's schedule hour-by-hour, filling the day with action.
- Eventually, the activities become more difficult and challenging

## – **Phase 2: Examining and Invalidating Automatic Thoughts**

- Homework assignments: using wrist counters to count the number of automatic thoughts that occur daily, writing automatic thoughts down
- Automatic thoughts are then reviewed by the therapist

## – **Phase 3: Identifying Distorted Thinking and Negative Biases**

- Identifying errors in reasoning as errors
- Reattribution techniques

## – **Phase 4: Altering Primary Attitudes**

- Experimentation

# Correcting Cognitive Distortions

- **Examine the evidence**
  - “I never do anything right!” --Really?
- **Identify double-standards**
  - Would you talk to a friend the way you talk to yourself?
- **Experimental technique**
  - Test your beliefs
- **Survey method**
  - Ask around

# Cognitive View of Depression

- **Efficacy of Cognitive Therapy**
  - Hundreds of studies have shown that mildly to severely depressed people who receive cognitive therapy improve significantly more than those who receive placebo treatments.
  - About 60% show total remission of depressive symptoms.
  - Clients who respond show improvements in their cognitive functioning, and these improvements correlate strongly with their improvements in depressive symptoms.

# Depression

- **Unifying the Three Approaches**
  - CBT also seems to work at a biological level
    - Normally, dexamethasone suppresses cortisol response
    - Consistent with the biological view, depressed patients show a lower level of suppression
    - Consistent with the cognitive-behavioral view, CBT restores the normal response to dexamethasone



# Does Psychotherapy Work?

- **Early Attacks on Psychotherapy**
  - Eysenck (1961): Overall, about 60% improved, whereas the spontaneous recovery rate was about 70%.
  - In part, however, this dismal picture of psychotherapy's efficacy was based on inaccurate diagnostic criteria.
  - When more rigorous criteria were retrospectively applied to Eysenck's no-therapy group, the no-therapy group only spontaneously recovered about 30% of the time.

# Does Psychotherapy Work?

- **Meta-analyses of Therapy Outcomes**
  - Smith, Glass, & Miller (1980) reviewed 475 different studies, comprising 25,000 patients in all. The conclusion: the “average person who receives therapy is far better off at the end of it than 80% of the persons who do not.”
  - Genuine psychotherapy leads to more improvement than placebo treatments (Smith, Glass, & Miller, 1980; Andrews and Harvey, 1981; Robinson et al., 1990)

# Does Psychotherapy Work?

- **Psychotherapy Works as well as or better than Drugs Alone:**
  - DeRubies et al. (1999) found that even for severe depression, cognitive therapy had moderately greater effects than antidepressant drugs alone.
  - For some disorders, such as panic disorder, depression, and OCD, cognitive therapy has similar effects as psychotropic medication (Spiegel & Bruce, 1997)
- **Psychotherapy Keeps on Working:**
  - Typically improvements are still found when patients are studied months or years after treatment (Nicholson & Berman, 1983).
- **All Psychotherapeutic Styles Work:**
  - Lipsev & Wilson's (1993) review suggests that all psychotherapeutic styles work so much better than getting no therapy, that differences among therapeutic styles are not that important.
  - Many reviews (e.g., Shapiro & Shapiro, 1982) suggest that cognitive and behavioral therapy have consistent advantages over other approaches.

# The Sally Principle

- **The Sally Principle:**
  - mental disorders are dysfunctionally magnified reactions to ordinary events
    - Phobias:
      - fear of ordinary dangers
      - systematic learning as treatment
    - Depression
      - irrational beliefs about ordinary life
      - systematic learning and thinking as treatment

# The Sally Principle

- **Concerns about the idea that mental disorders are dysfunctionally magnified reactions to ordinary events**
  - What is ordinary changes over time:
    - Schooling--> ADHD
    - Reading-->dyslexia

# The Sally Principle

- **Challenges to the Sally Principle**
  - Drug Addiction
  - Schizophrenia
  - Dissociative Disorders

# Drug Abuse

- **Psychoactive substance-use disorder**
  - Abuse or dependence on drug that acts on brain & affects emotions, perceptions, or thoughts
- **Drug abuse**
  - persistent use of a drug harmful to self
- **Drug dependence**
  - craving
  - withdrawal

# 3 classes of drug effects

- **Intoxicating effects**
  - short-term effects for which drug is usually taken
  - can last for minutes or hours after single dose
- **Withdrawal effects**
  - after drug is removed from system
  - usually after long period of frequent use
  - person physically adapts to drug - brain functions more normally (in some ways) with than without drug



# 3 classes of drug effects

- **Permanent effects**

- Tolerance: diminished physiological or behavioral response to repeated drug administration
  - Metabolic tolerance: the body (esp. the liver) adapts to the drug by developing an increased capacity to destroy it.
    - Eg, alcoholics seem to have increased levels of liver enzymes that break down alcohol; can “hold their liquor” better than novice drinkers.
  - Cellular tolerance: neurons adapt by becoming less responsive to the drug as a result of decreases in the number of receptors.
    - For this reason, a heroin addict needs higher (or more frequent) doses to achieve an acceptable high.

# Long-term effects of drug use

- **Sensitization: enhanced physiological or behavioral response to repeated drug administration.**
  - For example, a cocaine user becomes increasingly “jumpy” and excitable in response to a single hit of cocaine.
- **Dependence: persistent drug intake to prevent or diminish the physical or psychological disturbances of withdrawal.**
  - For example, an alcoholic who takes a drink in the morning to prevent “the shakes,” or a caffeine addict who drinks coffee to avoid 11 a.m. headaches.

# Alcohol: Intoxicating effects

- **Relief from anxiety**
- **Slowed thinking & poor judgment**
- **Slurred speech & uncoordinated movements**
- **Alcohol myopia**
  - react more strongly to emotion-arousing cues in immediate environment due to impairment of long-term thinking

# Alcohol: Withdrawal

- **Start 8-20 hours after alcohol cleared from body**
- **Delirium tremens (DTs)**
  - hallucinations
  - panic
  - muscle tremors
  - sweating, high heart rate, brain seizures

# Alcohol: Permanent Effects

- **Alcohol amnesic disorder (Korsakoff's syndrome)**
  - seen in long-term, heavy alcohol use
  - severe memory impairment
  - difficulties with motor coordination
- **Fetal alcohol syndrome**
  - seen in child when mother used alcohol during pregnancy
  - mental retardation
  - physical abnormalities

**Why do people get  
hooked on drugs?**

# Addiction

- **Positive Reinforcement Theory**

- A positive reinforcer is anything that increases the frequency of behaviors that gain the reinforcer.
  - For example, if a rat presses a bar to get food, then food is a positive reinforcer. (Because pleasurable things generally—though not always—act as positive reinforcers, the idea that addicts take drugs for pleasure has become known as the “Positive Reinforcement Theory.”)
- IN FACT, addicts will do all kinds of things to get drugs, so—by definition—drugs are “positive reinforcers.”
- BUT, addicts will take drugs even when they know no pleasure can be obtained
  - For example, an addict will take drugs when all they can get is insufficient to get high,
  - Some drugs, such as nicotine, are not themselves pleasant, but have high addiction potential.

# Addiction

- **Negative Reinforcement Theory**
  - A negative reinforcer is anything that increases the frequency of behaviors that avoid the reinforcer.
    - For example, if a rat presses a bar to avoid an electric shock, then the electric shock is a negative reinforcer.
    - Withdrawal may act as a negative reinforcer
  - **IN FACT**, addicts will take drugs to escape or ameliorate the negative consequences of withdrawal.
  - **BUT**, addicts crave and take drugs even after the withdrawal is over, and even crave drugs before withdrawal has begun.



# Addiction

- **Incentive-Sensitization Theory**
  - According to the theory, neural mechanisms responsible for “wanting” drugs not same as mechanisms for “liking” drugs.
  - Repeated drug use (getting and staying addicted) leads to a dissociation between these two systems.
    - Neural systems underlying “wanting” become sensitized (more responsive) to drugs, while neural systems underlying “liking” become tolerant (less responsive).
    - As drug use continues, the addict wants the drugs more, but likes them less.
    - Stimuli associated with what is wanted trigger the sensitized “wanting” behavior.
    - Theory explains why addictive drug seeking extends beyond pleasure and withdrawal, and why recovered addicts are more likely to relapse when they are simply in an environment associated with previous drug use.

# Neurobiological Considerations

- **All of the current theories of drug addiction are consistent with what we know about the neurological underpinnings of addiction and the reward system.**
- **Food reward:**
  - The rewarding effects of food are decreased by drugs that act against the effects of dopamine.
  - Presenting food increases dopamine cell firing and the release of dopamine.
- **Drugs:**
  - Animals will stop self-administering drugs (ICSS) if given drugs that act against the effects of dopamine.
  - Drugs with high addiction potential increase dopamine concentrations in the basal forebrain.
- **Circuit for both:**
  - Dopaminergic neurons with cell bodies in the Tegmentum that project to neurons in the Nucleus Accumbens.
  - A neurochemical lesion of the Tegmentum-to-Nucleus Accumbens circuit blocks ICSS.

# **Dissociative and Schizophrenic Disorders**

Problems With Reality...

# Dissociative Disorders

- **What is dissociation?**
  - literally a dis-association of memory
  - person suddenly becomes unaware of some aspect of their identity or history
  - unable to recall except under special circumstances (e.g., hypnosis)
- **Three types are recognized**
  - dissociative amnesia
  - dissociative fugue
  - dissociative identity disorder

# Dissociative Amnesia

- **Marian and her brother were recently victims of a robbery. Marian was not injured, but her brother was killed when he resisted the robbers. Marian is unable to recall any details from the time of the accident until four days later.**

# Dissociative Amnesia

- **Also known as psychogenic amnesia**
- **Memory loss the only symptom**
- **Often selective loss surrounding traumatic events**
  - person still knows identity and most of their past
- **Can also be global**
  - loss of identity without replacement with a new one
- **Contrast this with dissociative fugue**

# Dissociative Fugue

- **Jay, a high school physics teacher in New York City, disappeared three days after his wife unexpectedly left him for another man. Six months later, he was discovered tending bar in Miami Beach. Calling himself Martin, he claimed to have no recollection of his past life and insisted that he had never been married.**

# Dissociative Fugue

- **Also known as psychogenic fugue**
- **Global amnesia with identity replacement**
  - leaves home
  - develops a new identity
  - apparently no recollection of former life
  - called a 'fugue state'
- **If fugue wears off**
  - old identity recovers
  - new identity is totally forgotten



# Dissociative Identity Disorder (DID)

- **Norma has frequent memory gaps and cannot account for her whereabouts during certain periods of time. While being interviewed by a clinical psychologist, she began speaking in a childlike voice. She claimed that her name was Donna and that she was only six years old. Moments later, she seemed to revert to her adult voice and had no recollection of speaking in a childlike voice or claiming that her name was Donna.**

# Dissociative Identity Disorder (DID)

- **Originally known as “multiple personality disorder”**
- **2 or more distinct personalities manifested by the same person at different times**
- **VERY rare and controversial disorder**
- **Examples include Sybil, Trudy Chase, Chris Sizemore (“Eve”)**
- **Has been tried as a criminal defense**
  - Hillside strangler
  - he was (both) convicted

# Dissociative Identity Disorder (DID)

- **Pattern typically starts prior to age 10 (childhood)**
- **Most people with disorder are women**
- **Most report recall of torture or sexual abuse as children and show symptoms of PTSD**

# The DID Controversy

- **Spanos's studies**
- **Some curious statistics**
  - 1930-60: 2 cases per decade in USA
  - 1980s: 20,000 cases reported
  - many more cases in US than elsewhere
  - varies by therapist - some see none, others see a lot
- **Is DID the result of suggestion by therapist and acting by patient?**

# What is Schizophrenia?

- **Comes from Greek meaning “split” and “mind”**
  - ‘split’ refers to loss of touch with reality
  - not dissociative state
  - not ‘split personality’
- **Equally split between genders, males have earlier onset**
  - 18 to 25 for men
  - 26 to 45 for women

# Symptoms of Schizophrenia

- **Positive symptoms:**
  - hallucinations
  - delusions
- **Negative symptoms**
  - absence of normal cognition or affect (e.g., flat affect, poverty of speech)
- **Disorganized symptoms**
  - disorganized speech (e.g., word salad)
  - disorganized behaviors

# Symptoms of Schizophrenia

- **Delusions of persecution**
  - 'they're out to get me'
  - paranoia
- **Delusions of grandeur**
  - GOD COMPLEX
  - megalomania
- **Delusions of being controlled**
  - the CIA is controlling my brain with a radio signal

# Symptoms of Schizophrenia

- **Hallucinations**

- hearing or seeing things that aren't there
- contributes to delusions
- command hallucinations: voices giving orders

- **Disorganized speech**

- overinclusion - jumping from idea to idea without the benefit of logical association
- paralogic - on the surface, seems logical, but seriously flawed
  - e.g., Jesus was a man with a beard, I am a man with a beard, therefore I am Jesus



# Symptoms of Schizophrenia

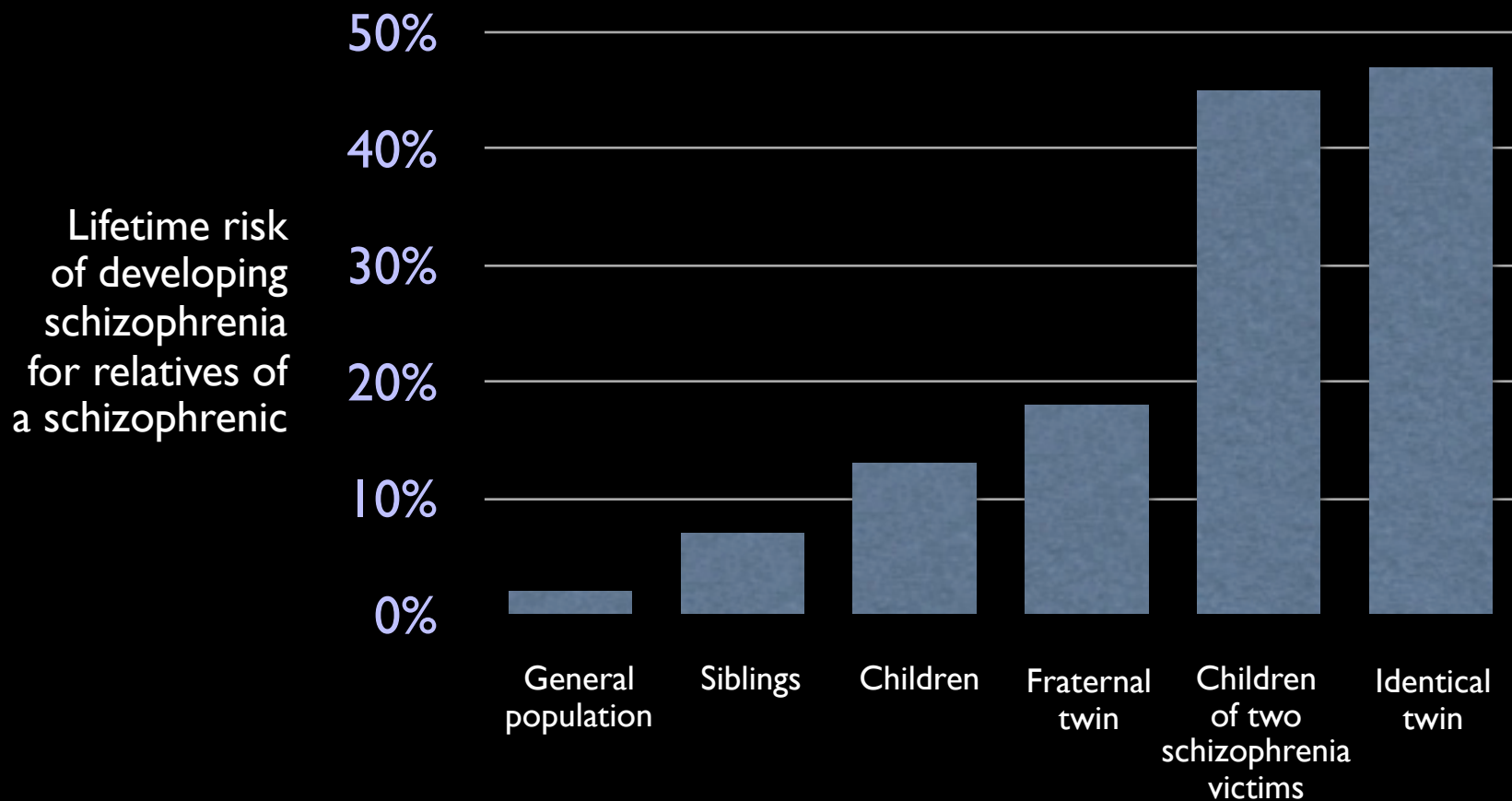
- **Disorganized behavior and affect**
  - behavior is inappropriate for the situation
    - e.g., wearing sweaters and overcoats on hot days
  - **affect is inappropriately expressed**
    - flat affect - no emotion at all in face or speech
    - inappropriate affect - laughing at very serious things, crying at funny things
  - **catatonic behavior**
    - unresponsiveness to environment, usually marked by immobility for extended periods

# Subtypes of Schizophrenia

- **Paranoid type**
  - delusions of persecution
    - believes others are spying and plotting
  - delusions of grandeur
    - believes others are jealous, inferior, subservient
- **Catatonic type - unresponsive to surroundings, purposeless movement, parrot-like speech**
- **Disorganized type**
  - delusions and hallucinations with little meaning
  - disorganized speech, behavior, and flat affect

- **How does schizophrenia develop?**

# Schizophrenia and Genetics



# Biological Bases of Schizophrenia

- **Other congenital influences**
  - difficult birth (e.g., oxygen deprivation)
  - prenatal viral infection
- **Brain chemistry**
  - neurotransmitter excesses or deficits
  - dopamine theory

# The Dopamine Theory

- **Drugs that reduce dopamine reduce symptoms**
- **Drugs that increase dopamine produce symptoms even in people without the disorder**
- **Theory: Sz caused by excess dopamine**
- **Dopamine theory not enough - other neurotransmitters involved as well**

# Other Biological Factors

- **Brain structure and function**
  - enlarged cerebral ventricles and reduced neural tissue around the ventricles
  - PET scans show reduced frontal lobe activity
- **Early warning signs**
  - nothing very reliable has been found yet
  - certain attention deficits common to Sz can be found in children who are at risk for the disorder (e.g., children whose parents have Sz)

# Family Influences on Schizophrenia

- **Family variables**
  - parental communication that is disorganized, hard-to-follow, or highly emotional
  - expressed emotion
    - highly critical, over-enmeshed families



# Cultural Differences in Schizophrenia

- **Prevalence of Sz symptoms is similar no matter what the culture**
- **Less industrialized countries have better rates of recovery than industrialized countries**
  - families tend to be less critical of the Sz patients
  - less use of antipsychotic medications, which may impair full recovery
  - think of Sz as transient, rather than chronic and lasting disorder

# Summary of Schizophrenia

- **Many biological factors seem involved**
  - heredity
  - neurotransmitters
  - brain structure abnormalities
- **Family and cultural factors also important**
- **Combined model of Sz**
  - biological predisposition combined with psychosocial stressors leads to disorder
  - Is Sz the maladaptive coping behavior of a biologically vulnerable person?