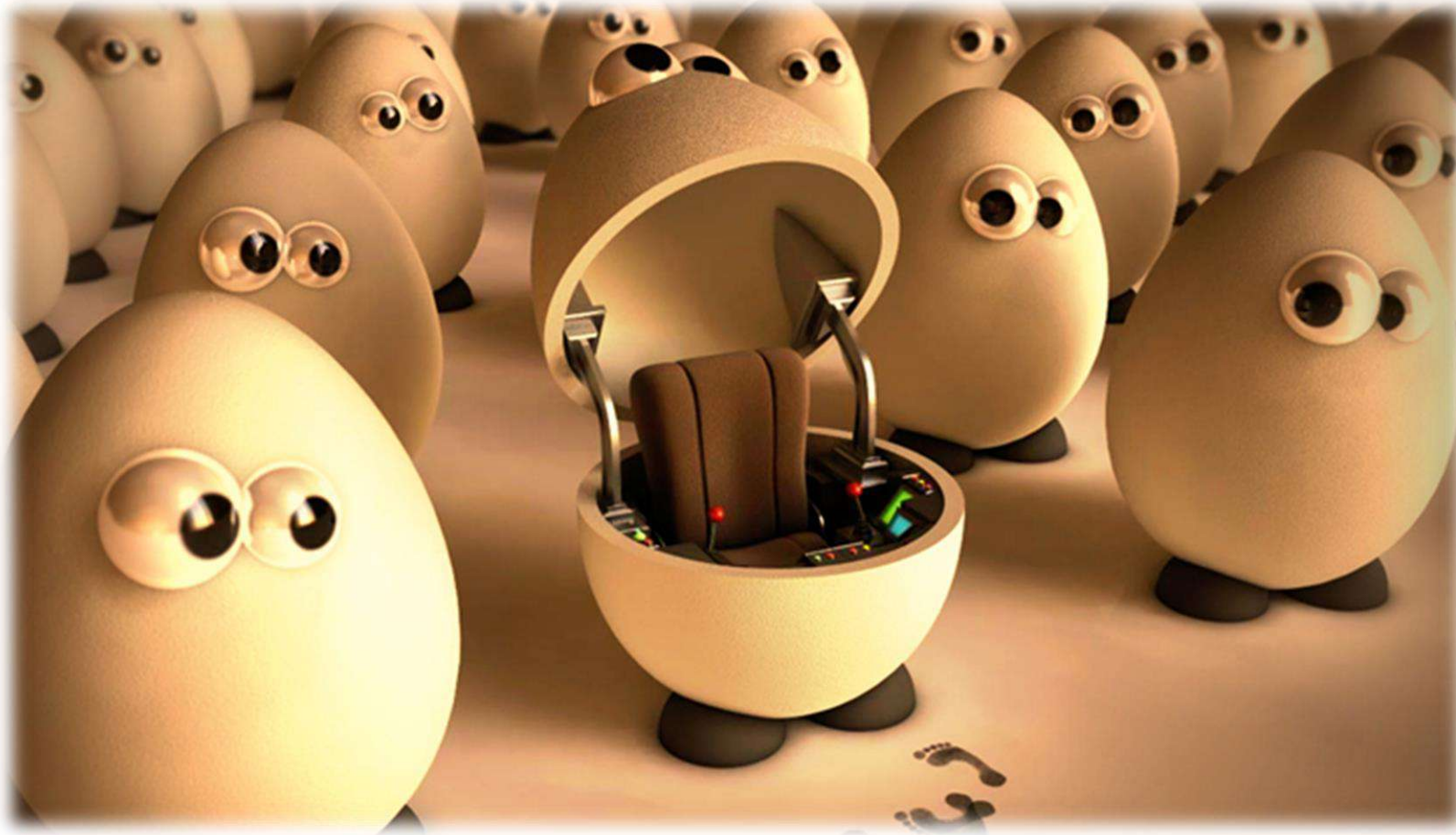


Abnormal Psychology



In these notes: Dyslexia

Autistic Spectrum Disorder (ASD)

Alzheimer's Disease

Down's Syndrome

Parkinson's Disease

Epilepsy

Attention Deficit Hyperactivity Disorder (ADHD)

Multiple Sclerosis

Lewy's Body Disease / Dementia

Dyslexia

What is it? A learning challenge – not “disorder” – that involves difficulty reading (due to problems identifying speech sounds) and decoding/interpreting (how words and letters relate). It also impacts math.

Frequency: Boys are 2-3 times more likely than girls to have Dyslexia.

Nature or Nurture? Nature: genetic (most common cause)

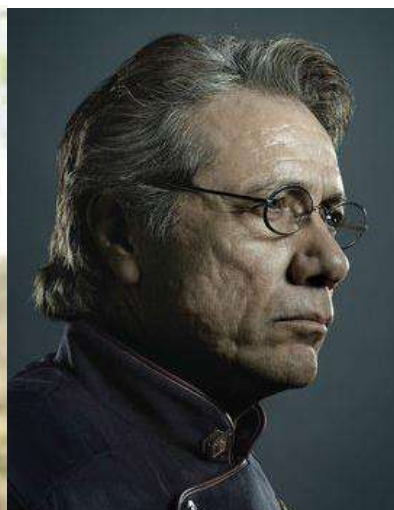
Nurture (theory): (1) complexity of language

Lecture note prompts

- Severity varies
- Brain is wired differently....electrical currents activate farther afield
- Auditory, hands-on and story-based learning
- Colored paper, specialized flashcards



Steve McQueen



Keira Knightly

Edward James Olmos

Tom Holland

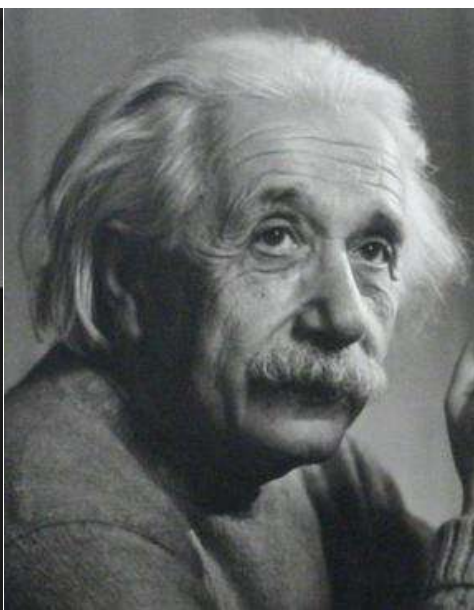
Mr. Cornet

Mark Ruffalo

More people with Dyslexia



Winston Churchill



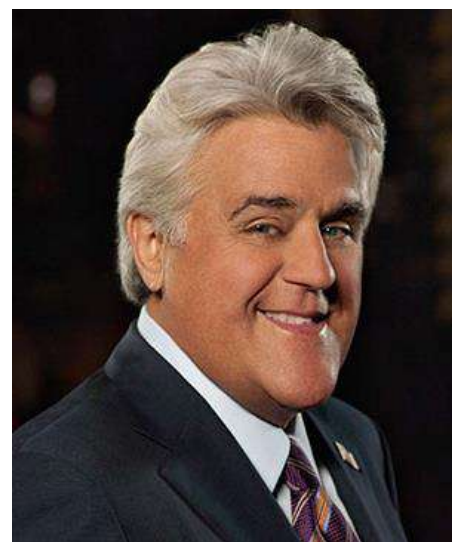
Albert Einstein



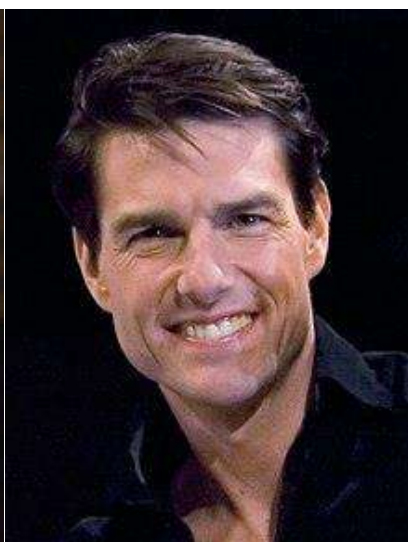
Steven Spielberg



Jennifer Aniston



Jay Leno



Tom Cruise



Stephen Hawking



Anderson Cooper



George Bush Jr

Autistic Spectrum Disorder (ASD)

What is it? A complex developmental condition involving persistent challenges with social communication, restricted interests and repetitive behavior.

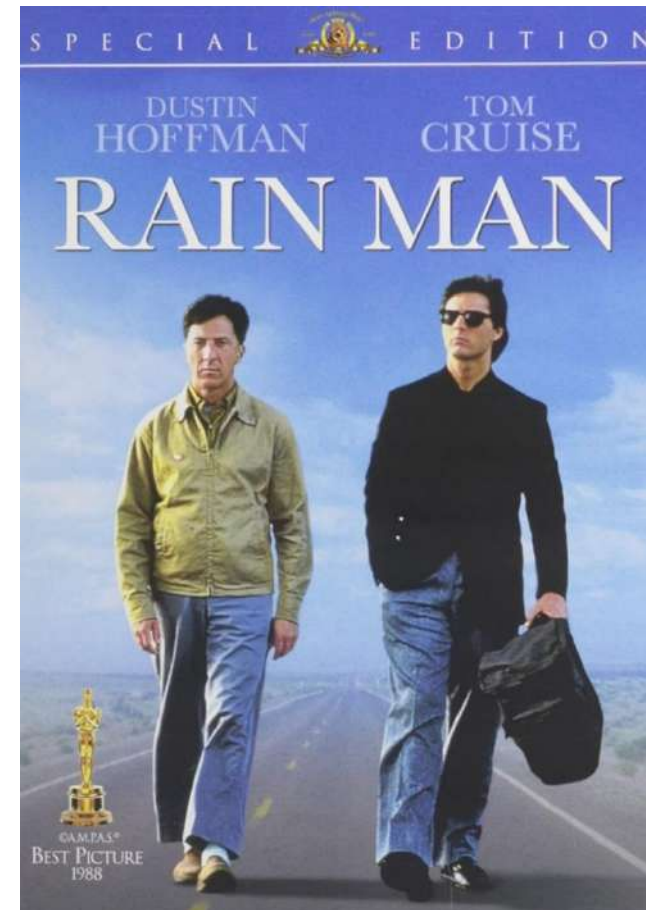
↳ Common characteristics (regardless of mild or severe)

- Trouble interpreting facial expressions
- Trouble keeping up a conversation
- Inflection that does not reflect feelings

Frequency: Boys are 3-4 times more likely than girls to have autism

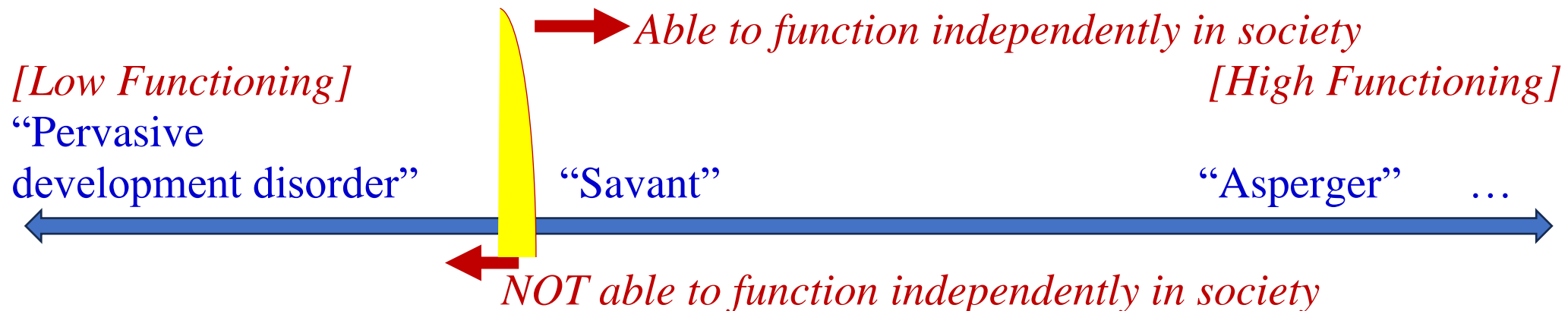
Nature or Nurture?

- There is a genetic inheritance
- Scientific studies reveal particular things about its emergence
 - ↳ The older the parents, the higher incidence of Autism; furthermore, more Autism is seen when their parents were born to older grandparents. Three generations may be predictive.
 - ↳ A statistically measurable increased risk of Autism is found in youth born in March or August.
 - ↳ Myelin Sheath (which separates the brain hemispheres) has holes/gaps



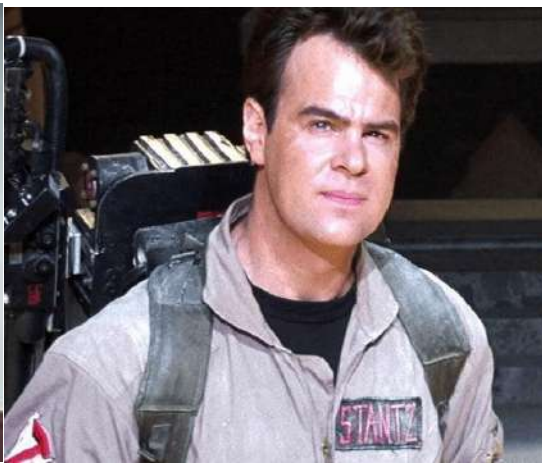
- ↪ Accelerated brain growth in first 15-18 months of life
- ↪ Can be identified in first two months following birth
- ↪ There is a correlation between more extreme (temporary) autistic behavior and low pressure systems (ie: rain, storm clouds). Why remains unclear.
- ↪ Autism is associated with the amount of time between births. Children conceived less than 18 months from a mother's previous birth OR conceived 60 or more months after the previous birth were more likely to have Autistic traits than those conceived 18-59 months after the prior birth
- NOT A CAUSE: Vaccine overload

The spectrum





Temple Grandin
Asperger's Syndrome



Dan Aykroyd
Asperger's Syndrome (diagnosed in 80s)



Kim Peek
Possible mid/low-functioning, but
there is some debate if he is Autistic
*One of the inspirations for Rainman



Anthony Hopkins
Asperger's Syndrome



Greta Thunberg
Environmental
Activist

Interview with PBS Iowa (9 minutes)
<https://www.youtube.com/watch?v=C8xaW84b7U8>

Alzheimer's Disease

What is it? A degenerative disease which destroys memory and other important mental functions. It gets progressively worse over time.

Frequency: Affects women more than men (at a rate not accounted for by women's longer life spans). Two-thirds of Alzheimer's patients are female.

Nature or Nurture?

- Caused by a combination of genetic, lifestyle and environmental factors that affect the brain over time.
- **KNOWN:** protein/tau plaque buildup and tangled brain fibers
 - ↳ Recent research: women who underwent early menopause (usually age 51, “early” is age 45 or earlier) OR who had a five year delay in hormone replacement therapy had more tau accumulation in their brains, and earlier dementia onset.
- **KNOWN:** affected close family member increases risk by 30%
- **SUSPECTED:** evidence suggests lack of sleep over lifespan may contribute to Alzheimer's risk

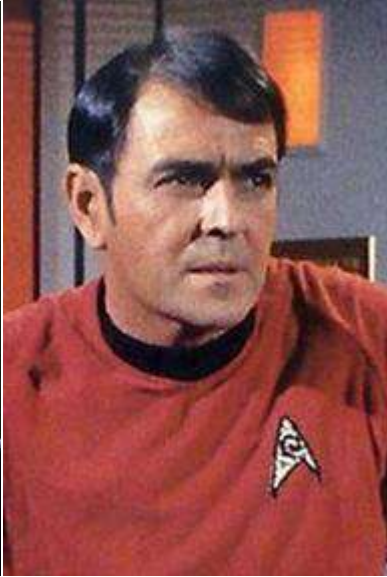
Lecture note prompts

- Early onset Alzheimer's (below age 60 is strongly linked to genetics)
- Stories of (1) President Reagan and (2) Rick's mom

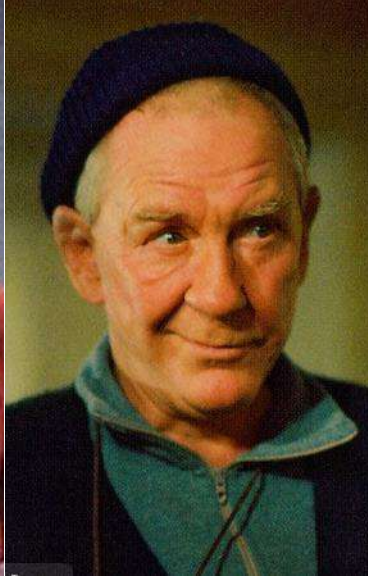
People with Alzheimer's Disease



President Reagan



James Doohan



Burgess Meredith



Charles Bronson



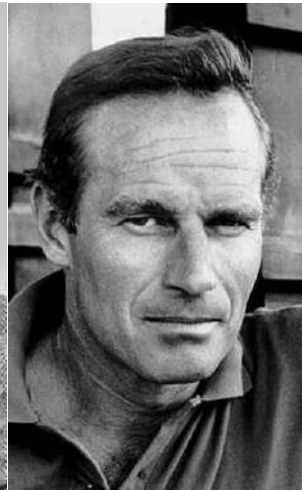
Rosa Parks



Jack Lord



Sidney Poitier



Charleston Heston
Planet of the Ages



Topol
Fiddler on the Roof



Chris Hemsworth
Genetics tests in 2022 reveal a
“strong genetic predisposition” to
developing Alzheimer’s. His risk is
8-10 higher than the general
population.

Down's Syndrome

What is it? Unique/rare physical features:

- Mental retardation
- congenital heart defect
- short fingers and nose
- Vulnerable to leukemia
- small skull
- curvature of the spine
- Flexible, dislocating hips
- dental problems
- early Alzheimer's (age 30)
- Seizures (10%)
- weak reflexes
- short height
- Sexual maturity is rarely reached
- Average life expectancy is age 60
- Impaired intelligence...average mental age of 8 years is achieved

Nature or Nurture?

- Nature...genetic, there is an extra copy of Chromosome 21
 - ↳ Normally people have 26 Chromosomes; Downs Syndrome have 27
- Risk factor increased by age: Age 25 mom, risk is 1 of 1,200 births.
Age 35 mom, risk is 1 of 300 births
 - ↳ Why? Evolutionary biology answers this.



Luke Zimmerman
'Secret Life of American Teenager;'



Lauren Potter
'Glee'

Parkinson's Disease

What is it? Progressive disorder of the central nervous system (affects muscle control and movement)

- ↳ Occurs when dopamine cells are destroyed
- ↳ Causes involuntary skeletal contractions (“tremors”)

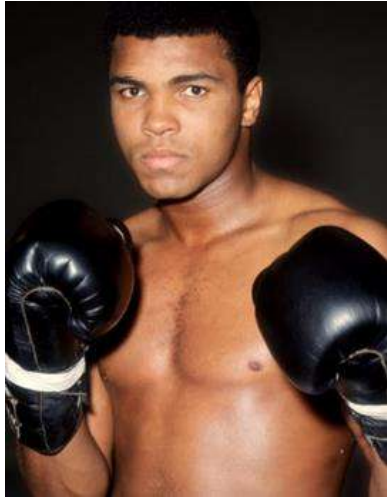
Frequency:

- Men are more likely to get it than women (1½ times more common in men)
- In the US: Most common in the Midwest and Northeast. Twice as likely to affect Whites and Hispanics than it would people of African or Asian ethnicity
- Average onset at age 70.
- Develops later in women than in men

Nature or Nurture?

- Immediate cause is physical (cells die)
- Elevated risk if a close family member has it (15%), but it is not considered something passed down from parent to child.
- KNOWN: having a single concussion increased the risk of developing Parkinson's by 57%

Famous People with Parkinson's Disease



Mohammad Ali



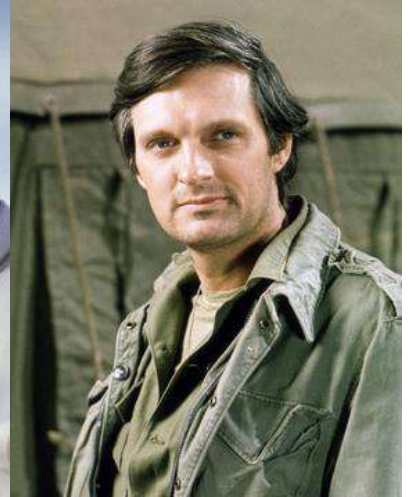
Adolf Hitler



Michael J Fox



Pope John Paul II



Alan Alda

<https://www.youtube.com/watch?v=5OLzuUVfoJ8> (3 min)

Epilepsy

What is it? All electrical neurons firing at once, simultaneously.

Nature or Nurture?

- Nature: born with it
- Nurture: (1) head trauma
(2) substance induced
 - ↳ **KNOWN** Many seizures take place when blood sugar is low.
Stimulants (caffeine, tea, coffee, excess salt) can trigger seizures by suddenly changing body's metabolism

Lecture note prompts

- Mike's story

People with a history of Seizures / Epilepsy



Tuvia



Mike



Theodore Roosevelt



Lewis Carroll
Wrote 'Alice in Wonderland'



Hugo Weaving



Neil Young
'Rocking In The Free World' (from SNL rehearsal)
https://www.youtube.com/watch?v=JHs_f063EzQ



Danny Glover



Prince
"When Doves Cry" music video (no need to show visuals)
<https://www.youtube.com/watch?v=UG3VcCAIUgE>



Richard Burton

Attention Deficit Hyperactivity Disorder (ADHD)

Attention Deficit Disorder (ADD)

What is it? ADHD often begins in childhood and can persist into adulthood. It may contribute to low self-esteem, troubled relationships, and difficulty at school or work.

Symptoms include limited attention, hyperactivity and impulsiveness. Treatments include medication and talk therapy.

Frequency: Boys are three times more likely to receive an ADHD diagnosis than girls.
↳ This disparity isn't necessarily because girls are less susceptible to the disorder. Rather, it's likely because ADHD symptoms present differently in girls. Girls are more likely to present as ADD while boys as ADHD

Nature or Nurture?

- Nature: Some are born with it.

If both parents have ADHD, then 40% of sons are diagnosed with it

- Nurture: (1) screen-time during key developmental moments,
(2) food allergy to certain ingested chemicals,
(3) parenting (ie, involved v emotionally-removed parents)

CONCERN: Over-medication problem 1990s to mid-2000s

➤ FACT: No such thing as “Adult on-set ADHD”

ADHD in the News

- Narcolepsy drug may have benefits to ADHD symptoms
- Risks of dementia may be three-times higher for those diagnosed with ADHD as adults
- Red Dye nr.3 banned in California; linked to behavior problems (October 2023)
- ADD and Sleep Problems: About 75% of all adults with ADHD have difficulty “shutting off my mind so I can fall asleep at night,”
- People with ADHD are chemically wired to seek more. Their brains produce lower levels of dopamine, a neurotransmitter and hormone responsible for feelings of reward and motivation. "Eating carbohydrates triggers a rush of dopamine in the brain."
- The military: ADHD “will only prevent you from joining the Army if you've been treated with ADD/ADHD medication within the last year, or if you display obvious signs of the condition.”
- Good for the ADHD brain: Omega 3’s (decrease brain inflammation)

➤ ADA protects people with ADHD on the job.

What is reasonable will differ from job to job, but some of the most common “reasonable” accommodations for ADHD include the following:

- Providing a quiet workspace
- Allowing noise-canceling headphones or white noise
- Working from home some or all of the time
- Taking allotted breaks as needed
- Minimizing marginal functions to allow focus on essential job duties
- Allowing assistive technology (timers, apps, calendars, etc.)
- Adjusting or modifying examinations, training materials, or policies
- Reassignment to a vacant position
- Job restructuring

∞ What of diagnosis privacy? What if an employer refuses to make accommodations?

Famous people with ADHD



Michael Phelps



Emma Watson



Michael Jordan



William Adams (Will.i.am)
Hip-hop, rap

ALSO
Channing Tatum
Ryan Gosling
James Carville
Lisa Ling
Bill Gates



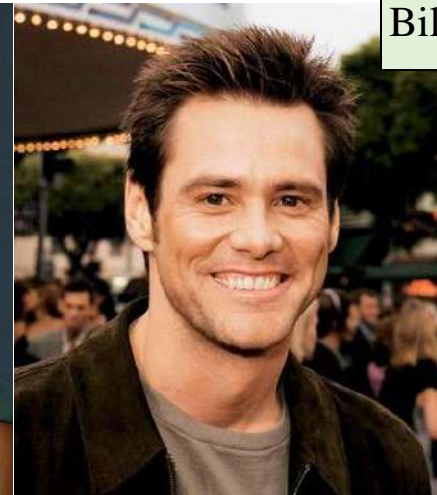
Will Smith



Justin Timberlake



Simone Biles



Jim Carrey

Multiple Sclerosis

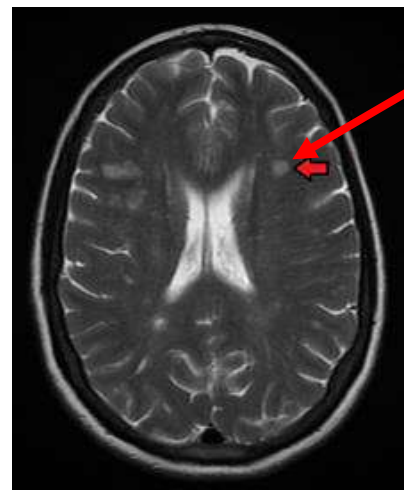
What is it?

It is a brain disorder in which the insulating covers of nerve cells in the brain and spinal cord are damaged.

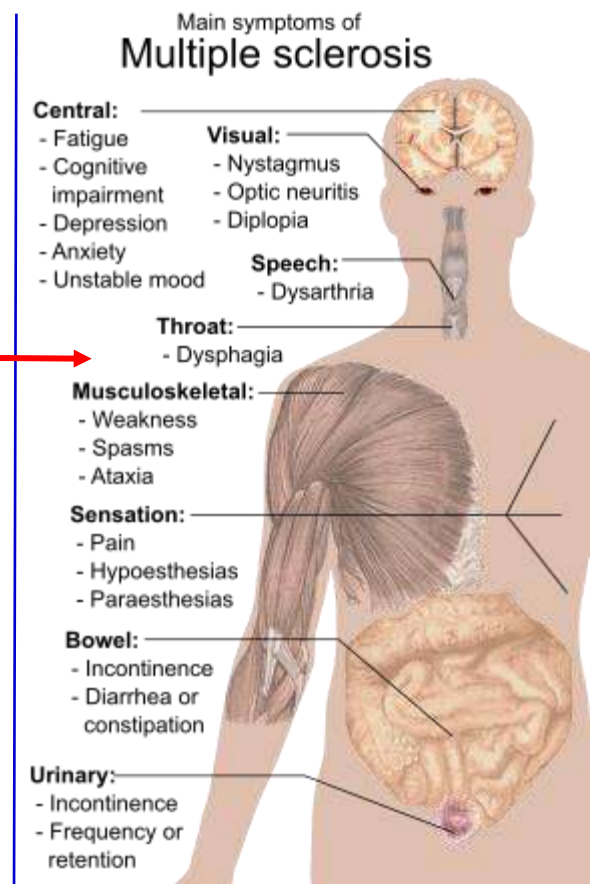
↳ This damage disrupts the ability of parts of the nervous system to transmit signals, resulting in a range of signs and symptoms, including physical, mental, and sometimes psychiatric problems.

Symptoms?

- Specific symptoms can include double vision, blindness in one eye, muscle weakness, and trouble with sensation or coordination.
- MS takes several forms, with new symptoms either occurring in isolated attacks or building up over time.



Lesions appear in the brain



Frequency

- ▲ It is more common in people who live farther from the equator.
- ▲ The identical twin of a MS-positive person has a 30% chance of also developing MS; only 5% for a non-identical twin. If both parents have MS, the child's risk is 10 times greater than the general population
- ▲ Obesity in adolescence and young adulthood is a risk factor for developing MS
- ▲ It can start at any age; usually between ages 20-40
- ▲ Women are 2-3 times more likely to be affected than men.

Nature or Nurture? Unclear.

Famous people with MS



Christina Applegate



Selma Blair



Montel Williams



Richard Pryor

Lewy's Body Disease/Dementia

Symptoms On the surface, symptoms of Lewy's Body Dementia can reflect symptoms of many other conditions, making it difficult to diagnose.

Five early signs of Lewy Body Dementia

- Hallucinations or Delusions of Reality

- ↳ Unlike Alzheimer's disease, individuals in the early stages of Lewy Body Dementia may exhibit cognitive changes which distort their reality.

- Cognitive Fluctuations / Problems

- Changes in Movement

- Behavioral Shifts

- Sleep Problems

- ↳ A REM sleep disorder is commonly the first symptom, occurring years before the other symptoms

- ↳ A REM sleep disorder where a person physically and vocally act out vivid, often unpleasant dreams. Less than 1% of people have this.

- ↳ In a study of people with REM sleep disorder (and assuming the condition is not caused by antidepressants), 30% developed a form of dementia disorder or Parkinson's within 3 years of REM sleep disorder onset. 66% did so within 7 years.

➤ Other symptoms

- Shuffling walk, slow movement, or frozen stance.
- Reduced facial expression.
- Tremor or shaking, most commonly at rest.
- Loss of coordination.
- Balance problems and repeated falls.
- Fluctuating attention.
- Stooped posture.
- Apathy.
- Depression

Onset: Most at risk are those over age 50.

Men are slightly more common than women to develop the condition.

Of all dementia cases, this is about 3% - 7% of them

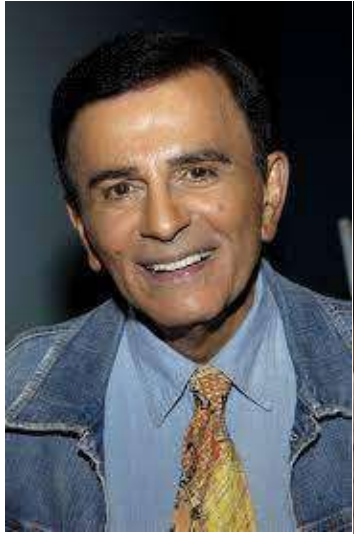
Sundowning – Symptoms of dementia get worse at night. Fading natural light seems to be the trigger. It is unclear why this is.
(suggested biological clock may be affected by dementia)

After diagnosis, a typical life span is 5-7 years

Causes?

- Nurture – Lewy body dementia usually occurs sporadically in people with no family history of the condition.
- Nature – About 10% of Lewy body dementia cases appear to be tied to heredity

Famous People with Lewy Body's Dementia



Casey Kasem
Radio personality



Estelle Getty
'Golden Girls'



Marjorie Hall-Bradner
Cornet's grandmother



Ron Cobb
Graphic illustrator, Star Wars IV Back to the Future

Robin Williams

Born 1951 Chicago, Illinois

Died 2014 California (age 63)

Professionally known for improvisational skill and serious acting.

Many of his subsequent roles were in comedies tinged with pathos (appealing to the emotions of the audience and elicits feelings that already reside in them)

Later in life: Alcoholism, Depression, Lewy Body Disease

Career highlights

- As a co-writer Good Will Hunting <https://www.youtube.com/watch?v=oRG2jlQWCsY> (5 min)
- As a comedian (all improv!) Good Morning Vietnam <https://www.youtube.com/watch?v=Erf2iFHG44M> (8 min)
- As an actor Dead Poets Society <https://www.youtube.com/watch?v=PxEIZP-sr0c> (5 min)

Final months of Robin Williams life, psychological profile

- Part 1 – <https://www.youtube.com/watch?v=kWLWk7oIE8k> (24 min)
 - Part 2 – <https://www.youtube.com/watch?v=rIjRMjzq444> (17 min, show 5:30-12:00)
- GOOD, BUT SPEAKERS TONE IS NOT ALWAYS APPROPRIATE, TOO HAPPY

