

## January 26: Cognitive Degeneration with Age

### Optional Reading Materials:

- <https://academic.oup.com/bmb/article/92/1/135/332828?login=true>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4015335/>
- <https://www.reuters.com/article/us-usa-president-breakingviews/breakingviews-cox-its-ti-me-for-an-age-limit-on-the-presidency-idUSKBN27115J>
- <https://fivethirtyeight.com/features/can-a-candidate-be-too-old-to-run-for-president/>
- <https://www.who.int/westernpacific/news/q-a-detail/ageing-ageism>
- <https://www.apa.org/monitor/may03/fighting>
- <https://www.americanhistoryusa.com/topic/judicial-procedures-reform-bill-of-1937/>

### Summary:

- There are a multitude of factors that can impact how and when our brain begins to show cognitive decline with age.
- There is some evidence to suggest small levels of decline begin in early adulthood with the reduction in gray matter. This can potentially predispose people to neurological diseases.
- While certain skills, such as vocabulary, DO NOT get affected by cognitive decline, other skills such as conceptual reasoning, memory, and processing speed DO decline as our brains age. This illustrates the difference between crystallized intelligence, which inclines with age, and to fluid intelligence, which declines after the age of 25.
- For example, older individuals have a harder time using their working (short-term) memory when compared to younger individuals.
- Crystallized intelligence is not necessarily stronger among those in older populations, as it may decline in the presence of neurodegenerative diseases, such as dementia.
- Interestingly, those over 90 who have not already contracted dementia are unlikely to contract it after exceeding the at-risk period of roughly 70-90. This is likely because for those who are genetically predisposed to dementia, it is most likely to manifest in the at-risk period.
  - (Does this mean that if there is an age limit imposed for running for office, the limit should be lifted for those over 90 because these individuals are no longer at high risk for dying by neurological disease?)
- It is important to note that cognitive decline is unavoidable, but there is a difference between healthy aging of the brain and unhealthy aging of the brain.
- This past Presidential Election had the American people choose between the two oldest candidates to ever run, leading many to question whether there should be an age limit on the presidency.

- The only age-related requirement concerning the presidency is found in Article II of the Constitution, which states any candidate seeking the presidency must be at least 35 years of age. When this article was originally instituted in the Constitution, the average life expectancy was considerably lower.
  - Another likely reason for the presidential age floor being 35 is that many founding fathers were in their 30's at the time of the Constitution's ratification; this suggests that the age limit we have is arbitrary and was not due to any rational deliberation.
- Similarly, to be elected, members of the House of Representatives must be at least 25 years old, whereas Senators must be 30 years old at the time of their inauguration. There are no age limits at the other end of the spectrum.
- The discussion of instituting age limits for different government positions brings up the issue of ageism, which is discrimination against an individual or group based off of their age. Both young and older individuals can experience this.
- Many older individuals experience ageism, whether that comes in the form of outright discrimination or jokes. They can even experience ageism when talking to a mental healthcare professional, who might view older individuals as rigid and unable to change their behaviors.
- While there has been a 2-term limit since FDR, there are no such limits for either congressional house. Judiciary appointments are made for life. This means that anyone in office may be of any age and may continue to serve indefinitely, which allows all but the president to refrain from resigning as they age, assuming they are reelected.
- **CONSIDER FDR'S JUDICIAL PROCEDURES REFORM BILL OF 1937:** first major moment in U.S. history where the age limit was significantly contested.
  - According to the bill, for every justice over 70 who had not retired, a new young justice would be appointed to “accommodate cognitive decline of court justices”.
  - FDR's argument was that many judges serve their terms far past when their ability to make sound decisions has declined, and no significant political figures have since propagated this idea.

#### Discussion Questions and Topics:

- Should there be age limits for politicians? Should age limits be based around any particular age or should it be based around current neurological ability?
  - Even with age, there are some politicians who visibly remain mentally sharp. Others, however, seem less so.
  - There shouldn't be an age limit.
    - The American people should be able to determine who is fit to be president and/or hold other governmental positions without the influence of age restrictions.

- However, much of the general population is unaware of cognitive decline to the extent we as neuroscience majors are.
  - The people may justify the system they are a part of because they rely on it and fail to acknowledge its issues.
    - Deindividuation may also play a role when voting and defending the government.
  - Many individuals still blindly vote for their political party regardless of other factors.
- By the time a person has the status/money to run for office, they are typically older, potentially 50+
  - This greatly limits who can run for office.
  - Younger people have a harder time even running for office
  - Experience is another factor that should be considered.
    - Older individuals have more experience because many of them have been holding governmental positions for years.
    - How much does governmental experience matter? For example, is having 5 years or 30 years better for a governmental official?
- Age limitations should be imposed for the judiciary branch, especially when considering the Supreme Court.
  - Since Justices are applied for life, we should check on their mental capacity and ensure they are still fit to carry out their duties.
- Our government should be composed of both older and younger people.
- There currently is a check for dementia in regards to the President.
  - More checks/tests could help with determining an individual's mental capacity.
    - This is susceptible to biases, however.
    - Our president does have to go through physical checks annually, however, HIPAA may protect a portion of this information from the public.
    - Would these tests take time away from a future president's planning/policy-making/campaigning? How extensive should these tests be?
  - Should IQ tests be used to measure intelligence?
    - NO! There are multiple forms of intelligence and the IQ tests only one. It provides a very narrow scope of an individual's cognitive abilities.
- What constitutes cognitive decline? At what point should an individual be deemed unfit to hold office?
  - Tests may hinder a perfectly capable leader's ability to get into office.

- Again, the choice should be left to the voters.
  - We don't want to discount someone based off of a test that may prove to be trivial.
  - Some tests are biased towards certain mental traits and will not give a clear picture.
  - There might not even be any tests that can clearly show the cognitive decline of anyone's brain in such a way that would prove valuable.
- Regan was diagnosed with Alzheimer's after he finished serving in office.
  - He did show some symptoms while in office and some people wondered if he had been fit to serve for as long as he did.
  - Typically, the President surrounds themselves with intelligent people who are qualified to hold their cabinet positions, which can help the President perform his duties even in the face of mental decline.
    - However, since these individuals are chosen by the President rather than voted in by the people, there can be a multitude of issues.
  - If a president believes they have severe cognitive decline or have been diagnosed with a neurodegenerative disease they should willingly step down.
- What governmental positions should we implement age limits for? On the flip side, are there roles in which it would be beneficial to lower the age requirement?
  - Since the Supreme Court serves for life, maybe they should have an age limit
    - At the very least they should have terms
    - It's kinder to not have people in this position for life
  - We should limit the amount of terms for all positions lacking that limitation
  - The Supreme Court needs to know the information, and if they work with the law every day, how much does their age matter?
    - Most decisions by the Supreme Court are made using previous cases as the basis
- Is the institution of age limits for government positions a form of ageism? Is there such a thing as being too old or too young for office?
  - How perfect should our president's brain be? Can we trust every test that the president takes? How accurate is everything?
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- Is high crystallized intelligence or high fluid intelligence more suited for governmental roles? Are there roles where one form of intelligence is better than the other?
  - With age, fluid intelligence decreases, and empathy might also be affected and might be worth testing
    - How much does empathy matter? Should we care more about their policies?
    - Empathy is important; we want policies rooted in

- How can we measure and monitor the mental capacity of those in office? How often should an individual be screened for cognitive decline?
  - To some extent, tests should be taken and made available to the public so the people know who they are voting for.
  - We want to know our candidates are capable of fluid thought and compromise.
    - This is something proven to be done better by younger people.
      - With socioeconomic limits, there is a barrier to entry for younger people in government.
  - A link to a source that discusses the validity of cognitive tests to measure mental decline: <https://academic.oup.com/aje/article/165/3/344/135567?login=true>
  - Maybe the correct approach should be bottom-up.
    - We should encourage and aid more younger individuals into government without trying to force older individuals out.
    - It is important to note there is a lot of governmental corruption which is how many people get into positions in the first place.
    - In theory, this is a great idea, however, many individuals want to stay in politics after obtaining a position.
    - Older individuals have gone through different experiences and hardships than younger people have. The vice versa is true as well.
  - We will eventually have new generations in office, as that is how the progression of linear time works.
- Should congressional term limits be put in place to address the issue of congress people being continuously reelected, or would this be more harmful than beneficial?
  - Yes! See the above questions.
  - In order for the government to keep up with the world and technology, we need to get younger members in.
    - Term limits would help make this possible.
  - Older people have a harder time operating technology and aspects of the Internet, like social media, for example.
    - Younger people are more adept in this regard and can have more access to what the public thinks about the government and policies.
    - There is a wealth inequality within our society and it's important to know how the Internet is contributing to it.
      - While younger individuals are typically considered more progressive, this isn't always the case.
      - People are people. Age may not resolve conflicts as young doesn't always mean progressive. Additionally, there are some older people who are very progressive.
      - Younger people may not care about certain topics and overlook them, such as wealth inequality.

- There should be term limits.
  - It's hard to watch candidates come in with good intentions and get corrupted by the system.
  - These term limits should be reasonable so people can accomplish the tasks they set out to do.
- Political system bias is not a good reason to change the entire structure.
  - There can be changes in the future that could be hindered with system overhauls.
- Experience may be overrated.
  - Our Founding Fathers were inexperienced but set the foundation for a democracy that has lasted almost 250 years.
  - You can gain experience in those term limits that will help later on, especially when running for different positions.
- The **25th Amendment** allows individuals to be impeached if they are unable to fulfill the duties of office. Is this measure enough to provide for situations where age causes officials to be unable to serve?
  - An independent body should determine whether or not a president should be removed from office.
    - However, everyone is biased somehow, so to what extent would an independent body help?
    - The Supreme Court is supposedly the only unbiased government identity.
    - Even experts can make poor decisions.
    - Maybe the decision should be made by the people who work with the president on a daily basis.

#### The Main Takeaway:

- There should be some way to learn about a candidate's mental capacity, but age is not always the best indicator of cognitive ability. We should impose term limits to aid with the possible issue of mental decline, though we should refrain from instilling age limits legally. Voters should be able to choose who they want, yet still be somewhat informed about their potential candidate's mental capacity/health.

#### Additional Articles:

- <https://www.usa.gov/presidents#:~:text=According%20to%20Article%20II%20of,United%20States%20for%2014%20years.>
- <https://history.house.gov/Institution/Origins-Development/Constitutional-Qualifications/#:~:text=%E2%80%9CNo%20Person%20shall%20be%20a,which%20he%20shall%20be%20chosen.%E2%80%9D>