### TEENLYTICAL



Winter 2020



isolated





### Dear reader,

Teenlytical was founded on September 3rd, 2019 and since the beginning, our mission has not changed.

We aren't here to simply provide information. We are here for students to go beyond the textbook; to promote literacy on scientific and political topics not taught in schools. We are here to inspire creativity and outside-of-the-box thinking through articles, artwork, and magazines. We are here to inspire a new era of teens to grow to lead the globe with their expertise by helping them understand the complexities of our world. But our most important goal is to help teens gain the independence of analyzing the world by themselves.

"isolated" is our first magazine ever! After 3 months of hard work from our ambitious content team, it has finally been completed. We would appreciate it so much if you read this magazine and recommend it to a few friends. That's all from us.

Enjoy!

Sincerely, Teenlytical Content Team

### Note from editors:

Wari

Warnin

Articles in this magazine contain information about human/animal experimentation and experiences that may be sensitive and inappropriate for younger readers.

Warning.

PLEASE READ WITH DISCRETION.

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# Part I

Scientific



From a simplistic viewpoint, loneliness is related to sadness, but only when we dive deeper into the biological responses of our bodies do we realize just how complex our reaction to loneliness is.

Studies have determined that there is a direct relationship between loneliness and blood pressure. When we experience persistent loneliness, our systemic vascular resistance (SVR) increases. SVR refers to the resistance of blood flow circulating our body and is determined by blood vessel diameter, length, and blood viscosity. As this trio of characteristics are reshaped by loneliness, the resistance increases, thus increasing the workload of the heart and making blood circulation a much more cumbersome task.

A five year study conducted by Louise C. Hawkley, Ronald A. Thisted, Christopher M. Masi, and John T. Cacioppo came to fruition, further establishing the existence of a linkage between loneliness and blood pressure. In this study, it came to light that in their sample of participants, the loneliest individuals experienced a 14.4mm increase in their systolic blood pressure (SBP), which means that more force is being exerted against the artery walls, which can possibly cause damage. When blood pressure heightens to a certain extent and persits, the condition is called hypertension, which raises the risks of strokes and heart attacks.

As blood pressure rises, stress hormones are released at much higher doses in response to stress, a product of loneliness. By nature, human beings are social animals, constantly seeking opportunities to speak with others, whether that's a guardian or friend, but when we are stripped away from our loved ones and confined to a space, we are forced to fight our natural desire of society. It isn't so much that the state of loneliness triggers the release of stress hormones, but rather the fact that we cannot share our troubles and feelings with companions. So ves, loneliness can cause stress.

Cortisol, a well-studied stress hormone, is often measured in loneliness-related experiments because of its release in response to stress stimuli. Produced by the adrenal glands which sit on top of the kidneys, this hormone is in charge of our fight or flight reaction, the immune system, and how the body makes use of sugars. However, when high levels of cortisol are persistently found in our blood stream, it can increase the quantity of fat and weaken the human body's innate ability to fight infections.

A similar stress hormone released is norepinephrine, which induces a variety of bodily responses like raising blood sugar levels, increasing heart rate, and constricting blood vessels. Like cortisol, significant amounts found in the human body often lead to dire consequences like elevated blood pressure.

The stress induced by loneliness creates a tension in our bodies, like stretching a rubber band incessantly in both directions. While loneliness may superficially appear like a rather benign, uncomfortable feeling, what happens inside the body completely contrasts this generalized thought.

TRY NOT TO
UNDERESTIMATE THE
POWER OF LONELINESS
AND ISOLATION. IF YOU
DO, USUALLY IT DOESN'T
END WELL.



Scientific Reports with Mark Pan

# Sick mice may isolate themselves to prevent spreading their disease

Typically, when humans fall ill, we change our behaviour and habits by staying indoors and limiting our physical interactions with our acquaintances: this is especially true during the current pandemic. However, the act of distancing oneself from others to prevent illness transmission may not be exclusive to humans; wild mice have been observed to dissociate themselves from their social groups. In 2016, researchers from the University of Zurich published a study (Lopes et al., 2016) concerning exactly this subject; how the social dynamics of mice are impacted by diseases.

The mice used in the study were Mus musculus domesticus, a subspecies of the abundant House Mouse (Mus musculus), and 90% of the mice were fitted with transponder tags (which are like tracking devices), enabling the researchers to track their movements. They were housed in a barn with 40 artificial nesting boxes, where the mice would be in close contact and there would be an elevated risk of transmission, and the mice organized themselves into 12 separate social groups. For the study, the researchers selected one mouse per group to be injected with either a saline control (a mixture of sodium chloride and lipopolysaccharides or (a maior component of the cellular wall of bacteria), evoking an immune response and producing generic symptoms of illness.

The mice injected with LPS exhibited a reduced level of activity and movement and decreased their visits to the nest boxes. They demonstrated reduced entrances and exits in the nest boxes on the night of the injection in comparison to the previous night.

Moreover, LPS-injected mice would reduce their visits to other nest boxes: prior to injection, females would visit more nest boxes than males on average, thus females experienced a far greater reduction in visits. Comparatively, the control mice displayed no behavioural changes in comparison to other members of their social groups: there was no substantial difference in the time spent within the nest boxes.

The LPS-injected mice demonstrated reduced social interaction with other nestmates: however, it was the injected mice that voluntarily isolated themselves, not as a result of being shunned by their nestmates. The length of time spent with their nestmates and the number of interactions also decreased, and the voluntary isolation did not impact the dynamics of the social groups the LPS-injected mice belonged to. The social interactions of the control mice did not change.

After employing the usage of computer modelling to learn how the behavioural changes affected the chances of spreading disease, it was concluded that self-isolation did greatly reduce the probability of transmission between mice of the same social group, with remarkable efficacy. Such research is helpful in understanding the inherent complexities of disease transmission.

Note from editor: It's time for humans to learn from mice during this COVID-19 situation.



### PIT OF DESPAIR:

### ISOLATED MONKEYS WHO WENT CRAZY

#### WRITTEN BY: AARON ZHAO

During the 1970s, Harry Harlow wanted to see if rhesus monkeys developed depression-like symptoms after being put in long-term social isolation just like humans. Most famously known as the "Pit of Despair", it was a frighteningly unethical experiment that showed just how powerful isolation can be, at least for monkeys.

The first cage version of Harlow's cage was a cube-like room with solid walls for each facet. On the front wall, there was a little viewing port which allowed scientists to look in but prevented the monkeys from looking out with the help of a one-way mirror. Left in total isolation, the only interaction these monkeys - specifically baby monkeys - had was with the scientist's hand when they reached in to deliver food to make sure the monkeys don't die, at least physically. Taking a group of baby monkeys, Harlow split them into three subgroups based on how long each would spend in the cage; some for one month, six months, or an entire year.

Termed "total isolates", these poor little souls came out of their cages after their respective imprisonment durations with varying degrees of trauma, and exhibited various strange behaviors such as not wanting to move or explore. Two of the total isolates starved themselves to death by choosing not to eat. When introduced to their peers, aggression and violence were the primary forms of communication, and when left alone self-mutilation was not an uncommon behavior. Along with ripping their own hair out and biting their own arms, they also exhibited "autistic self-clutching and rocking", according to Harlow. It was evident that isolation had corrupted their brains.

After a redesigning of the cage, a new group of rhesus monkeys were placed in vertically long cages that only had a water and food holder (this is the "pit of despair"). It resembled an upside down pyramid, with a flat base to sit on and a mesh wire ceiling to allow light to come in. The sloped walls were steep, but still allowed monkeys to climb upwards. This time, the group of monkeys consisted of 3-month old individuals who had already formed camaraderies with each other, and the purpose of the experiment was to see how isolation could induce a state of depression by separating the family.

HARLOW SAID DURING THE EXPERIMENTS:

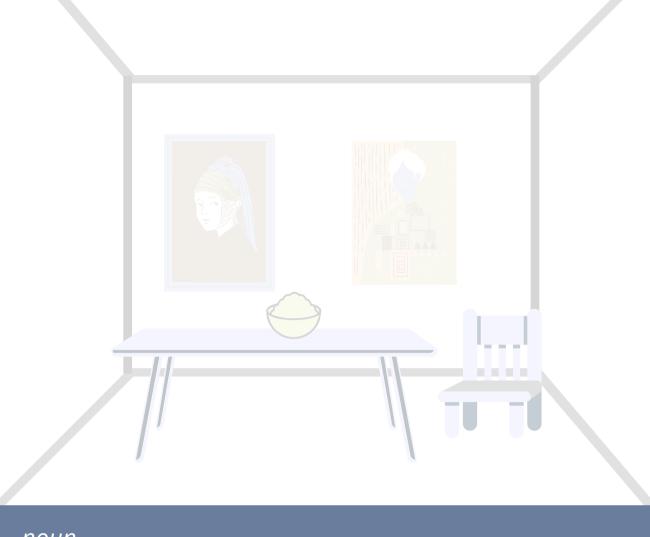
"MOST SUBJECTS TYPICALLY ASSUME A HUNCHED POSITION IN A CORNER OF THE BOTTOM OF THE APPARATUS. ONE MIGHT PRESUME AT THIS POINT THAT THEY FIND THEIR SITUATION TO BE HOPELESS."

To make this a little more relatable to human beings, here is a hypothetical scenario. You are placed in an empty room with no windows, doors, or objects like furniture. There is a little hole in one of the walls, where prepared food is brought in and plates/cutlery are brought out, but it is covered by a metal plate on the other side anytime other than meals. Because there are no windows, clocks, or anything that could potentially help you determine the exact time, you eventually lose track of day and night and thus, your sleep schedule becomes distorted. For an entire year (which may feel like a decade to you as a prisoner), your daily routine is: wake up, eat, sit, eat, sit, eat, sit, sleep. When you're finally freed, you limp out of the room after experiencing months of hallucinations, twisted sleep schedule, depression, difficulty remembering people, and muscle weakness. Science fiction makes this scenario interesting. Reality makes it unimaginably torturous.

This hypothetical scenario, along with Harlow's Pit of Despair shows just how potent extreme isolation is, and how it is capable of warping minds and bodies. In "Loneliest people in history" by Muhan Sun (pg. 24), you will find examples that feature humans, not mice.

# Part II

Experiences



#### noun

1. a psychological torture method that tortures prisoners through isolation and sensory deprivation, relying on the colour white.

The isolation that we went through as a result of COVID-19 was not fun. Most of us probably experienced the boredom and loneliness of not being able to meet up with our friends. But, looking at it from an omniscient viewpoint, have you ever thought that what we experienced was only a small part of a horrifying torture method?

Imagine opening your eyes in the morning to a world of white. No, it's not snow. Instead, it's white walls, white clothes, white bed, and white food. The name "White Room" is, in fact, quite literal and self-explanatory. It is a psychological torture method that tortures prisoners through isolation and sensory deprivation. Prisoners must stay in a locked room that is not only completely white but also eerily quiet. To further the sensory deprivation, guards must also wear padded shoes to mute the sound of walking. When prisoners decide to use the bathroom, they must slip a white piece of paper underneath the door to the

guards.

White Room torture is known to be used in Iran. The experience of an Iranian exile shows the dark potential of the "White Room". Journalist Amir Fakhravar was held in a detention center for 8 months back in 2004. He was first arrested for criticizing the Iranian regime through writings and speeches. He then spent 5 years switching between Iranian prisons and being tortured. In a CNN interview he explained his experiences saying, "We couldn't see any colours and we couldn't hear any voices". He further described the horrors of the torture by comparing the mental torture he experienced to physical torture. For him, "the beatings, the broken bones, the squalid conditions -- it was nothing". Eventually, after some time, Amir Fakhravar escaped to the United States.

### The \$100K Isolation Room

By Linda Luo

Isolation in your home may feel fine because there are countless things to do. Play on your phone, read books, game, do chores, maybe even cook some questionable foods. Now scale that down a bit, imagine being isolated in your bathroom. Necessities like a toilet, a sink, a counter, a bathtub and a refrigerator for food are included. How long do you think you'd last?

In 2018, a bet two poker players made sent the media into shock. Months before in a simple game of Lodden Thinks, Rory Young had bet Rich Alati that he wouldn't be able to stay in a pitch dark bathroom with no electronics and human interaction for 30 days. Alati accepted the bet and by late November, Alati was in Los Vegas attempting to win \$100k.

He was confident he would be able to fulfill the challenge with the help of his experience with meditation and yoga. Turns underestimated his mental strength. At first, he would talk to the cameras to keep himself sane but after 3 days, he started to hallucinate. He saw magical clouds, small white bubbles, all sorts of shapes and colours. He had to focus to separate reality from his absurd hallucinations. Soon his mind had forced a strangely relaxing feeling to settle upon him and he learned to embrace the hallucinations. By around the 10th day, he was so focused on not losing his mind he tried to spend most of his time sleeping. It was when he saw a train that he began to worry about how far his brain would take him.

"At one point the ceiling just opened up and I saw the stars and the sky. It was absolutely beautiful"

RICH ALATI

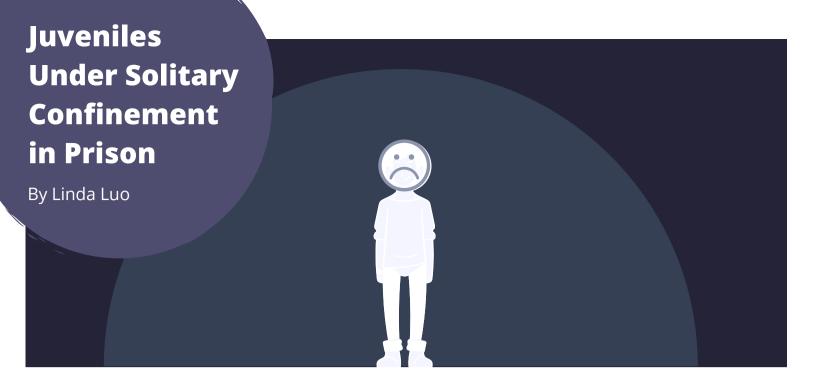


Because his food was delivered to him at irregular intervals, (six days worth of food every three to six days) he had no way of keeping track of time. Before he knew it, his thoughts took a turn for the worse.

He started to question himself, he thought about 'what if' situations. It was the simple things that grounded him. The food he got was from a nearby restaurant and according to Alati, not having his sense of vision enhanced everything else including his taste buds. Later on, he admitted that he could hear faint sounds of lawnmowers and leaf blowers that helped him differentiate day and night.

On day 14, Young was scared by how fine Alati seemed through the cameras they had set up and offered 25k to buy out. Alati refused but less than a week later when Young reached out again with 62k, Alati agreed. Surprisingly, Rich Alati seemed perfectly fine afterwards. Within 36 hours, he had regained his eyesight from the darkness and was participating in a poker tournament once again. When asked about the attention from the media, he stated that he had no idea. "I was very disappointed that Rory didn't tell me how big it had gotten. [If I knew] I would have finished it out." Astonishingly, he says this once in a lifetime experience changed him for the better.

It had actually helped him stay focused and appreciate simple things. It made him happier.



#### **Definition**

Quarantine is one thing, self-isolation is another, but solitary confinement is an entirely different story. Solitary confinement is often used in prison on disruptive inmates who may pose a threat to others. In 2017, more than sixty thousand people, including juveniles and pregnant women, were put in solitary confinement in the US. Unlike most adults in prison who are confined for reasons like attacks on guards and failed escapes, children as young as 13 can be put under solitary confinement simply because they want to 'protect them from the adults. They're locked in a room for at least 22 hours a day for months on end, some aren't let out for days until they need to shower. Deprived of social interaction and education, many are forced to the brink of insanity. In fact, almost no one walks away from those cells the same. These cruel torturous cells are responsible for the development of agoraphobia (fear of open spaces or places/situations where one can't escape.), claustrophobia, paranoia, and hallucinations.

THIS IS INJUSTICE.

#### The cell

Conditions in solitary cells are awful. In many cells, temperatures can reach a high of around 60 celsius. In some Asian countries, the cell can be as small as 3 by 6 feet. There is a cold metal cot on one side, a toilet and a sink on the other. The walls are covered with who knows what, it could be urine, maybe vomit, could be blood for all you know. You can sleep but the room's awfully bright and the guards might yell at you. You might be able to hear some screams from other inmates, even guards yelling, but all you can see is the inside of your tiny cell.

#### **Aftereffects**

With only a toilet and a sink, there's not much to do but think. Hundreds of teens develop mental illnesses like depression, anxiety and bipolar disease in these cells. Youths have been sprayed with gas and pepper spray, strapped down for days and injected with medication after the cells drive them hysterical. The trauma of isolation cells stays with grown men their whole lives, so imagine children going through one of the most sensitive times in their lives being subjected to these conditions. Humans are locked in these cells with no control over their own lives for decades.

### **Infamous cases**

There are many famous examples that have sent the media raging. In 2007, Ashley Smith, a nineteen-year-old Canadian who had been held in solitary confinement for almost 4 years strangled herself as the guards watched. Having been in and out of confinement since she was 14 for throwing crabapples at a mailman, she was transferred between several institutions countless times. With over a hundred-fifty records of self-harm by the time she was 18, she was still subjected to tasers and pepper sprays. Similarly, in 2012, Indigenous Canadian Adam Capay was isolated for 1947 days at nineteen for sexual assault with a weapon. Locked for 23 hours a day in a brightly lit cell for almost 5 years, it's a situation many people won't be able to fully grasp. During his time in prison, he murdered another inmate and was tortured by prison guards until his trial. He was already mentally ill and being under solidarity confinement caused him to develop permanent memory loss and amplified his existing psychiatric disorders until it was so severe he couldn't even stand trial for murder properly. Debates both online and in court have stirred emotions in tens of thousands of people on numerous similar cases but nothing major has been done globally.

#### **Improvement**

Though not much has been done internationally, many countries are taking small steps. Canada no longer puts people under solitary confinement for longer than 15 days and for 20 hours a day. Germany and the Netherlands limit isolation to 4 weeks and many prisoners are visited by psychiatrists during their confinement. In addition, China has made it illegal to put juveniles under solitary confinement for longer than a week and they must have at least 2 hours of outdoor time.

**#EndSolitaryConfinement** 



### YOUNGER CHILDREN

#### Written by: Faith Kiross

Social isolation has had many different impacts on each generation. Young children are being kept inside like the rest of us, unable to go outside or to attend school to see their friends. Being stuck at home during crucial years of their development can have serious ramifications regarding younger children now and in the future.

Let's start with the negative. Isolation has left younger children without others their age to play with. This is detrimental development as socialization has been shown to help kids learn how to problem solve, work in teams, and form new bonds with others. In fact, this environment is even worse for kids that had already felt secluded before the pandemic, as now they must weather even more loneliness. These realities are bad for children's mental health, especially those of a young age. Going outside, interacting with others, and being in good physical condition are some ways an (Mental Health article Foundation, 2016) has listed to support and preserve the psychological well-being young children.

However, there are positives to this situation. Isolation can encourage kids to create a schedule, giving them structure and teaching them to make the most of their day. Not only that, but because these times are so stressful children are more inclined to self-reflect, which is a skill that can help them become more socially and self-aware.

All in all, this pandemic is hard not only for children, but for everyone. Everyone needs to be there for one another, whether it's by checking up on family, friends, or other loved ones. We must always try to look at these difficult times with a positive mindset every day.







# BENEFITS OF BEING -IN-ISOLATION

Isolation. It's a thing we're all going through, and I'm sure most of us harbour a visceral hatred for the state. It's preventing us from seeing our friends and loved ones, while simultaneously ruining our summer because it forces us to stay at home. Even a study conducted between Harvard University and the University of Virginia (Whitehead, 2014) proves that isolation is suboptimal at best. It states that "Even though all participants had previously stated that they would pay money to avoid being shocked with electricity, 67% of men and 25% of women chose to inflict it on themselves rather than just sit there quietly and think" (paras. 6). Hear me out, though. There are some benefits to isolation, and they can even increase or improve our living style and habits in the future.

The environmental damage and pollution we've been outputting has drastically decreased because of isolation. Before the pandemic, urban development was skyrocketing. Buildings were being created with enormous machines every day, resulting in tonnes of waste being produced. Adding to that, because so many people were using cars, there was bumper to bumper traffic happening all over the globe, expelling even more pollution. Furthermore, the airline industry was flying planes all over the globe daily. A total of about 9 million deaths were recorded every year due to tiny particles caused by pollution. These tiny particles are known as fine particulate matter, or PM2.5. 4 million more cases of asthma were reported as well because of the increasing amounts of nitrogen dioxide in the air. However, during the isolation period, people were confined in their home, meaning that there was a low amount of traffic on the streets of ordinarily crowded cities. Since nitrogen dioxide only stays in the air for a few days, a drastic 10% reduction of the molecule was seen throughout the world. In some parts of Europe, the number increased to 30%. Even though ozone and PM2.5 levels increased in the atmosphere, it didn't reflect the data found from the ground level and was most likely caused by weather factors. Closer to home, nitrogen dioxide levels decreased by 23% and PM2.5 levels decreased by 17%. Overall, a noticeable decline of air pollution can be observed in these findings.

### THE IMPACT OF ISOLATION AND THE INTERNET ON POLITICS

### Political Talk

Written by: Simon Lin

Particularly among the younger generations, this period of isolation has led to shifts in political beliefs. As a result of the internet being the primary connection to the outside world during the pandemic, more people are becoming introduced to politics in the forms of comedy or satire. We must ask ourselves one question: what exactly does this mean for the future of political discourse?

Due to quarantine, younger generations have turned to the internet as a means to participate in society. Many people have turned to memes for entertainment, using social media platforms such as Instagram or Reddit to view or even share their own memes. These memes are a significant factor in introducing teens or adults to various political ideologies.

The most obvious example of such a meme is the political compass; what better way to introduce hundreds of thousands to the world of politics then with an easily digestible graph that appeals to the often edgy, ironic humor of young teens? Simply put, the political compass uses two axes to characterize political views: the economic axis (capitalism vs. socialism) and the social axis (libertarianism vs. authoritarianism). One notable political satirist, Jreg, produced a video titled "Political Compass Rap", which amassed over one million views on YouTube. This spurred the growth of political communities on various platforms, such as the subreddit PoliticalCompassMemes or politigram (Political Instagram). As quarantine dragged on, these spaces saw an influx of new participants, eager to learn about the bemusing internet ideologies on display.

Although it is often said that internet politics have solely pushed teens to the right, I would argue that it has driven people to ideologies at the fringes of the political spectrum. Users in the online political meme community pride themselves on their political individuality, often adopting niche, obscure labels such as Anarcho-Primitivism or National Bolshevism. Though these subcommunities are wildly different, they do share some common traits. Resentment for the establishment, a shared taste in humor, and sincere although sometimes misguided convictions being a few common examples. These young, impressionable teenagers have become alienated by the shallow, disingenuous state of mainstream politics and have turned to these ideologies to find a distraction from the boredom of reality, and to find solutions to the world's political issues.

Now that we understand the nature of the strange community born out of isolation, we have to consider the impact that they will have on politics. It is safe to assume that the range of policies and ideas acceptable in politics is going to widen. Faith in existing systems will continue to diminish as people turn to more radical ideologies. Though no one knows whether the change will be good or bad, it is certain that the social groups formed on the internet will have an unprecedented impact on the modern political landscape.







"Although it is often said that internet politics have solely pushed teens to the right, I would argue that it has driven people to ideologies at the fringes of the political spectrum."

### IMPACT OF

### ISOLATION AND LONELINESS ON DIFFERENT GENERATIONS

Written by: Kaitlyn Liu

Your hand reaches out, seeking warmth, a tangible remnant of comfort and companionship. But your fingers cut through the empty abyss and your fist closes on the void of nothingness, a grim reminder of that darkness you can never escape.

Loneliness. Isolation.

How do these things impact different generations in our world today?

The world is currently made up of five primary generations:

- 1. The Silent Generation: Born 1925 1945
- 2. Baby Boomers: Born 1946 1964
- 3. Generation X: Born 1965 1979
- 4. Millennials (Generation Y): Born 1980-1994
- 5. Generation Z: Born 1995 present date

The names and eras of each generation may vary, however the basic characteristics of each remain the same. Each has distinct traits that make them differ in susceptibility to modern issues like isolation. More often than not, that state of solitude leads to loneliness. As vou will see throughout this article. certain people from different eras fall on different ends of the scale when dealing with that specific brand of emotion. It weighs particularly heavily on some of the newer generations. However, just as they differ in how they're affected, they have created their own unique ways of dealing with isolation as well.

The main cause of loneliness in older generations like The Silent Generation or the Baby Boomers is social isolation.

Social isolation is the absence of social contact and relationships with family and friends. The most common sources of loneliness result from living alone, the death of loved ones, and a lack of interaction with one's family or community (Samuels, 2020). Statistics show that up to 20% of The Silent Generation and Baby Boomers experience social isolation and loneliness as a result of reduced communication with others (Nauert, 2020, paras. 3).

In contrast, Generation X is much more adaptable to isolation due to skills that they acquired during their adolescence. As a child, Generation X tended to be "latchkey kids" ([Descriptions of generations], (n.d.), Table 3) and found ways to entertain themselves until their parents could come home. In addition, divorce rates in the 1980s hit an all-time high, meaning most of Generation X had to live with a single parent for most of their childhood (Cavill, 2020). As a result, individuals belonging to Generation X are much more accustomed to living alone, with the proportion of Canadians striking out on their own rising from 8% in 1981 to 13% in 2016 (Tang et al., 2019).

ENERATION



As for Millennials and Generation Z, many studies show that the newest generations are actually the loneliest ones. Surprisingly, data points to social media as the main factor responsible for the isolation felt by younger generations (Hilliard, 2019). One would think that with apps such as Instagram and Snapchat, individuals would feel more connected than ever before. However, that is simply not the case. Research suggests that this has something to do with meeting people face-to-face, as opposed to online. Decades of studies show that people who interact in person tend to be less lonely than those who spend more time on social media. Therefore, more Millennials and Gen Z feel isolated and experience a greater sense of loneliness than any other generation.

As can be seen in The Silent Generation and the Baby Boomer Generation, loneliness can lead to serious health complications. Research suggests that loneliness increases the risk of Alzheimer's disease, which can lead to severe dementia and even the loss of basic functions. Samuels describes a study conducted by the Rush Institute for Healthy Aging that mental decline and the risk of Alzheimer's was greatly increased in individuals from the generations who reported feelings of loneliness.

As for the newer generations, loneliness usually impacts them more psychologically rather than physically. Depression and an increased risk of suicide are serious consequences seen in Millenials and Generation Z. Hilliard explains that a survey conducted in America by the health service company, Cigma, found that about 52% of Millennials and Generation Z said that they are in poor physical and mental health. Furthermore, as stated above, those with less in-person interactions due to factors such as social media were reported to be less likely to lead balanced lifestyles that include adequate social communication with loved ones.

However, even with isolation and loneliness impacting each era in different ways, the individuals of the generations have found ways to cope and deal with the feeling. For example, according to Samuels, most elderly people belonging to The Silent Generation and the Baby Boomers tend to seek out social interaction, and many also belong to volunteer associations. In British Columbia, seniors were found to contribute more than 22% of the total volunteer hours in the province. Furthermore, according to Cavill the study "Strategies of coping with loneliness throughout the lifespan" concluded that those belonging to Generation X approached and dealt with loneliness in the most effective manner out of all the generations. In addition, a report from the Center for Collegiate Mental Health at Penn State University showed that the number of Millennial college students seeking therapy from 2011 to 2016 grew significantly (Penn State University [PSU], 2017), showing that Millennials are gradually becoming more willing to open up and ask others for assistance rather than keeping everything to themselves and dealing with their problems as isolated individuals.

As for Generation Z, the generation of the future, not all hope seems to be lost. I recently conducted a survey asking people belonging to the Millennial generation and Generation Z how they cope with loneliness, and while the answers varied, there was one specific thing I noticed. While Millennials are more willing to face their loneliness head on, Generation Z utilizes the things around them to employ escapism as a coping mechanism. Escapism is a form of mental diversion where one distracts themselves by doing other tasks that involve imagination and entertainment. While both of these methods are good, escapism demonstrates Generation Z's ability to innovate with the resources they possess such as hobbies, television shows or favourite comfort songs.

From the information above, one can clearly see the different impacts isolation has on every generation. As well as that, the facts on how the characteristics of each has allowed them to adapt and grow stronger using something meant to drag them down shines through even more.

COPING MECHANISMS

### 

Located in Philadelphia, Pennsylvania, the Eastern State Penitentiary first opened its doors on October 25, 1829. It was a correctional facility, but also a prison, a jailhouse, and a place of confinement. Notorious for their strict vision of solitude, this penitentiary carried an earnest hope to rectify prisoners and provide them with a second chance. However, there is a difference between theory and historical reality. Thus prompts the question, what was the true nature of the Eastern State Penitentiary?

By confining prisoners to their cells, it was thought that inmates could be driven towards spiritual reflection and repentance. The penitentiary highly valued discipline, labour, and above all, solitude. Prison officials believed that these factors would ensure inmates would become "penitent", hence the word *penitentiary*.

The living conditions in this penitentiary were substantially better than those of other prisons at the time. The purpose of it was not to inflict punishment, but to instead provide a humane environment where incarcerated individuals could reflect and change for the better in isolation. To accomplish this, the penitentiary assigned each prisoner a cell that contained luxuries such as central heating, running water, and flushing toilets (Dylan, 2011). So, what went wrong?

Solitary confinement is a very complex and controversial topic, as different prison systems have different regulations for the process. However, the measures the Eastern State Penitentiary employed may have gone a few steps too far. For instance, they included a row of cell blocks known as "Klondike" or "the Hole" where inmates were secluded for violating the rules (Weir, 2012). This practice is still commonly in use today, with prisoners being isolated for a week or two at a time.



The Eastern State Penitentiary, though, pushed this method a step further by confining prisoners for up to a month with little to no food and water. Lacking light or plumbing, this row of cells created a new meaning for solitary confinement at Eastern State. Once a reformatory that inspired redemption and penance, it is now a penitentiary radiating punishments of absolute solitude.

Nowadays, the Eastern State Penitentiary operates as a historic site and museum. It is impossible to say whether the system of solitary confinement in this penitentiary was the best method of reformation, but the fact remains that many regions have used Eastern State as a model for their own prison systems.

So what do you think? Was it a penitentiary? ...Or a prison?

Written by: Kaitlyn Liu

### THE ISOLATION OF EASTERN GERMANY

A LOOK INTO THE FRACTURING OF GERMANY DURING THE COLD WAR

By Nicole Tolmachev

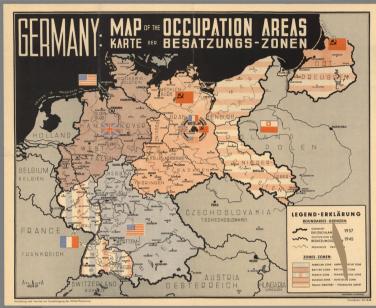
After Germany's surrender in the Second World War, the country was divided into four occupation areas by the USSR, the USA, Britain, and France.

These areas were administered by the occupants, which simultaneously helped to rebuild the broken country. The capital Berlin, which resided deep within Soviet territory, was divided similarly.

After a while, the USA, France, and Britain started to cooperate and slowly combining their zones. This step was taken to fasten the regeneration of Germany. The Soviet Union had refused to cooperate and wanted to keep to itself, establishing a communist regime in their area of occupation.

The Eastern Block, as eastern Europe was called, suffered under the communist regime Stalin had set up. While western Europe developed faster and prospered, the people in the East were oppressed and mostly poor. The Soviet Union couldn't provide much help to the countries it occupied, because it was broken and struggled immensely to rebuild itself. The people of the Eastern Block were used as additional forces to rebuild the Motherland, worsening their situations.





source: https://www.hdg.de/lemo/img\_hd/bestand/objekte/ nachkrie gsjahre/besatzungszonen\_karte\_1987-03-061.jpg

Between the years 1949 and 1990, Germany was officially divided into the Federal Republic of Germany in the West and the German Democratic Republic (GDR) in the East. Travel between East and West was made impossible and any kind of relationship between the West and the Democratic Republic was subdued by the Soviets.

That fracture was the clearest in Berlin. Up until the summer of 1961 Berliners could travel freely between eastern and western parts of the city. Seeing the prosperity in the West, many moved there and fled from the GDR. To prevent that from happening a wall was built on August 13th, 1961. The Berlin Wall tore families apart overnight and in the long run cost many people trying to cross it their lives. It was heavily guarded and was surrounded by barbed wire and even mines in some places.



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As years passed and nothing in the GDR chanaed. people became increasingly unhappy, living poor lives in fear of the Stasi (German secret police). Despite Eastern Germany being cut off from the West, some influences leaked through the radio and television. GDR teens started adapting to the punk scene with great speed. The young generations expressed their disappointment and anger with their new lifestyle through punk rock music. The Stasi beat punks bloody and threw them in ghastly prisons for months to subdue their behavior. In the 1990s the people who were fed up with their way of life followed the example of other eastern countries and started demonstrating. These demonstrations turned into mass protests, like on November 4th, 1990 with over half a million Berliners taking part. On November 9th the travel ban between East and West was lifted by the GDR government. The Berliners stormed the wall, climbing and demolishing it on a historical night. After this Germany could finally be reunited after 45 years of fracture.



Yet even now, 30 years after the Reunification, the aftermath can still be felt. The eastern German states are poorer and the wages are a lot lower than in the West. There's still a lot of prejudice regarding how people from the East and West live and their attitudes towards life, the East generally being seen as more racist and out-of-date. People in the West often look down on people from the East and vice versa. The isolation of East Germany ended up defining the relationship between the population of a reunited country negatively.

Not all people living in Germany are like this. In fact, there are many open-minded people of all ages living in this country, just as there are grumpy and hateful ones. Sadly, prejudice cannot be eradicated from the minds of some people. What is even sadder is that some of that prejudice proves itself right, making it all the more difficult to say that the past stays in the past.

Loneliness... being isolated... These are emotions that everybody will inevitably experience to various degrees within their lifetime. It could range from the standard boredom that comes with a day by yourself at home to the crushing feeling of helplessness and isolation that comes with being alone in a foreign place. But what if we took a look at more extreme cases? Could we measure "loneliness" and thus produce a ranking of the loneliest people in history?

Loneliness is defined as the feeling of sadness associated with having no company. Trying to compile a list of the people with the least number of friends would be neither interesting nor would it yield results. So instead, we will be taking a different approach, by measuring loneliness in the amount of time spent in isolation and/or the distance maintained from any other human being. Gathered below are 6 stories of 6 of the loneliest people to ever live on this planet:

### 1. BLANCHE MONNIER

Probably one of the most terrifying cases of isolation, the fate of Blanche Monnier seemed too cruel to be true. Born in 1849 to an aristocratic family, she had a childhood filled with everything you could ever want. However, at the age of 25 after starting a relationship with a lawyer that her mother deemed unsuitable, she was locked up in the attic. Initially only intended as a way of forcing her to reconsider her pending marriage, Blanche was instead locked up for a quarter of a century. Her mother and brother faked her death and she was only fed scraps and leftovers. When police found her after 25 long years of imprisonment, she was severely malnourished, weighing only 27kg, and laid on a hay mattress surrounded by her own waste. While she was rescued and admitted to a psychiatric hospital, there was no repairing the damage that had been done to her life.

SIX OF THE
LONELIEST
PEOPLE
IN HISTORY



### 3. ALFRED WORDEN

Just like with many other things, when we cannot find an answer on Earth, we look to the stars. On the surface of our planet, it is extremely hard to put much distance at all between yourself and everybody else because, well... there are a lot of people. That's why it should come as no surprise at all that the title of the furthest distance away from all of humanity belongs to an astronaut. Alfred Worden was part of the Apollo 15 mission, one of NASA's missions to land astronauts on the moon. As the pilot of the command module, Alfred remained in orbit around the moon while his crewmates visited the surface. During this time he took the sharpest photos ever taken of the moon, undertook the first-ever walk in deep-space and while circling the far side of the moon, also became the most isolated human in history. At a distance of 3600km away from his fellow astronauts and 390 000km away from everybody else on earth (without radio contact to anybody), he was truly and utterly alone. However, the loneliest person in history's thoughts about that experience isn't what you might expect, instead echoing the sentiments of introverts around the world:

"THERE'S A THING
ABOUT BEING ALONE
AND THERE'S A THING ABOUT
BEING LONELY, AND THEY'RE TWO
DIFFERENT THINGS. I WAS ALONE BUT
I WAS NOT LONELY. MY BACKGROUND WAS
AS A FIGHTER PILOT IN THE AIR FORCE, THEN AS
A TEST PILOT — AND THAT WAS MOSTLY IN FIGHTER
AIRPLANES — SO I WAS VERY USED TO BEING BY MYSELF. I
THOROUGHLY ENJOYED IT. I DIDN'T HAVE TO TALK TO DAVE AND JIM
ANY MORE, EXCEPT ONCE THEY CAME AROUND [WHEN THE ORBITING
COMMAND MODULE WAS ABOVE THE LANDING SITE) AND I SAID "HI".
ON THE BACKSIDE OF THE MOON, I DIDN'T EVEN HAVE TO TALK TO
HOUSTON AND THAT WAS THE BEST PART OF THE FLIGHT."
— ALFRED WOODFOX

### 2. SIMEON STYLITES

When trying to imagine possible locations for a long period of isolation, places that might come to mind include cells, caves on uninhabited islands or perhaps on a far-off mountainside somewhere. But one hermit by the name of Simeon Stylites decided that the best way to seclude himself from the world was to erect a pillar and sit on top of it. Born as the son of a shepherd, Simeon first became a monk and then a hermit, due to expulsion from the monastery from his excessive austerity. His fame grew and eventually hordes of people began to seek him out for advice and counsel. To escape this new development, he decided to start life anew atop a 2m top pillar. This pillar eventually grew to be 15m tall, as Simeon kept expanding on it to escape further away from humanity. The only contact with humans he had were the disciples who occasionally brought him food and water, as well as those who had come to seek counsel. He spent 37 years in this state, dying atop his pillar, which would become a pilgrimage site and inspire countless other people to emulate his lifestyle.



### 4. ALBERT WOODFOX

Albert Woodfox spent more than half of his life in solitary confinement. Each day he would spend at least 23 hours locked inside a cell with squalid conditions. He wasn't allowed to go outside, make phone calls, or even entertain himself. After being released he explained that some people would lose their mind, saying, "I've observed a lot of men go insane. I've seen men cut themselves, or break their fingers up or whatever to get out, to go to the hospital, even if it's for a couple hours". During an interview in 2014, Albert Woodfox answered the many questions of a blogger. When Albert Woodfox was asked about what solitary confinement felt like, he said he feared he might start screaming and never stop. He just wanted to lay down curled up day after day. So how come Albert Woodfox was miraculously able to survive 43 years of solitary confinement? "I would not let them drive me insane," is what he said.

### BONUS ARTICLE:

### 6. BBC 48 HOUR TOTAL SENSORY DEPRIVATION EXPERIMENT

### 5. MICHEL SIFFRE

On Valentine's Day of 1972, Geologist Michel Siffre descended 100 feet below Earth into the Midnight Cave in Texas. His goal was to research the effects of aging on psychological time. During his 6 months underground, NASA supplied what he needed, in return they monitored him from above as research for space missions. Michel Siffre lived in a tent underground, brought some furniture, books, scientific equipment and a freezer. Even though he brought great items to entertain himself with, those items were not enough to prevent his mental state from deteriorating. The darkness and lack of stimulation proved to be fatal. At one point he was ready to commit suicide. By day 77, Michel Siffre started suffering from memory loss. At that point he couldn't even remember what he wanted to do moments ago. Staying for long periods of time underground also affected his sleep schedule. His perception of time slowed and he would be awake for 36 hours and sleep for 12. The darkness also affected his eyesight, and even after coming out of the cave he still had eyesight and memory loss issues.

Back in 2008 BBC conducted a total sensory deprivation experiment. Their question was "Can any human endure total sensory deprivation without losing their sanity?". During this experiment, 6 volunteers were put into a total isolation chamber for 48 hours under the circumstances of no light, no sound, and no sensory interaction. British Comedian Adam Bloom, was one of the 6 volunteers. When he first entered the chamber, he started off with talking to himself, singing and joking. After a while he got bored. He sat on the floor and started contemplating about life. After a few hours he eventually fell asleep, but by the time he woke up he had already lost track of time. After 18 hours he started experiencing paranoia. His mood would fluctuate. One moment he would be crying and the next he would be laughing. By the 40 hour mark Adam Bloom finally lost it all and started hallucinating. He saw a total of 500 oyster shells and was able to detaily describe them as pearly. Under total sensory deprivation, a short 48 hours is enough to make one go crazy.

# WHAT AFFECTS OUR MOTIVATION DURING QUARANTINE?

Since Covid-19 has forced authorities to issue a stay at home order and close non essential businesses, people have been stuck at home. In these circumstances, we can easily feel lazy and unmotivated to do anything except to watch one more episode of Netflix. As this is our new normal, we have to wonder what exactly affects our motivation in quarantine?

Other factors can also affect our motivation, such as our environment, focus, goals, and self confidence. These are components that can help us stay motivated in isolation for a long time, unlike surface-level emotions. Let's say that you regret eating a bag of chips and sleeping in all day, and now you want to workout. That's great! However, guilt and regret over superficial actions aren't factors that can drive you forever. You will get over those negative emotions because they weren't created by a consequential action. It can help you start being committed, but it's not going to last for a long time in isolation.

We are inclined to feel long periods of motivation for certain hobbies. For example, cooking comes with its own incentives since we need to do it anyway to eat. However, motivation is a lot harder to find for other hobbies. This is exemplified in exercising. Although it is a healthy way to stay busy in quarantine, we often lack the inclination to go through with the activity because of various factors. Some days, we just won't feel like going out for a run or doing another Chloe Ting ab workout.

In conclusion, motivation is personal. Some of us are better at finding it and some are better at keeping it. That doesn't mean that we can't improve though. Even if we feel lazy some days, that's not our fault either. We're human! It's okay to have days where we want to watch Netflix. As long as you're happy with whatever you've chosen to do over quarantine, then that's all that matters.

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