Discourses and Discussions with a Psychologist

Key Learnings on Aging from published research

Brinda Roy Gupta

with

Psychologist: Neeharika Shetty

M.Sc. in Organizational and Social Psychology
The London School of Economics and Political Science (LSE)



The universal phenomenon of aging is often framed in a discourse of decline and limitation; but recent research suggests that this is too limiting a viewpoint. As nations around the world grapple with rapidly increasing aging populations, it is essential to rethink aging, especially its psychological, cognitive, and social dimensions.

Watching my grandfather physically decline - once an athletic mountaineer and soldier, and entering the last two years of his life bedridden and almost entirely a shadow of his earlier self - led me to wonder how it came to be. What caused it? Was he not taking care of himself? Was it psychological, physical, or both?

This paper is one of my attempts to find answers to my own questions. Through discussions with Ms. Neeharika, a psychologist who works with older adults, was my way to find answers. During our conversations we examined many reports and reviewed findings from a variety of scientific works created by researchers in this growing field of work, that aimed to understand how aging impacts older persons' mental health, cognition, and broader social and professional lives. I felt some of the haze around my questions dissipate. However, it became obvious with each new research report we considered and discussed, how much we do not know.

This report is a summary of what we have discussed and thought through. My goal in putting this report together is to push research and action to find new ways to serve the older adult demographic, which I hope will, over time, and with advocates, shift the conversation of aging from one strictly related to decline to one of opportunity, growth, and contribution. There is much unfinished business.

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Paper 1: Loneliness or Sociability: The Impact of Social Participation on the Mental Health of the Elderly Living Alone¹

By Juan Luo, Yijia Guo, Zhili Tian

The research article "Loneliness or Sociability: The Impact of Social Participation on the Mental Health of the Elderly Living Alone" investigates the association between social engagement and mental well-being in elderly adults residing alone. Below are the article's main conclusions.

1. Background Information and Context:

- China is becoming an aging society with many older adults living alone.
- Mental health is a significant concern for older individuals living alone, mainly depression and anxiety.
- Social participation is regarded as a significant factor for improving mental health and the quality of life in older adults.

2. Goals of the Study:

- The purpose of the study was to analyze the impact of social participation on the mental health of older adults living alone, especially their levels of depression and anxiety.
- It also explored heterogeneity in the effects of engagement by gender, age, living location, and self-care capability.

3. Method:

- Data were drawn from the 2018 Chinese Longitudinal Healthy Longevity Survey (CLHLS) that included 2,477 older adults living alone.
- Use of ordered logistic regression models to examine the relationship between social participation and mental health.

4. Findings:

• Social Participation's Impact on Mental Health:

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^{1 1} Luo, Juan, et al. Loneliness or Sociability: The Impact of Social Participation on the Mental Health of the Elderly Living Alone." *Health & Social Care in the Community*, vol. 2024, Jan. 2024, pp. 1–12. https://doi.org/10.1155/2024/5614808.

- Basic communication (e.g., visiting or talking with friends) was found to significantly decrease depression and anxiety.
- Lee's self-entertainment (e.g., reading, gardening, watching TV) was positively associated with higher levels of depression and anxiety, indicating that solitary leisure activities may increase loneliness.
- Group-based activities (e.g., family caregiving or social programming) had no associations with depression or anxiety. However, intellectual participation (e.g., cards or mahjong) demonstrated mixed effects based on participant demographics.

Heterogeneity in Effects:

- Gender: Men appeared to benefit more from self-entertainment engagement, while women benefited from continued intellectual participation.
- Age: Simple communication was initially more helpful for younger elderly (65-79), and self-entertainment could have a greater impact for older elderly (80+ years).
- Residence: While the urban elderly appeared to have their mental health enhanced through physical activity and easy communication, rural elderly experienced mental health benefit through self-entertainment activities.
- Self-care Ability: Those elderly who could care for themselves saw a greater opportunity for mental health improvement than elderly who could not care for themselves when assessing social participation.

5. Conclusions & Implications:

- The research demonstrated that social engagement, communication in particular, is key in reducing depression and anxiety levels in older adults living alone.
- However, the study indicated that self-entertainment activities may increase loneliness, and that interventions would need to be tailored for certain types of activity based on individual preferences and the ability of the elderly.
- Research interventions aimed at improving mental health through social participation should take demographic factors like geography, age, gender, as well as variables associated with enhanced participation, in consideration for any social engagement-based outcome.

6. Limitations:

• This study relies on self-reported data and leads researchers to assessment bias. Additionally, the study relied on the CES-D-10 scale to assess depression, while the CES-D-10 scale is a screening tool, the study was unable to asses definitively if clinical diagnosis of depression was present.

7. Recommendations:

• To improve concepts associated with mental health at the individual level with elderly living alone, health care treatments should be aimed at creating opportunities of active social participation; especially communication-based ones.

This study offers new insight of healthcare services focusing on social participation and potential to improve mental health, thus informing future healthcare interventions for aged individuals.

Paper 2: The Aging Mind: An Owner's Manual²

By Patrick Rabbitt

Patrick Rabbitt investigates the ways in which the mind changes as we develop, providing us with a comprehensive examination of cognitive aging. He integrates scientific data with practical implications, making it meaningful for experts and readers alike. The book focuses on how aging affects memory, attention, problem solving, and decision-making, and it also discusses the psychological and social aspects to aging. Rabbitt offers suggestions for adapting to cognitive decline and retaining mental dexterity late in life. Here are the highlights of the book:

1. Cognitive Aging: Decline in Abilities

- Cognitive aging entails observable decline in cognitive abilities including memory, speed of processing, and attention, although these differences are highly variable between individuals.
- A decline in speed of processing is among the most universal aspects of cognitive aging and affects all other cognitive abilities.

2. Memory and Learning:

- Older adults experience lesser recall of specific events, called episodic memory, but retain most of their general knowledge and vocabulary, called semantic memory.
- The ease of learning new information slows down as a person ages; lifelong learning and mental exercise sustains learning rate.

3. Attention and Multitasking:

• Older adults demonstrate that they are less adaptable to divided attention and multitasking. Handling one task is relatively easy, but multitasking even simple things results in mistakes and frustration.

4. Brain Plasticity and Compensation:

• The aging brain shows a degree of plasticity that allows it to adapt to cognitive aging. Some older adults compensate for cognitive decline through different mental strategies or experience.

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 $^{^{\}rm 2}$ Rabbitt, Patrick. The Aging Mind: An Owner s Manual

5. Emotional/Social Issues:

- With aging, emotional regulation usually improves. Older adults are adept at regulating stress and responding to negative feelings while focusing on experiences that are positive.
- Social interaction and strong relationships contribute to mental health and effectiveness of heuristics in later life.

6. Physical and Cognitive Health:

- Physical health and cognitive health are closely related. Good physical health, through exercise, diet, and routine medical examination, helps maintain cognitive ability.
- Conditions associated with risk factors affecting cognition include cardiovascular disease, diabetes, and hypertension.
- Lifelong engagement in mentally stimulating activities (e.g.puzzles, reading, learning new skills) seems to slow cognitive decline.
- Staying physically active, socializing, and managing your emotional state are also very important to cognitive agility.
- The important takeaway message from this research study is that proper sleep and stress reduction are likely key factors to cognitive function and health as we age.

7. Individual Variables for Aging:

- There is a great deal of individual difference in cognitive aging. Genetic, lifestyle and educational experiences all play a role in the rate of cognitive decline.
- Some individuals will notice minimal cognitive declines until late into their old age, while others might notice more significant thinking changes early on.

8. Function of Experience and Wisdom:

In some conditions, older adults benefit from their accumulated life experience and knowledge, which may facilitate improved decision making and problem solving in a number of situations that arise within everyday living.

This book gives a realistic but optimistic view of aging. While cognitive decline is a reality, there are reasonable, practical choices and actions that can be taken to maintain cognitive function and improve quality of life as an individual ages.

Paper 3: The Handbook of Aging and Cognition³

By Fergus I.M. Craik and Timothy A. Salthouse

<< No opening para>>

1. Cognition and Aging: An Introduction

- This book presents a wide-ranging overview of cognition and aging, thereby exploring the cognitive consequences of aging.
- It not only discusses cognitive decline in older adults, but also emphasizes the need to understand what we would expect to see in normal aging compared to pathological conditions (e.g., dementia).

2. Cognitive Decline: A Loss of Function

- Cognitive decline is not uniform, and some cognitive functions decline worse than others, or to greater degrees. The book identifies a number of cognitive domains that are impacted by aging, including:
 - Memory: Episodic memory (the ability to retrieve specifics of an event) is the cognition that is most erased as we get older, while semantic memory (general knowledge) is somewhat preserved
 - Processing Speed: A reliable indicator of aging is having slower cognitive processing speed
 - Executive Function: In older adults, the functioning of executive function (planning, decision making, multitasking, etc.) is often seen as impeded
 - On the other hand, some skill sets, such as crystallized intelligence (knowledge and experience gained over time) is relatively stable over time and may even improve sometimes.

3. Neuroscience of Aging

- This book focuses on the change of brain structure as we age and the cognitive functions attached to different parts of the brain:
 - Neuroanatomy: The shrinkage of the hippocampus and prefrontal cortex relates directly to decline in memory and executive functions.
 - Neurotransmitter: The decline in neurotransmitter systems such as dopamine and acetylcholine impacts cognitive decline and therefore affects executive, attention, and working memory processes

³ Craik, Fergus I. M., and Timothy A. Salthouse. *The Handbook of Aging and Cognition*. Taylor and Francis US, 2008.

 The role of neuroplasticity (the brain's ability to adapt and reorganize) is a key concept, in that they may still have some ability to compensate in late life.

4. Cognitive Interventions and Compensation

- This text discusses processes and opportunity to mitigate some amount of cognitive decline:
 - Cognitive Training: Structured activities to address either a single or multiple cognitive functions to maintain abilities in older adults
 - Lifestyle: Physical exercise/social activity/stimulation can preserve cognitive properties
 - Compensatory: Many older adults utilize compensatory strategies (i.e. lists, reminders) to notably improve memory deficits in late life.

5. The Role of Individual Differences

- The authors highlight that factors including genetics, education and lifelong learning, and health conditions play important roles in the way that aging impacts each individual's cognitive aging process.
- Specifically regarding health, some individuals are genetically predisposed to display signs of cognitive aging earlier and at a greater rate than others.
- Those who acquire a higher level of education and engage in intellectually stimulating activities throughout their lives are more likely to achieve superior cognitive outcomes in old age.
- Additionally, health conditions (e.g., heart disease, diabetes) will influence cognitive decline.

6. Methodological Approaches to Studying Aging

- In addition to discussing the factors affecting cognition changes in old age, the authors discuss the approaches taken to study aging and cognition, detailing the strengths and weaknesses of these methods.
- Longitudinal studies follow cohorts of individuals over years assessing changes, and these studies allow for the observation of patterns in cognitive decline.
- Ultimately, a downside is whether age-related cognitive decline can be disentangled from clinically impaired aging (early stages of cognitive impairment or forms of dementia).

7. Psychological and Social Aspects of Aging

 Besides the biological and cognitive aspects, the book also addresses psychological and social aspects of aging.

- Older adults are better at regulating their emotions compared to younger adults indicating perhaps that feeling good emotionally may actually improve with age.
- The authors discuss the importance of social support systems, family and community engagement are comparatively more protective factors.

8. Future Directions to Examine Aging

- The book emphasizes additional research into the mechanisms underlying cognitive aging which includes examining environmental factors and interventions that can reverse or slow cognitive decline.
- Emerging areas for individuals to explore include some potential for biotechnology in reporting findings and building assessments in addition to new methods based in neuroscience to garner untapped knowledge much less treatments that increase agers cognitive process.

The book "The Handbook of Aging and Cognition" serves as a definitive resource that holds contemporary understanding of the connection between aging and cognition. It emphasizes a view of cognitive decline as complex as well, with variation among individuals and risk and protective factors contributing to cognitive impairment. It suggests various possible interventions or strategies to maintain cognitive health into older adulthood.

Paper 4: Six Paths to Retirement: How to harness the power of positive ageing⁴

By Nancy K. Schlossberg

The article "6 Paths to Retirement" by Nancy K. Schlossberg describes different retirement trajectories and how retirees can successfully enter this stage of life. It groups different retirement personalities and promotes positive aging. Here are the main points:

- 1. The Six Retirement Profiles: Schlossberg describes six psychographic profiles of retirement paths. The outlines include:
 - The Continuer: Retirees who have modified their pre-retirement activities, following a similar path. They remain connected to their professional field but now in a different context.
 - The Adventurer: People who portray retirement as a time to initiate new, often risky or daring interests and initiatives that they did not have an opportunity to pursue at earlier points in their life.
 - The Easy Glider: Retirees who embrace a free and unscheduled life-style living day-to-day, take life as it comes, and without plans to follow. They enjoy not being obligated to do or be responsible to anyone.
 - The Involved Spectator: Retirees who remain interested in being involved in their previous paid work or passion but are much more passive now. They are observers instead of active participants.
 - The Searcher: Retirees who try diverse activities and roles to help find a new cause or direction in life. They typically follow the exploratory way or trial and error way of doing new activities to help find new interests.
 - The Retreater: The only potentially negative type. Retreaters permanently disengage from day-to-day activity from life in the future. This category includes those who feel lost, adrift cases or purposeless after retirement.

2. Positive Aging:

• An important theme of Schlossberg's work is progressing from a negative or deficit model of understanding of the aging process (those who have focused on loss), to a model of a positive aging that retirement personnel are able to meaningfully give back to society.

⁴ Schlossberg, Nancy K. Too young to be old: Love, learn, work, and play as you age." *American Psychological Association eBooks*, 2017, https://doi.org/10.1037/000031-000.

- Positive aging holds up the notions of resilience and capacity to adapt to transitions in life, either in forced changes (death of a spouse) or in chosen changes (move to be with family).
- 3. Personal identity in retirement: Schlossberg discusses the significance of seeing the self after retirement, whether that means continuing an old activity in a new manner (the "Continuer") or pursuing new activities and interests (the "Adventurer" and "Searcher").

4. The power of attitude:

- The book also underscores the significance of a positive attitude, in regard to successful aging. The studies cited in the book point to subjective well-being and resilience as traits that have an impact on a person's happiness and health in later years.
- The works of scholars George E. Vaillant and Becca Levy are acknowledged to lend support to the notion that mindset is arguably more important than physical condition when it comes to how people adapt to aging and transitioning into retirement.
- Resilience and coping: Schlossberg also lays out guidelines and strategies to cope with the inevitable highs and lows of life, urging retirees to be resilient. She states that we cannot control every aspect of our lives, but the good news is that we can control how we adapt to transitions.
- In her conclusion, Schlossberg also endorses a more sophisticated and empowering view of aging. Rather than seeing aging as a decline, she refines it into an opportunity for personal growth, contribution, and happiness.

The document serves as psychological instruction as much as a self-help document for retirees, prompting retirees to think about pathways to realizing their retirement paths, and if the pathway can attribute to people's health and happiness in old age.

Paper 5: Retirement Pathways' Effect on Physical and Mental Health: Evidence from Japan⁵

By Masaaki Mizuochi, PhD

The title of the paper is "Retirement Pathways' Effect on Physical and Mental Health: Evidence from Japan", and it investigates the effect of retirement pathways on the health of older adults (aged 50 and older) in Japan. The research draws the following conclusions:

- 1. Objective: To identify the causal relationship between retirement pathways (abrupt versus gradual retirement) and health. The research is based on a longitudinal survey of older adults (over 10,000 aged 50 and older).
- 2. Methodology: The paper utilizes an instrumental variable approach by using the public pension eligibility age as an instrument to causal relationship between retirement and health.

3. Key Findings:

- Those who experience abrupt retirement have greater likelihood of physical limitations but have lower likelihood of depression than those who remain employed.
- Retirees who experience gradual retirement have a lower likelihood of physical limitations and higher likelihood of depression than those who are not yet retired.
- Abrupt and gradual retirement pathways have important differences on physical and mental health.

4. Policy Implications

- Policy Recommendations: The findings highlight the need for policies that consider the different health impacts of retirement pathways, suggesting that promoting a gradual transition into retirement could be beneficial for physical health while considering the potential mental health challenges.
- Health Outcomes: Analysis shows the link between physical health outcomes and mental health outcomes. This concludes that retirement has complicated

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⁵ Mizuochi, Masaaki. Retirement Pathways Effect on Physical and Mental Health: Evidence from Japan." *Journal of Aging and Health*, Sept. 2023, https://doi.org/10.1177/08982643231200931.

effects depending on abrupt or gradual transitions. It emphasizes the need for personalized approaches to retirement plans.

In conclusion, this becomes meaningful research, and to understanding the complicated nature of health pathways or effects of retirement. While gradual retirement may come with benefits for physical health, there may be some adverse effects toward mental health pathways which are consequential for worker health and labor policy in aging societies.

Paper 6: Old and Unemployable? How Age-Based Stereotypes Affect Willingness to Hire Job Candidates⁶

By Dominic Abrams, Hannah J. Swift and Lisbeth Drury, University of Kent

The article investigates age-related stereotypes used in hiring by focusing on implicit bias in the decision to select employees who are consistent with "younger" or "older" profiles. Here are the main points:

- 1. Age Stereotypes in Hiring: The results show that applicants displaying characteristics of younger people (e.g., being creative or adjusting to new technology) were more highly preferred than candidates exhibiting older characteristics (e.g., settling conflicts or politeness). Even when the job qualifications were equivalent, younger-age candidates were perceived as more favorable, demonstrating implicit age bias.
 - Study 1 Candidates' Preferences: The first study showed that participants favored younger-age candidates significantly more when instructed to maximize profits. 80% of all the participants selected Candidate B (perceived to be younger), to plan the start-up of a new store. The authors conjecture a bias against older-age candidates of long-term profitability.
 - Study 2 Length of Employment: The second study altered the hiring criteria
 to short or long periods in the new store. The findings clearly show a
 continuance of preference toward younger-age candidates, no matter the new
 time frame.
 - Study 3 Status of the Job: The third study examined whether the position related to job status was considered in hiring. The authors found that when participants needed to select a candidate for a low-statu or subordinate job, Candidate A (the older profile candidate) was chosen. The concept of age bias relates to status of the position.
- 2. Implications: The findings suggest that the possibility of implicit age bias in hiring could lead organizations to underestimate the capabilities of older candidates. Such bias could exacerbate social issues relative to employment or reduced employability for older adults, or heightened dependency in later life.

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⁶ Abrams, Dominic, et al. Old and Unemployable? How Age-Based Stereotypes Affect Willingness to Hire Job Candidates." *Journal of Social Issues*, vol. 72, no. 1, Mar. 2016, pp. 105–21. https://doi.org/10.1111/josi.12158.

The overall research highlights how age-based stereotypes, even when implicit, can significantly impact hiring decisions, especially in environments focused on maximizing profits or filling specific job roles.

Paper 7: The Aging Process⁷

By Denham Harman

The document entitled "The Aging Process" authored by Denham Harman elaborates various aspects of aging and introduces the free radical theory of aging. Stated below are the key themes and takeaways.:

- 1. The Phenomenon of Aging: Aging is defined as the accumulation of changes due to aging, which result in increased vulnerability to diseases and death. Ensuing to aging there are primarily changes in the structure and function of cells and related tissues which are products of oxidative damage via free radical reactions especially those involving oxygen.
- 2. Free Radical Theory of Aging: The free radical theory of aging posits that there is enough experimental evidence to support that free radicals generated during metabolism and damaging oxidative reactions, are a primary cause of aging and a contributing cause of diseases in older adults. The free radical reactions are through both enzymatic and non-enzymatic mechanisms, as well as ionizing radiation and metabolic products from the environment of the biological breakdown of oxygen.
- 3. Role of Free Radicals and Aging Effects: Free radicals are known to cause a spectrum of degenerative diseases, thus partnered with aging due to oxidative stress, the deterioration of Cells leads to a more rapid accumulation of oxidated molecules in degenerative diseases such as cardiovascular "disease" (i.e. heart "problem") cancer, and neurological disease (i.e., Alzheimer's disease) . Free radicals cause advances aging through progressive and cumulative cellular damage to macromolecules including DNA, proteins, and lipids.

4. Dietary and Environmental Effects:

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⁷ Harman, Denham and University of Nebraska College of Medicine, Departments of Medicine and Biochemistry, Omaha, Nebraska 68105. The aging process." *Proc. Nati Acad. Sci. USA*, vol. 78, no. 11, Medical Sciences, Nov. 1981, pp. 7124–28.

- Research studies from various groups examining dietary oxidative defense via antioxidants demonstrate decreased oxidative damage and possible increased lifespan due to dietary restriction focused on deter free radical tendencies.
- Studies have been conduction primarily in animals, such as mice, rats, and fruit flies, with increased lifespan outcomes among their respective species focused on oxidative interventions in short-term feeding restrictions.
- Behavioral patterns associated with a healthy body mass index (BMI), disrupt oxidative stressors and include foods high in essential nutrients and antioxidants are behavioral changes that can possibly delay aging and prevent healthy aging.
- 5. Relationship of Aging to History of Disease: The document supports notions suggesting free radicals role are catalyst for a clustering of degenerative disease particularly related to aging near the end of life. The ability to recuperate from damage decreases and degenerative disease such as cancer, cardiovascular conditions and autoimmunity commence more often.
- 6. Evolutionary Background: Free radical reactions have been integral to both the origin and evolution of life. The same reactions that contribute to aging today were responsible for early biochemical processes that allowed life to evolve, showing that free radical reactions can both support and degrade life.
- 7. Potential for Long Life: Harman points out that controlling environmental factors like diet and toxins can help us live a longer healthy life via less free radical damage. He estimates that proper approaches could increase healthy life by 5-10 years.

8. Discussion Points

- Role of Antioxidants This talk could review interventions (dietary supplements, etc) that are antioxidants as regards free radical damage and their potential for increasing life.
- Ethical and Practical Implications of Longevity Research The wish to extend human life raises ethics of how such additional resources will be distributed and expenditure in health care and life quality as an aging society.
- Aging is a Biological Necessity This discussion could be philosophical suggesting if aging is an unambiguous effect of living, or scientifically whether scientific measures can severely alter or not change natural life spans.

Each of these aspects from Harman's article could be a base for talk of aging, understanding science in aging as longevity extension, and the implications for our society in aged individuals and aging research.

Summary

Here is a summary of the main aspects of all the reports.

1. Social Participation and the Mental Health of the Elderly Living Alone
The report finds that, for elderly people living alone, social participation matters
for mental health, with even casual, screen-to-screen communication reducing
depression and anxiety. Surprisingly, self-entertainment might increase
loneliness. Counsellors specify that appropriate, targeted interventions should be
tailored to gender, age and residence to achieve the best mental health benefits.

2. Cognitive Aging

People's cognitive functions such as memory, attention, mental agility and mental exercise are gradually diminished as they age. Among them, the decline of memory, inductive ability, mental speed and flexibility are most obvious. But there is also great variability in the cognitive aging among individuals, and research shows that mental health, physical and mental activities and social contacts can slow down the process. The report also found that people's emotional regulation and wisdom usually improve rather than decline with age.

3. Aging and Cognition

The report suggests that the cognitive decline is so different that memory and executive function are particularly poor, with little change in knowledge and comprehension. Moreover, learning and developing potential cannot be directly transferred. It is suggested that there will be better outcomes if the brain training, physical and mental health, and social engagement is considered in conjunction. The significance of neuroplasticity, while taking into account delaying tactics, is also addressed.

4. Retirement and Aging

Aging is not a natural stage in life, but it is certainly a milestone. The report presents six smoothly flowing paths to retirement: rediscovering less productive, nostalgic and retirement-driven predecessors, maintaining old systems, people

and values, sailing into old roles, exploring new, threatening and leisure-driven systems. Retirees select Classic Balanced Systems that mix and match. The ways of aging reflect the cognitive make-up created by experience, temperament and motivation.

5. Retirement Pathways and Health in Japan

This study indicates that the style of retirement (abrupt versus gradual) has different effects on physical and mental health. More specifically, gradual retirement has fewer physical restrictions but more depression than abrupt retirement, highlighting the need for individuals to develop retirement strategies to optimize health and well-being.

6. Age-Based Stereotypes in Employment

This document discusses ageism in hiring, meaning employers prefer younger candidates—especially in profit-focused situations. Such an ingrained bias for younger workers presents challenges older adults face in terms of finding work, while affirming stereotypes that limit older adults' jobs.

7. The Free Radical Theory of Aging

The authors discuss aging as a process made by free radical damage, ultimately leading to cellular breakdown and diseases associated with aging, noting ideas that eating antioxidant-rich food & living a healthy lifestyle can stimulate the age-down process (living longer and healthier).

To conclude, the arguments proposed in these papers and articles are intended to shift aging from a narrative of decline or deterioration to aging as opportunities, while also providing relevant means for advancement through the lens of aging in mental health, cognition, retirement, and employability.

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