# (Article)

# What Kind of "Outlook of Life" do We Hold in 100-year-old Era: Results from Web Survey

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#### Abstract

In the 100-year-old society with increasing diversity in people's lifestyles, people's perception of aging and age-related issues can be different depending on one's current situation and social status, and it is essential to clarify the nature of these heterogeneities. Using large-scale survey data, this study analyzes the outlook of life of people aged 20 to 70 in contemporary Japanese society, specifically people's perceptions of aging, people's idea of requirements for a happy old age, and people's idea of requirements for a decent current life. The results showed that people's perceptions of aging were retrospective, with most people beginning to perceive a decline 10 years ago. And there is a clear difference between people's ideas of what constitutes a happy old age and what constitutes a fulfilling current life, which is mainly reflected in the importance of relationships, with families and friends perceived to be more important at the present stage than in old age.

Keywords:100-year-old era, perception of aging, life satisfaction, family relationships, nonmarried.

# I. Age of 100-year Life

Over the four decades from 1980 to 2022, the average life expectancy of Japanese people has shown a steady upward trend. According to the Japanese Ministry of Health, Labour and Welfare, In 1980, the average life expectancy for men and women in Japan was 73.3 and 78.8, respectively, and in 2022, the figures reach 81.0 and 87.4. According to data from WTO survey—the average life expectancy of Japanese people at 84.3 years old ranks first in the world (World Health Organization, 2022).

People are living longer all over the world, and longevity is especially high in Japan. This has

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fundamental implications for the global society and for each individual's life. The book "LIFE SHIFT - 100年時代の人生戦略 100-year life: living and working in an age of longevity", written by Professor Lynda Gratton and Professor Andrew Scott of London Business School in 2016, soon became a bestseller and caught extensive public attention. In this book, the authors present a practical methodology of how to adapt to the fact that life is getting longer, and that people may live up to 100 years old.

The authors point out that life trajectory of the past generation was typically characterized by three stages, education, work, and retirement. People can get through life successfully by simply following this three-step trajectory, doing certain things at certain times. While in the current generation, the trajectory of life has become more fluid and multi-staged, thus people need to keep developing intangible assets such as good health, social networks, and job skills throughout their lives, to cope with increasing uncertainties and challenges. In addition to the iconic work mentioned above, many books have been published introducing the know-how of living a long life from various aspects.

How to deal with the fact of longevity, is not only a matter at the individual level, but a structural problem facing the whole society. The far-reaching demographic change of longevity not only spawned a series of toolkits, but also attracted the attention of political and academic circles. Former Prime Minister Shinzo Abe established the "Planning Council for the 100-year Life Era" in September 2017, gathering experts and relevant ministers, and began discussing the issue on a monthly pace.

Apparently, such a large population being able to live such long lives is unprecedented in human history, that people need to continuously response to new risks and difficulties. Although society has been paying increasing attention to the 100-year-old issue, these efforts appear to be fragmented. Various toolkits introduced how to deal with certain kinds of risks, but the solutions described are often only applicable to specific groups given that risks in contemporary society are also diversifying. To be better prepared for a longevity society, it is necessary to first ascertain people's perceptions of aging, as well as what it truly takes to live happily in one's old age, which are not necessarily self-evident in contemporary society. Longevity and aging, one positive and the other negative, nevertheless are one and the same. It is necessary to systematically discuss on how to properly understand and respond to age-related issues. Get a thorough understanding of the realities in order to deliver the optimal prescription.

To examine people's outlook of life in contemporary Japanese society, especially those that closely related to longevity, this study employs large-scale data analysis and focuses on three issues: people's perception of aging, people's thinking of necessities for a happy retirement, and key elements for a favorable current life status.

#### II. Behavioral and Attitudinal Changes in a Longevity Society

Longevity has led to dramatic changes in lifestyle, not only in retirement stage but throughout the entire life span. As lifestyle changes in old age, it is not surprising that the lifestyle of young adults will also face adjustments as well. As mentioned above, this fundamental demographic shift has raised concerns in both political and academic circles. In recent years, government departments, including the Cabinet Office of Japan, and research institutes, have conducted a number of large-scale social surveys focusing on longevity and the 100-year-old society. The main findings related to this study are presented below.

# 1. Insecurity Concerning Life in Old Age

The increase in life expectancy, on the one hand, reflects the progress in medical and health care, while on the other hand, implies that people need to cope with a variety of unknown risks. Longer retirement means that people need to be better prepared for old age, health-wise, money-wise, and in many other aspects. According to the results of the "100-year Life Era Mindset Survey (「人生100年時代マインド調査」)" released by Life Shift Japan, which was featured in the January 8th 2023 NHK News Morning Japan TV program, 38.8% of respondents are excited about the coming of the "100-year life era", while 61.2% are downbeat.

Findings from survey conducted by JTUC Research Institute for Advancement of Living Standards (2021) shows that people today are facing various kinds of insecurities, involving financial, work, and family relationships. The results of the survey show that, in general, anxiety towards health and financial issues related to old age is high and corresponding solutions are lagging behind, especially among those in their 40s and non-regular employees. And people are more worried about the coming life than they have been so far. This makes sense why most people cannot get excited about the 100-year-old age. The research also found that these insecure feelings differ across age groups, economic status, and employment status. The younger generation expresses more anxiety than the older generation about their past and future lives.

The younger the generation, the greater the increase in anxiety about the future. This may suggest that younger generations face greater risks and uncertainties than older generations, not only due to longevity, but also due to the precariousness of employment. The period effect of a deteriorating employment environment may be superimposed on the cohort effect, causing a multiplicative rise in the perceived risk for the younger generation.

#### 2. Changes toward Career and Work

In 2019, a report released by the Financial Services Agency's Financial System Council's

Market Working Group included an estimation that there would be a shortfall of approximately 13-20 million yen over the 20-30 years of retirement, which became known as the "20-million-yen retirement problem". Concerns about a shortage of financial resources for retirement rose and were widely covered by the mass media. With the aim of facilitating stable household asset accumulation befitting the 100-year life era, investment literacy, reforms of private pensions have been promoted by relevant ministries and the media.

In addition to income from investments and pensions, an intuitive way to increase income in old age is to engage in paid work. In the "Survey on the Daily Lives of the Elderly (『高齢者の日常 生活に関する意識調査』)," conducted by the Japanese Cabinet Office in 2019, citizens aged 60 and older nationwide were asked, "Until around what age do you want to work with an income?" 20.6% answered "As long as I can work," and when combined with those wishing to work beyond age 65, this figure reaches 60%. This suggests that only less than half of the respondents plan to leave the workforce when they reach retirement age. In addition, currently more than half of men aged 65 and over are in paid work, and the percentage of entrepreneurs over 65 years old is also rising, indicating that seniors are highly motivated to work in Japan (Cabinet Office of Japan, 2021).

Do people willingly continue to work beyond retirement age, or do they simply have no choice? The aforementioned Cabinet Office research report (2021) indicates that the main reason for seniors wanting a job with income is "wanting an income" in Japan compared to "enjoy the work" in other welfare states such as Sweden and the United States. Presumably, for Japanese people, the willingness to work may decline if they have sufficient financial security after retirement.

#### 3. Changes toward Families and Intimate Relationships

Longevity is also inextricably linked to family changes. On the one hand, longevity directly extends the length of interactions between family members, and more significantly, longevity has created a growing need for elderly care. This brings about a series of changes in family behavior and family norms. According to the Ministry of Health, Labour and Welfare's "Comprehensive Survey of Living Conditions," the number of male caregivers has been increasing since the 2000s, with a particularly large increase in the number of sons providing care for elderly parents (Research Group on Marriage and Family in the 100-year Life Era, 2022). Meanwhile, when asked to choose desired type of care in case they need assistance after the age of 70, more than 30% of women said they would like to "stay in a facility instead of at home" (Cabinet Office, 2022). Evidently, changes can be significant for both caregivers and care receivers.

On the other hand, with the diversification of social values, family forms themselves have

become more diverse. According to the National Census, the proportion of single-person households in Japan has been increasing since the 21st century. Some people are passively prevented from getting married because of financial difficulties or because they cannot match up with the suitable person, while others choose not to get married of their own accord. Data from Cabinet Office commissioned research "Survey on Marriage, Work, and Income in the 100-year Life Era" show that only about half of unmarried people in their 20s and 30s expressed a desire to get married (Cabinet Office, 2022). It is conceivable that as more and more people do not get married and do not have children, these people may live more diverse lifestyles as they reach old age.

#### III. Studies on Perception of Aging

Regarding research on aging, there have been studies on the influence of attitudes toward aging on participation in sports and leisure activities (Yukawa et al., 1995), however, little research has been done on how to interpret the attitude toward aging. Previous research such as the above one usually treats aging as an influencing factor, instead of examining the perception of aging itself, and hardly any research has been done to recognize and explain people's perceptions of aging so far.

As a fact, much of the research on perceptions of age and aging has been concerned with ageism, that is, stereotyping and discrimination against elderly individuals due to their advanced age (Butler 1969). For example, studies of societal and cultural factors affecting attitudes toward elderly individuals have achieved considerable progress (Sekine 2019). There has also been research on the determinants of ageism (Harada et al., 2008). Such as, research from the perspective of social psychology suggests that lack of knowledge about aging, anxiety about life in old age, can be linked to ageism (Harada 2020).

Meanwhile, the emergence of the concept of successful ageing in the field of gerontology, has led to a fruitful discussion on adaptation to old age (Baltes and Baltes, 1990). While ageism studies view older people in terms of objects in the context of stereotype research, gerontology examines the subjectivity of elderly people in adapting to the process of aging (Takeuchi and Katagiri 2020). Research has revealed the mechanism of how that happiness and satisfaction can be achieved by accepting the decline and loss of ageing (Numa and Tanaka, 2021; Yoshida and Tanaka, 2005).

However, what exactly makes for a happy old age, that is, the way in which people perceive aging and life in old age can be different according on one's current situation and social status, and it is meaningful to clarify the nature of this heterogeneity. As discussed above, individuals' familial situations are becoming more and more diverse, which may affect people's perceptions

about aging and, specifically, about their perceptions of what it takes to have a happy old age. In addition, as noted above, many people expect to continue working into old age. Whether people's perceptions of aging match their expectations of career life remains to be elucidated.

In response to the above concerns, this study uses survey data to address the question, "How do we perceive aging in the 100-year-old era?"

## IV. Method and Analysis

## 1. Data, Variables, and Analysis Procedure

The data used in this study come from Grant-in-Aid for Transformative Research Areas (A) "Lifelong Sciences: Reconceptualization of Development and Aging in the Super Aging Society (Principal Investigator: Takashi Tsukiura)", an interdisciplinary research program aimed at exploring the longevity society from multiple perspectives of cognitive psychology, clinical psychology, sociology, anthropology, etc. As part of the project, the authors and their research group (Principal Investigator: Junya Tsutsui) conducted a large-scale web survey named "Internet Survey on Outlook of Life (「生涯観に関するインターネット調査」)" in the beginning of 2023 to investigate views on life and aging held by Japanese people today. Our internet survey using volunteer access panels, targeted individuals aged 20-69 years. In accordance with the composition of the National Census, allocations were made based on eight regional blocks, gender, and age in 5-year intervals, and if the target number for each cell was not filled, the cell with the closest conditions was used to fill in. Finally, 33,500 individuals were observed, and filtering down to respondents who passed the trap items gives a sample size of 23,671 observations (70.66%).

In addition to basic attributes, the survey incorporated questions on life satisfaction, desolation, age-related changes, desire to live longer, definition of elderly, aging norms, willingness to work during old age, trap items, etc. This study focuses on three questions, mainly to explore several basic mindsets held by Japanese people today. First, regarding people's feelings of aging, four relevant items including physical strength, appearance, intellectual power and job and housework capacities, were gauged by the following question: "When did you first feel the changes that come along with aging? Please indicate your age (or approximate age) when you first felt it." The options for this question were age groups in 10-year intervals, that is 20s, 30s, 40s, 50s, and 60s. Our second research interest is people's perceptions of a happy old age, which was measured by the following question: "Please choose from the following what you think is necessary for a happy retirement," respondents may select either one or more of the following seven items: to not be worried about money, having a job, living with family (spouse), having family (children) close by, being surrounded by friends and acquaintances, being healthy, not declining in intelligence. Our third focus is the key elements for a favorable current life status,

which was measured by the question "How important do you think the followings are for you to lead a satisfying life now?" for the prepared nine items—intellectual power, physical strength, amount of knowledge, relationships (friends), relationships (families), sexual attractiveness, exterior youthfulness, health, and wealth—respondents were required to assess how important they were on a four-point scale: very important, important, not that important, and not important at all, then answer each of them.

Descriptive statistics of the adopted variables are shown in Table 1. As can be seen, there are slightly more women than men in the overall distribution, and more respondents over 30 than under 30 years old.

Table 1 Descriptive Statistics of Variables

When did you first feel t	he changes that cor	me along with ag	ing?		
	Physical strength	Appearance	Intellectual power	Job and ho	usework capacity
~20	1.28	1.66	1.25		0.89
20s	11.93	10.34	6.60		5.26
30s	20.37	20.78	10.72		10.29
40s	22.31	22.84	14.76		15.66
50s	16.73	15.94	13.17		14.45
60s	8.66	7.50	9.41		10.12
Did not remember	5.99	5.63	7.69		7.75
No such experience	12.74	15.32	36.40		35.57
Necessities for a decent	t current life				
	Very important	Important	Not that important	N	ot important at all
Intelligence	32.82	56.17	10.07		0.94
Physical strength	46.09	48.34	4.89		0.67
Knowledge	22.58	53.90	22.39		1.14
Friends	21.06	49.44	25.75		3.74
Family	30.25	52.26	14.93		2.56
Sexual attractiveness	8.50	24.79	49.30		17.41
Exterior youthfulness	12.77	39.82	40.29		7.11
Health	60.50	35.09	3.75		0.67
Wealth	41.08	50.76	7.42		0.74
Necessities for a happy	old age		Sex	_	
Money		88.52		— Male	46.86
Work		20.61		Female	53.14
Family(spouse)		36.50			
Family(children)		27.23	Age	cohort	
Friends		28.19		20s 14.65	
Health		79.32		30s 17.42	
Intelligence		65.53		40s	23.35
				50s	22.24
				60s	22.34
N		23,671(	100.00)		

#### 2. Results

Figure 1 shows the perceptions of getting old for different age groups. Different colored lines represent different age groups, with the horizontal axis showing the age at which one begins to feel getting old, and the vertical axis showing the percentages. For example, among those in their 60s, 9.3% reported feeling a decline in their 40s, and 41.3% in their 50s. As shown in Figure 1, those in their 30s and older tended to report age-related decline from a decade ago. For example, those in their 40s reported feeling decline since their 30s, those in their 50s reported feeling decline since their 40s, and so on. People constantly feel that they have been getting old in the last 10 years or so.

It suggests that perception of aging is not absolute, but rather relative to age, the feeling of getting old may be constructed retrospectively. Suppose a 50-year-old person, when he is 40, feels that he starts sensing old at 30, but when he reaches 50, his perception may change and believe that he starts getting old at 40. One possible explanation is that people's memories of their physical condition and perceptions of aging are sharpest in the last 10 years, compared to earlier times.

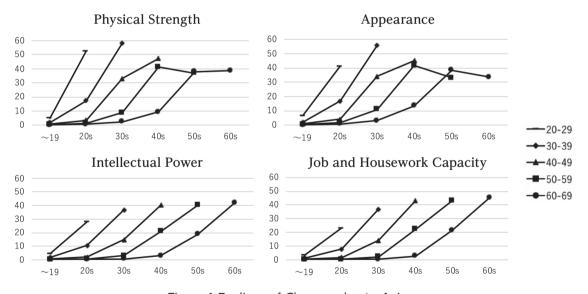


Figure 1 Feelings of Changes due to Aging

Notes: In addition to the above items, the questionnaire also contains an additional comment space where respondents can answer additional items, here we have excluded these free comments. The options "Have not felt any changes due to aging" and "Cannot remember when" were also offered, and here we have excluded these information as well.

In addition, for people in their early 50s and 60s, the proportion of those who started to feel a decline in physical strength and appearance 10 years ago is around 40%, close to the proportion who have felt a decline in the last few years, with the former being slightly higher. However, in terms of intellectual power and job and housework capacities, again among the 50s and 60s, the proportion of people who have felt a decline in recent years at around 40% is twice as high as those who felt a decline 10 years ago. That is, about 40% of the respondents over 50 years old felt a decline in physical strength and appearance 10 years ago, while only 20% felt a decline in intelligence and job and housework capacities at the same stage. This suggests that people's perceptions of appearance and physical decline occur earlier in life, and this trend is recognized in all age groups. Furthermore, the proportion of sensing a decline in appearance and physical strength was higher than that of intelligence and work capacity at almost all time points in all age groups.

Figure 2 shows people's ideas about what makes for a happy old age in each age group. The different colored folds in the graph are very close to each other, suggesting a clear convergence of perceptions of a happy old age across different age groups. Approximately 80% to 90 % of the respondents believe that money and health are the most important things for a happy retirement. In general, it is paramount to not have to worry about money, followed by keeping a good health, and then the ability to think and make decisions, and these three items were significantly more important than the others. Moreover, the weight of health and intelligence (ability to think and make decisions) increases with age.

The rest of the items are, in order of importance, family (spouse and children), relatives and friends, and work, indicating that most people consider work to be the least important. It is worth noting that the importance of family (spouse and children) differs considerably between people in their 40s and 50s and those in their 60s. 33% of the respondents in their 40s and 50s consider spouse to be essential in old age, compared to 41% in their 60s, for children, there is also a difference close to 10%. This suggests that, for certain reasons, the importance of family is heightened after the age of 60.

We also did complementary logistic regression analysis to explore the factors that influence people's perceptions of a happy old age (estimates are not shown in the article but available on request). The results show that "spouse" and "children" are less likely to be considered important for unmarried respondents, and for separated and widowed respondents. On the other hand, the importance of "friends/acquaintances" is not much affected by marital status. Moreover, women tend to prefer "children" and "friends/acquaintances" rather than "spouse", especially "friends/acquaintances", and this tendency increases with age. For example, the odd ratio of women in their 60s choosing their spouse is only 0.6 times that of women in their 20s and 30s.

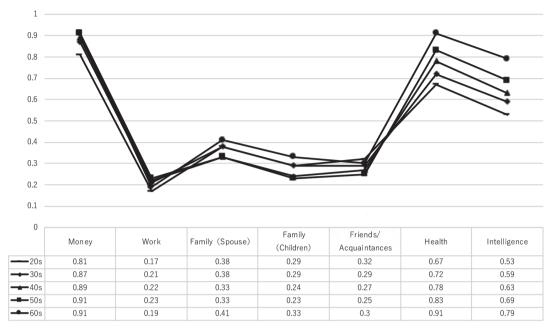


Figure 2 Elements for a Happy Old Age

Notes: In addition to the above items, the questionnaire also contains an additional comment space where respondents can answer additional items, here we have excluded these free comments. The option "None of the above" were also offered, and here we have excluded these information as well.

Finally, Figure 3 shows people's ideas towards what makes a descent life at the current stage. Different colored lines represent different age groups, with varying but similar movements. The vertical axis represents the average of the importance scores, with higher values representing higher importance. In general, the importance of health and physical strength is significant for all age groups. Sexual attractiveness and exterior youthfulness decrease in importance with age; conversely, health increases.

Relationships (friends/family) were valued to a certain extent, out of a scale of 4, the importance of family members scored more than 3 for all age groups, and the importance of friends is also around 3. This contrasts with the results for "happy retirement", which suggests that there may be a reasonable difference between what is needed for "present contentment" and what is needed for "a happy old age".

We also conducted complementary logistic regression analysis here, to explore the factors that influence people's thinking about present life satisfaction (estimates are not shown in the article but available on request). The results show that higher educated people tend to place

more emphasis on "intellectual ability". Sexual attractiveness is significantly less important among women, and this trend is more pronounced at older ages. Women place relatively high importance on friends, family, health, and financial resources. The importance of "relationships (friends)" does not differ much by marital status, but "relationships (family)" are significantly lower among the nonmarried (separated, widowed, and never married). This suggests that friends did not substitute for families.

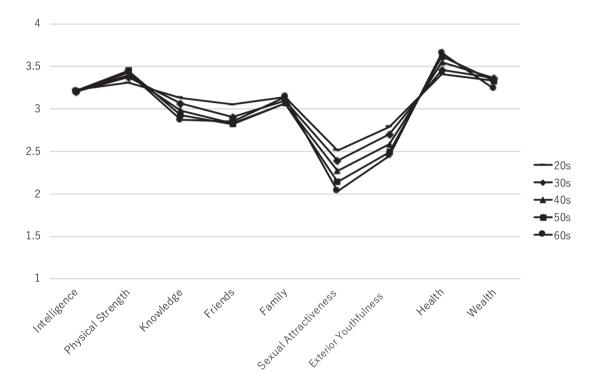


Figure 3 Elements for a Decent Live at the Present Stage

Notes: Though the options are on an ordinal scale, here we assumed very important = 4, important = 3, not that important = 2, not important at all = 1, and calculated the mean value.

#### V. Discussion and Conclusions

Using large-scale survey data, this study analyzes the outlook of life of people aged 20 to 69 in contemporary Japanese society, specifically people's perceptions of aging, what is required to achieve a happy old age in people's minds, and what constitutes a decent life in current stage. The results first showed that people's perceptions of aging were retrospective, with most people beginning to perceive a decline in appearance, capacities as well as physical functions 10 years

ago. And people are more sensitive to the declines in appearance and physical strength, with a certain percent experiencing them from a younger age, suggesting that these parts of declines are not limited to old age, but are ongoing experiences throughout individuals' lives.

Secondly, the results showed that both young, middle-aged and seniors generally consider money and good health to be the top priorities in old age, followed by (sustained level of) intelligence, while job, family (spouse/children), and friends/acquaintances have been less emphasized. This indicates that to a certain degree, the well-being of old age seems to become more disconnected from family relationship. In addition, the older one gets, the higher the importance of health and intelligence, indicating that the priorities to be considered in aging change in the process of aging. In particular, the number of respondents who chose family as a requirement for a happy old age was extremely low among unmarried, separated, and widowed individuals, indicating that the response trends differ considerably according to the heterogeneity and diversity of the population. The tendency to "not place importance on family in old age" may partly reflect a sense of "placing less importance on family because it is already there" or "putting less importance because it is unobtainable anyway" (Tsutsui, 2023).

In addition, the selection rate for work is the lowest of all options, which contrasts with the high willingness to work in old age reported in various social surveys. This may suggest that people choose to work mostly for economic reasons, the additional fulfillment from work is relatively limited, and that work or not work may not have a strong correlation with elderly's well-being in case of a stable economic condition.

Finally, for the quality of current life, in addition to health and physical strength, relationships (family/friends) are also considered highly important, which contrasts with the result of what constitutes a happy old age. This suggests that people position interpersonal relationships differently at different life stages. One possible explanation is that before retirement, family members are not only emotionally linked to each other, but also need to collaborate with each other operationally; while in old age, people may expect relationships (families/friends) to be a less stressful emotional attachment rather than a heavily dependent relationship, thus people subconsciously weakened the importance of relationships when evaluating a happy old age.

Although sample bias inherent in a web-based survey cannot be ignored, this study exploratively provides insights into people's outlook of life in the longevity society today. As discussed above, in the 100-year-old society with increasing diversity in people's work styles and family relationships, it is crucial to elucidate the heterogeneous characteristics of mindsets held by people from different social groups. The authors and their research group are now progressing with a mail survey, which shall provide more solid insights into these issues.

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