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## GREETINGS

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Life expectancy for people in Japan and Germany has increased dramatically in the last century, and that's not all – we live longer and in better health, which is a positive development. At the same time, the population composition in both countries is changing as fewer children are born, and also immigration will not completely compensate that trend. Japan is the world leader in longevity, and Germany has the highest proportion within Europe (and in second place globally after Japan) of older people in its population. The question now is whether the achievements of a welfare state can be preserved and extended under these demographic conditions. Is there a threat to the productivity of national economies? How are we to deal with these challenges and seize the opportunities that accompany longer life spans? What conclusions can researchers draw from huge changes in the nature of aging and its "plasticity"?

At the invitation of the German Research and Innovation Forum Tokyo (DWIH Tokyo), the German National Academy of Sciences Leopoldina and The University of Tokyo, around 200 participants came together in Tokyo to address these questions. The German-Japanese Symposium on Positive Aging brought together cutting-edge scientific expertise from both countries, creating a forum for high-level discussion about current aging research.

Experts from universities, industry and civil society debated which societal conditions were necessary in order to unfold the potential of aging and adult development. They agreed that it was possible and desirable to create opportunities for proactive aging and to enable proactive aging by improving working conditions as well as education across the life span. Consequently, the central question for individuals and society is what the best use is for the extra years of good health. A particular focus was put on the economy, job markets, work environment and new roles in the retirement phase, especially with regard to community/civil society engagement. Furthermore, the participants discussed how Japanese and German researchers could jointly contribute to producing an updated picture of aging in the context of family, work and other areas of society, as well as in politics.

We are pleased to present to you the symposium's proceedings, which will help disseminate the results to the wider scientific community and the general public.

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## Positive Aging – Building up Resources for Longer Lives

Ursula M. Staudinger & Katja Patzwaldt

### Kasosei/Plasticity

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Researchers who study aging frame historical changes observed in the aging process by using the term “kasosei”, or “plasticity”. For the gathered researchers at the German-Japanese Symposium on Positive Aging, it was evident that further activation of the plasticity of aging requires consideration of personal as well as societal resources and their interaction. As researchers who study aging, we do not merely describe how things presently are; we point to the human potential that in principle can be realized throughout a person’s life. It is in this sense that we talk about positive aging. Human abilities, competencies and well-being cannot be evaluated without considering the environment within which human beings develop and age. The lifelong development of one’s potential and its realization goes hand in hand with particular lifestyle(s); however, lifestyles and living environments cannot be considered without discussion of a community that promotes and supports certain behaviors while hindering others. Thus, it is mandatory to investigate community conditions allowing for social participation at later ages, which has proven to be supportive of development at later ages.

In this vein, the Tokyo Institute of Gerontology (IOG) has set up a pilot project building on the specific Japanese culture of aging, but also on regional development trends that are shared globally. In Japan, most people desire a post-retirement life that allows them to continue to feel useful and be active. In the past 50-60 years, it has been common for many to maintain an extraordinary work ethic, and people strive to stay connected with their (mostly) lifelong employers.

In Japan, phasing out into retirement takes a particular form: most people work longer than the official retirement age, which was previously set at 60 and was raised to 65 in 2013. After retirement from a “first” job, many people engage in some form of temporary or lower-paid work. Only recently has labor policy moved toward extending the “first” working life by increasing the retirement age. Metropolitan areas, such as Tokyo, are divided into the working part of the city and suburban residential areas. The number of retirees in residential areas has been rising, and Japan faces a challenge to accommodate the wish or need to continue working after retirement given this divide between residential suburbs and working areas in inner cities. This gap is addressed by the IOG in its pilot project, which aims to develop work opportunities for retirees in a commuter suburb of Tokyo.

For Germany, this innovative approach also bears a lesson beyond its possible application to neighborhoods. The project highlights that even very old people and individuals suffering from dementia are not completely incapacitated; under circumstances of

ambulatory care, people can remain active based on small islands of competence that are maintained even if suffering from dementia. In fact, activating care is a paradigm that has been promoted for many decades. Given innovative communities and neighborhoods that support their inhabitants, community service provided by young-old and old adults contributes to a highly viable living environment.

However, when discussing the potential (and positive effects) of activity at older ages, one should bear in mind that not everyone can remain fully active at any age. Rather, each individual's specific potential should be the basis on which living environments for all ages should be built. Scientific and public debates, however, often overlook changes that take place in the aging process across cohorts. Epidemiological characteristics have substantially improved non the least due to major public health efforts. These may deteriorate again as soon as societal efforts dwindle. The new scourge of obesity is a perfect example of a counteracting trend.

Overall, the enormous developmental plasticity of our species poses great opportunities, but also poses challenges for generating systematic knowledge regarding the effects of specific environments on certain groups of individuals. We are still far from making use of all possibilities that communities might offer to their aging populations; in particular, creating opportunities for stronger community involvement might support satisfying lifestyles after retirement.

## **Employment**

Rapidly aging populations such as those in Japan and Germany are putting social security systems to the test. Under such circumstances, systematic and comprehensive survey data regarding the economic, social and health conditions of older people is crucial in order to provide a basis for social policy planning and adjustment. However, a survey addressing the diversity of the older population was not set up until 2007 for Japan. In Germany, while such surveys have been in place since the late 1980s, their financing is far from secure and requires continuous advocacy from researchers.

In both Japan and Germany, demographic changes call for a comprehensive life-course policy: health, pensions, education and the labor market need to be aligned and an individual's benefits must be measured on a scale incorporating all four pillars. Health status, productivity and employability are all interrelated. Social security should support labor participation with regard to the employment situation and living conditions of older adults and with regard to the familial situation of women. Such a combined policy perspective also requires acknowledging that:

- a) old/retired people are not a homogeneous group and need “personalized” or tailored policies;
- b) there is no (immediate) increase in fertility rates to be expected, hence society needs to focus on existing people and their human capital rather than on the people who might or might not be born; and
- c) this entails huge challenges for German and Japanese societies alike as more women, migrants and older people need to be attracted and enabled to join or stay in the labor force. This entails the challenge of increasing diversity in the workplace, which applies to communities, companies, education and healthcare alike.

While the challenges ahead are huge, there are also prodigious opportunities. Longer working lives and better education go hand in hand with better health and a higher quality of life; if treated properly, a greater share of older adults will provide an advantage in experience-based innovation and greater diversity in the labor force will foster innovation and market success.

## **Companies**

Small- and medium-sized enterprises (SMEs) – in particular, those companies providing for tailored rather than mass offerings of products or services – have been considered as potentially favorable environments for the employment of older adults. SMEs may be more flexible with regard to job definitions, and the more comprehensive/holistic nature of jobs (compared to more specialized jobs in larger companies) is favorable for experienced workers. But certainly also large scale companies can provide for working environments that help maintain and develop productivity across longer lives. In currently older cohorts of employees the question remains whether older workers are motivated to stay in the labor force. In this respect, pensions were seen as a key variable influencing the work motivation of higher age groups. Furthermore, it was expected that longer employment would lead to higher investments into lifelong learning, which in turn would raise productivity and strengthen an individual’s wish to make use of their qualifications. Economic competitiveness depends on the extent and the speed with which this is done. Envisaging this dynamic, it was strongly advocated that the length of employment should be extended immediately, independent of current worries regarding the employability of older persons, by raising the retirement age and by modifying pension entitlements accordingly.

## Volunteering

Volunteering is important for society, and older, skilled, experienced adults make particular types of contributions. It is necessary that norms and values as well as institutions generate and maintain the spirit of contributing to society. The presented research review showed that little is known about the motives of people who volunteer. It is assumed that both selfish and altruistic motives play a role.

Via their political institutions, societies can reward volunteering; e.g., by increasing visibility and recognition of volunteers. On the municipal level, support structures such as contact offices, training and professional guidance are important. However, general levels of health and education are even more important than these specific predictors. Increasing levels of health and education in the population increase the amount of volunteering activity observed in society. In addition, general social policy and institutional settings such as preschools and family support centers provide a solid basis from which volunteering activities can spring. Research has shown that volunteering in young adulthood is the best predictor of volunteering as a retiree.

## Outlook

Japan and Germany are culturally quite different, but both cultures were successful in achieving an extraordinary high and hitherto unknown average life expectancy as well as quality of life. Japan is the global leader in average life expectancy and a country with an “island of centenarians” (Okinawa), where a newborn has a good chance of living to 108-110 years of age. Germany is characterized by a somewhat lower average life expectancy and smaller share of very old people, but it is one of Europe’s leaders in average life expectancy and in the change of the overall aging structure. The explanation of such cultural achievements is very complex and mono-causal answers do not address all contributing factors. Nevertheless, it is valid to assume that prosperity, a high educational level and a very good healthcare system are among the factors supporting this cultural achievement in both countries. In Japan, a nutritional style that is low in fat, sugar and meat, but high in vegetables and fish, plus a generally moderate intake of food seems to be essential. Similarly, the strong value that the Japanese society places on every member making a meaningful contribution to the community, even after retirement, appears to be an important component of a long and healthy lifespan. In both countries as well as in many others, the “baby boom” generation is approaching retirement age, bringing challenges for the labor

market but also opportunities for the reconstruction of the retirement phase due to the expectations, values and the health status of this new generation of older adults.

Neither Japan nor Germany has a history as an explicit immigration country. Due to impending changes to the labor market, however, Germany has started to develop an immigration policy with respect to filling emerging gaps in the labor market. Japan might follow that pathway. Both countries are characterized by traditional family values with a rather low labor force participation of women, high prevalence of part-time work for mothers and long maternal leaves.

Migrants and women are two of the four underdeveloped resources that can help compensate for a shrinking labor market; lowly qualified persons are the third group underrepresented in the labor market. The fourth group, workers 50+ years of age, has been and continues to be an obvious resource, especially as their experience is such an important asset for high-tech and tailored production companies. At first glance, they seem to be easily accessible since in most cases they “only” need to be retained in the workplace rather than recruited. At second glance, however, it is evident that employee retention policies require more investments into lifelong learning and human resource development as well as work organization and health resources. This necessitates tremendous adjustments within companies.

In Japan, the good health of older people combined with a lingering cultural reservation against increasing workforce participation of migrants and women gives rise to a discussion of extending an individual’s working life up to their 9th decade. In Germany, the trend is to keep people employed for decent wages as long as possible and to opt for more frequent job changes and accompanying training in order to maintain and develop employability and productivity. Collective bargaining in the German forerunner industries, metals and chemicals, has set the path for qualification funds, and recently, occupational insurances have sought to ease financing issues for lateral career changes, e.g., in caretaking and building professions.

Volunteering has become more popular in both countries over the last decade. Municipalities profit from people’s experience and desire to play an active part in society during their retirement. However, it is crucial to clearly define areas that must be run by professionals. Successful volunteering also requires infrastructure and training measures to be taken before volunteers are sent into the “field”.

Finally, presentations and discussion showed that despite cultural differences, the doubling of an individual’s average lifespan over the past 150 years and tremendous health improvements allow and incentivize individuals to continue to stay active after retirement. At the same time, such activity can be channeled in various ways, including

through financial incentives, recruitment and retention practices of companies and volunteering organizations. While it was not an explicit topic at the symposium, it was of high interest to researchers and audience alike to review the differences in the cultures of work and aging in both countries.

Researchers from both countries agreed that the social and behavioral sciences have much to offer with regard to tackling the challenges that demographic changes pose for our societies. More research is needed to examine the complex interactions between an aging individual and their environment, which will then allow us to further unfold the potential of aging.

### Redesigning Communities for the Aged Society

Hiroko Akiyama

Currently, 24% of the Japanese population is age 65+. It is predicted that one-third of the population will be 65+ and one fifth will be 75+ by 2030. Japan is not only number one in life expectancy, but also in healthy life expectancy. Moreover, fitness increases substantially even in the small time slot of one decade. For instance, comparing data on average walking speed from 1992 and 2002, it has been shown that the performance of a particular age group has increased to match the previous performance of an age group 11 years younger. Building on these performance increases, the aim of retaining independence as long as possible in higher age groups is realistic. To reach that goal, a complex environment needs to be present that strengthens social bonds, allowing people to stay healthy and active and live with a sense of security.

The existing infrastructure of Japanese communities, built when the country's average population age was much younger, does not live up to such requirements. Both hard and soft infrastructure of communities has to be changed according to the needs of a highly aged population. One example of adaptation is a project organized by the Institute of Gerontology at the University of Tokyo. It aims at turning the concept of "aging-in-place" into reality in Kashiwa, which is a typical bed-town 30 km away from Tokyo. The project focuses on the Toyoshikidai housing estate in Kashiwa, built in the 1960s, that has been aging in terms of both its physical structure and its residents. The project plan includes replacing the old five-story residential buildings with barrier-free condominium blocks to ensure mobility. The new buildings will offer housing for people at various life stages so they can move to a place that best meets their needs throughout their life course. It will make "aging in place" possible.

One of the major projects in Kashiwa is called "Work places for the second life". A huge number of baby boomers currently working in Tokyo will soon retire and come back to the community. Emerging evidence indicates that working after age 65 helps maintain physical and cognitive functions and enhances social activities, and in this project, age-friendly workplaces are created with a flexible employment scheme, giving residents the option to work up to the age of 80. The project also tests products that provide older workers with safe and productive work environments.

This kind of social experiment requires not only collaboration among researchers in different disciplines, but also full collaboration between local governments, business communities, NPOs and residents.

**Challenges and Chances of Aging Workforces in Firms**

Uschi Backes-Gellner

Economic crises in past decades have swept more elderly workers than younger workers out of employment, and Western societies have seen massive waves of early retirement in the last few decades. The actual average retirement age is much lower than the official retirement age. Despite a formal retirement age of 65 in Germany, the average retirement age was 60 during the 1990s. Early retirement and dismissals of elderly workers dramatically changed the workforce composition inside German companies. A representative study for the year 2002 found that around 40 % of firms did not employ a single worker older than 50 years of age. Though this may be an extreme example, comparative evidence points to similar developments in other industrialized economies.

The tide is turning due to demographic changes. Fewer younger workers will be available and many reasons that previously induced employers to lay off older rather than younger workers will be eradicated. Not only has early retirement become too expensive for the social security system and taxpayers, but also companies will be faced with a shortage of skilled workers as baby boomers near retirement. Businesses will need to leverage the productivity potential of older generations to stay competitive. Although past research suggested that older workers are less productive on average, the results are inconclusive. One problem is that such productivity studies typically used one-dimensional performance indicators, even though productivity in real organizations typically depends on multiple outputs and on a variety of performance criteria. A second problem is that studies primarily focused on individual rather than group performance as an outcome of aging processes. In the business world, however, workers typically perform their job in groups of different ages and the optimal mix of ages becomes an important consideration. Whether a high share of elderly group members is good or bad for company performance depends on the overall task requirements and on the relative advantages and knowledge pool of older and younger workers.

Future employment strategies will have to focus more on an optimal age mix and on utilizing the full potential of the elderly. In affluent societies, elderly workers will have more opportunities than ever before of being employed in meaningful and well-paid jobs. Scientists and managers have generally overlooked the advantages that older workers can offer to a company, which has had detrimental effects during the last few decades. In many firms, the cohort of older workers is missing and cohorts of baby boomers are going to retire soon. In order to retain the experience and wisdom of older employees and to compose diverse teams, many firms are increasingly interested in retaining elderly work-

ers for as long as possible – through job sharing arrangements or part-time retirement, for example, and with the help of lifelong learning. We expect elderly workers to find meaningful, well-paid employment at and beyond the age of 65.

Industrialized countries such as Germany or Japan have increasingly specialized within the global division of labor into industries based on innovation and creativity. Within these industries, companies usually pursue high-quality strategies for which a price markup can be achieved. In this sector of the economy, cross-functional teams, quality circles and semi-autonomous teams all play an important role, and in this context, age-diverse teams will be an important foundation for future competitiveness.

### **Demographic Change:**

#### **Not a Disaster, but an Opportunity for Japan and Germany**

Axel Börsch-Supan

As populations age all over the world, fewer prime-aged people will be available to care for larger populations of the elderly. Germany and Japan face increasing pension and medical care expenditures, which will raise governments' and families' financial burdens. Higher taxation on earned income to cope with the increased financial burden of supporting the aged runs the risk of impairing incentives to work and the willingness to learn and qualify for employment.

Positive aging policies must tackle a three-pronged problem: pension systems, health care and employment for all. We cannot design a pension system without reference to healthcare costs and to overall employment conditions, nor can we design a healthcare system or regulations on labor markets without taking their influence on financing pensions into account. Living longer – and in particular, being healthy much longer – shows where opportunities exist. There is no reason to be pessimistic about aging populations. We used data from SHARE, JSTAR and other data sets to provide scientific evidence for successful positive aging policies across the following areas.

#### 1. Give highest priority to working longer than before

The most important step is to eliminate early retirement arrangements, both in public pension systems and company pension schemes, which reduce incentives for older workers to continue working. An incremental increase in pension eligibility age, with consideration of the physical and mental health development of the elderly over time, is also of high relevance. In addition, it is recommended to stop reducing working hours.

2. Encourage the willingness of employers to retain their employees as they get older  
Employers should recognize the advantages of keeping aging workers with respect to their valuable experience, know-how and know-who. In addition, employers should realize that there is a broad variety of instruments to sustain the productivity of older employees, such as creating an appropriate workplace environment, more flexible working conditions – such as part-time work – and the provision of further education for updating the capabilities and knowledge of older employees.
3. Realize that better healthcare pays partly for itself through higher productivity  
Good healthcare is important for sustaining a longer working life; thus, healthcare reform is crucial for employee productivity. Although healthcare costs have increased due to technological progress, extended productive use of the aging workforce may mitigate the increase in costs. There is a major equity issue at stake: the poor should also benefit from healthcare reform and from improved medical treatments to ensure the positive potential effects of healthcare reform comprehensively increase every individual's productivity in an aging economy.
4. Tackle misconceptions about aging  
Informed discussions may help to fight against widely held misconceptions about aging. For example, it is a fallacy that keeping older workers squeezes out jobs for younger workers; there is empirical evidence that keeping older workers actually encourages the creation of more jobs for younger workers. It is also a misconception that older workers are less productive or more prone to absence due to illness than younger workers are.

Research, especially in international comparisons, plays an important role in providing best practice examples and factual evidence to overcome popular myths and misconceptions about aging that stand in the way of positive aging policies. Germany and Japan have comparable data sets from which much can be learned; in particular, we can learn about good health and the potential of the years people have gained through longer life expectancy and medical progress.

## How Positive is Aging?

Florian Coulmas

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On 1 October 2012, the United Nations Population Fund published its report on Aging in the Twenty-First Century, celebrating the International Day of Older Persons at the UN University in Tokyo. The place was well chosen, given Japan's high life expectancy. The country is not alone in experiencing aging and population decline, but it is ahead of all other OECD countries and, therefore, a reference point for research. Japan is also a reference point because negative repercussions of the democratization of longevity on its society and economy have been mild thus far.

Emphasizing positive aspects of aging is fashionable at present and understandably so; a long life has always been considered desirable, and the world is growing old fast. Accordingly, lamenting the afflictions of old age is out-of-date, if not simply politically incorrect, yet it remains difficult to imagine the realities of a society whose median age is 50 and rising. Beating the positive aging drum is thus a bit like whistling in the dark to alleviate our uneasiness. In order to do so we can only try to shed light into the dark.

The German Institute for Japanese Studies (DIJ) has been engaged in research about demographic changes in Japan since 2005. Initially, the focus was on the pension system and its transformation from a contributions-funded to an increasing tax-financed system. We have also explored the low fertility crisis as a correlate of social aging. Innovative housing arrangements, adult guardianship, communication needs of the elderly, continued employment in advanced age, product design and marketing for elderly customers are among the topics we have addressed. This is a wide range, but only a small selection of the multifarious ways in which aging societies come under adjustment pressure and it shows that if we want to understand the complexities of population aging and what is positive and negative about it, interdisciplinary cooperation is inevitable. Comparing countries with different cultural backgrounds may help, especially if the observer's lens is focused not only on phenomena amenable to statistical analysis, but on how individuals deal with the opportunities and problems of a longer life. While new theories have their value and importance, what people do is more important. Combining close-up observation with large-scale surveys is how DIJ continues to investigate the challenges of demographic changes.

### **Patterns, Potentials and Limitations of Volunteering in an Aging Society – The Case of Germany**

Marcel Erlinghagen

Most industrialized countries are facing fundamental demographic changes that are often described as a process of societal aging. This process is caused by shrinking birth rates as well as an increased average life expectancy and leads to significant, increasing shares of older people at the societal level as well as to prolonged periods of retirement on the individual level. Thus, aging societies must consider how the financial burden of societal aging can be covered and how an aging population can contribute to reducing such costs.

Against that background, keeping older people active and productive as long as possible is a key issue in solving problems caused by the process of aging societies. Such ideas can be subsumed under the term “Productive Aging”. During recent years, the opportunities of volunteering to promote productive aging processes have been discussed intensively. In parallel, the share of older volunteers has grown remarkably during the last three decades in Germany. Today, almost 30 % of all people aged 50 and up report volunteer activities during the previous year. Compared with other European countries and the USA, Germany ranks in the upper third while Scandinavian countries and the Netherlands lead with higher participation rates. Mediterranean and eastern European countries ranked at the lower end of the distribution.

From a theoretical perspective, the individual’s decision to volunteer is influenced by a triad of determinants: (1) individual resources, (2) social context, and (3) the individual’s life course. These theoretical assumptions are broadly supported by ample empirical evidence. There is a clear positive relationship between the type of welfare state (“social context”) and the actual social engagement of a population. The welfare state and civil society are complementary phenomena. In addition, there is clear empirical evidence that in Europe and the United States there is a strong positive correlation between education, income, employment status and health (“resources”) and the individual propensity to volunteer. The higher the individual’s socio-economic status, the higher the individual’s propensity to volunteer. This is the case as resources like human or social capital are important requirements not only for being successful in the labor market, but also for establishing a volunteer career. Finally, former volunteering experiences (“individual’s life course”) are crucial for understanding why older people volunteer whether they are retired or not.

Policymakers should consider the following findings when developing strategies to encourage older people to participate in volunteer work:

1. Empirical evidence on the role of welfare state policies in promoting voluntary involvement suggests that private initiative requires public support through provision of sufficient infrastructure. Welfare states cannot and must not leave the responsibility for civic engagement in the older population to their citizens alone.
2. Individual resources such as education and health are the main drivers of individual social engagement. Thus, promoting education and health of the whole society will cause positive side-effects in the form of a growing share of volunteers. If we consider the importance of former voluntary experiences for individual social engagement in later life, it is highly likely that promoting health, education and volunteering of younger people will lead to active elders in the future.
3. Policies aiming at increasing older people's civic engagement should acknowledge the limits of volunteering among older people. The promotion of unpaid productive engagement must not come at the cost of a reduced labor supply of those in their 50s and 60s. In addition, policy measures to promote voluntary activities should avoid increasing societal polarization. Moreover, careful attention should be paid to avoiding conflicts resulting from possible tensions between social expectations concerning retirees' voluntary engagement and an individual's personal concept of an "ideal retirement lifestyle". In this respect, we must bear in mind that older adults contribute to a society's economic prosperity not only through paid or unpaid work, but also – and in similarly important ways – by consuming goods and services. The loss of resources and abilities in the course of the aging process may not only bring about additional societal costs, but may also be beneficial for growth as the needs of the older population result in increasing demand for specific new goods and services (e.g., in the medical and healthcare sectors). In summary, the appropriate model for our aging societies should thus be guided by a broader concept of aging that encompasses both productive and consumptive elements.

### **Aging and Business: The Case for Corporate Social Responsibility**

Florian Kohlbacher

Demographic trends have vital repercussions for the economy and society as a whole, and the question of how to cope with an aging population has at least two crucial issues for the business world in terms of corporate social responsibility (CSR): the challenge of an aging workforce versus the challenge of aging consumers. Although CSR is hardly discussed in relation to demographic changes as a current megatrend, the issues of age discrimination of employees and safety aspects at the workplace are widely recognized by

CSR experts. The issues are completely different at the level of relationships with external stakeholders (aging consumers and customers), however.

This leads to a provocative question: is there a corporate social responsibility to develop and provide products and services that specifically cater to the needs of older people? The baby boomer generation is seen as a promising market because many members of the cohort have accumulated a significant amount of wealth and will soon have a lot of time on their hands. The focus of most silver market strategies are on the “rich and young-at-heart” elderly segment while the “poor and weak-of-limb” elderly are mostly neglected. However, income and economic inequality as well as relative poverty among the elderly are issues of rising concern in Japan.

Against this backdrop, corporate social responsibility might focus on support for older people in their daily lives. Firms should be careful not to exclude those customers at the bottom of the income and wealth pyramid, not only because the combined total fortune of these people is substantial, but because businesses can benefit both individuals and society through CSR efforts. Such an approach allows firms to be socially responsible by contributing to individuals’ and societies’ well-being through gerontechnologies and related products and services. Products with adapted functionalities, smaller product sizes or servings and packages or products specifically addressing the needs and means of poorer people are a few examples of positive CSR efforts.

### **The Coming Age Storm: Are Japan and Germany in the Same Boat?**

Naohiro Ogawa

Here, we compare to the maximum possible extent the Japanese case with the German case by drawing upon some of the major findings recently produced through an international collaborative project called the “National Transfer Accounts (NTA)”. (Both Japan and Germany have been member countries of the NTA global program over the past several years, thus producing numerous quantitative results for inter-country comparison.) That project compares lifecycle reallocations through public and familial intergenerational transfers and asset reallocations; i.e., when income is generated and when support is needed over an individual’s lifespan. For both Japan and Germany, it was found that elders (retirees) give more financial support than they receive, at least during early retirement. The second half of the study focuses on the trade-off between the cost of children and the cost of elderly persons from the standpoint of generational equity. It is often hypothesized by economists that population aging induced by reduced fertility and extended longevity

should lead to a decline in the welfare of children relative to the elderly. Whether or not this hypothesis is valid in the contexts of Japan and Germany is examined on the basis of NTA computational results. In Asia, the costs for children and elderly increase simultaneously. With fewer children around, it becomes more important to invest efficiently; i.e., to maximize the educational attainment of the largest possible share of children. It is equally important to increase employment in higher age groups. Finally, a higher life expectancy comes with higher savings, and how this financial capital can be brought to use should be discussed.

### **Towards a Lifelong Active Society**

Atsushi Seike

In order to cope with an aging population, it is extremely important for us to promote the employment of older people. If older people with the will and ability to continue working beyond the current retirement age were able to do so, this would reduce the average per capita burden created by the aging society. The increase in the number of active workers and consumers in their old age would also be a driving force for economic growth on both the supply and demand sides of the macro economy. For these reasons, it is important that we aim to create a “Lifelong Active Society” in which the will and ability of older people to continue working is fully utilized. However, the promotion of a “Lifelong Active Society” has been hindered by obstacles created by both our social security system and our employment practices.

The first obstacle lies in the public pension system. In particular, public pension earnings schemes significantly discourage older people from continuing to work. We need to revise our public pension system so as to reduce such negative effects. The second obstacle can be found in the workplace. Age-related employment practices, such as mandatory retirement and age restrictions in hiring, have prevented us from promoting the employment of older people. In order to promote the utilization of older people, we need to reform such age-related practices and also review the seniority-based wage system.

There are hopes and opportunities for promoting the employment of older people on both the labor supply side and the labor demand side. On the labor supply side, post-war baby boomers could become leading role models, and on the labor demand side, small- and medium-sized firms could provide opportunities for older workers as many such firms do not have a mandatory retirement age and offer earnings profiles that are less influenced by age.

If we can produce a model aging society through our joint projects, it could become an important tool for policy making for governments in developed countries, which are facing the same aging population problems, as well as for governments in developing countries that will eventually experience issues with aging societies. After all, the existence of an aging population is not a failure, but rather a success of civilization.

### **Changing Paradigms for Roles of the Elderly in Society**

Hiroshi Shibata

The concept for interaction between the elderly and society has changed drastically over the past 30 years. In the early 1980s, the elderly were mainly regarded as recipients of social support. Multiple studies demonstrated that the elderly with strong social ties and/or social support lived longer than those without such support. However, in the mid-1980s, new implications for social support of the elderly emerged: deleterious social supports might impair self-esteem and/or autonomy of the elderly. In the late 1980s, the balance between receiving and giving social support (reciprocal exchanges of supports), was determined to enhance subjective well-being, especially in the functionally competent elderly. This conceptual change in terms of the interaction between the elderly and society or other generations is considered to be intimately influenced by the concept of productive aging that emerged in the early 1980s.

Rowe and Kahn (1997) incorporated “engagement with life” as a third component for successful aging. The present “engagement with life” concept includes the contribution to society by the elderly. It should be borne in mind that productive activities in gerontology create both formal and informal social contributions by the elderly. In April 2002, the Second United Nations World Assembly on Aging was held in Madrid, Spain, where 4,000 delegates from 160 countries around the world gathered to discuss issues regarding aging populations. The WHO paper for this Assembly, entitled “Active Aging: A Policy Framework”, stated: “it is time for new paradigm, one that views old people as active participants in an age-integrated society and active contributors as well as beneficiaries of development”. Thus, the importance of the contribution to society by the elderly was established to the entire world.

Productive activities by the elderly are not only imperative to society, but are also helpful for objective and subjective well-being for the elderly who perform such activities. In Western countries, informal (unpaid) productive activities such as co-living arrangements and volunteering have been reported to bring about improvements in physical

and/or mental well-being for the elderly. It is of interest that with the Japanese elderly, paid labor as well as informal activities were helpful for preventing physical and/or cognitive impairment and helped prolong life expectancies. The influence of paid labor on well-being may vary cross-culturally. In any case, autonomy and contributions to society are imperative for aging populations in the 21st century.

### **Aging and Volunteering**

Masakazu Shirasawa

In a manner similar to employment, volunteering by elderly people can contribute to society and serve as a standpoint from which an affirmative image of older people can be generated.

In both Germany and Japan, people become more active in volunteering activities as they age. The participation rate of elderly people rises with their age and a peak participation rate of 30% is reached by people in their 70s (cf. Yamauchi). This demonstrates that elderly people make significant contributions to society, and we conclude that this eliminates the stereotypical image of the elderly as people who become less involved in society with their decline in physical performance. It is suggested that the starting point of the “old age” category, which is defined as beginning at 65, should be raised.

Comparing volunteering activities in various European countries, we see that welfare states such as Norway, the Netherlands, Sweden and Denmark demonstrate a higher participation rate of elderly people taking part in volunteering activities (cf. Erlinghagen). This result rejects the hypothesis that informal care achieved by mutual cooperation of residents would decrease as national welfare services are improved. Formal care represented by social security programs is interactive with informal care offered by fellow residents. The evaluation shows that although a certain level of support is necessary for elderly people if a nation promotes such social security programs, elderly people will participate in volunteering activities in greater numbers given appropriate social support.

As for the profile of those elderly people who engage in volunteering activities in Germany, the academic background, income, employment situation, health condition and social capital of individual elderly people have an influence on volunteering activities. In Japan, those elderly people with more enhanced social capital, such as relationships and trust with others, networks and participation in elections, have a greater desire to take part in volunteering activities.

The symposium focused on considering elderly people affirmatively, premised on those healthy elderly people who can work and who participate in volunteering activities. In the future, however, the number of elderly at the age of 75 or over and in need of support is expected to increase; in Japan, about 10% of the elderly population is currently in need of support. However, a positive aspect can be found in these people as well. Generally speaking, it is important to discover and assist the strengths and resiliency of those elderly people who require support. Such efforts have resulted not only in maintaining the physical and mental condition of the elderly, but also in contributions to society where the overall cost of social programs is thus reduced. As a result, it is important to have discussions where all types of elderly people, not simply healthy elderly people, are considered in an affirmative light.

### **The Potential of Aging**

Ursula M. Staudinger

Aging is (within biological constraints) what we make of it – this is the lesson that research on aging teaches us. Population aging both worldwide and in Germany poses considerable societal challenges that need to be addressed. But given the tremendous plasticity of the aging process, this challenge can be met and can – given that the necessary transformations are realized – improve the lives of all.

There are several remarkable examples for the plasticity of aging. The most astonishing is the increase in life expectancy. In the past 150 years, we have gained 45 years of life, and these are healthy years for the most part. Japan is the world record holder in life expectancy. This extension exemplifies that the same chronological age has a different meaning now than compared to 20 years ago. What is the meaning of “80 years old” to both an individual and to society as compared to the previous generation? Physicians tell us that roughly an 80 years-old of 2012 is as healthy as 70 years-old of the previous generation. Also research demonstrates that a wide range of performance levels are observed at the same chronological age. This casts doubt on whether dependency ratios can be meaningfully calculated in the same way for 1960 and 2013.

Longer lives and working into higher age groups brings up questions of cognitive maintenance or improvement over a lifespan. As is well known, aging is associated with cognitive decline in the mechanics of the mind; i.e., the composition of the brain and the quantity and connectedness of its neurons as it translates for example into the speed of information processing. It is less well known, however, that there is tremendous inter-

individual variability, which is a sign of developmental plasticity. The performance level of a 70-year-old can be above the level of a 40-year-old. Moreover, the comparison of cohorts reveals plasticity at the group and societal level. It has been shown that a decline in cognitive mechanics can set in later in life.

Furthermore, from cohort to cohort average intelligence is improving. For example, the Seattle Longitudinal Study, which measures cognitive functioning, finds an increase of 1.5 SD across 50 years. Finally, the decline in mechanics has become less pronounced. Better education, nutrition and health, along with training interventions, are at the root of these positive changes. Recently, it has been shown that exercise (physical fitness) has a positive impact on cognitive functioning. Brains have been reactivated and participants required less effort to reach the same result as younger age groups. Fitness interventions actually alter brain efficiency rather than require learning strategies for specific cognitive tasks as most non-physical interventions do. Therefore fitness interventions show improvements in cognitive functioning that generalize across different tasks.

In summary, longer lives come with different brains, and over the years, considerable cognitive plasticity can be shown in aging cohorts. However, strategies to deal with the aging of populations must focus not only on the brain itself, but also on opportunities to make adequate use of our brain capabilities. The formula “use it or lose it” oversimplifies the matter; an optimal discrepancy between abilities and goals for/of a task is required to promote enhancement. The prominent issue for dealing with longer working lives is to apply this logic and to create work biographies that establish such challenges for aging individuals throughout their lives.

Apart from health and cognition, other characteristics of an individual such as personality can be changed in old age. While an age-related decline in openness has been measured around the globe, one also finds that this change is not a natural law. When individuals are provided with preparatory training or are similarly empowered to address new situations, they will master them, and from this positive experience, the desire to experience more novelty will increase and thereby increase in openness is observed.

Plasticity implies, however, that change can also be negative if no care is taken to continue to unfold a person’s available potential; life expectancy and health may decline rather than improve in any person’s future. As shown by multiple studies, continued exercise and cognitive challenges as well as a healthy diet and social participation provide a promising recipe for successful aging.

At the societal level, key targets are to remove the rather pronounced social strata observed in healthy life expectancy, to attract the professional and volunteering contributions of older people, to build environments full of opportunities and to develop tech-

nologies ranging from exploiting their compensatory power to their mental and physical stimulation and training potential. Finally, positive plasticity notwithstanding, death sets a limit and we need to find more dignified ways of moving end-of-life care out of the shadow and into the limelight.

### **Volunteering and Social Capital in the Aging Society**

Naoto Yamauchi, Osaka University

We would like to shed lights on the determinant factors affecting generosity in the community, namely volunteering, with particular attention to the impact of social capital on the behavioral capacity for volunteering in the elderly population. We are interested in whether and how volunteering as a mode of expressing private initiatives for the public good is affected by social capital, by subjective and personal preferences and by a sense of values.

We have used the unique micro-dataset collected by the National Survey on Giving and Volunteering, conducted for the quantitative and analytical part of Giving Japan 2010 and 2011. Our unique dataset makes it possible to generate variables for social capital as well as specific figures on levels of volunteering and to test the relationship between social capital and pro-social behavior more precisely than ever. Our empirical results demonstrate that generalized trust affects the behavioral capacity for volunteering, but that its impact differs by activity and by respondents' age, sex and other personal characteristics. Our study will raise a discussion on measurement of social capital and derive appropriate policy implications.

### Hiroko Akiyama



“Living a long life has been a continuing dream of the human race. Longevity brings enormous benefits to individuals and to society as a whole, and we are witnessing the dawning of a new age. All researchers’ comments have been similar: one must be in good health to enjoy a longer life. Compared with the thinking of the 1960s, older people are no longer seen only as a burden and all people must work together to create the ideal society. Japan is an extraordinarily homogenous country; it has done well with that in the past, but diversity is the key these days, and we must open our doors to different types of people.”

### Ursula M. Staudinger



“With regard to human development and to creating living conditions, our imagination is limited. We do not seem able to imagine a society yet where all age groups are represented in similar proportions. Rather, anxiety prevails concerning what a society with as many above 60-year-olds as below 20-year-olds might be like. We are part and parcel of fundamental historical changes. I am curious to see what we will make of it in our various cultures. Even though we are growing older than ever before in our history, let’s not forget that human life draws its value in part from its finiteness. Similarly, life loses much of its richness if the different seasons of life are not appropriately respected.

Aging populations present a wonderful opportunity for Japan and Germany to continue to cooperate. Both our countries are ahead of the curve at this juncture, and we should use this position for research as well as policy-making.”

## EDITORIAL NOTES

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