

Who Cares for What? Determinants of Preparation for Old Age Across the Life Course

Klaus Rothermund

Dear Professor Woopen, dear Ladies and Gentlemen,

I want to begin by expressing my heart-felt thanks for being invited to this wonderful symposium. When Professor Woopen called me a few weeks ago and asked whether I'd be willing to give a lecture on fairness across the life course, my initial reaction was: "Why me?" This feeling increased while I was listening to Prof. Di Fabio's lecture. No one likes to be the next speaker following such a brilliant talk. Furthermore, I have to confess that justice and fairness are not at the top of my research agenda. I am an empirical psychologist. I collect and evaluate data. My colleagues and I show only little interest in how these statistics relate to justice and fairness. Indeed, among psychologists, it's considered good form to leave normative questions aside altogether. But my doubts vanished when Frau Woopen told me, "Mr. Rothermund, just give your lecture and present your results. The audience and I will take care of thinking about how this relates to issues of fairness." I was relieved. Accordingly, the words "fairness" or "justice" do not occur again in my lecture. Instead I will present a few of my findings and rely on the audience to draw its own conclusions about how they pertain to fairness.

So, what is my lecture about if not fairness? My subject is preparation for old age. Among German residents, this may bring to mind the Riester pension scheme. This isn't a bad start for a first association, but while retirement plans like the Riester scheme are part of old-age preparation, financial issues are clearly not everything (Lang and Rohr 2013). In reality, old-age preparation is a very complex, multi-layered phenomenon. It comprises preparation for all possible changes that one expects in the course of getting older. What types of old-age preparation do we need and how do we think about the expected changes?

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Why is old-age preparation an interesting topic not only for individuals but also for society as a whole? The answer is: shifting demographics. What does this mean? In the past few decades, life expectancy has increased dramatically, and the trend is likely to continue. People are living longer and longer. But increased life expectancy does not benefit every phase of life equally. The extra years we get are—"unfortunately," some might say—tacked on at the end. In other words, our increased life expectancy primarily extends the phase that we call "old age", and that phase has become drastically longer. Those who retire at 60, 65 or 67 often have a quarter of their lives still ahead of them—a quarter that aging individuals must prepare for and plan.

From a political and societal standpoint, increased life expectancy brings with it a different problem. Coupled with a chronically low birth rate, it creates a disproportion between contributors and receivers in social security systems. Fewer people pay into the system, and more people take, and they take for longer periods. It is to be expected—or to be feared—that at some point provision bottlenecks will occur, making it impossible to finance the levels of retirement insurance, health insurance, and nursing care insurance to which we are currently accustomed.

It is no wonder that politicians think about and sometimes call for restricting state retirement pensions because they can no longer be financed. Out of concern that people could be left penniless in old age, they have begun to demand that persons prepare early on and assume responsibility for their own retirement.

I believe that this is a politically legitimate demand that we as a society must come to terms with. Politicians tend to think: I decide and the people will have to follow suit eventually because they have to. But what they ignore, or at least neglect, is the question of how individuals process this demand and the imminent changes it reflects. How have people responded to the demand that they should be responsible for their own old age? Has it made its way into their heads? Which new motivations and attitudes have emerged as a result? What are favorable and unfavorable frameworks for implementing such a demand?

If we look at current research, we won't find many answers to these questions. There are studies that describe the extent of financial planning or health behavior. But we still lack a systematic approach to psychological factors, motivations, and attitudes towards how we organize our lives. My colleagues and I created the research project "Aging as Future" to fill the gaps in our knowledge (Universität Jena 2015). Generously funded by the Volkswagen Foundation as part of its program Key Questions in Science and Society, this interdisciplinary project is staffed by psychologists, sociologists, and psychogerontologists. It examines people's attitudes about organizing their lives in old age as well as the psychological factors and societal circumstances that influence how people prepare for old age. Through our partners in the United States and in Hong Kong we are also investigating the influence of different cultures of aging on how individuals age. Unfortunately, data collection in the United States and in Hong Kong is still ongoing and I have no conclusions to the present day. Instead I want to present some fascinating preliminary data from our German panel study (Kornadt and Rothermund 2011a, 2011b, 2012, 2014, 2015; Kornadt et al. 2013; Rothermund 2014).

The first question we asked ourselves is what is old-age preparation, and how can one measure it? We carried out a pilot study and asked people of varying ages about the changes they expect to come with old age, their attitudes towards old age, what they are doing specifically to prepare for it. One thing became apparent right away: preparation for old age is a complex, multidimensional phenomenon. It is based on specific functions and areas of life. There is not *one* form of old-age preparation, for which one does a lot or a little. People expect very different and very specific problems and changes to occur during the process of aging, and the extent of old-age preparation in one area is independent of old-age preparation in others. The most essential part of old-age preparation is the prevention of health problems. Another area is preparation for changes at the workplace. How can I make sure that I can adapt to changing professional requirements as long as possible?

This last question may become more interesting after profession-based age limits in Germany are loosened (Rothermund 2014): How can I ensure that I am competitive in older age and can still be employable? Leisure time is also an important subject for old-age preparation. In old age we have more freedoms because many time-consuming obligations drop out, and this free time must be planned (Ekerdt and Koss 2016, Münch 2014). What are suitable leisure activities in old age? Which will be practical in older age, and which will I still be able to enjoy? What can I do so I can do these activities in old-age well?

Another increasingly important subject is how we deal with emergencies and exceptional situations. What about power of attorney and health care proxies? When should a will be written? These are questions that affect all of us at some point (Lang and Wagner 2007). Housing for seniors is another interesting subject. How do I want to live after I retire? Where do I want to live? What kind of amenities do I need? Perhaps I want to live close to my family. I also want to remain physically and mentally fit. How will I look? People start raising these questions around the age of 50. Do I have enough money for life after I retire? Can I take care of myself without being a burden to others? Do I have money left over to support children, grandchildren or other close persons financially? (See Rager et al. 2012)

The pilot project interviews showed that if we want to measure and collect data on old-age provision, we have to be specific. Here is an example from the survey that we developed for this purpose (see Fig. 1).

We have identified nine domains of life in which we measured how individuals have prepared for old age. For each area, we asked three questions: To what extent am I taking measures to prepare for this domain? How much thought have I given this topic? To what extent have I informed myself and talked to others about this topic? For each of these nine domains, we quantified preparation by merging the results from the three questions. In taking our measurements, we decided elected not to record specific activities. In some areas there are many different things that one can do or not do to prepare oneself for old age. It would be very difficult to list all these activities and ask about each one. The bigger problem, however, is that the motivation for why a person carries out an activity is often unclear. One can, say, diet to prevent health problems in old age—but also to lose weight and look better right now. In examining old-age preparation, it is important to measure the quantity and

1. Financial situation in old age	not at all	a little	quite a bit	a lot
I am actively providing for my financial situation in old age (e.g. retirement accounts, savings, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think about the topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to gather information about the subject and discuss it with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Occurrence of emergency situations in old age (need for nursing care, death, dementia)	not at all	a little	quite a bit	a lot
I am actively preparing for the occurrence of emergency situations (e.g. testament, patient's provision, health care proxy, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think about the topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to gather information about the subject and discuss it with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Mental and physical fitness in old age	not at all	a little	quite a bit	a lot
I am actively working to maintain my mental and physical fitness in old age (e.g. by physical activity, athletics, regular mental activity etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think about the topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I try to gather information about the subject and discuss it with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Fig. 1 Questionnaire to assess levels of domain-specific preparation for old age (sample domains: finances, emergencies, fitness)

intensity of activities performed specifically with the goal of improving life in old age. Our surveying method takes into account this functional differentiation (Kornadt and Rothermund 2014). We handed out these surveys to 800 persons equally distributed between the ages of 30 and 80 (Kornadt and Rothermund 2011a). The same respondents completed the survey in 2009 and 2014, so we could record changing attitudes towards old-age preparation over time.

Let's look at the results. Here is a chart showing age trends for domain-specific old-age preparation (Fig. 2; see also Kornadt and Rothermund 2014).

At first glance, the table looks complicated. But it can be understood quite simply. Each line stands for a domain in which one can prepare for old age. Let us first look at the younger people from our survey. There are generally two types of preparation. The first includes the standard forms: savings, fitness, and health. Here younger people have gotten the message that they need to prepare early on. They indicate that

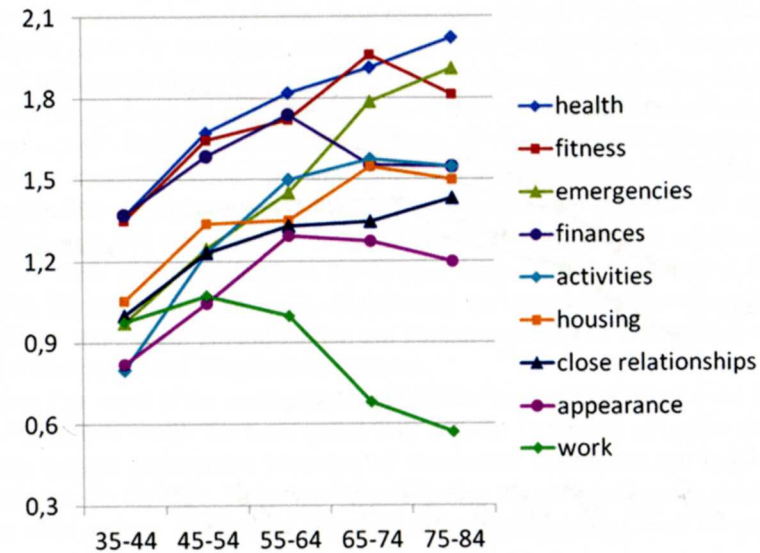


Fig. 2 Age trends in domain-specific preparation for old age

they are already doing quite a bit in these domains. The other cluster of domains covers emergencies, activities, housing, close relationships, appearance, and work. Here the amount of preparation young people undertake is relatively low.

The older one gets, the more the preparation people take in each domain varies in interesting ways. Health remains a favorite. It becomes more and more important and remains the domain with the highest preparation. Preparation for physical and mental fitness also remains at a high level. This is the only domain that occasionally rises above health in importance. The biggest increase over the life course goes to preparation for emergencies. The biggest decrease goes to preparation for work. This is no big surprise in Germany, where very rigid retirement age limits regulate the labor market. By the age of 55 or 60, it no longer makes sense to invest in one's professional career, because there is very little possibility for putting one's new experience and knowledge to use. Younger people we surveyed had a different attitude to professional preparation for old age, showing considerably higher values than the 55 and over group. This may indicate that younger people are already counting on being professionally active in older age—whether because they have to or because they are permitted to or because they can.

We have here a fairly complex picture of the different forms of old-age preparation and the way they change with increasing age. I now want to simplify the material somewhat and place the different forms of preparation into two overarching categories (Kornadt and Rothermund 2014). First, we can identify preparation for what Peter Laslett (1989) termed "The Third Age". This age begins generally with retirement and covers the period in which we are still active and engaged, want to enjoy life, and can still plan old age constructively. Preparation for the third age consists of the domains activities/leisure, friends, close relationships, work, fitness,

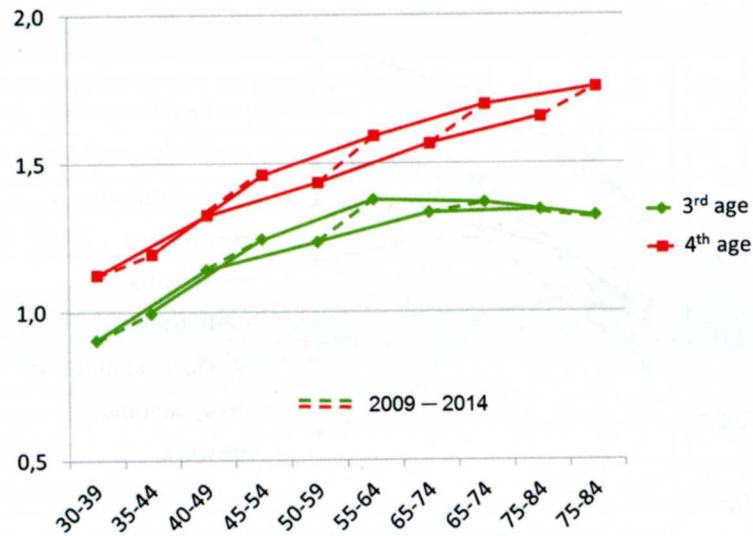


Fig. 3 Longitudinal changes in preparation for the third and fourth age for different age groups

and appearance. The other category is primarily about preparation for what Paul Baltes (1997) calls “The Fourth Age”. It consists of preparations for difficulties and emergencies associated with very old age, for a time when one is in need of care and dependent on others.

Looking at these two broad categories, we can discern a pattern. Preparation for the fourth age—when we may no longer be autonomous—gets more attention than preparation for the third age. This seems only logical. Everyone does it, and they do a lot of it. The form of preparation increases linearly over the age range in our survey. The older one grows, the more important this form of preparation becomes, and the more measures are taken. Preparation for the third age increases with age, too, but reaches its zenith between 60 and 65, and then remains relatively high but does not increase any further.

The next figure (Fig. 3) contains another interesting finding. The longitudinal aspect of our study shows changes over a 5-year interval. For all age groups we found a marked increase in preparation intensity. Interestingly, this upturn cannot be explained by the increasing age of participants alone. The increase in preparation intensity over the five-year interval is generally stronger than the differences between age groups. That is, the increase in preparation between 2009 and 2014 is steeper than the age increases between the neighboring cohorts. What does this increase mean? It would appear that over the past five years old-age preparation has generally gained in importance for all age groups in our survey.

In Germany, the topic of old-age preparation has indeed moved to the fore. People from all age groups think more about preparing for retirement and have become more active. This historical increase directly concerns preparation for the dependent, fourth age. This may reflect decreasing trust in the viability of the state pension

system. The emphasis on increased long-term care and nursing costs in the media and reports about the horrifying conditions in some old-age homes appear to have fostered individual preparation for the fourth age across all age groups. But preparation for the third age has drastically increased as well, though its extent very much depends on age. Until around the age of 65, we see a considerable rise; above that preparation intensity remains the same, and even drops off a bit. A possible explanation for this stagnation is that the extent of preparation depends not only on perceived need and the desire for an active life in old age, but also on energy and time. But these resources decrease in old age. Active forms of preparing for an old living in old age reach their limits, giving way to forms of living that emphasize acceptance and values (Brandtstädter and Rothermund 2002; Brandtstädter et al. 2010; Rothermund and Brandtstädter 2003a).

Let us take stock of the trends we have identified so far. Preparing for old age is a topic that affects us all. We have found that, with the exception of certain domain and age groups, preparation intensity for the fourth, dependent age is generally stronger than for the third, independent age. We also found an increase in preparation for the third and the fourth ages across all demographic groups over the past five years.

In the second part of my lecture, I want to focus on differences among individuals. People do not prepare for old age to the same degree, even within the same demographic group. Which variables determine these differences? To find out, we looked at various groups of predictors. First there are the social factors such as age, sex, and net income. We also looked at the societal framework. How do people see opportunities for participation in social life? Which possibilities exist for older people? What is health care provision like for older people? How do older people see it? We then examined the individual construction of age and aging resulting out of these factors. What are people’s attitudes towards living in old age as an individual person? Do they look forward to it or do they see it as a threat? Do they have specific plans and goals for old age or is that a phase of life that they would rather not think about?

I have tried to structure the results of our analysis clearly and I will present them incrementally without assuming any background knowledge in psychology or methodology. Unfortunately, I can’t spare you from more diagrams and figures. I will look at the separate determinants for the prediction of differences in old-age preparation for the third and fourth ages. In doing so, I will also point out some interesting differences we found between age groups (see Kornadt and Rothermund 2014; Kornadt et al. 2015).

Let us start with socio-structural variables (Fig. 4a). We already know that age is one of the main determinants of preparation. The older one gets, the more preparations one makes. This is illustrated in the positive vectors that extend from age to preparation. As I already noted, this type of age dependence is stronger with regard to fourth age preparation than for third age preparation. Generally, women report having made more preparations than men. Household net income also plays a certain role, but only when preparing for the fourth age. Income does not have an effect on preparation for the third age once age or sex have been controlled.

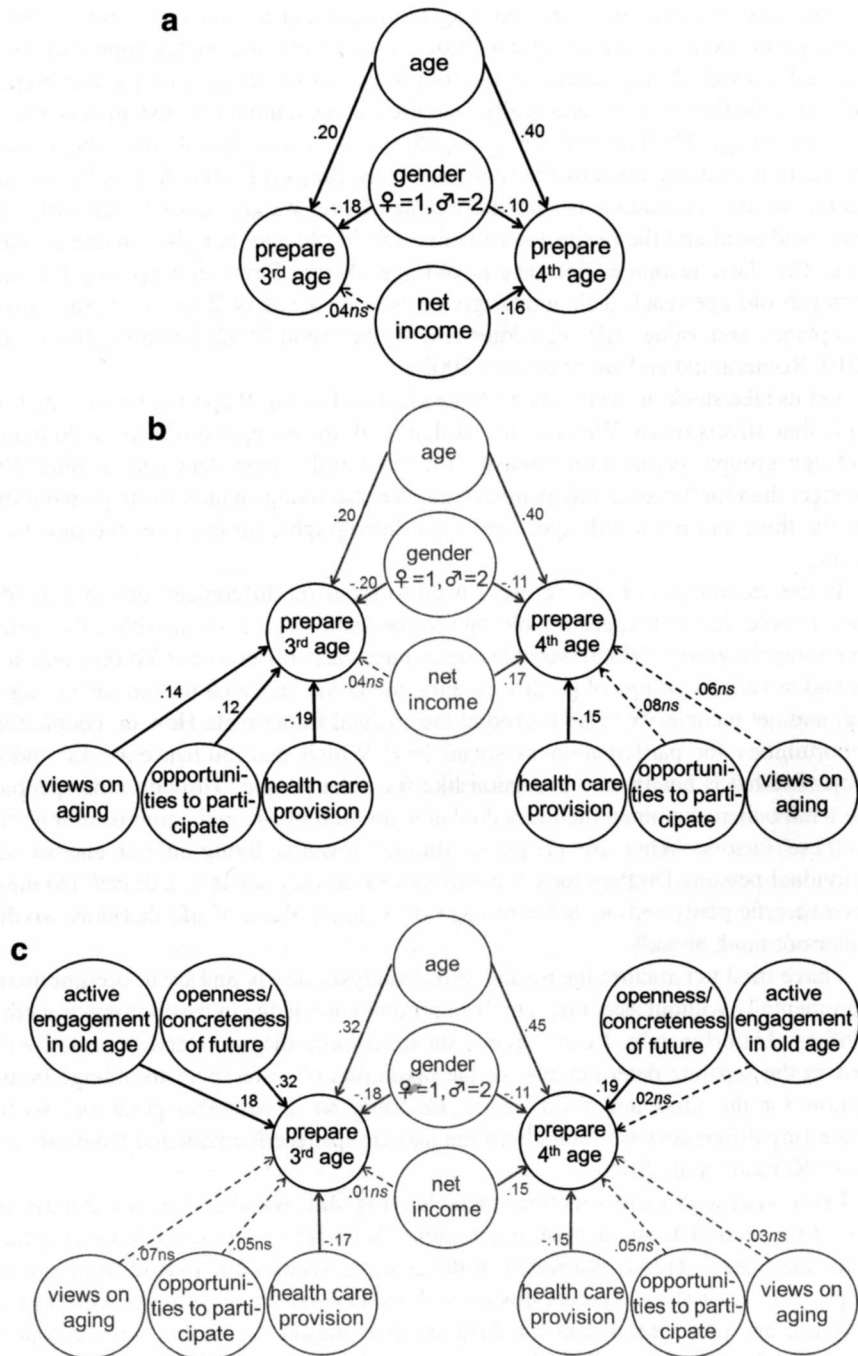


Fig. 4 (a) Determinants of preparation for old age: Socio-structural variables. (b) Determinants of preparation for old age: Societal variables. (c) Determinants of preparation for old age: Individual constructions of aging

Let's turn to the societal variables now (Fig. 4b). An interesting variable concerns beliefs about health care provision in old age. How do people see health care provision in age and how do differing attitudes affect old-age preparation? Today's media regularly emphasize that people cannot count on receiving sufficient pensions from the state. State pensions are already inadequate and we should assume that state pensions will see further cuts in the future. We find that people who expect health care provision in old age to be bad or to worsen, prepare more. The negative representations thus seem to have had an effect (cf. Lang et al. 2013). A little bit of fear is, after all, a proven means to get people to act. The negative path from health care provision to preparation for the fourth and third ages indicates that individual preparation increases when fear of poor health care provision in old age increases. This is a form of psychological compensation (Baltes and Baltes 1990; Rothermund and Brandtstädter 2003b). People try to offset expected deficits by making more preparations.

Interestingly, we observe positive effects for the other two predictor variables: A person who assesses the situation of older people in society as positive prepares *more* for his or her own old age. Those who believe that older people receive respect and recognition, and who see possibilities for meaningful participation in old age, devote more planning to retirement. In other words, assessing this phase of life as worthwhile, as offering possibilities for being involved in society without being relegated to the old-age home, is a prerequisite for taking the helm and preparing one's retirement. Provided, that is, that the phase of life concerned is the third age. The same is true for the opposite case. People who have a negative view of old age and have internalized negative old-age stereotypes (Kornadt and Rothermund 2011, 2012; Rothermund 2005; Rothermund and Brandtstädter 2003a) make *fewer* preparations for old age (Kornadt et al. 2015). It appears, then, that the prospect of an active and meaningful old age is a central motivation for preparing one's retirement with foresight. By contrast, negative stereotypes, fixed retirement ages, experiences with marginalization, and restricted possibilities of meaningful participation in social life adversely affect motivation for old-age preparation.

Now, in a final step, let us turn to specific individual constructions of aging and attitudes towards planning one's old age. These variables are the direct motivational determinants of individual action (see Fishbein and Ajzen 1975; Lang and Carstensen 2002; Zimbardo and Boyd 1999). They are the best predictors of how we prepare for old age (Fig. 4c). In our study we measured two parameters: One scale assesses the openness of an individual's future time perspective (Brandtstädter and Rothermund 2003; Brandtstädter et al. 1997): How often and specifically do I think of my life in old age? Do I have specific goals and plans for my life in old age that I want to achieve? Do I see meaningful activities for myself? Envisioning an open and purposeful future generally has a positive effect on how individuals prepare for retirement, especially with regard to the third age. The absence of a clear future time perspective, whether because of a restricted life horizon (Rothermund and Brandtstädter 1998) or because of insufficient possibilities for organizing retirement and participating in social life, presents a serious obstacle for individual preparation for old age.

We also developed a scale that measures attitudes towards active life planning in old age (Kornadt and Rothermund 2011b). Based on this scale we collected data on people's willingness to lead an active and fulfilling life in old age and employ their personal skills and experiences. A positive attitude towards such active and task-centered life organization in old age has a positive effect on preparation for the third age, but not on preparation for the fourth age.

In addition to these direct effects of time perspective and age-related attitudes towards old-age preparation, there is another interesting connection. In this final figure (Fig. 4c) we see that as soon as these proximal determinants are plugged into the model, the effects of the societal factors disappear. This means that the effects of how we perceive our old age and our societal participation in old age are communicated via such motivational factors and attitudes toward planning one's life in old age. Someone who has a positive view of old age tends to have specific plans for a more active life when they are old. Accordingly, they also prepare more for old age.

Let me now summarize my central findings. When it comes to the fourth age, preparation for old age is important and widespread. This is a universal, or normative, form of age-related activity. With few exceptions everyone does what they can, even younger people, and the older they get the more they do. There are some other factors that influence preparation, but these are mostly negative. In particular, the belief that state benefits for things like health care and nursing will dwindle increases compensatory measures in individual preparation.

Preparation for the third age, however, shows large differences among individuals, and for this reason it is probably more politically and societally significant. Several factors play an important role in individual old-age preparation for this age: positive views of old age and the possibilities for participation in old age. If people see viable options for living their lives in old age and experience older people as an important and valuable part of society, they are ready and motivated to plan their old age and prepare accordingly. These effects—products of the societal framework—are conveyed through specific attitudes and goals that a person has for their old age. Only when we understand old age as a phase of life that we can shape, and not as a fear-ridden, worthless, despised, and marginalized period of life, are people motivated and willing to prepare for their later years.

I can sum up my lecture in three short statements. First, we must remember that old-age preparation is not only about money and health. Our study has shown that old-age preparation is a complex phenomenon spanning very different areas of life. And for each age-related change there is an equivalent form of preparation. Second, negative views of old age and participation options after retirement make old age seem undignified and inhibit active preparation and planning. Third, political demands for individual responsibility for old age also bring with them political obligations. Those who demand such responsibility must also create conditions that encourage individual preparation and active participation in older age. Society must ensure that old age is seen as a worthwhile phase of life, that age limitations are dismantled and that age discrimination is eliminated (Rothermund and Mayer 2009; Rothermund and Temming 2010). Only if something really substantial changes in the social reality of life in old age a new idea of old age can take hold in people's

heads. By breaking down barriers, creating flexible options for older people to participate in society, and considering their interests and desires in the areas of work, culture, housing, and recreation, society can produce a positive vision of aging. Old age must be a phase of life that people look forward to, there must be possibilities for meaningful activity, the elderly must not be removed from society and marginalized. As long as we don't secure these structural and motivational underpinnings, we cannot demand that individuals take more responsibility for old age (Rothermund 2014).

In conclusion I would like to thank everyone who assisted with the project "Aging as Future", in particular Anna Kornadt, Peggy Voss, Stephan Lessenich, and Frieder Lang. I also want to thank the Volkswagen Foundation for its generous funding. I hope you've enjoyed my talk and I thank you for your kind attention.

References

- Baltes, P. B. 1997. Die unvollendete Architektur der menschlichen Ontogenese: Implikationen für die Zukunft des vierten Lebensalters [The incomplete architecture of human ontogeny: Implications for the future of the fourth age]. *Psychologische Rundschau* 48: 191–210.
- Baltes, P. B., and M. M. Baltes. 1990. Psychological perspectives on successful aging: The model of selective optimization with compensation. In *Successful aging: Perspectives from the behavioral sciences*, eds. P. B. Baltes and M. M. Baltes, 1–34. Cambridge, MA: Cambridge University Press.
- Brandtstädter, J., and K. Rothermund. 2002. The life-course dynamics of goal pursuit and goal adjustment. A two-process framework. *Developmental Review* 22: 117–150.
- Brandtstädter, J., and K. Rothermund. 2003. Intentionality and time in human development and aging: Compensation and goal adjustment in changing developmental contexts. In *Understanding human development: Dialogues with life-span psychology*, eds. U. M. Staudinger and U. Lindenberger, 103–124. Dordrecht: Kluwer.
- Brandtstädter, J., K. Rothermund, D. Kranz, and W. Kühn. 2010. Final decenterations: Personal goals, rationality perspectives, and the awareness of life's finitude. *European Psychologist* 15: 152–163.
- Brandtstädter, J., D. Wentura, and U. Schmitz. 1997. Veränderungen der Zeit- und Zukunftsperspektive im Übergang zum höheren Alter: Quer- und längsschnittliche Befunde [Changes of the perspective on time and future in transition to higher age: Cross-sectional and longitudinal findings]. *Zeitschrift für Psychologie* 205: 377–395.
- Ekerdt, D. J., and C. Koss. 2016. The task of time in retirement. *Ageing and Society* 36: 1295–1311.
- Fishbein, M., and I. Ajzen. 1975. *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Kornadt, A. E., and K. Rothermund. 2011a. Contexts of aging: Assessing evaluative age stereotypes in different life domains. *Journal of Gerontology: Psychological Sciences* 66: 547–556.
- Kornadt, A. E., and K. Rothermund. 2011b. Dimensionen und Deutungsmuster des Alterns – Vorstellungen vom Altern, Altsein und der Lebensgestaltung im Alter [Dimensions and interpretative patterns of aging: attitudes about aging, being old and ways of living in old age]. *Zeitschrift für Gerontologie und Geriatrie* 44: 291–298.
- Kornadt, A. E., and K. Rothermund. 2012. Internalization of age stereotypes into the self-concept via future self-views: A general model and domain-specific differences. *Psychology and Aging* 27: 164–172.

- Kornadt, A. E., and K. Rothermund. 2014. Preparation for old age in different life domains: Dimensions and age differences. *International Journal of Behavioral Development* 38: 228–238.
- Kornadt, A. E., and K. Rothermund. 2015. Views on aging: Domain-specific approaches and implications for developmental regulation. *Annual Review of Gerontology and Geriatrics* 35: 121–144.
- Kornadt, A. E., P. Voss, and K. Rothermund. 2013. Multiple standards of aging: Gender-specific age stereotypes in different life domains. *European Journal of Ageing* 10: 335–344.
- Kornadt, A. E., P. Voss, and K. Rothermund. 2015. Hope for the best – prepare for the worst? Future self-views and preparation for age-related changes.
- Lang, F. R., and L. L. Carstensen. 2002. Time counts: Future time perspective, goals, and social relationships. *Psychology and Aging* 17: 125–139.
- Lang, F. R., D. Weiss, D. Gerstorf, and G. G. Wagner. 2013. Forecasting life satisfaction across adulthood: Benefits of seeing a dark future? *Psychology and Aging* 28: 249–261.
- Lang, F. R., and M. K. Rohr. 2013. Eigennutz und Gemeinsinn: Altersvorsorge ist mehr als die Sorge ums Geld [Self-interest and public spirit: Old-age provision is more than worrying about money]. In *Verbrauchervielfalt. Chancen des demographischen Wandels für Konsum und Finanzen* [Consumer diversity. Opportunities of demographic change in consumption and finance], ed. M. Freytag, 232–241. Frankfurt: FAZ.
- Lang, F. R., and G. G. Wagner. 2007. Patientenverfügungen in Deutschland: Bedingungen für ihre Verbreitung und Gründe der Ablehnung [Living will incidence in non-clinical population samples: Conditions and reasons for refusal]. *Deutsche Medizinische Wochenschrift* 132: 2558–2562.
- Laslett, P. 1989. *A fresh map of life: The emergence of the third age*. London: Weidenfeld and Nicholson.
- Rager, B., F. R. Lang, and G. G. Wagner. 2012. Sparmotive von jungen, mittelalten und älteren Erwachsenen – Erste Ergebnisse eines neuen Inventars zur Erfassung lebenslaufbezogener Sparmotive [Motives for saving of young, middle-age and older adults – First results of a new inventory for the recording of saving motives over the course of life]. *Zeitschrift für Gerontologie und Geriatrie*. 45: 742–747. doi:10.1007/s00391-012-0322-6.
- Rothermund, K. 2005. Effects of age stereotypes on self-views and adaptation. In *The adaptive self: Personal continuity and intentional self-development*, eds. W. Greve, K. Rothermund, and D. Wentura, 223–242. Göttingen: Hogrefe and Huber.
- Rothermund, K. 2014. Die Gestaltung des Alters. Ein Plädoyer für mehr Psychologie [Shaping age. A plea for more psychology]. *Psychologische Rundschau* 65: 95–99.
- Rothermund, K., and J. Brandtstädter. 1998. Auswirkungen von Belastungen und Verlusten auf die Lebensqualität: alters- und lebenszeitgebundene Moderationseffekte [Effects of burdens and losses on the quality of life: Moderating effects tied to age and lifetime]. *Zeitschrift für Klinische Psychologie* 27: 86–92.
- Rothermund, K., and J. Brandtstädter. 2003a. Age stereotypes and self-views in later life: Evaluating rival assumptions. *International Journal of Behavioral Development* 27: 549–554.
- Rothermund, K., and J. Brandtstädter. 2003b. Coping with deficits and losses in later life: From compensatory action to accommodation. *Psychology and Aging* 18: 896–905.
- Rothermund, K., and A.-K. Mayer. 2009. *Altersdiskriminierung – Erscheinungsformen, Erklärungen und Interventionsansätze* [Age discrimination – Manifestations, explanations and approaches to intervention]. Stuttgart: Kohlhammer.
- Rothermund, K., and F. Temming. 2010. *Diskriminierung aufgrund des Alters* [Discrimination on the grounds of age]. Berlin: Antidiskriminierungsstelle des Bundes.
- Universität Jena. 2015. Altern als Zukunft [Ageing as Future]. <http://www.alternalszukunft.uni-jena.de/>. Accessed June 28, 2021.
- Zimbardo, P. G., and J. N. Boyd. 1999. Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology* 77: 1271–1288.