

Frieder R. Lang  
Stephan Lessenich  
Klaus Rothermund

# Ageing as Future

A Study by the Volkswagen Foundation

AGEING AS FUTURE  
—  
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Frieder R. Lang • Stephan Lesserich  
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Volkswagen Foundation



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ALTERN ALS ZUKUNFT | AGEING AS FUTURE

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## Preface

This book is, and this is anything but a phrase, the result of a collective effort. It is the product not only of the three authors, who nevertheless bear ultimate responsibility for the present publication, but of a research context that is as large as it is magnificent, which has expanded over the years in concentric circular movements and, in retrospect, encompasses dozens of scholars. The project was funded generously by the Volkswagen Foundation, to which we cannot be grateful enough, for more than a decade, supporting various constellations of researchers across three continents. Throughout the entire duration of the project, Dr. Vera Szöllösi-Brenig, who was responsible for all administrative questions regarding the project, was always at our side, guiding and helping us in an immensely supportive way. This book gives an overview of the essential findings that were gathered in the empirical studies that were conducted as part of the interdisciplinary and international research project “Altern als Zukunft/Ageing as Future” since 2009. During this time, more than 40 researchers from all over the world have been involved (see table below with a list of all participants) and more than 200 publications have been produced in connection with the project. Numerous theses and 15 doctoral dissertations were completed in Germany, the United States, and China and many more doctoral dissertations are still in progress. Numerous young scientists who were involved in the research project have since continued their scientific careers at other universities and colleges.

The present volume takes into account the complex structure of collaborative research in that the introductory, methodological, and concluding chapters have been written jointly by the three authors representing the now completed joint project, while they are each individually responsible for the sections on the three methodologically differentiated sub-areas of the same—questionnaire, online, and interview study. Both individually and jointly, we have attempted to summarize and bring together the results of the three sub-studies in such a way as to provide readers with a structured overall picture of future-oriented aging in an aging society. With our presentation, we would like to address not only experts in aging research but also interested parties outside the gerontological disciplines and beyond the scientific field.

For researchers, a significant part of both quantitative and qualitative data material collected in the context of the *Ageing as Future* project is made available in appropriate repositories (Zentralstelle für Psychologische Information und

Dokumentation/ZPID or Qualiservice Data Sharing) for the purpose of documentation and enabling further secondary analyses (see Sect. 2.4.3). We are also indebted to the Volkswagen Foundation for additional funding of this data archiving. As authors of this volume, we would also like to thank the many people who directly contributed to our research or who were involved in one of the numerous publications in the context of the project. In particular, however, we would like to thank all those people who as participants in our empirical studies—whether in Germany or the United States, in Hong Kong and Taiwan, as well as in the Czech Republic—made the present research possible in the first place. It is our sincere hope that their repeated efforts as respondents will have been worth the effort from their perspective as well.

Finally, we would like to thank Springer-Verlag for their professional and patient support of our book project, Franziska Damm and Nora Degen for their meticulous control and final editing of the German version of the manuscript, Merle Scheipers and Elisabeth Hefner for preparing and checking the index and reference list of the English version, and last but not least, Clara de Paula Couto for translating the German version of this book into English, and for her invaluable help in organizing the entire process of creating the English version of this book.

Nürnberg, Bayern, Germany  
Frankfurt am Main, Germany  
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February 2024

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<sup>a</sup>Project participants in alphabetical order per country who contributed to at least one publication

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# No Future? Age and Ageing in the “Ageing Society”

1

Frieder R. Lang, Stephan Lessenich, and Klaus Rothermund

## 1.1 Old Age in the “Ageing Society”

Like many other countries in the world, Germany is ageing. By now, no one can escape this insight. For decades, the Federal Republic of Germany was marked by a remarkable abstinence from population policy, both discursively and operationally. The bon mot handed down by the former German Chancellor Adenauer from 1949 to 1963, “People always have children,” is not only an expression of widespread confidence due to the economic miracle but also an implicit demarcation of West German postwar democracy from the racist pronatalism of the Nazi era. But since the turn of the millennium at the latest, demographic change has become one of the most important sociopolitical topics. Some popular German authors such as Frank Schirrmacher (2004) and Thilo Sarrazin (2010) contributed to this debate in different and polarizing ways, proclaiming that more and more attention is being paid to demography and demographic policy.

Since then, the German public has looked with concern at its own low birth rates and with envy at the much higher birth rates of European neighbors such as France or Sweden. Recently rising annual birth rates were noted with relief and immediately celebrated as a “small baby boom” (Süddeutsche Zeitung, 2016). On the other hand, statistical water-level reports about the seemingly unstoppable demographic decline

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are sometimes gleefully conjured up. Germany is ageing—sometimes “rapidly” (Die Welt, 2014a, b), sometimes “racy” (Stern, 2012). Or even worse: “France is ageing, Germany is greying,” reported the newspaper *Frankfurter Allgemeine Zeitung* as early as 2010, coupled with the horrifying vision that by 2050 there could be more French than Germans. Hence, there is no doubt that the situation is serious.

In Germany, according to the latest 14th coordinated population projection from 2018,<sup>1</sup> the number of people under 18 will fall from just under 14.4 million in 2018 to around 13.4 million in 2060, while the number of people over 67 will rise from 15.9 million to over 21 million in the same period. Proportionally, the numerical balance that currently still exists between younger and older people, who each make up just under one-fifth of the total population, will thus shift sharply in favor of the older: According to the aforementioned calculation variant, 18% of people living in Germany will still belong to the under-20 age group in 2060, but more than one in four of them (27%) will be older than 67, and almost one in seven of the resident population (13%) will even have already reached the ninth decade of life (Statistisches Bundesamt, 2019, pp. 17–28). Not unlike many other countries in the world.

There is therefore no denying it: Germany is ageing. But what does that mean actually? Can a society age at all as a whole? How should we imagine an ageing society? Is it a *collective figure* who slowly gets wrinkles and puts on old age fat? Is it a social body that at first starts to become more sedate and soon groans and moans with every movement? Is it an idealized total senior citizen who, in his old age, may—if all goes well—be deeply relaxed, mild, and wise, but who may also, “that is just how they are, the elderly” become bitter, stubborn, and obstinate?

The catchy image of an ageing society, which is probably so widespread both in the media and socially, suggests that the age structure of a society also shapes its character and that a change in the age structure inevitably changes the nature of the social. The image indicates that it is the quantity, namely, the relative proportion of younger and older people in the population, that informs about the quality of social coexistence. Furthermore, it insinuates that society per se, depending on the possible relative weighting of “young” and “old,” is mutating into a social order characterized either by qualities usually attributed to youth: liveliness, innovativeness, and future orientation. Or, conversely, it lapses into attitudes attributed to old age: slowness, preservation of vested interests, and nostalgia.

In line with such common perceptions, policy in Germany regarding older persons has for the time being adopted a strategic orientation that seems somewhat paradoxical for a society in which demographic ageing “has long ceased to be a topic of the future, but [...] is already well advanced” (Statistisches Bundesamt, 2019, p. 11). While it is precisely the oldest age groups that will grow the most in the coming decades,<sup>2</sup> discourses and programs on old-age policy focus primarily on the

<sup>1</sup>The reported numbers refer to the middle variant that is usually officially disseminated and referred to as “moderate development” (“Variant 2”). This variant assumes an approximately constant birth rate, a moderate increase in life expectancy, and rather low net immigration (see Statistisches Bundesamt, 2019, p. 16).

<sup>2</sup>According to the above calculation variant, the number of 67- to 79-year-olds in Germany will increase from a good 10 to a good 12 million people between 2018 and 2060, while the number of people over 80 will rise from 5.4 to just under 9 million (Statistisches Bundesamt, 2019, p. 24f.).

opportunities and potential of the “young old” (Denninger et al., 2014). The argumentation based on gerontological findings and now firmly anchored in people’s everyday knowledge is that today’s 70-year-olds are the same as their parents’ 60-year-olds not only in terms of their physical appearance but also in terms of their physical constitution and mental abilities—and this is true of all age groups: 80-year-olds today are the same as 70-year-olds in the past, 90 is the new 80, and media reports about remarkably spry 100-year-olds are now almost the order of the day.

Even if the reference to the “rejuvenation” of old age (Tews, 1990) is justified in essence, it ignores the fact that, as life expectancy continues to rise, the proportion of very old people in the total population will increase significantly in the future. Even if the “third age” (Laslett, 1995), i.e., the phase of healthy, independent, and active old age, will continue to expand biographically in the future and even though this “young age” already dominates the social perception of old age today, the social reality will increasingly be characterized by old age and very old age. Consequently, the life reality of older people will be characterized not less than in the past, but more than today by the need for care. Chronologically, this phase of life will shift further “backwards,” into the very high “fourth age” (Higgs & Gilleard, 2015). However, this entails the risk that social attention to this phase of life will recede even further into the background than is already the case today.

At the end of 2019, around 4.1 million people in Germany, about 5% of the total population, needed long-term care. Even assuming a permanently constant age-specific need for care, i.e., solely due to the increasing longevity of older people, this number will increase to 5.1 million in 2030 according to conservative model calculations, whereby the proportion of very old people among those in need of care will also increase.<sup>3</sup> Thus, whichever way you look at it: The “ageing society” of the future will be a society not only of the “young” but also and especially of the “old-old” age. This means that the phenomenon of frailty, long suppressed and fought against as the unsightly counterpart of a healthy old age, will return to society.

Beyond positive stereotypes of experience and wisdom, older people are rarely granted serious appreciation from a societal perspective—if only in the form of their recognition as individuals. No other age group in modern society is subject to homogenizing attributions to a similar extent. Be it external appearances and physical features—white hair and beige clothing, wrinkled skin, and stooped gait—or supposed character traits and attitude patterns such as listlessness and stubbornness, conservatism, and bitterness: no other phase of life is subject to even remotely equally strong classifications and prejudices. In old age we are all like cats after dark—in other words, gray. And since the social contact of adults with older people (unlike with children and young people) is generally limited to the older members of their own family, corresponding judgments or prejudices can also prevail unchecked and become entrenched, unclouded by social comparisons.

No one would ever think of lumping together all people from a certain phase of adulthood defined by age groups—let’s say all 25- to 50-year-olds and ascribing to them uniform characteristics, behaviors, or interests as an imagined large group. Regarding children, on the other hand, an impulse toward standardization and

<sup>3</sup>Cf. <https://www.curacon.de/neuigkeiten/neuigkeit/413-millionen-pflegebeduerftigen-menschen> [last accessed 10/3/2021].

depersonalization of their social perception can be observed: Children are then, depending on historical time and social constellation, generally perceived as a burden or as a blessing, are to be urged to obey or to be led to independence, be a lot of work, or convey feelings of happiness. In everyday practice, however, these generalized characterizations of childhood are countered by the view, partly motivated by Christian religion and partly by parental love, that every child is unique—and that one's own child in particular is, of course, especially unique.

This is quite different with *the “older people”*: We know them, we know what they are like—and what they want. It is not for nothing that, in the context of demographic change, there has been repeated public talk in some German newspapers of an approaching “*Older Peoples’ Republic of Germany*” (e.g., BILD, 2006; Frankfurter Rundschau, 2009; DIE ZEIT, 2013)—including former German President Roman Herzog’s dystopia of a “pensioners’ democracy” in which “the old plunder the young” (Die Welt, 2008; Süddeutsche Zeitung, 2010; Focus, 2013). After all, *the “old people”* supposedly have only one interest: to secure their lavish pensions. Surprisingly, however, the social tendency to homogenize old age is not only reflected in political and media discourse. In the scientific field, there are as well repeated standardizations, and the actually pre-scientific talk of “*the*” older people is widespread. Even the German government’s reports on old age, which are regularly commissioned by a commission of high-ranking experts, are sometimes unable to resist the tendency to de-differentiate.

It is true that the Sixth German Governmental Report on older citizens devoted to “Images of Ageing in Society,” stated that the socially dominant—consistently negative—images of old age did not do justice to its diversity, “which is likely to increase further in the future” (BMFSFJ, 2010, p. 23). However, by consistently trying to promote a positive image of old age, almost as a countermove and with age-friendly intentions, the report ultimately fails to do justice to the diversity of old age, which it rightly emphasizes. The reference to statistical averages, which is typical in this sense, even among experts, runs through the entire recent debate on demographic change and the supposed “ageing of society.” It can be found in this or a similar way practically every day in media reporting on the subject: “On average, older people living in Germany today have more financial resources than any previous generation of older people, they are in better health and have a higher level of education on average, and last but not least, on average they have more time available for commitment to others than older people of previous generations.” (BMFSFJ, 2010, p. 22).

But what is the significance of emphasizing the fact that the average older person is healthier and more educated and has more financial resources and a greater wealth of time than the average older person of previous generations? In the debate about the “young old” or an activation of old age, corresponding statistical references are always linked with the indication that accordingly more social commitment can be expected from “*the*” older people, if not even demanded politically: “The good endowment of older people with material and immaterial resources on average today should certainly benefit society as a whole.” (BMFSFJ, 2010, p. 468).

However, such a rhetoric of averages—as well as a subsequent “policy with the average”—in no way does justice to the heterogeneity of old age, the diversity of social situations in old age, and the variety of transitions into old age. Old age is no less “colorful”

than any other phase of life. Behind the egalitarian talk of old age and the “average” older person is a social world of unimagined diversity. Making this diversity of age and ageing, growing older, and the experience of being old visible was a central concern of the study “Ageing as Future.” A diversity that we were able to bring into view significantly through the combination of different scientific perspectives.

Old age is a phase of life that—at least in affluent countries like Germany—is reached and passed through by a large proportion of the population. Ageing, in turn, is a process experienced by each person in a very personal way and to be shaped individually. When and how the transition to retirement takes place, what plans are made for the time after employment and how everyday life is regulated in retirement, what ideas are cherished about a successful life in old age, and how old one would like to become at all: in all these regards, ageing or older people think for themselves—make their personal decisions and arrangements and organize their private lives.

On the other hand, the aforementioned—and many other—age-related ideas and decisions, plans, and preferences are by no means only individual, never merely private matters. They are also always socially framed and socially embedded, controlled by state institutions and determined by generally shared norms. The transition to retirement, for example, is subject to the regulations of labor law and pension insurance and is often only partially self-determined, but rather takes place in the context of company personnel strategies. The possibilities and options for everyday life in old age are determined not only by the available material resources but also by the structure of social networks and the availability of public infrastructures. And our images of successful ageing as well as our wishes regarding the ideal lifespan (de Paula Couto et al., 2023; Lang et al., 2007) are anything but our “own”: They are also shaped by socially prevailing values, by the institutionally provided health services—and not least by our respective position in the structure of social inequality.

Age and ageing are, on the one hand, a function of one’s own decisions, individual behavior patterns, and personal adaptation processes. On the other hand, they are also social phenomena and social categories. Therefore, they can only be understood as such a double phenomenon in the systematic interweaving of social and behavioral science approaches, of sociological and psychological research. This book precisely provides this linkage.

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## 1.2 The Diversity of the Experience of Being Old

For the individual, an ageing society poses new and diverse challenges in planning for and coping with a sometimes threatening, sometimes idealized future of old age. This also gives rise to numerous uncertainties about one’s own age, which lies in the future. Contributing to this are the often-ambivalent public portrayals in which hopeful and threatening scenarios of ageing are treated side by side or occasionally in rapid alternation.

On the one hand, demographic catastrophe scenarios deal with the presumed consequences and costs of an increasing number of very old, frail, or demented

people, whose care provision seems to be hardly secured by society anymore, as suggested, for example, by the AOK Care Report 2017 published by the largest statutory health insurance company in Germany (Jacobs et al., 2017). In such catastrophic images of the future need for long-term care, the misleading impression is created—intentionally or unintentionally—that, due to this trend, every individual must also reckon with an increased risk of long-term care for themselves in the future. However, it is precisely this conclusion that can be called into question: People died in earlier times, too, and before death there was a phase in which most people needed care, just as they do today. Nevertheless, just because the proportion of people in need of long-term care is rising due to the fact that baby boomers will gradually reach old age over the next few decades, there will initially be little or even no change in the personal age and future risks of each individual. Such catastrophic scenarios are very well suited to stir up fears and worries in each individual that they will one day be affected by the presumed nursing shortage. Unfortunately, it does not always help to point out that one must first reach a high age to be at high risk of needing care in the first place.

### **1.2.1 Social Conditions of the Experience of Being Old**

It is therefore legitimate to ask whether it can be concluded from the demographically observed increase in life expectancy in society that every individual will spend the supposedly extra years of life in need of care to a high degree or inevitably. At least, this is what is suggested by the interpretations and public debates which, in view of the “ageing of society,” have for years been recurrently predicting or conjuring up something like the imminent collapse of the previous welfare state and social systems (Die Welt, 2014a, b, 2021; Süddeutsche Zeitung, 2018). However, the very question of the individual risks of a future need for long-term care has not been clarified in either medical or epidemiological research and has been the subject of controversial scientific debate for many years (for an early overview, Fries et al., 2011).

On the other hand, there are also many positive and idealizing old-age scenarios that describe an active attitude to life and a high level of satisfaction in old age and thus suggest a late phase of life in relatively good health and competence. This is also suggested, for example, by the findings of the Generali Ageing Study for Germany (Generali Deutschland, 2017), although only in relation to people aged 65 to 85. Many of the euphemisms of possible risks and health losses in old age, just like ideal images of ageing, are usually caught up very quickly by the reality of personal experiences of ageing and should therefore also be taken with a grain of salt. However, it has not yet been clarified how scenarios and images of the future affect what expectations, ideas, and views people have regarding their own future.

Many people react to the contradictory portrayals of the future of old age in the “ageing society” with uncertainty or even perplexity about their own planning and provision for old age. At times, one’s own future old age is constructed as a battlefield of decline and personal loss, where a life of dignity hardly seems possible.

Otherwise, however, old age is beautifully drawn as a seemingly endless phase of individual self-realization: Previously unfulfilled and postponed wishes or even life dreams seem to be realized or at least tackled only then, because one believes to have the time for it and feels young at the same time.

Personal future plans for life in retirement become a haven of ambivalence, in which the desire for a phase of life characterized by self-fulfillment, happiness, and activity seems to be almost inseparably mixed with the fear of losing self-determination and with the resigned hope for an end to life that is as short and painless as possible. Such ambivalences are not only found in media representations and images of ageing, for example, in the illustrated book published by the Federal Ministry for Senior Citizens on the topic "What does old mean?" (BMFSFJ, 2015), but they also characterize many of the personal views of people who ponder their (future) life in old age (Münch, 2016; Ekerdt & Koss, 2016).

The question of the consequences of a supposedly longer and still increasing life span in modern societies can be extended even further. The question is to what extent an increasingly longer life affects the way people think, feel, and act. To what extent are personal perceptions changing as a result of the demographic trend, such as one's own subjectively experienced life expectancy or desired lifespan? How long will I live? How long should my life last? To date, there are no comparative values and yet hardly any findings on the extent to which expectations and desires regarding one's own lifespan have adapted to the higher life expectancies in the population over the decades in the postwar period.

Even though many people in modern societies generally live longer than in earlier times, the individual's own personal risk of disease and death inevitably remains uncertain. For some people, life proceeds with a high degree of functioning and self-determination, even into old age. For others, on the other hand, old age is associated with years of discomfort and suffering, restrictions, and need for care and may end in agony and loneliness. There are undoubtedly losers and winners from the increase in life expectancy in modern societies, but the risk of being among the losers of a prolonged life cannot be determined in individual cases and cannot even be estimated. It is true that it is now well documented that the life expectancy of people with above-average wealth is up to 10 years higher than that of people from below-average income groups (Lampert & Rosenbrock, 2017). However, what this means for the individual and the shaping of their own life situation in old age remains open. It remains unclear, for example, to what extent factors such as personal lifestyle, experience of being old, thinking about the future, and making provisions for the future—in a mediating way—cannot also have a mitigating effect on income-related differences in life expectancy. In what ways are there individual and psychological factors, in addition to societal conditions, that contribute to long life and successful ageing? Where do individuals get their ideas and expectations about what the future will bring them? All personal knowledge about age, ageing, and future risks is fed by representations in the media and in fiction, by professional and other social contexts or by personal experiences and descriptions in one's own environment, family, close relatives, or acquaintances. In each individual case, however,

it remains uncertain how one's own personal future will unfold (cf. Chap. 4; Lang, 2023).

### 1.2.2 Ageing as an Individual and Social Project for the Future

Since each person lives only once, there are few clues for the individual as to what shape their own ageing will take. It is therefore hardly possible to understand one's own future life span subjectively as a kind of personally comprehended "social trend" of increasing life expectancy. How long life will last is therefore unknown. One thing is certain: One's own life ends in private. Only one's own death is certain, but its circumstances and time are uncertain, as is the course of one's own ageing. The only apparently "private" aspect of this process takes place in a complex, supra-individual context shaped by social comparisons, social norms, and domain-specific views on ageing. It has not yet been clarified, for example, what influence the knowledge of an increasing lifespan has on how people in modern societies deal with their future and in what way they approach their own age mentally and in a precautionary manner. In what way is future action determined by views of old age, expectations, and personal plans? What role do social and cultural conditions play in thinking and acting about the future?

The unique personal experience of ageing unfolds in each case only during one's own life and can therefore be recognized in its particularities only gradually. Historical changes in ageing or even demographic trends are only directly perceptible to the individual, if at all, only within narrow limits. It is true that many people hear about ever new records of longevity in the media, and the anniversary celebrations of 80-, 90- and even 100-year-olds in the circle of acquaintances, friends, and relatives are becoming more frequent. And yet, at the same time, the question arises as to whether it is at all desirable to reach such a "biblically" high age of perhaps 90, 95, or more years? Does one want to live that long? The answer that many people give to this is no, or it is: "Yes—as long as I am still healthy" (de Paula Couto et al., 2023; Lang et al., 2007). And how likely do people think it is to reach even a very old age of, say, over 100? Would it be not better to die healthy sooner than sick later? Is it possible to prepare today for a phase of life that will not begin for another 20, 40, 60, or 80 years? Should we do so at all? In answering such questions, it is important to know what one's ideas are about what one's old age and the final phase of one's life will bring: Will one experience these years in self-determination and with a clear mind? If not, is it better to avoid it after all?

People usually wish to live a long life only under certain conditions. However, little is known about what leads people, even in the face of the adversities that usually accompany old ("real") age, to nevertheless see this final phase of life as an indispensable part of life. Increasing longevity and high life expectancy are usually associated with many fears and anxieties, which revolve in particular around the questions of continuity and securing one's own standard of living in the later phases of life. Will one's own life in the eighth, ninth, or tenth decade of life still correspond at all to what the individual considers to be worth living? The question is,

therefore, whether people are more likely to expect advantages from a longer and longer life—and who is more likely to expect disadvantages. To what extent are hopes and fears about one's own future not only the consequences of social conditions but also the conditions for shaping everyday life?

### 1.2.3 A Flexible Approach to One's Own Future and Ageing

For most people, their own age lies in the future. This is even occasionally true for people who have already reached an advanced age, at least as long as they feel healthy and thus still younger than they actually are. Moreover, “being old” is often used as a characteristic attributed to others of the same age, but surprisingly without feeling a sense of belonging to their group (Weiss & Lang, 2012). It is well-known that such a demarcation from the age of others allows for a flexible way of dealing with the personal experience of ageing, for instance, by comparing oneself with such older people who are worse off than oneself. However, this flexibility also entails some risks. If there are still older people whose age can be distinguished from one's own positive experience of ageing, one can still easily avoid the discussions about the challenges of an ageing society, at least in one's personal living environment. For as long as this is the case, the future scenarios of old age from the point of view of the individual are only concerned with the situation of the “really old,” from whose life situation one generally still feels distanced from. Importantly, however, although negative old age stereotypes can have immediate beneficial effects when used as a contrast for downward comparisons, they have negative long-term consequences, since the taint personal experiences and self-views via processes of internalization (Kornadt et al., 2023).

The scenarios of a “rejuvenation” of old age (Tews, 1990) in modern societies also become riskier or even threatening if they are accompanied by the fact that the individual, due to their own situation and constitution, experiences themselves in comparison to others as having aged (too) early or, in line with negative age stereotype, as an “old man.” What happens when one does not experience one's own age positively and productively, when one feels—as old as one is, or even older—and cannot participate in the youthfulness illusion of modern ageing? In such situations, one's own ageing in a social context can pose a double challenge, in which older people are not only exposed to the health burdens of ageing but are also less successful in evading the age stereotypes and devaluations of old age that prevail in society. The end result can also be a complete social withdrawal, isolation, and even loneliness (Tesch-Römer, 2010).

### 1.2.4 Individual Ageing Over the Life Span

Every person grows old in their own way—the expectations, hopes, and fears we have about our own age are shaped by personal experiences, goals, and possibilities for action. Whether one looks forward or fears, prepares for, or resists old age, how

one evaluates the experiences and changes made during ageing and whether one learns to accept them, all this is an expression of an individual biography of ageing. In addition to this individuality of ageing and the differences that exist between persons in this regard, however, ageing is a phenomenon that also takes on different forms within one and the same person.

Thus, the confrontation with one's own age and ageing begins early—perhaps one experiences one's own grandparents or parents as a model for one's own ageing, perhaps one learns through the media that the phase of old age will bring very special challenges for today's still young generation. Even if these initial confrontations with one's own age are still rather projective, they may already have an impact on our current thinking, on our decisions and on our actions: they may influence our choice of profession—if, for example, this is also shaped by considerations of security or the probability of still being able to carry out this profession at an older age. They may encourage us to lead healthier lives, to avoid certain risks, or to manage our finances with foresight. Alternatively, negative scenarios of one's own age can bring thinking about one's own ageing to a standstill and suggest a way of life based entirely on the here and now.

In later phases of life, it is then more and more a matter of dealing with the factual changes that occur in old age: One's own life situation has changed, and many decisions in career and family have already been made and can no longer be revised without further ado. Perhaps one has achieved something of which one is proud or made mistakes of which one is ashamed. Above all, however, the relationship of the life still to be lived to the life already lived becomes increasingly unfavorable, prospects shrink, and physical fitness may decline. One benefits from the life experience one has accumulated, enjoys the responsibility that comes with reaching a position of influence, or the freedoms that come with retirement.

Finally, one makes the transition from the group of the “young” to the “old-old” older adult; the so-called fourth age begins (Baltes, 1997). In this stage of life, growing old is characterized by completely different demands, worries, and problems, but also expectations and hopes. Am I not a burden to anyone? Are my affairs well regulated? Have I made provisions for all eventualities? Do I feel safe and close to the people who mean something to me? Can I make peace with what has been—and with what should not have been? Am I able to let go and adopt an attitude that allows me to die reassured and with dignity?

With this stylized stage model of ageing over the lifespan, we primarily want to point out that ageing is a very variable process during life, even within the same person. Throughout ageing, age always shows itself from a different side. Thus, it should not be suggested that an always uniform course of ageing can be shown for all persons: Despite typically observable patterns, the experiences, processes, reactions, problems, and solutions that arise in the course of personal life stories of old age are very heterogeneous and individual. Not only do individual biographical experiences of ageing differ, the points in time at which age(s) become the focus of one's own experience also vary from person to person. A core concern of this book will be to explore and systematically describe this diversity of the individual experience of being old.

### 1.2.5 Determinants of Ageing and Ageing Experience

If one becomes aware of the differences in the process and in the contents of ageing, then the question immediately follows as to how these differences can be explained. What are the decisive factors that set the course and regulate ageing processes (Rothermund et al., 2023)? What is the role of the individual, what is the role of the personal and social environment, what is the role of socio-structural and socio-cultural factors? A first central factor in this search for the determinants of ageing and the experience of being old are—especially in view of the variability of ageing over the life span—differences between different generations. Not only do older adults, the young old, and the old-old experience ageing from their respective specific perspectives. Ageing also means something different today than it did in previous generations, and it will be experienced differently again in future generations. As times change, old age(s) can take on a completely different face. Sociological and psychological studies can usually only depict a tiny section of this historical development. The comparison between young and old, however, is possibly a key to understanding just such long-term historical changes, even if it takes place only at a specific point in time.

The current demographic development is a prime example of such an intertwining of individual and societal ageing processes. The generation that is already older today may react with relief, believing that they will hardly be affected by the upcoming changes, while the same long-term development may trigger worries and fears about their own age, especially among the long-not-yet-old. Such age-group-specific effects of social events and changes were already analyzed by Elder (1974) regarding the Great Depression at the end of the 1920s.

Cultural comparisons provide another impressive indication that vividly demonstrates the differences in ageing. A look at preindustrial cultures that were not yet shaped by medical and technical progress may give us a revealing impression of what ageing might have looked like in earlier times. Cultural comparisons, however, not only allow speculation about possible historical changes in ageing; they also open up a perspective on the seriously different social constructions and “normality” of ageing, even and especially between modern societies. While ageing in earlier times may have been shaped primarily by biological factors and therefore looked comparatively similar, increasing mean life expectancy reveals that a large number of very different age cultures are emerging, for example, with regard to the status, care, and integration of older people, but also with regard to the individual approach to ageing. Precisely in order to investigate such differences between countries and cultures, our study also includes as a central element international comparison between Germany, the USA, China (Hong Kong), Taiwan, and the Czech Republic.

Differences between age groups, cohorts, and cultures, however, are only a first, albeit very important, approximation of the complexity of old age and its determinants. Even more directly, ageing processes are shaped by views on ageing, which are also a central source of differences in individual ageing (cf. Chap. 3). Views on ageing are understood as both positive and negative perceptions of

ageing—successful or failed, socially desirable or normatively deviant, hoped-for, or anxiety-provoking. These views include social expectations regarding ageing and older people as well as individual expectations regarding one's own age and ageing. The analysis of views on ageing is of central importance in the study reported here because views on ageing often act like self-fulfilling prophecies. They shape the perception and interpretation of age-related—or even only supposedly age-related—changes, but above all they influence people's motivation and actions regarding later phases of life. In particular, negative views on ageing represent an important risk factor for unsuccessful engagement with the ageing issue, lack of preparation, and age-related anxiety.

### 1.2.6 Domain Specificity of Individual Ageing

Changes in ageing over the lifespan occur in a comparatively leisurely temporal sequence, with characteristic phases of the ageing experience typically lasting several years following one another. The transitions can be smooth, sometimes abrupt, but on the whole, we are dealing here with extended periods of comparatively long time in which one's experience of being old remains constant until the next transition or change occurs.

What is not considered in this view are the massive differences in the experience of being old within one and the same person, which coexist simultaneously and have to do with the fact that the experience of being old differs, sometimes dramatically, in different domains of life (Kornadt & Rothermund, 2015). In the literature, this form of heterogeneity in ageing is referred to as “multidimensionality” and “multidirectionality” (Baltes, 1987). However, these core theses of research on ageing in developmental psychology have neither penetrated into the everyday understanding of ageing, nor do they represent a matter of course in ageing research itself—global and stereotypical constrictions continue to cloud our views on ageing too much, not least by reducing the phenomenon of “old age” to biological changes and health problems. The physical and health condition may be a life domain in which experiences of age-related changes play a particularly prominent role, while other life domains are designed to be almost “age-free” or at least experienced in this way, be it friendship with neighbors, a religious bond, or one's own personality. Not only do life domains differ with regard to the personal relevance of the topic of old age, but often the quality of the experience of being old also differs itself: Is being old or growing old in one domain interpreted more as a gain or a loss? How old do I feel in a domain at all? At what age would I describe a person as old when I think of certain domains of life, activities, or social contexts? Here, there are not only differences between life domains, but also strongly differing age profiles can be found for different people. The 35-year-old IT developer or advertising copywriter may already feel old in their profession and be afraid of being taken out of service, while in terms of health and intellect and—perhaps they are still unmarried—also in terms of family, they clearly belong to the younger generation, which, however, is no longer necessarily experienced as positive at this age, since age

norms may already have been exceeded here (Neugarten et al., 1965; Kalicki, 1996). A 35-year-old psychologist, on the other hand, who takes up work as a therapist for the first time after extended parental leave, may feel professionally young, inexperienced, and perhaps also insecure, but physically no longer defines themselves as a young person who attaches importance to a youthful appearance, but in their family role, they may consider themselves an “old hand”—quite in a positive sense.

Of course, the experience of being old in different domains of life is not always independent of each other. But even the form and direction of these correlations can vary—retirement, for example, can have a negative but also a positive impact on leisure behavior (loss of acquaintances and social contacts vs. gain in time resources) or a person’s family life (increase in conflicts vs. more time for each other).

Considering differences in ageing across different domains of life and social contexts is a core feature of our study of ageing. The domain-specific perspective permeates all aspects of our analyses: From views on ageing to preparation for old age, there are consistent indications that age and ageing are not global or homogeneous phenomena but can always be analyzed and understood only with reference to specific life contexts. We see the breakdown of ageing processes from this specific contextual perspective as one of the essential contributions of our research, both for the scientific analysis of old age and for its everyday understanding in politics and society.

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### **1.3 Ageing as Future: Questions and Objectives of the Study**

The study “Ageing as Future” examines the interplay between the experience of time, views on ageing, and future or preparatory action with regard to its individual, social, and cultural conditions and implications. How do domain-specific views on ageing change over time and how are they incorporated into one’s own self-image as one grows older? Or do views on ageing only change as a result of the personal experience of ageing? What effects do future scenarios have on the level of individual future and preparatory actions in the present? What role does the handling of lifetime and everyday time play in dealing with the finitude of one’s own life?

Up to date, reliable answers to precisely such questions about ageing as the future have been scarce or nonexistent and are presented in summary form for the first time in the volume presented here. In a unique way, social conditions of different countries are combined with an examination of changes over historical time. The study is based on a unique variety of different methodological approaches, including psychological experiments, surveys in diverse population-representative samples, but also special online surveys and qualitative interviews. This combination of diverse methodological approaches and different data sources from different cultural contexts is so far unique in its kind—as is the gain in knowledge about age and ageing that could be achieved through this complex study design.

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## Procedures and Data Basis

2

Frieder R. Lang, Stephan Lessenich, and Klaus Rothermund

The Ageing as Future project investigates influences of structural dynamics in modern societies on personalized and generalized views on ageing, time management and preparatory and future oriented actions in the life course using a variety of methodological approaches. Within this framework, multidisciplinary, multicultural, multi-methodological, and longitudinal approaches were combined. From a psychological, sociological, and gerontological perspective, central constructs of the three closely interrelated topic areas were examined over a period of up to 10 years in initially three and in the last survey phase five countries (Germany, the USA, Hong Kong, Taiwan, and the Czech Republic). Different empirical methods could be used and combined in different parts of the project: problem-centered and partly biographical-narrative interviews, structured questionnaire surveys, and online surveys. The following chapter provides an overview of the approach and the process of the surveys of the various subprojects in Germany, the USA, and Hong Kong and, from 2016, also in Taiwan and the Czech Republic. Figure 2.1 provides an overview of the thematic focus and methodological approaches in the three interlinked subprojects.

The three central topics of the project “Ageing as Future” were investigated considering the different emphases of the participating subprojects and countries over the course of three joint survey waves at intervals of 5 years as well as additional intermediary

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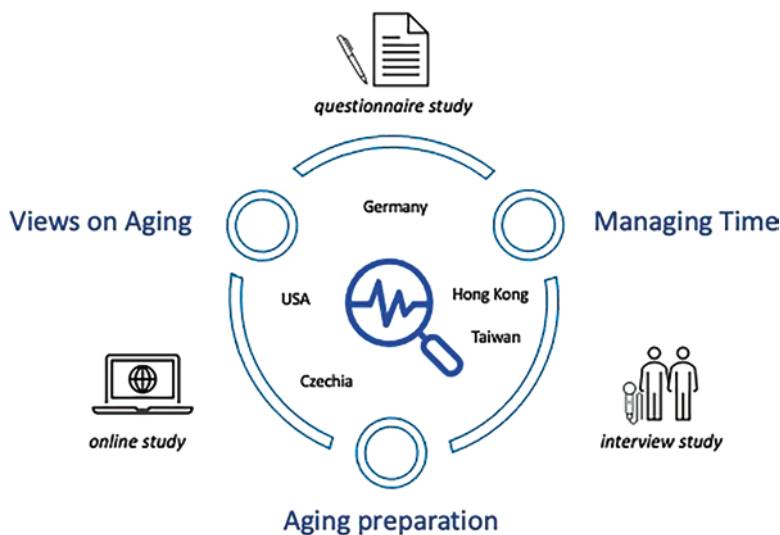
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**Fig. 2.1** Main research topics and methods of the three subprojects

surveys with online questionnaires at 2-year intervals. The focus of the questionnaire study subproject was to examine the determinants, domain specificity, and effects of views on ageing; the subproject of the online surveys focused on determinants, expectations, and preparatory and future actions; the subproject of the qualitative interviews focused especially on the topic of time management and time sovereignty.

At the beginning (in 2008/2009), the focus was more on the investigation of context- and domain-specific influences on views on ageing and on the experience of the ambivalence of temporality structures in the life course. The second joint survey wave (2013/14) then focused on aspects of the interplay between views on ageing and ageing preparation from different disciplinary and methodological approaches. In this second wave, data were analyzed regarding cultural differences. In the third general wave of the survey (2018/2019), further focal points were added, which focused on the fourth phase of life, vulnerability, and dealing with the finitude and the end of life. Furthermore, three additional intermediary surveys were conducted as part of the online surveys in 2012, 2016, and 2020.

In the following, the three methodological approaches (questionnaire, online surveys, interviews) are described in detail. In a final paragraph, we address issues regarding the translation of the survey instruments and guidelines into the languages of the participating countries, the network process among the subprojects, and the procedure for archiving the data for future research on these topics.

## 2.1 The Questionnaire Study

A structured questionnaire was developed for the project, containing relevant constructs for all the complex, content-related questions of the project (views on ageing, preparation for old age, time experience, and management), with the focus on a

differentiated assessment of age-related perceptions and attitudes. Table A1 in Appendix A provides an overview of the main content areas of the instrument. Almost all components of the questionnaire were newly developed for the purposes of the project to provide a thorough and most detailed coverage of the relevant constructs. Scales were developed for assessing views on ageing, preparation for old age, and the subjective experiences of age and time *in a domain-specific way*. Furthermore, *personalized* (i.e., perceptions related to oneself and one's own ageing) and *generalized* (i.e., attitudes related to the group of older people in general) constructs were assessed separately. With such differentiated instruments, a multidimensional and multidirectional assessment of the experience of old age and age-related behavior is possible, which can also depict the complexity of age-related attitudes within single individuals.

The multitude of constructs from the field of ageing experiences and ageing behaviors as well as the multidimensional assessment of the constructs is a unique feature of the questionnaire study. This approach goes beyond existing panel studies, in which age-related constructs are typically regarded as homogeneous and only assessed via one-dimensional scales (e.g., positive vs. negative views on ageing) or via individual items (amount of financial provision, general experience of old age, e.g., subjective age, extent of experienced age-based discrimination).

The core components of the instrument were used in almost identical versions across all measurement points to enable longitudinal comparisons and thus to be able to separate age and cohort effects from one another. Additional constructs were included in the questionnaire instrument during the thematic extensions of the project during later measurement occasions (see Appendix, Table A1).

### **2.1.1 Test-Theoretical Quality Criteria and Measurement Invariance of the Questionnaire Scales**

Factor and reliability analyses were used to validate the measurement-theoretical properties of the newly developed scales. In particular, for the instruments that assessed views on ageing and preparation for old age, the proposed domain-specific structure could be validated by confirmatory analyses. It appears that attitudes and behavioral tendencies toward age-related topics in different life domains (e.g., family, work, leisure, health, appearance, friends) are largely independent of one another and each represent independent dispositions of belief and behavior (Kornadt & Rothermund, 2011a, 2014; Kornadt et al., 2020). The measurement accuracy (reliability) of the newly developed instruments is satisfactory to very good.

A major goal of the project is to systematically compare age-related attitudes across age groups and countries. Such comparisons assume that the scales measure the same construct in the different groups and cultural contexts. Technically, this question is about the so-called measurement invariance of the scales, which can be tested by comparing the correlations and pattern of means of the scales and its constituent items in the different groups (Milfont & Fischer, 2010). Corresponding analyses could confirm measurement invariance of the instruments across age groups and countries (de Paula Couto et al., 2022a; Kornadt et al., 2019; Voss et al., 2018b).

## 2.1.2 Design, Sample, and Recruitment of the Questionnaire Study

At its core, the questionnaire study uses a cross-sequential design (Schaie & Hofer, 2001) in which the same constructs/variables are collected from individuals in an age-stratified sample at multiple measurement time points separated by intervals of 5 years. Such a survey approach allows for the identification and separate estimation of age and cohort effects: Age-related changes are estimated via longitudinal changes, whereas cohort effects are estimated by comparing age groups within the same measurement time point. Time-of-measurement and repeated-measurement effects can be analyzed by comparing individuals of the same age who were tested at different measurement times; for this purpose, data are also compared between participants who are tested for the first time and those who have already been interviewed repeatedly.

For the German subsample, three measurement points were realized at 5-year intervals (2009, 2014, 2019); for the samples in the USA and Hong Kong, two measurement points are available (2014, 2019); for Taiwan and the Czech Republic, one survey wave was conducted (2019). The participants in the German sample covered the age range of 30–80 years at the first survey time point. We stratified the sample to ensure that the five cohorts (30–40, 41–50, 51–60, 61–70, 71–80) were each equally represented and had a balanced gender ratio. In the 2014 and 2019 follow-up surveys, samples were recruited in each of the newly added countries whose age range corresponded to the German sample—now 5 and 10 years older, respectively (2014 survey, age range 35–85 years; 2019 survey, age range 40–90 years). For the follow-up surveys (Germany: T2, T3; USA, Hong Kong: T3), participants from the previous survey(s) were first contacted and asked to participate again. In addition, new participants were recruited to obtain a balanced sample by age and gender within the respective measurement time points within each country.

Participants were recruited in different ways in the various countries. For the German sample, we were provided with address lists by the residents' registration offices of the cities of Jena and Erlangen, from which age- and gender-stratified random selection of individuals were contacted in writing and asked to participate in the research project. Participation was compensated with an expense allowance. In the USA and the Czech Republic, recruitment was organized by field research companies. Here, the individuals were from the Wake County region (USA) and the cities of Pilsen and Brno (Czech Republic). In Hong Kong and Taiwan, individuals were recruited through local contact points (municipalities, retirement centers) and field research firms. The survey in Taiwan was limited to residents of the city of Tainan.

Table B1 (Appendix B) provides an overview of the respective sample sizes for a total of three measurement time points in the participating countries. This also includes information on demographic characteristics as well as the proportion of individuals for whom longitudinal data are available for the respective intervals (T1–T2, T1–T3, T2–T3, T1–T2–T3). Despite different recruitment strategies in the various countries, samples were drawn that can be considered approximately representative of the respective age ranges, although certain social groups are underrepresented (especially older people living in institutions).

## 2.2 The Online Survey Study

The online survey investigated ageing preparation behavior in the context of subjective time and future perceptions over time. The online survey study focused on assessing ageing preparation regarding central areas such as finances, care, housing, loneliness, and death and dying. An important role was played by the way in which personal deadlines for the planning of preparatory action are shifted or adapted to the respective subjective constructions of one's own future over time.

A structured online survey was programmed for the project, which focused on an activity-related, differentiated, and everyday assessment of preparatory and future-oriented actions, as well as on a multidimensional query of various aspects of the personal experience of time and the future. An overview of the content areas of the online survey is given in the Table A2 in Appendix A.

Some central components of the online survey were developed completely new for the project. At the same time, these new constructs were supplemented by a survey of numerous already well-established survey scales and instruments from ageing and personality research to enable the most reliable and robust classification of the findings and to ensure the validity of the surveyed constructs.

For the areas of ageing preparation and thinking about the future, descriptive graphical elements were used in the online survey, which made it possible to capture even complex issues of ageing preparation, such as subjective deadlines for preparing or personal evaluations and assessments, as intuitively and as closely as possible to everyday life. This procedure allowed in particular a differentiated assessment of topic-specific and multi-layered aspects of future action in connection with subjective views of one's own future. In addition, it was also possible to use some of the questions from the questionnaire study described above in the online survey, which also allowed a comparison and alignment between the findings from both studies.

All core components of the instrument were retained in the course of the online survey study in predominantly identical form across all measurement points in order to enable longitudinal comparisons and at the same time to be able to separate age and cohort effects from one another.

### 2.2.1 Reliability and Validity of the Online Survey

In the case of surveys with online questionnaires, it is often objected that these entail special demands for the respondents and require, for example, knowledge in the use of computers and the Internet. During the project, the countries involved made great progress in digitization in this respect, which is also reflected in the increasing convergence of samples between online and questionnaire surveys over time (see Appendix B, tables B1 and B2). However, the chosen approach of the online survey also appeared to be particularly well suited for investigating some of the central questions of the project Ageing as Future for several reasons:

First, it made it possible to include filtering guidance in the programming of the online survey, where faster and easier processing was possible because questions were only asked if they matched previous answers (e.g., if only parents were asked about their children).

Secondly, it allowed the use of graphic elements in some places, where this seemed necessary, to dispense with predefined answers or rating levels. For example, the subjective position in one's life course between the beginning and the end of life was surveyed with a visual analog scale, in which the respondents were able to set a freely movable symbolic slider bar at the point in their life course at which they believed to be currently located.

Third, in the online surveys, it was also possible to divide the participants into different groups in which a task (e.g., planning the next day) could be completed under different conditions (e.g., comparison of planning for a "relaxed" day versus an "active" day; John & Lang, 2015).

Fourth, the online surveys made it possible to reach different target groups from a wide variety of contexts, for example, by targeting them in online forums, social networks, and through already existing lists of interested individuals, which also allowed for a high heterogeneity of the sample in terms of composition by age and social background. Regardless, as is known from other online studies, certain social groups such as women and more highly educated individuals (e.g., with university degrees) tended to be overrepresented in the online surveys. However, due to the heterogeneous distribution of such characteristics in the sample, possible biasing influences on the results could mostly be statistically controlled. However, more extensive and undetected biases in the findings due to unobserved characteristics in the sample selectivity cannot be ruled out here either. One strategy for dealing with this problem was to include survey instruments from the questionnaire study (see Sect. 4.1) and from representative surveys (e.g., German Age Survey), so that it was also possible to compare the findings based on such marker variables to detect effects of sampling bias. In addition, study participants were recruited somewhat differently in each of the participating countries, depending on their general conditions. In China, participants for the online study were recruited via a company specifically commissioned for this purpose, whereas in Germany and the USA, interested individuals were recruited for participation via existing pools and newspaper appeals.

Fifth, the online survey method enabled a simplified transfer of the survey and query program into other languages such as English, Chinese characters, and Czech, and the surveys could be conducted in the different partner countries from a common computer center at the University of Erlangen-Nuremberg and processed in a common database.

### **2.2.2 Design, Sample, and Recruitment of the Online Survey Study**

The online survey study relies on a mixed cross-sectional and longitudinal design that began with initial pilot surveys in Germany in 2009. Table B2 (Appendix B) provides an overview of the respective sample sizes for five measurement points in

Germany and three measurements in partner countries in 2009, 2012, 2014, 2016, and 2018. In the first phase of the project in 2009–2012, the focus was initially on developing the survey procedure and the scales. A repeated data collection then followed every 2 years starting in 2012, with occasional additions to the survey instrument in the different waves.

In all participating partner countries, the participants were recruited in an equal age range of generally between 20 and 90 years. The original German sample of 591 participants was expanded in 2014 to include 140 participants from the USA and 348 from Hong Kong. Then in 2016, 446 participants from Taiwan were added and, in 2018, another 529 participants from the Czech Republic. Thus, a total of 2054 participants from 5 countries took part in the online surveys at least once.

In 2016, across all participating countries, approximately 55% of those who had also participated in 2012 took part in the study again. Across all survey data points between 2009 and 2018 and all participating countries, a total of 3644 participated in the online surveys. Of the 1717 participants from Germany, 30% participated at least twice; of the 315 from the USA, about 59% participated at least twice; of the 448 from Hong Kong, 61% participated twice; of the 635 from Taiwan, 15% participated twice; and the 529 from the Czech Republic participated in only one survey in 2018. In a recent wave of data collection in Germany, which took place conclusively in 2020, a total of about 2,500 individuals (returning as well as first-time) participated, with a take-up rate between 35% and 70% (based on previous waves of the survey). The data from this survey wave have not yet been included in this chapter. An overview of the respective sample sizes in the participating countries for at least two measurement points in each case is given in Table A2 in Appendix A. Data on age, gender, and education are presented, as well as the proportion of participants who repeatedly took part in the surveys. For reasons of parsimonious presentation, only information for the proportions of those who had participated in the previous survey (T2–T3, T3–T4) and in the first survey (T1–T2, T1–T3, T1–T4) in addition to the current survey is provided there. Despite partly different recruitment strategies in the different countries, the samples obtained reflect a sufficiently large heterogeneity to be able to statistically test and control for possible biases due to recruitment selectivity.

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## 2.3 The Qualitative Interview Study

Unlike quantitatively oriented social research, which operates with large datasets, qualitative empirical studies do not aim at statistical representativeness, i.e., at being able to make valid scientific statements about large population groups, e.g., about older people in Germany, by means of appropriate sampling and other methodological precautions. On the contrary, qualitative social research deals with small numbers of cases, and typically the aim is to trace social patterns of interpretation, action orientations, and behavioral structures by examining individual cases (cf. Flick et al., 2019). Somewhat boldly, it could be said that qualitative studies are less concerned with the breadth and more with the depth of their subject matter. Nevertheless,

they also have the aspiration—more or less pronounced, depending on the approach—to infer the general aspects of a larger context from the specifics of the individual case, i.e., in our case, to deduce from intensive discussions with quite a few older adults quite reliable findings about structural aspects of time management in old age. The purpose of qualitative research in this sense is to ensure the “theoretical representativeness” of its empirically derived concepts (cf. Muckel, 2011). Ideally, the space of possible positionings of social subjects on questions of one’s own life, on the one hand, and of social life, on the other, is then delineated in such a way that light is thrown on their qualitative structure and thus on the frame of what is socially sayable (and doable) about a specific issue (while the quantitative distribution of more or fewer people on the reconstructed positions is not known). It is in this sense, for example, that the different varieties of everyday-time and life-time styles in old age that are identified in the course of our research project or the individual handling of the knowledge about the finitude of one’s own existence are to be understood: We cannot say—at least not with qualitative methods alone—how widespread the individual variants of structuring time or dealing with finitude are among older people; but we can say that empirically there is a limited number and a specific structure of corresponding patterns of action and orientation.<sup>1</sup>

Against this background, our qualitative research within the project *Ageing as Future* did not follow a completely open conception regarding the collection of empirical data, since the specific research interest was already set in advance by the project context: We wanted to ask older people about their time-related perceptions and interpretations as well as about their forms of shaping time in everyday and practical life. In other words: We were not interested in “everything” concerning old age and ageing and not exclusively in the respondents’ subjective structures of relevance, but we pursued a specific question, which made it seem necessary and legitimate to orient the construction of the instrument for data collection to this very question. Consequently, we opted for the data collection method of the guided, problem-centered interview, which we enriched with biographical-narrative components (see Appendix A, Table A3 overview of topics and contents of the guidelines used).

The “problem-centered interview” (PCI) is a semi-structured interviewing method developed to a large extent by Andreas Witzel (2000), which—as the name suggests—orients the interview specifically to the researcher’s problem of interest, in our case the time agency of older persons. The interview is based on a pre-constructed interview guideline that allows the interviewees to speak as freely as possible with the help of narrative impulses, but still gives the interviewer the opportunity to lead the interviewees back to the “actual” problem again and again. As much as the interview is thematically directed and pre-structured, it is important

<sup>1</sup> However, a *sociologically* interested qualitative social research would then have the further claim to connect the empirically found “types” of individual *positionings* towards certain social facts with the respective social *positions* from which such positionings are made, as well as with the habitual *dispositions*, which are an expression of these positions. Cf. in this sense Pierre Bourdieu’s concept of “social space” (Rehbein, 2016: 160ff.).

in this context to maintain the greatest possible openness and flexibility for unexpected turns of conversation and for the idiosyncrasies of the interviewees, thus avoiding a schematic and rigid processing of the questionnaire (“guideline bureaucracy”, cf. Hopf, 1978). As with all forms of qualitative interviews, the appropriate formulation of the initial question is of decisive importance for the content-related fruitfulness of the PCI. If it is successful, it will stimulate a detailed, self-determined initial narrative on the part of the interviewee, which can then be followed by comprehension-generating follow-up questions or further narrative impulses from the interviewer. Ideally, the pre-planned questions can be introduced and inserted into the interview as seamlessly and naturally as possible, so that the interviewee’s own sense of meaning and relevance structures as well as the researcher’s interest can be considered.

In the first wave of our qualitative research, we began the interviews by asking respondents what they associated with the term “retirement.” Generally, this was a very fruitful way of starting the interviews and led us, sometimes directly, sometimes via shorter or longer detours—e.g., by asking about the circumstances of retirement or the restructuring of everyday life after leaving employment—to the core “problem” of time perception and time management in old age that we were interested in. The request to the interviewees to describe the course of the respective previous day as precisely as possible, which was usually placed quite early in the interview, also proved to be extremely fruitful and a source of diverse narrative connections. As the initial question about the personal significance of retirement appeared theoretically saturated at the end of the first project funding phase, so that no structurally novel narratives in this regard were to be expected in further interviews, we opened the interviews of the second phase with the more biographical narrative question about the interviewee’s most important stages of life. In its concrete formulation, this question was a result of the exchange with the American research team, because for US interviewees a biographical thinking in terms of individual, successive, and relatively self-contained “life chapters”—including a “last chapter” of old age—seemed to be pretty familiar. In the German case, this approach yielded an extremely interesting result (to be discussed further in Chap. 5) that the subjective life narrative in stages often ended with the end of the working life, i.e., that “old age” did not seem to be a chapter of its own in the personal “book of life” for quite a few interviewees.

In the first wave of interviews, we also used visual methods, namely, photographs with symbolic references to age and finitude (a tree changing across the four seasons, the annual rings of a tree, the sandblast in an hourglass) as well as highly stylized drawings (different forms of ascending and descending or horizontal serpentine lines as well as different variants of spiral lines) all of which were intended to represent lines of life. The request to the interviewees to choose the most appropriate representation for their own life course or their image of ageing also often led to detailed and rich impromptu narratives. Interestingly, it turned out that certain images (such as the seasonal tree) “worked” cross-culturally, while others did not (which is why, for example, the research team in Hong Kong refrained from showing the annual rings image after the first interviews).

Our methodological approach to collecting and analyzing the data was closely aligned with the established methodology of *Grounded Theory*. This qualitative research approach, which goes back to the American sociologists Barney Glaser and Anselm Strauss and is often briefly apostrophized as “GTM” (cf. Mey & Mruck, 2011), aims in its core at a consistently empirical—empirically founded or “grounded”—theory building. Accordingly, analytical concepts and categories must be consistently drawn and developed from the empirical material—in this case, the transcribed wording of the interviews—and not, for example, through abstract derivations from existing theories (in our case, for example, from the given arsenal of sociological theories of age, subjectivity, or action). The GTM also seemed to be suitable for our project because it understands social events as structurally situation-dependent: as a question of everyday practice, the real dynamics and subjective interpretation of which are not predetermined, but only emerge in practice itself and are therefore only revealed to the researchers through practice.

In terms of research practice, this has two implications. On one hand, in the process of interpreting the data, there is a constant switching back and forth between the close reading of the empirical material and the theorizing work that gradually abstracts from it.<sup>2</sup> On the other hand, the composition of the sample, i.e., the group of cases to be studied, follows the principle of theoretical empiricism, which is to a certain extent complementary to empirical theorizing: As in the research project presented here, the theoretical findings that emerge from the analysis of the initial interviews determine the further recruitment strategy of interview partners—and thus ultimately the structure of the sample. However, this principle of *theoretical sampling* was broken by the decision made at the beginning of the project to interview people from two different age groups (60- to 70- and 75- to 85-year-olds) and, in the second wave of the survey, increasingly people of advanced age (over 80 years). Beyond this, however, the characteristics of the interviewees to be sought in the next research step resulted from the empirically based theoretical findings generated beforehand: If in one case the status of living alone or being widowed turned out to be significant for the concrete form of everyday or lifetime activities, then in the next step, we sought married or older people with partners as contrasting cases. Similarly, the empirical significance of care work obligations for women’s individual time management prompted us to comparatively include older men who care for their partners in the sample.

As a result, a total of 80 interviews were conducted in the German case (plus 60 in the USA, Hong Kong, and Taiwan, respectively, and 30 in the Czech Republic). Although the samples did not prove to be representative of the respective national populations, they were quite heterogeneous in terms of sociodemographic characteristics and social structure (cf. overview of interviewees in Appendix B, Table B3). In the German sample, it was possible to carry out second interviews

<sup>2</sup>The concrete process of coding (open, axial, and selective), which follows the principle of constant comparison and by means of which theoretical categories are constructed from the empirical material, cannot be described in more detail here; for an introduction, see, e.g., Equit & Hohage, 2016.

with one and the same person in a total of 18 cases due to the two survey times within the framework of the two project funding phases (but also by way of resorting to persons interviewed in earlier research projects).<sup>3</sup> The first respondents were recruited with the help of placards in senior citizen facilities, newspaper advertisements, a (theoretically justified) snowball principle, and existing databases with test persons from the quantitative subprojects. The interviews took place in a Western and in an Eastern German city and their immediately adjacent municipalities; both cities had a similar number of inhabitants and sociodemographic characteristics as well as a comparable social infrastructure.

Essential parts of the outlined methods of data collection and analysis were adopted by the international cooperation partners and carried out in an analogous manner but adapted to local conditions and to the professional qualifications of the respective project teams. The American survey took place in a major Midwestern city and its catchment area, the Czech survey in a major city. The findings from the highly internationalized metropolitan region of Hong Kong could be compared in the second funding phase with data from a more rural, culturally traditional region of Taiwan. In the case of Hong Kong, the special feature was that the interviewees were recruited from among the participants in the quantitative studies of the Hong Kong subproject, which meant that their sociodemographic and socio-structural composition was particularly balanced.

In the German sample, on the other hand, but also in the American sample, there was ultimately a clear excess of respondents from middle-class households (a circumstance that will be problematized in Chap. 5). In this volume, the focus of presented research findings lies on the data from the German study. In this German context, it should be noted that the age difference between the young interviewer and the older, in some cases very old participants, did become a topic in some of the interviews. At times, this may have influenced the participants' positions on the issues negotiated in the interviews.

The methodological challenges of interculturally comparative, multilingual qualitative research on ageing have been extensively and recurrently addressed in the long process of our international research collaboration, culminating in a joint scholarly article on the issue of the respective researchers' "operational blindness" to the cultural, social, and institutional specifics of their local contexts (Lessenich et al., 2018).

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<sup>3</sup>These are the collaborative project "Zones of Transition", led by Stephan Lessenich as spokesperson and funded by the Volkswagen Foundation between 2008 and 2012 (file number II/83142), and the project "From 'Earned Retirement' to the 'Entrepreneurial Retiree'?" funded by the German Research Foundation (DFG) during the same period and within the framework of the Collaborative Research Center (SFB) 580 (project number 5484710).

## 2.4 Interconnection of the Subprojects

The methodological advantages of the *Ageing as Future* project stem from the diversity of complementary methodologies and the comprehensive datasets generated by the project through the combined expertise of researchers from different disciplines and countries. Quantitative studies were combined with qualitative interviews within and across countries and conducted over the 10-year period between 2010 and 2020. All questionnaires, scales, and interview guidelines were developed in close collaboration between the different parts of the project and with the international collaborating partners. The development of the instruments took place in a multistage process, which included interviews and group discussions with older adults. Although each of the subprojects had its own research focus, there were also overlaps between the substantive topics of the subprojects as well as overlaps in the samples studied which allowed an exchange of results and a combined analysis of the data. In the following, we first present the procedure for the development and translation of the scales and questions of the survey instruments that were used and, for the most part, newly developed. Following on from this, we present examples of some of the interconnections and cross-references between the various subprojects to illustrate the added value of the resulting findings. Finally, the archiving of the resulting data corpus and its provision for future research and for young scientists will be discussed.

### 2.4.1 Development and Translation of the Newly Developed Scales

Each measurement instrument and the interview guide went through a carefully executed process of translation and back-translation and were piloted and optimized for international use before being employed in the USA, China, Taiwan, and the Czech Republic. This process of selection and translation contributed to the good statistical properties of the measures, constructs, and scales used in the *Ageing as Future* study. For most of the newly developed scales, open-ended interviews on the respective topics were first conducted with people of different ages to sample the domain diversity and the range of essential content on these topics (Kornadt & Rothermund, 2011a, 2014). In a next step, this content was translated into a standardized questionnaire format and tested on pilot samples. Based on these results, the final version of the German-language questionnaire instrument was created.

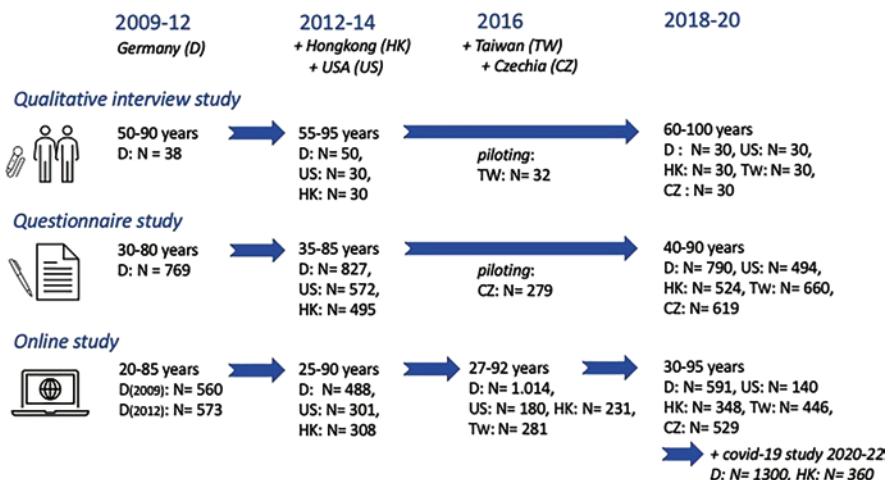
For the surveys in the USA, China (Hong Kong, HK), Taiwan (TW) and the Czech Republic (CZ), the German questionnaire was translated into the respective national languages. An elaborate procedure was chosen in which the first translation was back-translated into the source language by another independent person and compared with the original version by the developers of the study. In the case of deviations, the translation was modified again to reflect the items of the original version in the translated version as optimally and meaningfully as possible. For the English and Czech versions, the translation was based on the German questionnaire

version in each case, while the Chinese questionnaires were translated based on the English questionnaire. All translations were done by people who have a background in ageing research and who speak the target language of the instrument as their native language and are also fluent in the source language.

## 2.4.2 Main Topics and Interconnection of the Subprojects

All three subprojects—the questionnaire, interview, and online survey—within the *Ageing as Future* project have investigated different focal topics in close relation over more than 10 years in the period between 2009 and 2019 in the participating countries Germany, USA, Hong Kong, Taiwan, and the Czech Republic. Figure 2.2 provides an overview of the chronological course of the overall project and the respective focal points within the various subprojects. In the sample sizes that are shown, no distinction was made between participants who participated repeatedly and those who participated for the first time. As a rule, all surveys always contacted respondents from previous survey waves as well as included new participants for each study. A detailed and complete overview of the characteristics of the samples studied longitudinally can be found in Appendix B.

In Fig. 2.2 we have refrained from showing the content-related interconnections of the projects at the respective levels in detail. For example, there was a continuous exchange of research content within the working groups in Germany between 2009 and 2012, regarding the respective main areas of research and questions, as well as regarding the newly developed survey instruments. From 2012 onwards, additional research partners from Hong Kong and the USA could be integrated into the project



**Fig. 2.2** Overview of the three subprojects and the different measurement time points

Note: Targeted age ranges are shown. Deviations of the realized samples (Appendix B) from these targeted age ranges result from ad hoc recruitments of new participants for later surveys

Ageing as Future. The exchange and networking of the subprojects was also continued and intensified in the participating countries. In Hong Kong, for example, the surveys for all three subprojects were pooled at the Chinese University of Hong Kong. In the USA, the subproject on qualitative interviews was conducted at the University of Kansas and the two subprojects of the questionnaire study and the online surveys at North Carolina State University in Raleigh. As of 2016, it was also possible to involve research groups from Taiwan (Tainan University) and from the Czech Republic (University of Prague) in the project. The networking and collaboration between all participating subprojects and research groups included more than 30 researchers from 5 participating countries and pursued three main goals. First, all subprojects, in addition to each project's own focus and project-specific scales and questions, shared survey instruments and topics on views on ageing, ageing preparation, and time management. Despite the specific focus of each subproject, it was thus also possible to establish cross-references, validations, and replications to the analyses and findings of the other subprojects.

Second, in all participating countries, there were also numerical overlaps in the respective samples studied, of which data are thus also available from at least two subprojects. For reasons of space, we do not present these overlaps here. The data generated in this way primarily served the methodological validation of the newly developed scales and content-related questions, but also allowed, for example, the investigation of in-depth case studies in which a large number of data are available for individual persons over a longer period of time.

Third, and finally, networking was also evident in the participation of the various countries, which made it possible to examine and deepen culture-specific influences on observed contexts and findings of the subprojects.

### 2.4.3 Archiving and Preparation of the Datasets

All data collected as part of the *Ageing as Future project* will be stored in data archives accessible to the scientific community worldwide at the conclusion of the project and thus made publicly available for research and secondary analyses. Archiving of the data material of all qualitative surveys was also ensured at the conclusion. Thus, the corresponding datasets are available for scientific reuse at the Leibniz Institute of Psychology<sup>4</sup> (ZPID; questionnaire study and online study) as well as the qualitative interviews at the research data center Qualiservice at the University of Bremen.<sup>5</sup>

<sup>4</sup><https://www.psycharchives.org>

<sup>5</sup><https://www.qualiservice.org/de/>

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# Views on Ageing

3

Klaus Rothermund

An essential part of the project *Ageing as Future* consists of examining views on ageing. In other words, we are investigating the ideas that people have about old age in general, but also about their personal old age. Why are we doing this? Should we not have been studying old age and ageing itself, rather than just ideas or attitudes that people have about others' old age?

In fact, old age as an individual and social phenomenon can neither be adequately described nor understood without an accurate knowledge of our expectations and perceptions of old age. There are two reasons for this: First, ageing is not an objective fact that could be clearly identified independently of our ideas about old age. Second, actual age-related changes are decisively shaped by our expectations and images of old age.

From our perspective, therefore, age experiences to a large part reflect a social and individual construction. Age and ageing as we know it are not a natural, purely biological phenomenon; we create our age and ageing to a large extent ourselves, and our views on ageing play a decisive role in this. Only by knowing the expectations, ideas, and attitudes that people associate with old age can we understand their diverse experiences. Let us now take a closer look at the two points mentioned above.

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I would like to take this opportunity to express my sincere thanks to Prof. Dr. Anna Kornadt, Dr. Peggy Voß, and Dr. Clara de Paula Couto, who, as project collaborators, were jointly responsible for the planning of the content and organization of the questionnaire study. Their commitment and expertise were invaluable resources throughout the entire project *Ageing as Future* and resulted in numerous influential publications. The findings presented in this chapter reflect the outcome of our close collaboration during this time.

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### ***What Is Old Age, Actually?—Views on Ageing as a Basis for the Construction of Age***

The perspective we take on these questions is: There is no age and ageing independent of our views on ageing. After all, what exactly does it mean to be old? In the following, we discuss several criteria by which age is often defined.

**Chronological Age** Does being old mean having lived a certain number of years? Certainly, chronological age plays a central role in our concept of age, providing the only true answer to the direct question “How old are you?”. The years already lived, however, are not the only criterion that determines our use of the concept of age; otherwise we would not understand what it means to have remained young despite having lived many years or to have aged prematurely. Also, what number of years must have passed until someone is considered “old”? Retirement age is often used when we talk about the proportion of old people in the population, and it can also be of considerable importance for the self-perception of an older person. But what about countries where there is no such thing as a mandatory retirement age (and here we should also bear in mind that the pension system is a relatively new invention, just over a hundred years old)? Do people in these countries not know the phenomenon of being old, or do people in these countries never grow old? How do we estimate the age of people who have no paid employment at all? The influence that the retirement age has on our perception of people’s age shows one thing above all: Our understanding of and our approach to old age are to a large extent socially produced and shaped. A significant part of our views on ageing in Western industrialized nations is related to whether a person is still participating in working life or not anymore. Moreover, retirement ages are set quite arbitrarily, they differ historically and between countries, and they can be moved from 1 day to the next or removed altogether. Despite their arbitrariness and variability, these changes in social age limits, which are largely based on political and economic considerations, have an immense impact on the ageing experience and on the living conditions in old age.

Interestingly, the thresholds at which we tend to label a person as old also depend on life domains (Kornadt & Rothermund, 2011a). Retirement age refers to the domain of work and occupation, but what age thresholds do we use when it comes to age attributions in the domains of leisure activities, social relationships, or in the choice of a life partner? There are sometimes important differences in the reference threshold at which we categorize people as old (see also Sects. 3.3.2 and 3.3.4).

**Life Expectancy** In addition to the years already lived, the remaining years also play an important role for the experience of old age (see also the more detailed explanations in Chaps. 4 and 5). Proximity to death is an important criterion of being old, and those who really “feel old” see this end within reach and no longer expect much from life. Nevertheless, even this characteristic is not a direct criterion of old age. Without having already lived a (long) life, even the prospect of imminent death does not make a person old. Moreover, most of us do not know exactly how many years of life are still ahead of us. In most cases, there is no objectively definable time left to live that can be expressed in years. This also shows the important

role that personal expectations and evaluations play in our experience of old age: How long does someone think they will live? Under what circumstances do they expect to spend the remaining years? How long do they want to live at all, and under which conditions (de Paula Couto et al., 2023; see also Chap. 4)? These expectations, hopes, and fears are quite decisive for our experience of old age, but they too, in turn, represent only one, albeit very important, part of the large and complex concept of old age and age-related beliefs (cf. Sects. 4.3.6 and 5.3).

**Characteristic Age-Related Changes and Age Markers** Perhaps we should measure age less in terms of years and more in terms of actual changes in certain attributes (Rothermund et al., 2023). What attributes might these be? Does being old mean something like decreasing efficiency, or increasing forgetfulness, frailty? Wrinkles, stooped posture, gray hair? Old-fashioned clothing? Or positively instead: More experience, serenity, or wisdom?

The characteristics mentioned are mainly common and socially widespread age stereotypes. Often, such attributes certainly shape our impression of the age of a person; some of these characteristics are referred to in the research literature as so-called age markers which are externally visible signs of age (Featherman & Petersen, 1986). We automatically use these features as a guide when assessing a person's age. Nevertheless, even these features are not necessarily congruent with the subjective experience of old age (Linn & Hunter, 1979). Whether and how old a person feels depends very much on their individual assessment criteria (Kotter-Grühn et al., 2016): Do people base their perceptions primarily on positive (experience) or negative (decline in performance) attributes, and what standards do they use in their assessment? Do they identify with other persons of their age, or do they try to distance themselves from their age group (Weiss & Lang, 2012)?

Moreover, the characteristics and standards we use to define old age vary considerably across contexts and cultures (Filipp & Ferring, 1989; Hess et al., 2017; Kornadt et al., 2018a). Athletes are already considered old when their physical strength or speed starts to decline; in occupational contexts we may orient ourselves to the decreasing learning ability ("too old for the job") or to the not yet existing experience ("not yet old enough for this task"); in contrast, in the choice of a partner, mainly the external appearance may play an important role for our age estimations. Finally, age estimates are influenced by the age-related expectations that are widespread within a society. Forgetfulness, for example, is a characteristic that is associated with age mainly in Western countries, but not in Asia. Interestingly, it has been shown that even in the seemingly objective trait of memory performance, age-related impairments are more pronounced in Western cultures (Levy & Langer, 1994).

There are different explanations for such expectation effects. They relate to our confidence regarding our competences and abilities in old age, but also to our motivation to achieve something or to make a contribution, and to our fears to fail on a task, which leads to avoidance. Age-related decline vs. stable performance also relates to how we explain performance in an area: Do we tend to attribute failures and deficits to our advanced age (Rothermund et al., 2021a), or do we tend to look for other explanations, such as having a bad day, distraction, lack of practice, over- or under-challenge, exclusion?

**Conclusion** These considerations show that age and ageing are multilayered phenomena that are strongly determined by age-related expectations. If we want to understand what people's experience of old age depends on, we need to engage with the different, sometimes contradictory, constructions of old age and try to identify the different criteria, expectations, age-related rules, and regulations that may play a role in this. It is certainly not enough to limit ourselves to simple subdivisions based on years; likewise, it is not helpful for us to look only at seemingly objective or biological criteria of age, although of course all these perspectives and criteria have their justification and play an important role in our conception of age (Rothermund et al., 2023). Age and ageing are complex. For example, the same person may feel either young or old in different situations and areas of life, and even people who show a high degree of similarity on the basis of objective criteria can evaluate their own life situation and age quite differently, depending on the expectations and standards they are guided by, who they are comparing themselves with, etc.

In a nutshell: What age and ageing mean, who feels old and how, who we consider old and treat as old, all this is influenced by our age-related beliefs and views on ageing. However, these age-related perceptions are very heterogeneous; they differ between cultures, between life domains and between persons—even within one and the same person; different views on ageing can exist simultaneously and in parallel for different situations (Rothermund, 2024; Rothermund & de Paula Couto, 2024).

### *Consequences of Views on Ageing*

Views on ageing not only determine what ageing means to us and whom we call old under which conditions. They also shape our lives in old age and in this way often produce precisely those changes in people's lives that correspond to these views of old age.

**Age Thresholds and Their Consequences** The influence of age thresholds becomes obvious in the case of age-related social regulations. Mandatory retirement age is the best example for this (see above). The transition from working life to retirement that is imposed upon reaching a certain age (for a critical discussion of the concept of mandatory retirement, see Chap. 5) represents a drastic intervention in a person's life circumstances. It is quite telling that in German, the word for retirement literally means "a state of rest."<sup>1</sup> This change is accompanied by a loss of role, but also by diminishing external obligations and gaining more freedom, that is, by a completely new temporal structuring of everyday life, and by a new and qualitatively different financial provision. The crucial point of this example is that the time point at which this transition takes place does not result from objective, for example, biological, or performance-based age-related changes; it also often does not the result from an

<sup>1</sup> See Chap. 5, for more detailed information on the effects that the structuring of time in the work domain and the corresponding terminology has on the post-employment phase.

individual decision, but reflects a more or less arbitrary, general regulation, which in turn is shaped by age-related—but also economic or political—ideas: When do we typically expect a decline in working capacity? How many years of subsidized retirement do we, as a society, consider appropriate and affordable? How do supply and demand shape the labor market? How can pensions and health care be financed in old age if life expectancy increases overall and the age composition of society changes because of demographic developments?

***Prescriptive Age Norms and Their Consequences*** It is not only such age-related changes, regulated or dictated by laws and collective agreements, that set the course for our actual lives in old age. Our ideas of what older people are like and what changes we expect in old age are also determined by expectations of what older people *should be like* (de Paula Couto et al., 2022a; Ludwig et al., 2024; Rothermund, 2019). What behaviors do we consider age-appropriate? At this point, research refers to prescriptive age norms or normative views on ageing (Neugarten et al., 1965; Rothermund & Wentura, 2007). These norms are typically not explicitly expressed in laws and legislation, and deviations from these norms are not associated with direct penalties and sanctions. Their mode of action is subtle and indirect: They are most evident in how we evaluate older people's behavior. For example, we expect older people to "make way" for the next generation, to be humble when it comes to scarce social resources, and to behave according to their age ("act your age") and not to presume a youthful identity (North & Fiske, 2013). Older adults whose behavior violates these norms, such as those who, for example, remain in their professional and social roles and assert their entitlements, are attributed negative characteristics, such as doggedness, not being able to let go, or selfishness (Martin & North, 2021). To avoid such negative evaluations, older people base their behavior on these age norms, and they internalize these prescriptions to such an extent that they seem completely natural to them. Age norms become personal evaluation standards that guide one's own behavior. Normative views on ageing thus directly or indirectly (mediated via internalization) influence the actions and lives of older people and thus shape the reality of life in old age.

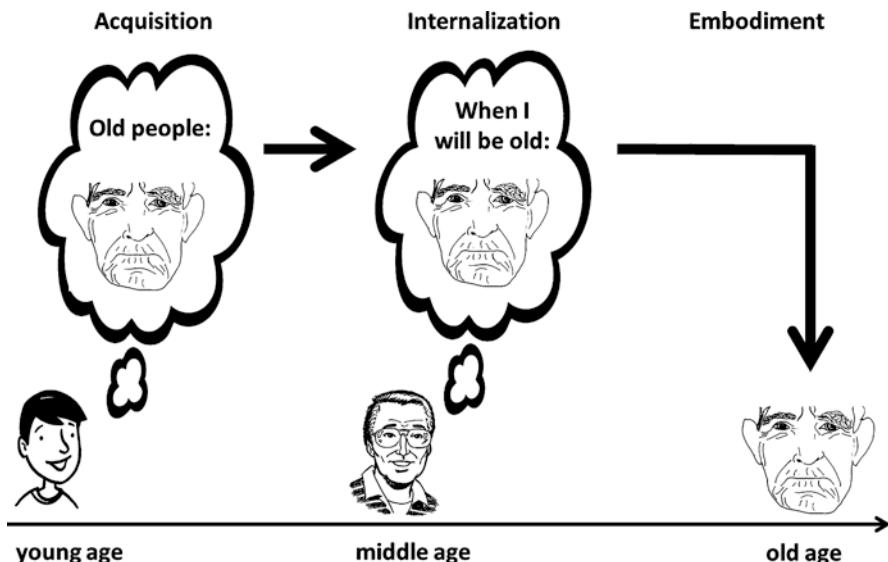
***Personal Views on Ageing and Their Consequences*** Finally, our very personal expectations of age-related changes also shape our lives in old age. Self-views on ageing influence our thoughts and actions and can thus become self-fulfilling prophecies. How does this happen? Roughly, this process can be divided into three steps (Rothermund, 2018; cf. Fig. 3.1).

First, we acquire views on ageing as ideas about old age and old people. This typically happens when we ourselves are still young (Vauclair et al., 2018). That is, we acquire our—predominantly negative (Kite et al., 2005)—views on ageing at a time when these perceptions do not yet apply to ourselves. They are views and perceptions of other people—of "the old." They shape the way we think, feel, and act when interacting with older people (Rothermund & Mayer, 2009). They already

influence life in old age, for example, when we avoid, exclude, or patronize older people based on negative views on ageing (Ayalon & Tesch-Römer, 2018). At this point, this influence of views on ageing is still limited to the lives of other people; it does not affect us ourselves.

However, things start changing with the next step. At some point, the time comes when we begin to ask ourselves what our own lives will look like in old age. The trigger for this question can be very different: We may notice some changes in ourselves, or we may experience first-hand how our own parents change due to old age, maybe we ask ourselves what it means to have a significantly younger or older partner (e.g., after a divorce or in a situation of re-partnering), or perhaps we simply think about what our relationship with our own children will be like once they are grown up. When the question of our own age and ageing arises, we are typically not yet “old” ourselves, that is, we have had virtually no experience of old age ourselves. To answer the question, therefore, we must get back to our views on ageing, and this is precisely the crucial point at which our ideas about old age, which originally referred only to other people, suddenly become views of our own ageing: They now shape our ideas of what our own age and ageing might look like one day. This transfer of age-related beliefs and perceptions to our own person is called *internalization* of views on ageing, such that these views taint our self-concept (Rothermund & Brandtstädtter, 2003a; see also Kornadt & Rothermund, 2012; Kornadt et al., 2017; for more details see Sect. 3.3.5).

This supposedly innocuous step marks a crucial transition in the development of views on ageing. Once views on ageing have become part of our self-image, they subsequently influence our thoughts, feelings, and actions thereby shaping our



**Fig. 3.1** Acquisition, internalization, and embodiment of views on ageing across the lifespan. (adapted from Rothermund, 2018; Rothermund & de Paula Couto, 2024)

actual development in old age. For this last step in the transmission of views on ageing, the English literature has coined the term *embodiment* (Levy, 2009). Embodiment highlights the concrete consequences and effects of internalized views on ageing that express themselves in the life of an older person and thus become visible and tangible, like sediments and deposits of repeated experiences, thoughts, and actions.

There is hardly a more powerful influence on human development in adulthood than our self-views on ageing. Ideas about who we are and what we are like, what we can and cannot do, what we want to be like and what we are afraid of, these ideas determine our lives—for better or for worse. Recidivism rates for offenders and drug or alcohol addiction are critically influenced by whether the person defines him—or herself—as an offender or an addict (Blevins et al., 2018; Greve & Enzmann, 2003; Tombor et al., 2013). Likewise, our positive self-views help us in everyday life to act justly or honestly, to be a good mother or father to our children and to care for our family, or to fulfill occupational role expectations. According to this perspective, our self-views on ageing shape our lives in old age (Rothermund, 2018, 2024; Rothermund & de Paula Couto, 2024): Those who believe that there is nothing new to learn in old age will also ignore their employer’s training offers—and therefore actually learn nothing more. Those who think that romance and sexuality are taboo in old age will feel ashamed if they nevertheless feel such needs and will suppress corresponding behaviors. The result will be a life without romance and sexuality. Those who consider illness to be an inevitable side effect of old age have little reason to have their state of health checked regularly, to adopt a healthy lifestyle or to avoid risky behaviors—after all, they will get sick anyway. This is often the indirect consequence of such self-views on ageing.

However, these self-views do not only affect development in old age. Even before entering old age, they already shape our preparations for old age and the way we make provisions for the future. Negative self-views on ageing undermine the motivation to deal with one’s own age and to prepare adequately for the possible changes in old age; positive self-views on ageing, on the other hand, are a source of motivation to plan one’s own old age and to take appropriate precautions so that the positive views can become reality (see Sect. 3.3.7 and Chap. 4).

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### 3.1 Research Questions

Based on the model shown in Fig. 3.1, the study of views on ageing and their consequences represents the main concern of this subproject in which the large-scale questionnaire study was conducted. A first central set of questions of our project consists in describing views on ageing in a systematic and differentiated way. What ideas do people have about old age and about old people? How strong is the consensus, and how large are the differences in views on ageing? How do these views change across the life span? How and in what respects do views on ageing differ between different countries and cultures?

To reflect the complexity and specificity of age-related perceptions, we examined views on ageing in different life domains. The research was guided by the

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assumption that perceptions about age and ageing differ greatly depending on the life domain to which they refer (e.g., family, work, leisure, etc.; Kornadt & Rothermund, 2015; Rothermund & de Paula Couto, 2024).

Furthermore, we distinguished between general views on ageing (perceptions about older people in general, or age stereotypes) and self-views on ageing (perceptions of oneself in old age). The separate assessment of age stereotypes and personal views on ageing allows us to analyze in detail the relationship between these two facets of age-related conceptions; in particular, we wanted to investigate processes of internalization and projection (Rothermund & Brandtstädtter, 2003a), i.e., a transfer of general views on ageing to self-views on ageing (internalization) or a generalization of one's own age-related experiences to ideas of old age per se (projection).

Another goal of the project was to capture not only descriptive views on ageing but also prescriptive views on ageing, that is, beliefs and expectations about how older people should be. Here, too, we were interested in a differentiated assessment of these normative beliefs regarding the social expectations that traditionally call for older people to withdraw from important positions and life activities (disengagement), but also regarding demands for active ageing. The central concern of the project is hence to assess changes in the endorsement and internalization of age-related prescriptive norms over the life span.

The second core concern of our research on views on ageing was to identify the consequences that they have on life in old age. How do positive compared to negative views on ageing affect the lives, behavior, and life satisfaction of older people? How do our views on ageing shape development?

The remainder of this chapter provides an overview of our project's key findings on these central questions.

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### 3.2 State of Research

**Attitudes Toward Old Age as a Unidimensional Construct** Previous research on views in ageing is overwhelmingly concerned with general age stereotypes and prejudices about older people. Overall, these studies show that negative beliefs about old age or older people dominate (e.g., Kite et al., 2005). This research is based on the implicit assumption that there is such a thing as *the* image of old age—the *one* conception of old age held by a society, an individual, or a group of individuals. However, this is a misleading simplification. It is true that study participants can be persuaded to give an answer to the question of what old people are like or how they evaluate old people, and this answer tends to be negative. However, this generalized information does not have much to do with our actual ideas about old age and ageing, which are much more complex and multi-layered.

**Age-Related Gains and Losses** If we take a closer look at the content of views on ageing, both gains and losses play an important role (Heckhausen et al., 1989):

Most of us associate old age with declines in health and physical fitness, with forgetfulness or with a diminishing capacity to learn, but also with a gain in life experience, with greater serenity, and with caring and warm-heartedness.

**Old People as Warm But Incompetent** A first attempt to summarize and systematize these different age-related beliefs (i.e., age stereotypes) comes from Susan Fiske. Building on the so-called stereotype content model (Fiske et al., 2002), the social perception of old people is characterized by the combination of incompetence and warmth; somewhat belittlingly or paternalistically, the description of older people can be characterized as “doddering but dear” (Cuddy & Fiske, 2002).

This differentiating characterization may reflect key elements of widespread views on ageing; however, it is still too crude to adequately capture our actual age-related perceptions. Our views of old age include, for example, the idea that older people are experienced and wise, which is certainly an expression of competence; at the same time, older people are also perceived as strict, rigid, and stubborn, which is not easily reconcilable with a characterization as “warm.”

**Prototypes of Older People** Another proposed differentiation comes from Mary Hummert, who pointed out that the many different characteristics we associate with old age and with older people are neither isolated next to each other, nor do they always all occur together. In her studies, certain subsets of these traits were shown to frequently occur together. According to Hummert, these “clusters of characteristics” represent different prototypes of older people. Hummert was able to identify several such types in her research: For example, the value-driven, traditional-minded older person (*John Wayne conservative*), the caring grandparent, the poor, welfare-dependent, lonely, and solitary retiree whom one encounters in the morning with a plastic bag on the way to the discount grocery store, or the severely impaired, dependent, and fragile nursing home resident (Hummert, 1990).

**Context-Specific Views on Ageing** This distinction between clusters of traits that correspond to a particular prototypical pattern provides an important key to understanding views on ageing. This differentiation does not only reveal a distinction between different types of older people, who are best described by the respective characterization, but rather highlights the fact that we hold different views on ageing for specific situations and contexts. For example, we believe that the majority of older people have little experience in dealing with modern technology (computers, smartphones) and are clumsy and need support with these devices. In contrast, when dealing with their grandchildren, we think of older people as being competent, caring, and confident. When we think of contexts like a retirement or nursing home, we associate old age with frailty and lack of independence. However, when it comes to dealing with a life crisis, we expect older people, based on their experience, to see what is important and what is not, and to be able to make the right decisions, which is why we turn to them for advice and support. It is precisely this situation—and

context-dependency of views on ageing—that has already been demonstrated in experimental studies (Casper et al., 2011; Huang & Rothermund, 2023). Context-dependency has been demonstrated not only for views on ageing but also for the way we think about other social groups (e.g., men vs. women, politicians, professors, or foreigners; Casper et al., 2010; Wigboldus et al., 2003; Wittenbrink et al., 2001); it is even evident in how we think about ourselves (Casper & Rothermund, 2012). In relation to age, this perspective can be summed up as follows: Not only do we have general views about old age and ageing, but for each situation, we have our own, specific views, which attribute very specific characteristics to older people in that specific situation.

These views on ageing are largely independent of one another: One can link age with negative characteristics in one area and with positive ones in another. At the same time, “negative” and “positive” also mean something different in terms of content in each context: When it comes to appearance and attractiveness, we may think of wrinkles, thinning hair, or old-fashioned clothing. When it comes to leisure activities, these characteristics are completely meaningless; here we might think of older people having more time for leisure activities than others, or even that they like to go hiking. Our views on ageing are therefore always only about those characteristics that play an important role in the respective context and are action-guiding, insofar as they influence either the behavior of the older person or our behavior toward them.

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### 3.3 Overview of Findings

#### 3.3.1 Assessment of Context-Specific Views on Ageing

The idea that views on ageing are context-specific was the guiding idea of our project. Therefore, right at the beginning of the project, one of the main goals of the questionnaire study was to develop a standardized survey instrument that would allow us to assess views on ageing for different life domains. For this purpose, specific contents were labelled for different areas of life, each containing possible positive vs. negative beliefs for the respective area, which were formulated as concise statements. All statements were presented in a bipolar format, with oppositely formulated content marking the positive and negative pole of the response scale, respectively (Kornadt & Rothermund, 2011a; for a short version see Kornadt et al., 2020). An overview of the domains and exemplary pairs of statements formulated in this regard can be found in Fig. 3.2.

To assess general views of ageing, older people in general were to be assessed based on the items provided. For this purpose, the pairs of statements were headed with the phrase “Older adults...,” for instance, for the life domain of family and partnership:

Older adults ...		...have a harmonious relationship with the family.
...have many conflicts in the relationship with the family.	<input type="checkbox"/>	...have a harmonious relationship with the family.

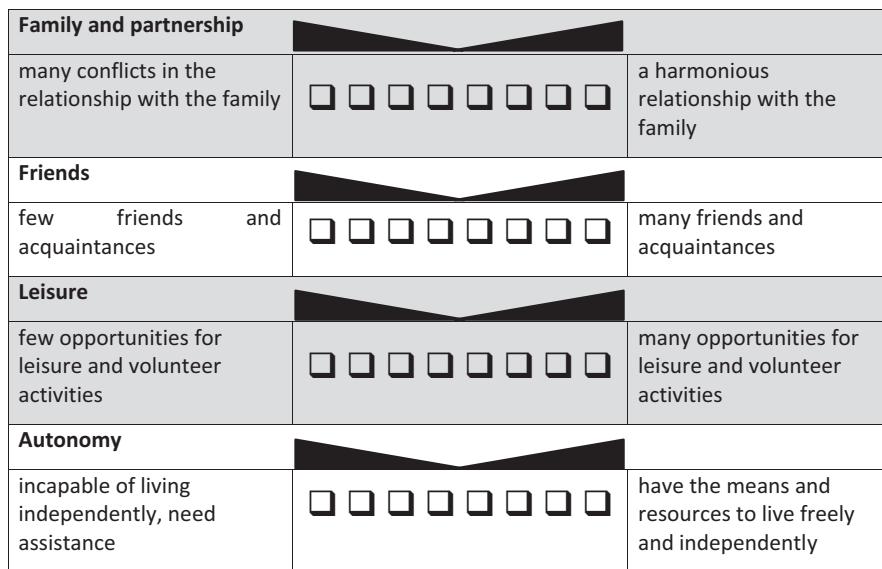
A first important result of our studies was that the answers given to the items depicting one life domain showed strong intercorrelations, but hardly correlated with the items for the other life domains.<sup>2</sup>

In terms of content, this result means (a) that the various items related to a life domain can be combined into scale values with which the positivity (vs. negativity) of views on ageing in the respective domain can be quantified and (b) that these scales each depict separate views on ageing that are independent of one another. Thus, a person may have a relatively positive view in one domain (e.g., family), but at the same time have a comparatively negative view in another domain (e.g., health), or vice versa. In the same way, of course, combinations can occur in which views on ageing in two domains are either both positive or both negative. Independence implies, however, that equivalent combinations of views on ageing in different domains are no more likely than views on ageing with opposite valence in the different domains. Thus, the fact that a particular person has a more positive views on ageing in one domain does not predict what their views will be in another domain. Views on ageing coexist, each representing independent facets of the beliefs and evaluations that a person holds about the complex topic of age and ageing.

Which of these different views on ageing is activated in a particular situation and then shapes our thoughts and actions depends on the context to which the current situation is assigned and which domain-specific views “fits” this situation (Casper et al., 2011; Huang & Rothermund, 2023). In the occupational context—for example, when asking whom to invite for a job interview or which task or activity is suitable for which employee—work-related beliefs and views on ageing are retrieved (e.g., related to experience, competence, flexibility, mobility, or learning ability of older workers), which of course also depend on the respective job requirements (Diekman & Hirnisey, 2007). In the family context, on the other hand, completely different ideas are activated and then become action-guiding (e.g., regarding the caring and generosity of grandparents, their desires for closeness to their children and grandchildren, or their ideals and values regarding gender roles in family contexts).

The complexity and context-dependence of views on ageing that we were able to demonstrate with our scales is also characteristic of the views we have of other social groups (of women or men, of members of certain nationalities, occupational groups, etc.; Blair, 2002; Casper et al., 2010). However, a detailed and systematic account of domain-specific conceptions of age was not available when we started our project, just like domain-specific conceptions of other groups still is an

<sup>2</sup>Technically, this corresponds to a simple structure in which each statement had significant factor loadings only on the life domain assigned to it, but not on the factors representing the other life domains (Kornadt & Rothermund, 2011a, 2012).



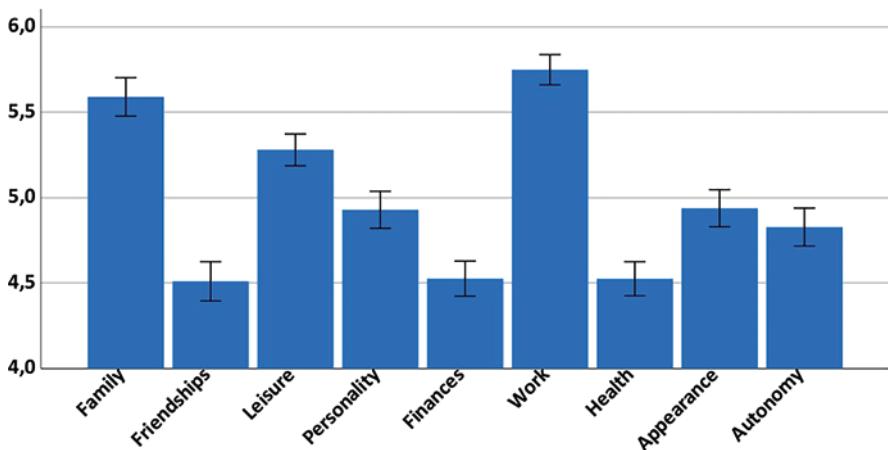
**Fig. 3.2** Selected item formulations for different life domains to capture context-specific views on ageing with a bipolar response format

under-researched topic. In the following sections, we describe in more detail these different conceptions that we have of older people in different domains of life.

### 3.3.2 Views on Ageing in Different Life Domains

The independence of domain-specific views on ageing does not yet say anything about how positive or negative these views are in each of the different life domains. However, our surveys provide clear evidence that the evaluations of older people differ significantly across contexts.

**Evaluations of Older People in Different Life Domains** For this specific purpose, let us look at the results of the German core sample of the project—that is, those persons who participated in the questionnaire survey at all measurement points over a period of 10 years (see Fig. 3.3). Positive views on ageing were found for the domains of family, work, and leisure. In these domains, responses are about one scale point above the midpoint of the scale and thus clearly in the positive range (the bipolar scale had 8 response options, so the neutral midpoint of the scale corresponds to a value of 4.5). The assessments of older people in the domains of friends, finances, and fitness are less positive—here the assessments correspond almost exactly to the middle point of the scale. Slightly positive assessments of older people—about half a point above the scale middle point—are found for the domains of personality, appearance, and autonomy.



**Fig. 3.3** Mean evaluations of older people on the bipolar scales for the different life domains

Note: Core sample of the German survey; first time of measurement; range of values: 1 = negative end, 8 = positive end of the scale

Obviously, the images we have about older people differ greatly depending on the situations and contexts in which we view them. It is hardly surprising that we find fewer positive views in the domains of mental and physical fitness and social relationships (friends and acquaintances), for example, since negative age stereotypes of decrepitude and loneliness in old age may dominate in these domains.

**Perceived Age Thresholds in Different Life Domains** It is possible that our perceptions of older people in the individual domains are also shaped by the fact that we encounter different people in the respective life domains: The surprisingly positive evaluation of older people in the work context may be related to the fact that older people in the work context have typically not yet reached retirement age, that is, they are younger than the average older person in another life domain. A first indication of such selective influences is shown by the fact that perceived age thresholds in the different life domains differ strongly (Fig. 3.4; Kornadt & Rothermund, 2011a). In the work domain, the perceived age threshold in our German sample at the last measurement point is on average around 65 years, which roughly corresponds to the mandatory retirement age limit in Germany, which is more than 5 years lower than in all other life domains.

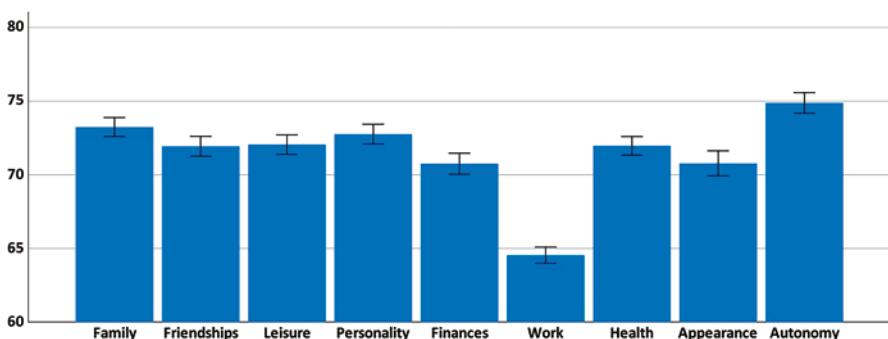
The positive evaluations of older people in the domain of work may thus be related to the fact that we think of comparatively young-old people in this domain, since the age threshold in this area is very low. In addition, the differences between views on ageing may come about through selective conceptions of certain older people who are overrepresented in the respective contexts. For example, in the family and partnership context, we may think primarily of those older people who have close contact with their family, or who still live with their partner—and not

necessarily of those for whom these close family ties do not (or no longer) exist. The health and fitness domains and the autonomy domain, on the other hand, may evoke associations with older people who are ill or frail.

**Comparisons of Older With Middle-Aged Adults** Above all, however, the assessments on the domain-specific items are also influenced by the specific content of these items in each case. Thus, it is conceivable that the results also have to do with the fact that the items in the different domains were differently well balanced between the respective negative and positive pole.<sup>3</sup> To rule out such content effects, and to be sure that the differences in domain-based ratings actually reflect different ratings of older people, we need a neutral control condition in which the same items are used to rate a person who is unspecified in terms of age. In our questionnaire project, we asked for ratings of unspecified middle-aged adults for this purpose, for instance:

Middle-aged adults...		
...have many conflicts in the relationship with the family.	<input type="checkbox"/>	...have a harmonious relationship with the family.

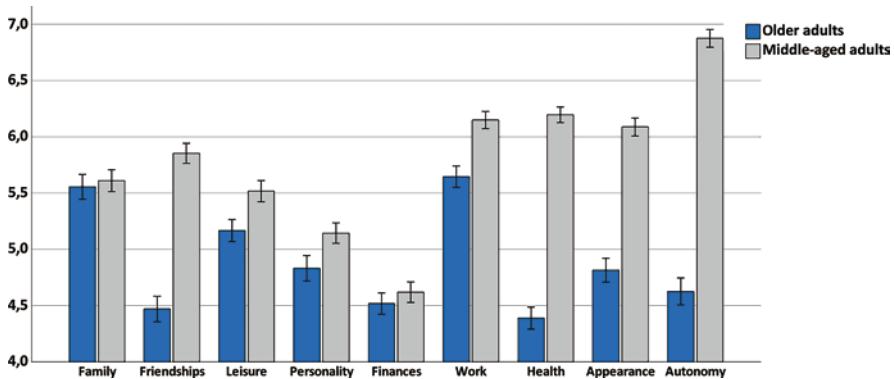
For each domain, the ratings of older people are then compared with the ratings of people in middle age. In this way it can be ruled out that possible domain differences are due to the specific wording of the items because these wordings are also included in the assessment of the neutral control condition. Influences of item difficulty are thus eliminated by the comparison with the control condition. The results represent an adjusted and thus unambiguous measure of age-related differences.



**Fig. 3.4** Average age thresholds in the different life domains

Note: Core sample of the German survey; data for the last time of interview

<sup>3</sup> Technically speaking, from the point of view of classical test theory, this issue relates to possible differences in the “difficulty” of the items in the different domains.



**Fig. 3.5** Comparative evaluations of older and middle-aged adults

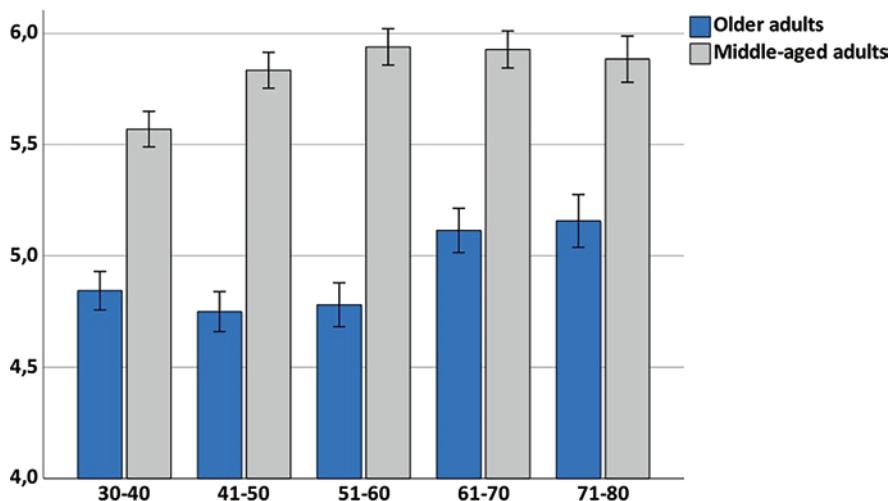
Note: Core sample of the German survey; first measurement point; range of values: 1 = negative end, 8 = positive end of the scale)

The results of this comparison are depicted in Fig. 3.5. To a large extent, these analyses confirm the results shown in Fig. 3.3, but there are also important additions and deviations. In general, older people are rated less positively than middle-aged adults in all areas of life. Only in the family/partnership domain, there is no difference, which fits in with the positive assessment of older people in this domain. The differences in the domains of leisure and work are also small, which supports the results of the simple analysis of the assessment in older people (Fig. 3.3). However, similarly, small differences between older and middle-aged adults also appear in the domains of personality and finances. Older people are assessed similarly to other adults in these areas—the less positive assessments for older people in these areas are thus not specific to older people but reflect generally less positive perceptions in these areas, which are independent of age and thus more related to the items used in the questionnaire.

Regarding the more negative assessments of older people, the domains of friends, fitness/health, appearance, and autonomy stand out. This result is particularly surprising for the last two domains, as it was not apparent from a simple analysis of the assessments of older people. The comparative analysis thus proves that even in these life domains, despite a positive assessment of older people, overall, rather negative views on ageing prevail in comparison to the assessment of middle-aged adults.

### 3.3.3 Age-Related Differences in Views on Ageing

So far, we have described views on ageing in very general terms in the different life domains, that is, we have reported average values for the total sample of all persons. However, views on ageing are not the same for everyone; they may differ systematically between different groups of persons.



**Fig. 3.6** Evaluations of older and middle-aged adults in different age groups

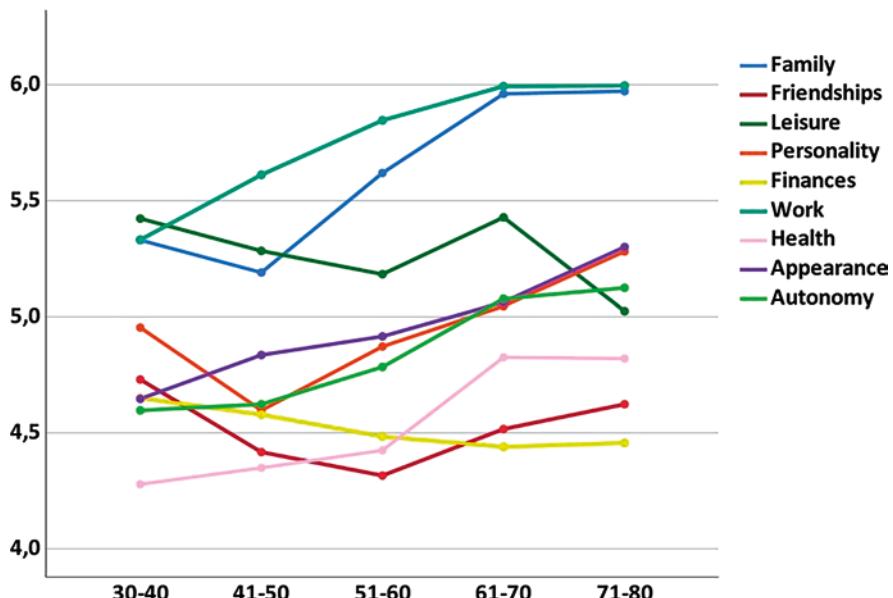
Note: Core sample of the German survey; first measurement point; range of values: 1 = negative end, 8 = positive end of the scale

In this context, a particularly interesting question is whether and, if so, how views on ageing change over the life span. Old age is special in that all people change their age group membership during their lives. We acquire views on ageing already as young people, here those views of old age still refer to other people, socio-psychologically speaking thus to an *out-group*. At some point, however, we ourselves belong to the group of the “old,” and our views on ageing suddenly refer to our own group, that is, indirectly to ourselves.

Rothbaum (1983) was already able to show that older people exhibit an age-related *in-group bias*: They evaluate characteristics and contents that are typical for older people more positively than younger people do. Heckhausen et al. (1989) reported that older people have more differentiated beliefs about age-related changes than younger people. In a study by Rothermund and Brandstädter (2003a, see also de Paula Couto et al., 2022a), ratings of older people were found to become more positive with increasing age.

Our data also show evidence of more positive views on ageing among older people (Kornadt & Rothermund, 2011a). However, this increase is not uniform across the lifespan (Fig. 3.6): In the transition from younger to middle adulthood, there is initially a trend for views on ageing to become more negative, which reverses as people enter older adulthood. In old age, we see an increase in positive evaluations of older people.

The same trend can be seen if, instead of the evaluations of older people, the difference in the assessments of older and middle-aged adults is considered (see Fig. 3.6). The decreasing trend in the transition from young to middle age is even more pronounced when evaluations of old adults are compared to evaluations



**Fig. 3.7** Evaluations of older adults in specific life domains, for different age groups

Note: Core sample of the German survey; values averaged over all survey time points; range of values: 1 = negative end, 8 = positive end of the scale

regarding middle-aged adults, while the subsequent increase in the relative positivity of the assessment of old people is largely parallel to the previous analysis, since the assessment of middle-aged adults no longer changes significantly at an older age. The following influences come together here: First, younger adults have a comparatively negative view of “middle-aged adults,” which may stem from the fact that these individuals occupy important social roles and positions of influence that younger adults aspire to. The more negative evaluations of middle-aged adults express that the young face this group with self-confidence and do not consider them superior at all. In the difference variable, these evaluations enter with an inverted sign, making the relative evaluation of older people more positive. On the other hand, middle-aged adults in particular show a tendency to distance themselves from old age. This is expressed in negative views on ageing, which are then used to ward off a self-categorization as “old,” as well as in a revaluation of their own (i.e., the “middle”) age group. Taken together, therefore, the most negative relative assessments of older people arise in this age group.

If we break down the age patterns in the ratings of older people again according to life domains, different patterns emerge in some cases (Fig. 3.7). Whereas in most domains the typical pattern of a more positive evaluation of the own group emerges, that is, the evaluations of older people become more positive with increasing age of the participants, in the areas of finances and leisure, on the other hand, stable or even slightly decreasing evaluations of older people are found across the age groups. We

can only speculate about the reasons for this: It is possible that younger and/or middle-aged adults have quite positive images of old ageing these areas, since they attribute a lot of leisure time and at least financial resources to older people. However, these views are then not fulfilled, at least in the lives of some older people, who may no longer be able to take advantage of leisure activities or who find themselves in a precarious financial situation in old age. This disappointment of originally positive expectations is then projected onto the general views on ageing and leads to a more negative evaluation of the lives of older people in these domains.

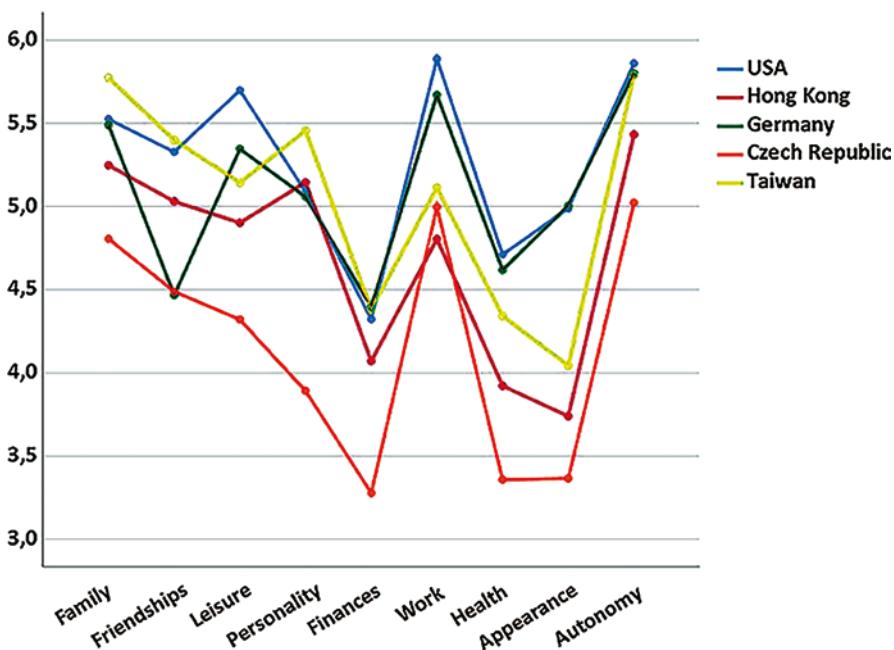
### 3.3.4 Country Differences in Views on Ageing

Views on ageing may differ not only between age groups, but also between countries (Kornadt et al., 2022). A central concern of our project is precisely to investigate the different social conditions of ageing, and these should be reflected in specific views of age and ageing in each case.

An intensively discussed topic in relation to such diverse “cultures of ageing” is the difference between West (Europe and North America) and East (Asia). Asian cultures not only generally place a greater emphasis on collective values—that is, sense of community, togetherness, and solidarity—while Western cultures are considered more individualistic (Markus & Kitayama, 1991). In particular, older people in Asian countries should be shown more respect and appreciation due to specific values of deference (“filial piety”; Ng, 1998).

However, previous research on country differences in attitudes toward age and ageing tends to paint a different picture. A highly regarded meta-analysis of almost all studies published on this topic concluded that age-related attitudes tend to be more negative in Asian countries than in Western countries (North & Fiske, 2015). However, the findings are heterogeneous, with some studies supporting the original thesis of more positive views on ageing in Eastern countries, others showing virtually no East-West differences, and still other studies, although in the majority, showing more positive views on ageing in Western countries. This is mainly associated with differences in state social provision for old age (Löckenhoff et al., 2009; see also Kornadt et al., 2022): In Asian countries, the obligation to provide for older persons, to which older people even have a legally enforceable right vis-à-vis their children, could be perceived as a burden by the younger generation under obligation, especially against the background of a rapidly increasing proportion of older people in the total population.

With our project we want to contribute to this question, which has not yet been conclusively clarified. For this purpose, we compare views on ageing in Western (Germany, the USA) and Asian countries (China, Hong Kong, Taiwan). In addition, we also consider the Czech Republic as a fifth country to gain a first insight into the prevailing views of old age in an Eastern European country whose recent history is characterized by a change from a socialist state monopoly economy to a liberal economic order in which the state is at the same time cutting down its responsibilities for providing social security in old age.



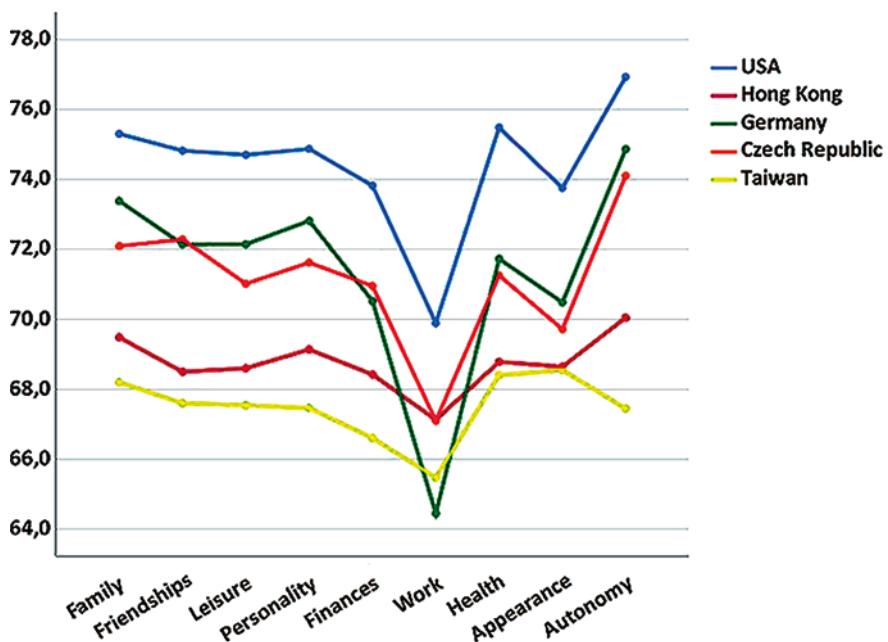
**Fig. 3.8** Evaluations of older adults in different life domains across countries

Note: Total sample; results of the third survey time point; range of values: 1 = negative end, 8 = positive end of the scale

In previous studies on cross-cultural comparisons, mostly global instruments were used to capture views on ageing and age-related assessments. By taking a domain-specific approach, the data from our project allow us to make more differentiated statements about views on ageing in the various countries, and this approach may also provide a key to explaining different results of earlier studies that may have unintentionally captured different aspects of views on ageing that relate to different life domains.

**Country Differences in the Evaluation of the Older Adults** On the one hand, our results show important differences between the countries studied (Fig. 3.8; see also Voss et al., 2018b). In the Western countries (the USA, Germany), the most positive views on ageing occur, while the Asian countries (China, Hong Kong, Taiwan) show comparatively fewer positive views on ageing, which, however, still lie in the neutral or positive range of the response scale. The Czech Republic has by far the most negative assessments of older people, which are even below the scale mean of 4.5 on average, and thus also in the negative range in absolute terms.

This general pattern is further qualified in an interesting way by the breakdown into domain-specific assessments. The general pattern (USA/D > HK/TW > CZ) is evident for the domains of leisure, fitness, appearance, and autonomy. Comparatively positive views on ageing in the Asian countries, however, show up in the social



**Fig. 3.9** Average age thresholds in the countries of the Volkswagen Foundation's age study for different life domain

Note: Total sample; data for the third measurement point

domains (family, friends) but also for the domain of personality. This may reflect traditional Asian values, which attribute respect, esteem, and social affection to older people based on their experience (i.e., relating to their personality). With the domain-specific assessment of views on ageing, we are thus able to clarify, at least partially, the heterogeneous results of earlier studies on East-West comparisons in age-related assessments.

The negative assessments of the older people in the Czech sample are approaching average levels in comparison to the other countries only in the area of work. At present, we can only speculate about the reasons for the otherwise significantly more negative evaluations in the Czech Republic. The markedly negative evaluations of older adults in the domains of finances and physical and mental fitness and health suggest that these evaluations may reflect the precarious situation of the older generation, which, as a result of the system change, has found itself in a situation in which state support is lacking, but at the same time there was or is no longer any possibility of improving one's personal situation via own efforts.

**Country Differences in Perceived Age Thresholds** With regard to the age thresholds already mentioned above (Fig. 3.4), we also have carried out country comparisons (see Fig. 3.9). These analyses reveal clear differences between the countries studied: The highest age thresholds were found in the USA, with Germany and the

Czech Republic in the middle range, and the lowest age thresholds by far were found in Hong Kong and Taiwan. These results demonstrate a relevant East/West difference in age attributions. Between the USA and Taiwan, the difference in the age at which a person is considered to be old is almost 10 years. A person in their early 70 s would already be considered old for about 5 years in Taiwan, while they would not be counted as old in the USA for another 5 years.

How can these differences be explained? A key factor for these differences is retirement age, which is used as an anchor for classifying people as old or not yet old. Interestingly, however, it is precisely with reference to the area of work that the smallest country differences in age thresholds are obtained. The Asian countries (Hong Kong and Taiwan) are at the same level as Germany and the Czech Republic. While in Western countries, however, the transition to old age in most life domains is 5 or more years above the work domain, that is, well after the mandatory retirement, age thresholds in Asian countries differ only insignificantly between the domains. The perception of age in these countries is less differentiated; a more global concept of age prevails in Eastern than in Western countries. In particular, the work domain no longer stands out clearly from the other domains. This reduced variability was already indicated in the views on ageing analyses (cf. Fig. 3.8), but it is expressed much more clearly in the age thresholds. Based on our data, we can only speculate about the background of this difference in the various life domains. However, our interview studies provide evidence that in Asia (Hong Kong and Taiwan), old age is primarily seen as an opportunity to lead a quiet and secluded life—the predominant conception of old age there is described as a “tranquil life” (Liou, 2016). In contrast, Western cultures are dominated by notions of an active third age characterized by engagement and/or enjoyment (Kornadt & Rothermund, 2011b). Here, real old age does not yet begin with the exit from working life but is instead delayed to the transition into the fourth age of life (Baltes, 1997) where losses in physical and mental capacity become apparent, coupled with losses in autonomy of lifestyle. The expectation or prospect of such a phase of active old age after retirement (i.e., the “third age”; Laslett, 1987) does not seem to exist in this form in Asian countries so that there is a much closer coupling of the beginning of old age with the end of working life.

### 3.3.5 Views on Ageing and Self-Views on Ageing

When we speak of views on ageing and age stereotypes in our everyday language, it is clear to whom these views and beliefs refer: It is about the perceptions we have regarding older adults. Older people are a social group and views on ageing describe what characteristics we ascribe to members of this group: What characterizes older people as opposed to younger people?

What is special about old age, however, is that the group boundaries are not rigid, so that each person changes group membership in the course of their life: At some point, one is no longer young and then belongs to “the old group” oneself (Rothbaum,

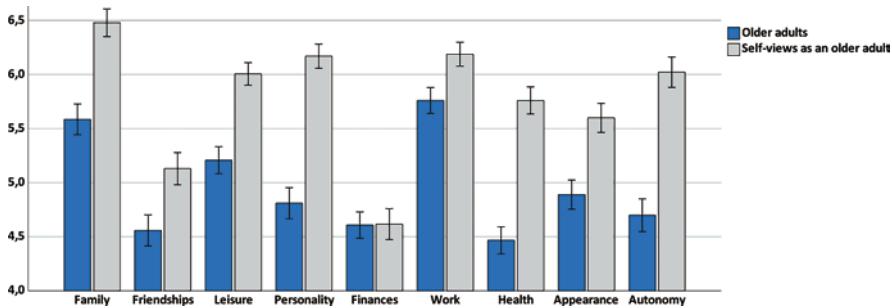
1983). From this dynamic nature of belonging to the group of older adults, which affects each of us, it follows that in addition to the general views of older people, there is also a particular, personalized view on old age and ageing. This view includes the perceptions and beliefs we have about *our own age and ageing*, so it is a view of what it will be like when we ourselves will be old. We refer to this view of our own age and ageing as self-views of ageing. As mentioned at the beginning, self-views on ageing that are independent of general views on ageing are formed relatively late. It is true that even children have ideas about what it means to be old (Vauclair et al., 2018). However, these negative views on ageing do not yet refer to themselves and their own possible ageing, but initially only to other people, that is, to “the old.” During life, however, at some point—for some people sooner, for some later—the question arises as to what our own lives will look like when we ourselves will be old. Then we begin to form our own personal views of ourselves in old age.

In our project, we not only asked participants about their general perceptions of older people (see Sect. 3.3.1 above); in order to capture self-views on ageing, we asked exactly the same questions with reference to the participants themselves, as older persons:

When I'm older...		
...I will have many conflicts in my relationship with my family.	<input type="checkbox"/>	... I will have a harmonious relationship with my family.

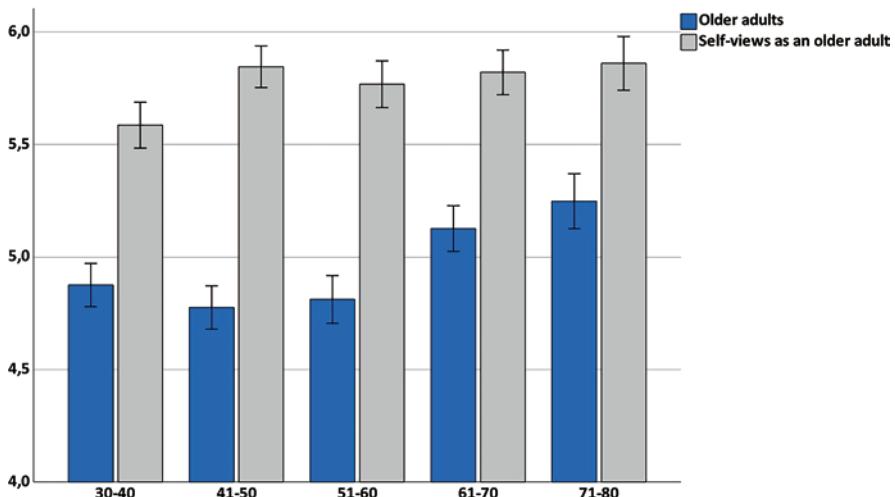
**Comparison of Evaluations of One's Own Age and Old People in General** In line with earlier studies (Rothermund & Brandtstädtter, 2003a), our study also shows that the domain-specific self-views on ageing of our participants are on average significantly more positive than their general views on ageing. Statistically, this is a very large effect (partial  $\eta^2 = 0.33$ ). Thus, this difference is substantial. How does this difference come about?

Above all, it must be borne in mind when interpreting the results that self-views on ageing and general views on ageing ultimately refer to the same group of individuals: The sample of our study represents a—very large and approximately representative—random selection of people from the total population. How can it be, then, that the evaluation of one's own age is on average so much more positive than the perception of older people in general? To better understand the underlying mechanisms for this difference in views on ageing and self-views on ageing, it is helpful to break down this finding in more detail. On the one hand, our data show that large differences occur primarily in domains related to the private or personal life situation (family, personality development, health/fitness, appearance, autonomy), while in the more social domains (friends and social relationships, leisure activities, finances, work), there are hardly any differences, or at least significantly smaller differences, between self-views on ageing and general views on ageing (see Fig. 3.10).



**Fig. 3.10** Average evaluations of older people and oneself as an old person (“when I am older”), presented by life domains

Note: Core sample of the German survey; results of the first measurement time point; range of values: 1 = negative end, 8 = positive end of the scale



**Fig. 3.11** Comparison of self-views on ageing and general views on ageing in different age groups

Note: Core sample of the German survey; results of the first measurement time point; range of values: 1 = negative end, 8 = positive end of the scale

Equally interesting and revealing is the fact that the gap between personalized and general views on ageing becomes smaller with increasing age (cf. Fig. 3.11). While there is a clear age-related increase in the positivity of general views on ageing, particularly among those over 50, self-views on ageing remain largely unchanged and stable at a high level at older ages. Thus, there is a convergence of the general view of old age with the self-view of old age.

Taken together, these results suggest that the difference between self-views and views of older adults in general can be explained to a large extent by an overly optimistic perception of the life situation expected for one's own person in old age. Particularly in areas of private life, there has long been the illusion that one can live

and control one's life according to one's own ideas, even in old age, which leads to overly positive self-views in these domains. With increasing age, however, these exaggerated self-assessments are then corrected in the light of one's own experiences with old age and replaced by ideas that are closer to reality.

**Relationship Between Self-Views on Ageing and General Views on Ageing** Let us now turn to the question of the relationship between self-views and views of older adults in general. At first glance, the difference in the evaluations of older people and the future-related assessment of oneself in old age suggests that these are separate perceptions that tend to have an antagonistic, that is, opposing, relationship to each other. In the literature, therefore, the idea prevails that general and personal images of old age function as opposites or contrasts and serve to delineate between individual and general ideas of old age ("social downgrading," Heckhausen & Brim, 1997; "downward comparisons," Pinquart, 2002; see also Weiss & Lang, 2012).

However, this assumption is deceptive; in particular, it overlooks the strong interdependence between these two types of views on ageing. In fact, self-views and views of others are positively related and influence each other (Kornadt & Rothermund, 2012; Kornadt et al., 2017; Kornadt et al., 2023; Rothermund & Brandtstädtter, 2003a). In the overall sample of our project, we find a correlation of  $r = 0.69$ , that is, a significantly positive relationship in which about half of the differences in self-views were explained by differences in views of older adults in general (the percentage of variance explained is calculated by the squared correlation coefficient, and in this case is  $r^2 = 0.49$ ). In other words, the more negative/positive a person's conceptions of old age in general are, the more negative/positive their conceptions of their own old age will be.

How does this correlation emerge and how can it be explained? One answer is provided by the model presented at the beginning (Fig. 3.1): The process of internalization of views on ageing (Rothermund & Brandtstädtter, 2003a; see also Kornadt & Rothermund, 2012; Kornadt et al., 2017) describes a transfer of perceptions that originally referred only to other people (to 'the older people') to ourselves.

This internalization of views on ageing represents a critical moment for the further development of a person. It bears the danger that we transfer negative views on ageing into our self-views on ageing. Once there, they shape our expectations and actions, influencing what experiences we have and how we prepare for our old age (Kornadt et al., 2015, 2019; Levy, 2009; Rothermund & de Paula Couto, 2024; Voss et al., 2017). Thus, our negative views on ageing not only lead us to evaluate other older people more negatively and possibly also to behave inappropriately toward them (Rothermund & Mayer, 2009; see also de Paula Couto & Rothermund, 2019; Rothermund et al., 2021b; Voss et al., 2018a; Voss & Rothermund, 2018). In other words, one could say that we end up discriminating against ourselves through negative views on ageing (Rothermund, 2018).

We will discuss the possible consequences of views on ageing for our own development in more detail in the following sections (see Sect. 3.3.7). For the moment, our central finding is that our personal self-views on ageing are significantly more

positive than our general views of older people, but at the same time, they are decisively influenced by these general perceptions.

### 3.3.6 Prescriptive Age Stereotypes

Views on ageing not only refer to beliefs about what older people are like; they also refer to ideas about what older people should be like. In this case, we speak of normative or prescriptive views on ageing (Rothermund & Wentura, 2007). These age norms reflect expectations that we have of older people—or that older people have of themselves to fulfill their role as an older person. To put it pointedly, these prescriptive views on ageing are about what it means to be a “good older person” (Rothermund, 2019).

The research literature on this important topic has identified two fundamentally different types of age norms. The classic normative view of old age calls for older people to withdraw from social roles and activities, to pass on their resources to the next generation, and to stop presenting themselves as young or to try to continue to maintain a youthful identity (North & Fiske, 2013). The technical English term for this overarching norm of withdrawal from public life is *disengagement*.

Researchers on ageing originally promoted withdrawal from obligations and activities as a conducive element of healthy development in old age that would help prepare for the inevitable end of life (Cumming & Henry, 1961). The norm of disengagement, however, is not concerned with what is good for the older persons themselves, but what is expected of them. Previous research shows that older people are criticized and negatively evaluated when they do not conform to this norm, that is, when they do not vacate their social positions, when they use and claim their resources for themselves, or when they continue to exhibit lifestyles and appearances that are more in line with the image of younger people (Martin & North, 2021; North & Fiske, 2013).

Alongside the disengagement norm, however, a second, seemingly opposing norm has become prevalent, namely, the expectation that older people should try to remain active and fit, participate in professional and social life, and take care of themselves for as long as possible (Ekerdt, 1986; Pavlova & Silbereisen, 2016). This norm of active ageing has an important sociopolitical function: It is related to calls for postponing or increasing the retirement age, longer active participation in working life, and a concomitant easing of the burden on social welfare systems (pension insurance, health insurance) in the face of further increasing proportions of older people in the total population (Denninger et al., 2014; Kohli, 1989; see also Chap. 6 for a more detailed discussion of norms of disengagement and activation for older people). Older people themselves appear to be accepting this norm because it holds the prospect of their being able to maintain previous life activities and to continue to participate in social life. The norm of active ageing implicitly suggests that this is possible and that it is the responsibility of everyone to postpone or delay old age and to continue to pursue meaningful occupations. The underlying idea of “being old without becoming old” obviously has something enticing about it, especially for the older people themselves.

**Table 3.1** Prescriptive age stereotypes of activation and disengagement: Sample items from the survey instrument

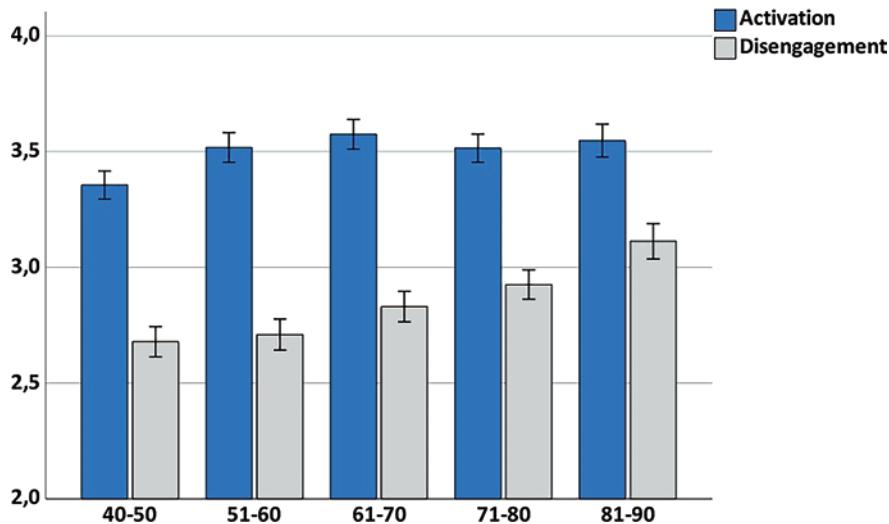
Age norm	Sample items
Activation	In my personal opinion, older people should... ...stay mentally fit. ...always stay up to date with technological developments. ...stay healthy and fit (e.g., pay attention to a balanced diet, exercise regularly).
Disengagement	In my personal opinion, older people should... ...make way for the younger generation by giving up important roles (e.g., at work, in politics) ...act their age instead of trying to look young. ...make only modest use of public resources (e.g., health care system, pensions).

Note: Value range 1 = do not agree at all to 5 = agree completely

In our project, we assessed personal endorsement of both age norms, disengagement and activation, in a questionnaire specifically designed for this purpose (de Paula Couto et al., 2022a; see Table 3.1).

**Age Trajectories in the Endorsement of Prescriptive Norms of Activation and Disengagement** Our data show that the activation norm is generally more strongly endorsed than the disengagement norm (de Paula Couto et al., 2022a). This is consistent with the assumption that expectations that call for a more or less unchanged, not in the stereotypical sense “old,” life—and thus also contain the prospect of such a non-old life as a possibility—are more easily endorsed than demands that ultimately imply an exclusion of older people.

Interestingly, both age norms show higher endorsement ratings among older individuals (see Fig. 3.12; see de Paula Couto et al., 2022a; Ludwig et al., 2024). Apparently, expectations that society places on older people are adopted and become internalized by them over time. Even if a new identity does not automatically emerge with the transition to older age—most older people do not explicitly describe themselves as “old,” but at least explicitly still see themselves as the adult person they used to be (see Chap. 5)—our findings nevertheless indicate that an active and intensive engagement with being old or growing older does take place. Direct self-identification as “old” is apparently difficult for many older people because of the negative connotations associated with it. Nevertheless, older people ask themselves how to fill the new social role that may be ascribed to them from the outside and how to live up to the expectations that are directed towards older people. What do I have to do to behave and live appropriately for my age? Such an internalization of age-related role expectations is not an exception; similar normative orientations emerge in the assumption of other social roles (such as parenthood, occupational roles, adopting a public role or position, etc.; Goffman, 1959; Parsons, 1951). Our data show that an orientation to and internalization of social expectations and norms is also evident for the role of an older person, even if this identity is explicitly rejected by many older adults (Fig. 3.12).



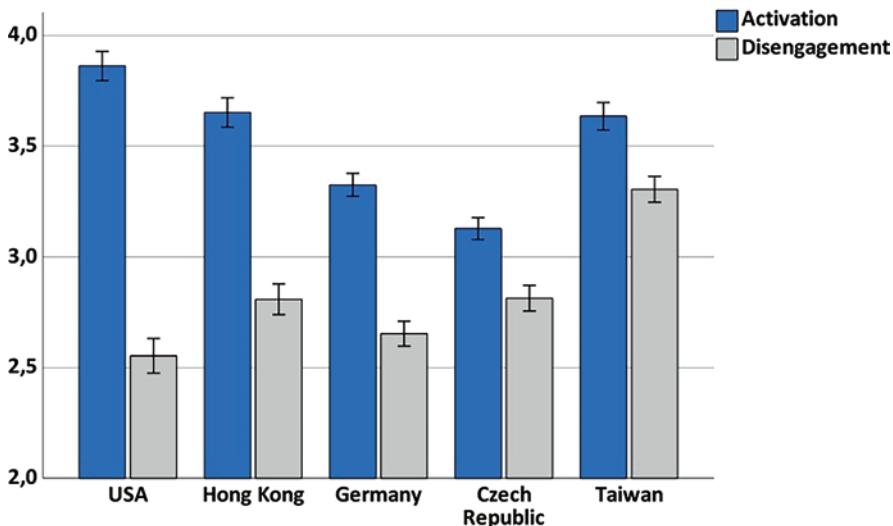
**Fig. 3.12** Age trajectories in the level of endorsement of prescriptive age norms of disengagement and activation

Note: Total sample; results of the third measurement time point

The age-related increase in endorsement of activation starts early and subsequently stabilizes at a high level. The disengagement norm rises only later, but endorsement then increases until the oldest age. In addition to the processes of internalization of age-related norms, the increased endorsement of these age norms in older age can also be explained by the fact that a person's own experiences and age-related changes in their life are experienced as appropriate and subsequently interpreted as a norm. In this case, one speaks of a transfer (projection) of one's own experiences onto age-related, normative ideas (Krueger, 2000; Rothermund & Brandstädter, 2003a). The fact that one has at some point retired from working life oneself—and has also somehow come to terms with this change—is assessed by the person in retrospect as “correct,” evaluated positively, and becomes a benchmark for “normal” ageing according to which other old people are evaluated. In this way, one's own development is justified retrospectively and turns into a normative expectation that is directed at one's own and the following generation to act likewise.

Of course, it should be kept in mind that the data on age differences in age norms reported here are based on comparisons of individuals from different birth cohorts. Such a cohort comparison reflects not only age-related changes in beliefs but possibly also different socialization experiences. It is entirely possible that higher levels of endorsement for the disengagement norm in older cohorts relate to the fact that earlier generations were more strongly socialized with this expectation.

**Country Differences in Endorsement of Activation and Disengagement Age Norms** Significant country differences are also found for the endorsement of prescriptive age norms in our study (cf. Fig. 3.13). Whereas in the USA, Hong Kong, and Germany, there is significantly higher endorsement of the activation norm than



**Fig. 3.13** Country differences in the level of endorsement of activation and disengagement age norms

Note: Total sample; results of the third measurement time point

of the disengagement norm, this difference is only minimal in the Czech Republic and Taiwan. The markedly high level of endorsement of the disengagement norm in Taiwan is also striking.

**The Relationship and Overarching Function of Activation and Disengagement Age Norms** Another intriguing question relates to the relationship between activation and disengagement age norms. At first glance, these norms appear to formulate opposing expectations toward older adults. However, a closer look reveals that possibly both age norms serve one and the same overarching function: Both the activation and disengagement norms require older people not to use scarce social resources. The disengagement norm calls for modesty or surrender with respect to financial resources and in the event of any scarcity of social role positions. However, the activation norm can also be understood as a call to take care of oneself for as long as possible and to claim as few benefits as possible from the social security systems (pension, health insurance, care system) (de Paula Couto et al., 2022a).

In fact, our study demonstrates that endorsement of the activation and disengagement norms are positively related ( $r = 0.42$ ). Individuals who agree with one of those prescriptive norms tend to also agree with the other norm and vice versa. The explanation offered for this, that both norms arise from the same overarching function, is also supported by our data: Both norms show a significant positive correlation with the overarching norm that older people “should not become a burden to others and society” (both  $r > 0.50$ ).

Activation and disengagement age norms are thus positively related to each other, show similar age trajectories, and have similar relations to the overarching norm of not being a burden. Nevertheless, it should not be overlooked that the two age norms are by no means identical, but cover different contents, and have different causes and/or consequences. These differences become apparent when we consider the association between these normative beliefs and the individual conditions under which their targets live (de Paula Couto et al., 2022a; see also Ludwig et al., 2024). For example, the activation norm is particularly endorsed by individuals who are healthy, have high income, are satisfied with their lives, and who attribute to themselves a high degree of control over their own lives, even in older age. People who endorse the activation norm have more positive views on ageing in all life domains and want to actively shape their own old age. The correlations with the disengagement norm are quite different. Here, endorsement is higher among people with poor health and low incomes and with rather low satisfaction and little control over their own lives. The disengagement norm also is related to more negative views on ageing, for instance, in areas such as work and physical appearance (Ludwig et al., 2024).

Of course, against this background, one might think that the activation norm favors successful ageing. However, this interpretation would be a misunderstanding. It is possible that people who are doing well and who also have a variety of health and/or material resources in old age are more inclined to expect and demand activity in old age. However, this does not necessarily mean that this age norm is the cause of their positive life situation in old age. Certainly, the aim to actively shape one's old age is a natural striving as long as one is able to do so. However, one must not confuse the desire for having the opportunity to stay actively involved and participate in meaningful activities in old age with the normative demand that old people should generally be active.

While the activation age norm cannot be applied indiscriminately to all old people, the disengagement norm should not be completely demonized. Of course, this norm has obvious features of age discrimination when healthy and active old people are denied access to positions and participation in public life and are criticized for using their resources for their own desires and goals. In this case, the disengagement-related expectations are obviously misplaced. At the same time, however, the demand for disengagement may also be connected to an important truth or insight, namely, that mere activity and stubborn striving for an ideal of youthfulness in old age may become inappropriate and perhaps also reflect a lack of wisdom and life experience. Perhaps one should be able to expect from older people that they no longer regard money, success, and appearance as the most important things in their lives. Even in young people, such an orientation does not necessarily speak for good character. Nevertheless, we are more tolerant when a young person still wants to prove something to themselves or others and perhaps also still has responsibilities and obligations to family and children. In the case of older people, however, we have little sympathy for excessive ambition: Who, if not they, should have learned what is important in life and what is not? Behind such disengagement-related attitudes, thus, we may surmise, stands the expectation that older people should have

learned one thing above all else during their lives: To be wise (de Paula Couto & Rothermund, 2022; see also Brandtstädtter et al., 2010).

### 3.3.7 Individual Differences in Views on Ageing and Consequences for Development

In the results presented so far about views on ageing, we were mainly concerned with general tendencies, that is, with average values referring to large samples of persons. Even in these analyses, important differences already became apparent: between different life domains to which views on ageing refer, between self-views on ageing and views of older adults in general, between descriptive and normative age-related views, between different countries and cultures of age, and between age groups.

***Individual Differences in Views on Ageing*** In this section, we take the differentiation regarding views on ageing a decisive step further. Now we are no longer primarily concerned with group averages; instead we look at differences in views on ageing between different individuals. In technical terms, we are now concerned with the variability—the differences—in views on ageing within life domains, countries, and age groups. These differences are important. The proportion of variability that is due to differences between different individuals within groups is usually many times larger than the differences we observe between age groups, countries, or between domains. In most analyses using our data, person-related variability within groups exceeds variability between groups by more than a factor of ten, sometimes even by a factor of a hundred! Thus, although differences between age groups and countries in views on ageing and age-related attitudes are substantial and systematic in some cases, individuals within these groups differ even more markedly.

Interestingly, the differences in the views related to older people are even larger than the differences in the views we have of (middle-aged) adults. If, for the sake of simplicity, we compare views of ageing averaged over life domains with views of middle-aged adults, also averaged over domains, the variability of views on ageing is 85% larger, that is, the differences in views on ageing are almost twice as high as for evaluations of an average person.<sup>4</sup> This result is surprising, because one might have expected that societal age stereotypes are shared, and should unify the beliefs we hold about older people. De facto, however, there is a polarization: Some people have rather positive views of old age, others rather negative ones, so the differences compared to the evaluation of a middle-aged adult are significantly larger.

The mere fact that age-related perceptions differ so strongly between individuals is an important and remarkable finding (not only) of our study. After all, it shows

<sup>4</sup>This result refers to the German subsample at the first measurement time point, as we did not collect data on middle-aged adults at later time points.

that views of old age are not merely a reflection of generally prevailing social stereotypes but are to a decisive extent shaped by one's own experiences and reflections. In our project, however, we did not focus on the question of the origin or sources of individual differences in views on ageing. The central concern of the project was an investigation of the *consequences of these differences for individual development in old age*. As mentioned in the previous sections, one of the core assumptions of our study was that views on ageing influence how individuals think, feel, and act, and whether they shape the lives and development of individuals like self-fulfilling prophecies (cf. Fig. 3.1).

In Sect. 3.3.5, under the heading of internalization of views on ageing, we have already established that general age-related views have an impact on a person's perception of their own age. A negative view of ageing in general thus casts its shadow and, in the long term, also leads to one's own future being evaluated as threatening or worthless, whereas an overall rather positive view of ageing also casts a positive light on one's own age. These self-views of old age then, according to our thesis, also shape the actual development of the person (Rothermund & de Paula Couto, 2024).

**Views on Ageing and Life Satisfaction** A first, very global indicator for a successful or problematic development is the general life satisfaction of a person. In fact, there is a clear correlation between a person's views on ageing and their life satisfaction: The more positive the views about age and ageing are, the higher the life satisfaction (Kornadt & Rothermund, 2011a). However, in this context it is unclear whether views on ageing are really the cause of life satisfaction; it is possible that the correlation is due to an influence in the opposite direction; perhaps a high current life satisfaction taints age-related expectations. Alternatively, the correlation of life satisfaction and views on ageing may simply reflect unspecific differences in the optimism/pessimism of individuals.

To determine the causal influence of views on ageing on life satisfaction more clearly, we examined the effects of views on ageing on subsequent changes in life satisfaction. Again, consistent with our hypothesis, the expected positive effect of views on ageing emerges. Specifically, self-views of ageing predict changes in life satisfaction for the subsequent 5-year interval ( $\beta = 0.22$ ).<sup>5</sup> For individuals who currently tend to have more positive self-views, an increase in their life satisfaction is found in the subsequent 5 years, whereas for individuals with initially negative self-views, life satisfaction decreases. This result represents strong evidence for the causal influence of views on ageing on overall life satisfaction. However, it is also clear that this is not an influence in a physically mechanistic sense. How can the influence of views on ageing on life satisfaction be explained psychologically? What are the mediating processes on which the effect is based?

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<sup>5</sup>The calculations were based on data from the second and third measurement points for Germany, the USA, and China (Hong Kong), which were part of the sample at both measurement points.

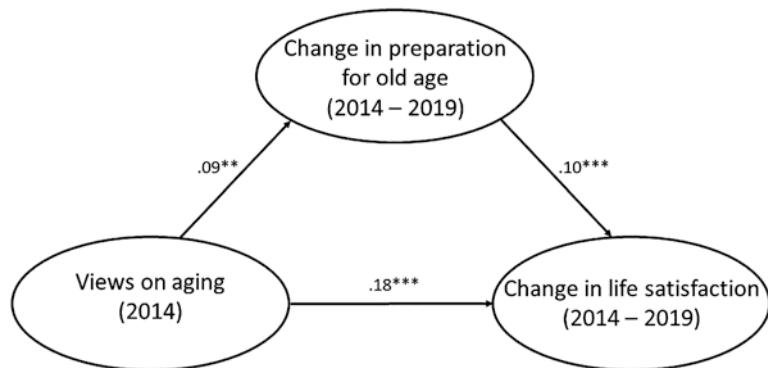
**Views on Ageing and Preparation for Old Age** In Becca Levy's (2009) *Stereotype Embodiment Theory*, different pathways are outlined that make it possible to understand the influence of views on ageing on the lives and development of older people. One important mediating pathway is the behavior of the individual in question. Individuals can actively prepare for their age and for age-related changes in their life situation, they can avoid health-related or financial risks, they can make plans for how they would like to live in old age, they can pay attention to regular physical and mental activity in order to prevent corresponding functional losses, they can maintain their family and social relationships in order to remain involved in old age, they can rethink their housing situation in order to compensate for possible losses of mobility in old age, and they can stay close to relatives and friends—or they can do none of these things, avoid dealing with old age, and live in the here and now.

Many of these future-related activities can be grouped under the heading of preparation for old age (Kornadt & Rothermund, 2014; Kornadt et al., 2015; Lang & Rohr, 2013; see Chap. 4). Preparation for old age—not just in financial terms—is an essential element of successful ageing and a key predictor of a good life in old age (Prenda & Lachman, 2001). However, the willingness and motivation to actively engage with one's own old age and to provide for old age varies greatly among different individuals (Hess et al., 2024).

In our project, we explored the question of whether the extent to which a person prepares for their old age depends on the person's views on ageing (Kornadt et al., 2015; Park et al., 2020). Indeed, there is evidence of a positive relationship between self-views of ageing and the extent of preparation for old age ( $r = 0.40$ ).<sup>6</sup>

As in the case of the correlations between views on ageing and life satisfaction analyzed above, however, the question arises as to the direction of the effect. Is it views on ageing that cause preparation or, conversely, is it preparation that holds out the prospect of a positive old age? We answered this question again with longitudinal analyses in which the influence of self-views on ageing on subsequent changes in preparation for old age was examined. Here, we found that positive self-views do indeed lead to a subsequent increase in the level of preparation for old age, so that the causal influence of self-views on ageing on preparatory behavior can be regarded as confirmed ( $\beta = 0.09$ ).<sup>7</sup> Positive expectations regarding one's own age thus promote preparation, while negative expectations hinder it. The motivation to prepare for old age obviously depends on the individual's having a positive, that is, worthwhile and desirable, image of their own old age. Further analyses revealed that part of the influence of views on ageing on life satisfaction is indeed mediated by preparation for old age (see Fig. 3.14): Positive views of old age lead to a subsequent increase in old-age preparation, which in turn leads to higher life satisfaction in old age. Conversely, however, more negative views of old age block preparation for old age, which has an unfavorable effect on life satisfaction in the long term.

<sup>6</sup>This result refers to data from the third measurement time point. The findings are similar for the earlier measurement time points as well; we report the last measurement time point here because only for this time point data are available for the largest sample (all 5 countries).



**Fig. 3.14** Mediation model of the influence of self-views of ageing on life satisfaction, mediated by preparatory behavior

Note: Data basis is the second and third survey time point; results are based on the subsamples from Germany, the USA, and Hong Kong

The core thesis of our approach is that individuals' views of old age shape their actual life in old age. The preceding analyses on the association between views on ageing and preparation for old age and the resulting life satisfaction make clear how these consequences can come about. Our views of old age shape our thinking about old age, they color our emotional world when we think about our old age, and in this way, they also have an action-guiding function.

**Views on Ageing and Critical Life Events** Another finding of the project illustrates the basic assumption that views on ageing are self-fulfilling prophecies that directly influence life (Voss et al., 2017). In one part of the research instrument, we asked participants in our study whether they had experienced any significant events in recent years and, if so, which ones. Each reported event then had to be evaluated, that is, it had to be assessed according to whether it was a negative or a positive event for the person. These event data were collected at the second measurement point (2014) and referred to events that occurred in the last 5 years—that is, between the first (2009) and second (2014) measurement points.

Our participants reported a large number of different events that had happened to them (e.g., reconciliation with a partner, a child, a friend; divorce; loss or regaining of faith; discovery of a new pastime or loss of a previous one; financial gains and losses; illness and recovery). Overall, more positive than negative events occurred (an average of 1.4 positive events and 0.8 negative events were reported per person). The key finding, however, is that the frequency of positive and negative events could be predicted by the views on ageing that the person had reported at the first measurement time point, that is, before the events actually occurred. Persons with positive views on ageing were more likely to experience positive events ( $r = 0.13$ ), whereas the likelihood of experiencing negative events was reduced ( $r = -.17$ ).

Adding the evaluative ratings to the analysis, we find that the evaluations of events reported by a person are positively related to the person's self-views of ageing ( $r = 0.23$ ).

Our analyses thus indeed show that views on ageing not only determine the actions of individuals (see above) but also influence the occurrence of important life events. Positive views on ageing entail positive events; negative views are followed by negative events. Reflecting on this finding, one may wonder how this can be at all. After all, life events are experiences that befall an individual; you cannot just pick and choose them. That is true—but only at first glance. Because, of course, we can and do influence the probability with which important events occur in our lives to a significant extent ourselves, even if only indirectly, through our behavior and through our thinking. Whether or not we maintain a happy partnership in old age depends decisively on our behavior and on our willingness to adapt to the changed family situation in old age. Whether we will be ill or healthy in old age depends—at least in part—on our behavior, for example, on health risk behavior or on our physical activity and diet (Fries et al., 2011).

Above all, however, the meaning and evaluation of events depends to a large extent on what we make of certain experiences and events. Let's imagine that we wake up one morning and have terrible back pain. How do we interpret such an event—do we see it as proof that age has struck, that we should stop our sports activities, and that everything will only get worse from now on? Or do we interpret it as a signal that we should make some changes to our lifestyle, perhaps engage in more targeted training, or more physical activity?

Both through our behavior and our interpretations, we massively influence the occurrence of positive and negative events in our lives. Behind our behavior and thinking, however, lurk our views on ageing. What do we expect from old age? Do we see opportunities or threats? Restrictions or gained freedom? The loss of physical fitness or the gain of life experience? What do we expect from ourselves in old age—and from other old people? Do we see the need to compensate for age-related changes through targeted measures, do we react passively and surrender in the face of inevitable changes, or do we want to reorient our lives? Are we ready to embrace the stage of life of old age, to welcome it as an important phase of our lives, with completely new and unique experiences? Or do we cling desperately to the previous stage of life, which we cannot and do not want to let go, because old age has only bad things to offer anyway?

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### 3.4 Conclusion: The Multidimensionality of Ageing

What is old age, actually? We started this chapter with this basic question—and there is no simple answer to this question. The answers differ between cultures and persons, and even within one and the same person, we find quite different views of age. Who is targeted by these beliefs (me or others)? To which life domains do views on ageing refer? Is it about views of older people as they are, or as they should be? We must keep this complexity of the concept of age in mind if we want to

understand how people experience and shape their age (Rothermund & de Paula Couto, 2024).

Above all, however, it is worthwhile to present and understand the explicit and implicit views on ageing as precisely as possible. For views on ageing are not just views of old age. Views on ageing shape our actual development in old age before it has even taken place; in this sense, our views on ageing should be seen as causes of our actual ageing. They also influence which aspects of our lives we associate with old age and how we interpret those (Rothermund et al., 2021a). In this sense, our views on ageing are constitutive of what we experience as old age.

What follows from these considerations for our perspective on ageing? What practical considerations for optimizing and shaping ageing can be derived from our findings? The most fundamental insight that our study of ageing provides can be succinctly expressed as follows: Ageing is not an immutable given; it is not a biological fact; rather, ageing is the result of a construction. These constructions of ageing can vary widely. An obvious implication of this perspective is that ageing can be influenced and shaped by changing the constructions, that is, by changing our views on ageing (e.g., Wirth et al., 2023).

Just as it is important to emphasize the constructed character of age and ageing, which implies a view on ageing as being controllable and malleable, it is also important to see that our constructions of age are not arbitrary, and therefore cannot be replaced at will. Limits to the controllability and modifiability of age result from biological, social, and personal constraints. Nevertheless, we understand our perspective on age and ageing primarily as a liberation. We see our research results as a call to question apparently self-evident beliefs and “facts of old age” and to search for alternative possibilities of viewing age and ageing. What events and changes can be influenced by our individual actions? What societal changes are necessary and desirable to expand and improve life possibilities in old age (Nussbaum & Levmore, 2017)? What—perhaps unique—opportunities, freedoms and perspectives of meaning does the last stage of life offer? But also: What limitations can we expect? How do our opportunities to successfully participate in certain life outcomes shift and change? What consequences does this have for our self-views and identity as an older person?

These questions should invite creative reflection, and they should question established—especially negative—ideas about and attitudes toward old age. Our findings on the internalization and developmental consequences of views on ageing show that such a rethinking of age-related ideas has eminently important consequences for actual development in old age: Initially acquired as a stereotype of others, these views later come to color one’s own ideas of age during development, thus shaping our actions and thoughts, and thus act as self-fulfilling prophecies that shape our life in old age. More far-reaching questions, such as the appropriateness and malleability of views on ageing and their effects on actual and experienced age discrimination, are revisited in the concluding Chap. 6, in which we discuss the practical implications of our findings.

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# Future Action and Ageing Preparation

4

Frieder R. Lang

Ageing preparation involves future action. How people prepare for old age is determined on the one hand by individual perceptions and ideas and on the other hand by societal demands and opportunities arising, for example, from social and pension laws. The benefits of a welfare state shape people's aspirations and expectations when it comes to retirement pensions or long-term care. Therefore, the magnitude, predictability, and sustainability of social welfare are also important for planning and investment of ageing preparation.

Two normative systems interact in preparing for old age: On the one hand, there is the norm of solidarity between the generations, and on the other hand, there is the norm of personal responsibility, according to which everyone must provide for his or her own old age. The controversies resulting from both normative systems are revealed in many social debates, for example, when it comes to the alleged costs of providing for older adults and the presumed resulting burdens for future generations. For these reasons, the issue of preparation for old age is relevant to many people. For example, demographic changes, low birth rates, and rising life expectancies in most countries are challenging the capacity of the welfare state. Accordingly, one consequence may be that many people invest more in material security for later life. Alternatively, if the financial situation appears secure, people

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are likely to devote more of their preparatory behaviors in other domains of personal life and personal growth. Preparatory action planning represents concrete developmental action through which people can control and shape their life situation in old age, even if only within certain contextual limits (Brandtstädt, 2006; Lerner & Busch-Rossnagel, 1981). Here, ageing is based on the interplay of individual activities and social opportunity structures (Katz, 2013). The study of ageing preparation thus contributes to the understanding of ageing in general.

Early ageing preparation is generally based on the hope that this will create scope for shaping the late phase of life and enable people to cope better with any challenges they may face. This requires one to consider one's future, the outlook for a long life, and the circumstances that accompany it at an early stage (Heikkinen et al., 1995; Noone et al., 2009; Preston et al., 2018). In the following sections, we define the two concepts of anticipative preparation action for old age and of preparation-relevant activity based on resource investment and concreteness of future perspective.

### ***What Defines Anticipative Preparation for Old Age and Future-Related Action?***

Future-related action and *anticipative preparation action for old age* are conceptually different. Every action is future-related in that it involves the achievement of goals or the realization of desires or plans. Possible long-term consequences of future-related action for old age are, by definition, not in focus of attention. In contrast, *anticipative preparation action for old age* (APA) explicitly refers to all of a person's efforts to *avert* or *at least mitigate* suspected or anticipated threats and their suspected consequences in one's future life (e.g., disease, poverty, loneliness) as well as all efforts to *bring about or maintain* desired events or conditions in the future (Jacobs-Lawson et al., 2004; Kornadt & Rothermund, 2011b). Thus, two perspectives of preparation are distinguished: (1) actions of ageing preparation that aim at long-term consequences in the future (i.e., APA) and (2) actions that primarily aim at desired states or outcomes in the present but that may implicitly entail preparatory relevance or long-term consequences in the ageing process, that is, *preparation-relevant action (PRA)*. For example, many people are physically active because it immediately makes them feel better or healthier. At the same time, it is undisputed that regular physical activity contributes sustainably and preventively to better physical and mental health in the course of ageing.

*Preparation-relevant activities (PRA)* are defined as actions that are not explicitly undertaken with the goal of preparing for old age, but whose consequences carry long-term preparatory benefits in the future. The practice of a physical activity, such as a sporting game or gardening, can be beneficial to health or even protect against some diseases, but the focus is on a specific action goal in the present. The benefit of such activity arises from and is saturated by its goal pursuit. Many of these everyday activities are relevant to preparation because they have resource-conserving or resource-optimizing consequences that were not intended or considered at start. For example, many activities related to an active lifestyle, a health-conscious nutrition or physical exercise, relate to immediate action goals, but are also known to optimize or conserve personal resources over time. People can, for example, maintain good friendships, avoid risks, or be physically active because such activities seem beneficial or enjoyable per se and without considering the

possible consequences for later life or for the future. The possible positive effects of such activities on the course of one's later life do not have to be intended or calculated. The long-term preventive effects, for example, of a tasty healthy diet, are not necessarily experienced by the actors as preparation or prevention. It can be assumed, however, that these effects are known to the actors and are readily taken along as an additional benefit (Kim-Knauss et al., 2020; Kim-Knauss & Lang, 2021). Still, it is also known that an active lifestyle is considered by many people as an effective strategy of prevention or ageing preparation.

In contrast, *anticipative preparation action for old age (APA)* is explicitly directed at coping with events, challenges, or burdens that are anticipated or expected in a distant future of one's life. *Anticipatory preparation action* requires dealing with possible or expected future challenges and their consequences, which, however, are still unknown and usually not very concrete. Such possible future events also include challenges of ageing that are hard or impossible to predict, such as financial constraints, increased barriers in the living environment, need for long-term care, or end-of-life challenges. However, anticipatory preparation action aims to prevent possible undesirable events, developments, or conditions or to minimize their undesirable effects. For example, if you expect that you will no longer be able to climb the steep stairs in your house due to functional limitations and that this will make it difficult for you to live independently, you may take the precaution of moving into an accessible apartment or having an elevator installed.

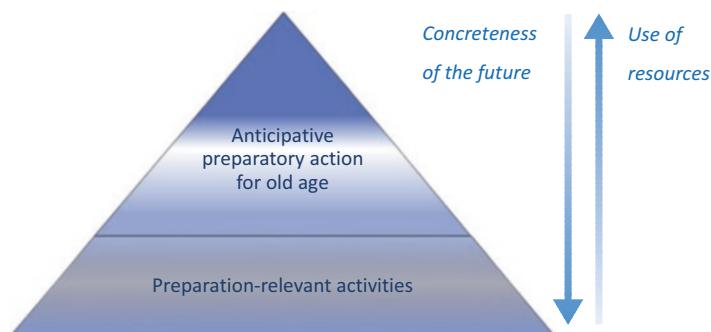
*Anticipative preparatory action (APA)* and *preparation-relevant activity (PRA)* are analytic distinct concepts that are difficult or impossible to distinguish empirically at the behavioral level or through direct observation. Moreover, each activity can pursue several goals or plans at the same time: People who buy their own home usually have many reasons for doing so. One aim is often to be able to live in one's private home in a self-determined manner in old age, but often also to pursue specific plans and projects, such as creating value for future generations (Beyer et al., 2017b). The distinction between *anticipative preparation action (APA)* and *preparation-relevant activity (PRA)* can be defined at the subjective level based on the respective goals, expectations, and intentions of an acting person. For example, people who eat healthily, inform themselves about nutrition, or exercise a lot may have many reasons for doing so and pursue different goals, such as preventing possible illnesses, out of interest in questions of nutrition or health, or out of the social need to exchange ideas with other people. The decisive factor is whether an *act of prevention* is linked to the declared goal of preparing for one's own old age. While *anticipative preparation action for old age* is mostly directed toward a distant future, it also entails beneficial effect in the present, for example, when people feel relieved of worries and fears about the future by setting aside money for the post-occupational phase of their lives or preparing for future emergencies (Kim-Knauss et al., 2020). If an *anticipative preparation action* is associated with immediate benefits or advantages in the present, it increases the likelihood that such actions are carried out.

Although only subjectively defined, the psychological difference between *anticipative preparation action for old age* and *preparation-relevant activity* can be described along two psychological dimensions: (1) the extent of the resources

invested (e.g., financial reserves, purchases, powers of attorney) and (2) the concreteness of respective future perspective. *Anticipatory preparatory action* is usually aimed at a more distant, less concrete future, but requires a greater investment of resources. *Preparation-relevant activities (PRE)* are directed toward a relatively concrete future (e.g., here and now) and require comparatively less resource investment. The interplay of future perspectives and resource investment with the different levels of ageing preparation is illustrated by Fig. 4.1.

When one's own future seems uncertain and not concrete, it is hardly possible to prepare for it. In dealing with such uncertain conditions in the future, however, people can strive to improve their resources and abilities in such a way that they are better able to cope with unexpectedly occurring stressors or challenges. This aspect of *anticipative preparation action* is referred to in psychology as proactive coping (Aspinwall & Taylor, 1997). This involves enhancing personal resources, skills, and opportunities that can be used to cope with stressors, losses, and crises that may occur. In this regard, *preparation-relevant activities* are directed toward maximizing *desired* events in a near and concrete future, whereas *anticipative preparation action* for old age is directed toward minimizing *undesired* stressors or challenges in a mostly distant, unknown future.

A central research question of the project *Ageing as Future* is how thinking about the future affects ageing preparation. Findings indicate that confident and concrete future perspectives are associated with a higher willingness to make preparations (Kornadt & Rothermund, 2014; Kornadt et al., 2018b; Lu et al., 2018; Petkoska & Earl, 2009), whether confidence relates more to future self-views of ageing or to expectations regarding overall societal developments in the future matters. People can be confident about their personal future situation but at the same time pessimistic about society's future. Both can have an impact on ageing preparation. The relevance of future prospects for ageing preparation can be illustrated by the debates on pension and intergenerational justice, which has been recurring for many decades at least in Germany but also in other countries such as the USA (Achenbaum, 2023).



**Fig. 4.1** Levels and determinants of future action and preparation

### ***Future Scenarios and Preparation for Old Age: The Example of the Pension Debate in Germany***

Anticipative preparation for old age is often narrowed in social debates to the issue of financial security, which is intended to safeguard one's standard of living in the post-work phase of life. Since the performance of the pay-as-you-go pension insurance system in Germany seems to be at first glance dependent on the number of working contributors (and their contributions), it is easy to understand why the growing number of old-age beneficiaries compared with the shrinking number of contributors is usually seen as a threat to the pension system. In fact, however, it is well documented that macroeconomic productivity gains have outpaced the rising costs of pension insurance many times over from the 1950s to the present in Germany (Erber & Hagemann, 2012). Accordingly, the performance of pension insurance has in principle grown along with it. The question of the intergenerational equity of this system is not infrequently shaped by negative forecasts for the future: There is a threat that the social security and pension systems in Germany are overburdened, for example, because baby boomers are leaving the labor force or because the costs of care are exploding. Thus, since the 1950s, the German news magazine DER SPIEGEL has frequently devoted itself to the topic of "pensions," usually to announce hard times for future generations of older adults.

If such forecasts proved to be inaccurate in the end, this is usually ignored: Even before the pension reform in 1957, the German news magazine DER SPIEGEL (44/1956) warned of an expected overburdening of pension insurers, since costs would be "... 30 percent higher in 1976 and no less than 42 percent higher in 1986." Without going into the wrong prognosis of 1956, DER SPIEGEL then reports in 1986 about the good economic situation of the pensioners, only to report again that there will be: "... in twenty, thirty years for the then elderly and old ... will be tight... [and that] ... the gloomy pictures of the future painted by experts, which the pension insurance for the ... time until the turn of the millennium, ... [have] a high degree of probability" (2/1986). Only 13 years later, in 1999, DER SPIEGEL (43/1999) reports on "Wealthy Seniors" and predicts that no generation of pensioners after the "current one" will ever be so well off again, because —from 2020 at the latest—there is a threat of impoverishment in old age. And so on. So far, none of these scenarios have materialized in Germany.

One possible reason is that people may have changed their behavior in response to alarming future scenarios, thus preventing them from occurring. Accordingly, older people are still doing well financially today because many have made personal provisions for themselves. Geoffrey Rose (1981, p. 1850) was the first to propose the situation when a preventive measure "... does not appear to be recognizably beneficial for every individual, but nevertheless shows a social benefit for all" as the *prevention paradox*. According to this paradox, personal preparations for old age may not have a strong benefit that is apparent to each individual, but it may have a positive effect on society or the pension system in the long run. In the short term, the agents do not experience any direct benefits of their preparatory behaviors for themselves and therefore evaluate them ambivalently. It cannot be ruled out that individual behavior or government measures have helped to avert the announced

collapse of pension systems. However, up to date, there is no reliable evidence for this assumption. Moreover, threatening scenarios can unsettle people and discourage them from taking preparatory action measures. It is therefore an important question of how advantageous or burdensome people experience their own ageing preparation.

As a rule, the idea of preparation for old age is based on the principle of personal *delayed reward*, according to which one practices renunciation in one's younger years to then *reap* the reward for these earlier deprivations in late adulthood (Adams & Rau, 2011). Trust in the pension system is built on the fact that it is experienced as reliable even in times of crisis, and it feeds on the message that decades of contributions will one day actually *pay off*. However, if the reliability of pension systems dwindles, this can also change attitudes toward preparation for old age. Deferring claims or wishes to later in life then becomes less attractive. Why gamble on an *uncertain* future and accept privations for it if one's own needs and desires can be satisfied and fulfilled immediately? An increase in such hedonistic attitudes oriented toward the present is evident among young people, for example, according to the *Shell Youth Study* (Albert et al., 2019). More adolescents than in previous surveys emphasized living their lives in the *here and now*. Some 80% of young respondents said they "enjoy their lives to the fullest." Thus, if young people of subsequent generations seem less willing to provide for their own future old age at an early age, the resulting risk of impoverishment could be, at least partly, a consequence of the fears and doubts thus promoted about the capacity of social security and pension funds in the future and the resulting rejection of preparatory investments. This also clarifies that ageing preparation is not just an issue of middle or late adulthood, it concerns and impacts anticipative, future-relevant activity across the entire adult life course. Consequently, the project *Ageing as Future* investigated and explored ageing preparation in early, middle, and late adulthood.

### ***What Role Does the Future Perspective Play in Ageing Preparation?***

The issue of ageing preparation is closely related to subjective views of the future. However, these connections have not been comprehensively studied so far, which also has to do with the fact that there is a diverse and inconsistent literature on the different dimensions and facets of subjective future perspective (Lang & Damm, 2018; Lang & Rupprecht, 2019b). Some people respond to an uncertain future with attitudes of devotion to fate (Macé & Le Lec, 2011), while others seek greater control in the face of uncertainty or risk of loss (Barlow et al., 2016; Greenaway et al., 2015). With regard to multiple patterns of experiencing the future, it is important to understand more precisely how people perceive and evaluate their personal futures, how they cope with such perceptions of the future, and how they look ahead or intentionally prepare considering their personal expectations for the future. Kornadt et al. (2015) observed that increasingly positive expectations about one's future self were accompanied by increased preparation for one's old age, especially in those areas of life that appear to be vulnerable to age-related changes (see Chap. 3).

What one foresees or expects for one's own future today can be checked after some time to see whether it has proven to be correct. If you expect before a walk that it will not rain and therefore do not take an umbrella, you will later find out whether

your expectation was accurate. Similarly, if a person is convinced to always remain healthy, she or he may revise such convictions in the event of a serious or chronic disease. What we expect may prove to be true or, in the less favorable case, may be revealed as an illusion or at least a wrong forecast. Expectations and attitudes about one's own future shape the daily behavior and thinking of every individual. In this regard, the so-called Thomas theorem *is* also relevant for understanding of ageing preparation. The theorem was originally formulated as follows: "If men define situations as real, they are real in their consequences" (Thomas & Thomas, 1928). Whatever a person believes to be true may lead him or her to behave as if his or her beliefs were true. This also holds for personal expectations that people associate with their future. Those who believe in a gloomy future will prepare differently than those who expect a happy, carefree future for themselves. This is not simply a matter of self-fulfilling prophecies, but also about accepting a personal reality as a given and adjusting one's behavior accordingly. In this context, it can be distinguished between what one expects from the future and how one evaluates such expected future outcomes.

In psychological research, it is considered well established that positive and optimistic future perspectives—at least in the short term—have a positive impact on people's action and coping resources (Lee et al., 2019; Scheier & Carver, 1985, 2018; Taylor & Brown, 1988). However, some findings suggest that accurate and realistic future expectations, even if associated with a less desirable outcome, have a positive effect on health and life expectancy (Cheng et al., 2009; Chipperfield et al., 2019; Colvin & Block, 1994; Lang et al., 2013). The mere mental examination of one's future may also have an impact on preparation-relevant action and lifestyle. To test this, Kahana and her colleagues (2005) examined the physical activity levels of older people between the ages of 70 and 100 over a 4-year period at seven measurement occasions. In addition, they recorded how often older adults thought about their future in their daily lives. One finding was that the amount of physical exercise and movement decreased steadily over the 4 years. However, the decline in physical activity was significantly lower the more the older participants had previously thought about their future. Thinking about what might happen in one's future may lead to engage oneself in healthier behaviors. It may not be that easy though. For example, many studies do not consider whether positive or negative expectations regarding one's future health turn out to be correct or not (Chipperfield et al., 2019; Hamm et al., 2019).

Furthermore, whether one evaluates an expected future event as desirable or undesirable also plays a role. For example, one may consider the risk of developing dementia to be low for oneself, even though one experiences this disease as very threatening. Thus, future perspectives refer not only to whether or not anticipated life situations are likely in the future, but also to how they are evaluated. One example for such a research question in the Ageing as Future project relates to how old one expects to become and whether one wishes to live as long as one expects (Lang et al., 2007). Lang and Rupprecht (2019a) observed that people who wished for themselves to live slightly longer than expected reported more ageing preparation than those who had unrealistically high wishes for a long life or those who wished for a shorter life.

People often behave in differentiated ways with respect to various dimensions of personal future perspectives such as expectations, time horizons, hopes, or fears (Lang, 2023; Lang & Damm, 2018; Lang & Rupprecht, 2019b). Future perspectives that refer to concrete areas of life or observable facts are easier to check against reality later on than more global assessments of one's own future. For example, one's own expectation of still being quite healthy in a few years or still being good friends with a certain person can be easily verified later. In contrast, global expectations, such as that one will still be generally satisfied with one's life in 5 years, are more dependent on interpretation and can thus be more easily reinterpreted depending on the situation. The findings suggest that specific expectations related to concrete areas of life are more likely to be reflected in relevant ageing preparation than global expectations of the future, which can be changed more flexibly. The ability of individuals to adapt their own subjective interpretations of ageing, such as future-related expectations, to actual circumstances points out to the flexible adaptability of the ageing self (Brandtstädtter, 2006). This is especially true when subjective predictions for one's own future cannot later be verified for accuracy.

How people experience and shape the life phase of old age is ultimately also determined by cultural, structural, physical, and social contextual conditions (Kornadt et al., 2019; Park et al., 2020). To clarify this issue, it is necessary to take a closer look at the culturally embedded social welfare regimes.

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## 4.1 The Questions

The online survey study of the project *Ageing as Future* focuses on expectations, attitudes, and actions related to preparation for old age and ageing and to personal futures. What ideas do people have about themselves and their personal situation and about societal conditions in the future? And how do these affect the planning and implementation of ageing preparation? The project focused on three central sets of questions devoted to ageing preparation and its motivational anchoring in the context of personal thinking about the future:

A first set of questions deals with the extent to which ageing preparation is experienced, planned, and implemented in a differentiated way depending on life domains and topics. What does ageing preparation mean? To what extent does ageing preparation differ depending on life domain? How is preparation for old age in the life course depending on the specific topics? To what extent are personal deadlines and schedules considered?

A second set of questions deals with the subjective evaluation that people associate with their personal ageing preparation: What benefits do people experience when they prepare for their old age and the future? What costs are associated with it? How is the importance of preparation for old age assessed? To what extent is preparation experienced as something that can be shaped and influenced? To what extent do people see themselves, the family, or society as responsible for domain-specific preparation for old age?

A third set of questions deals with how individuals seek to predict their future life situation: What ideas and wishes do people have with regard to their own life and longevity in the future? How good are people at anticipating their own state of health, wishes, or health in the future? What significance does this have for future action?

For each set of questions, three levels of consideration and analysis were distinguished: (a) differences in ageing preparation as a function of life domains (e.g., finances, health, or family); (b) differences in ageing preparation between and among young, middle-aged, and older adults; and (c) cultural and welfare state influences on ageing preparation (based on comparisons of the USA, Germany, and Hong Kong).

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## 4.2 The State of Research

The diversity of old age and ageing processes in modern welfare states means that there are no uniform and established structures and norms for the life phase of old age. This can be seen, for example, in the fact that terminological designations for the various life phases between the ages of 50 and 120 are often missing or imprecise. In this context, scholars and experts sometimes refer to middle, late, older, old, or very old adulthood to delimit different age ranges. However, precise classifications of various phases of ageing do not exist in the scientific literature. For example, the life phase of very old age is used in various publications to refer to the 75+ age group, sometimes to the 85+ age group, or to the 90+ age group and occasionally to refer to a low degree of functional capacity (e.g., frailty). One reason for this is that the chronological age of a person hardly allows conclusions about what stressors, challenges, or capacities are present in this person.

This also applies when people report about when they think old age begins or at what age someone is considered “old” (Tuckman & Lorge, 1953; Unsworth et al., 2001). This is all the more the case when people consider such questions concerning various life domains (see in detail Chap. 3). Accordingly, ageing preparation may differ depending on specific age-related challenges and life domains. One solution to this issue is to classify the life phases of adulthood based on frequently observed and normative changes. Such changes may be *age-associated* when they are known to occur more frequently in older people than in younger people. Changes are typically described as *age-dependent* because they are necessarily linked to a specific chronological age or life phase. Examples of *age-associated* changes include widowhood or changes in physical functioning that can—at least in theory—occur at all ages. Examples of *age-dependent* changes involve events such as reaching the statutory retirement age, or grandparenthood which becomes possible only when one’s children have reached a certain age. *Age-associated* and *age-dependent* changes co-jointly contribute to the course, direction, and diversity of ageing phenomena.

In line with such considerations, the distinction between the life phase of the “Third Age” and the life phase of the “Fourth Age” was established in ageing research (Baltes & Smith, 2003). The Third Age follows on from the “Second Age,” the life stage of adulthood after reaching the age of majority. The Third Age is usually associated with an active lifestyle and high functioning. The concept of the Fourth Age, on the other hand, refers to the phase of increasing vulnerability, increased functional limitations, concurrent chronic diseases, or the need for long-term care (Kruse, 2017). In general, it has not proven useful to divide the Third and Fourth Age phases based on a person’s actual chronological age. It is not uncommon for very old people to still show high functioning and lifestyles as those usually associated with the Third Age (Lang et al., 2021), while the Fourth Age can also start much earlier for some people (Laslett, 1994).

### ***Does Ageing Preparation Contribute to a Better Life in Old Age?***

The study of preparatory and future action planning is a young topic that has gained greater interest and attention in research in recent years. This implies that there are no long-established instruments for assessing ageing preparation. Thus, changes and consequences of preparatory behaviors have not yet been examined over longer time intervals. As a result, there are few longitudinal studies in which the possible influences of ageing preparation on the quality of life in old age were investigated over long time intervals. The findings of such studies indicate that people who prepared for changes in ageing at an early stage showed generally higher well-being in the later course of ageing (Noone et al., 2009; Prenda & Lachman, 2001) or showed better mental health (Sørensen et al., 2012; Yeung & Zhou, 2017).

In an exemplary study from the USA (Noone et al., 2009), over 1000 married men and women were asked shortly after retirement about their health and well-being and how much they had already prepared for retirement. After 12 years, the same individuals were surveyed again regarding health and well-being. It was surveyed whether the respondents had talked about retirement with their spouse more often, whether they had made financial preparations, and whether they had learned about retirement planning options. It was found that the above three preparatory activities were associated with later increased well-being. In a study from Hong Kong (Yeung, 2013), 90 employees were surveyed about their ageing preparation and psychological well-being about 6 months before and after retirement. Preparatory actions were surveyed in four areas: financial (e.g., savings plans), health (e.g., physical activity), social participation (e.g., leisure activities), and information seeking (e.g., retirement courses). All preparatory actions were positively correlated with indicators of well-being. However, in this context, only those who sought information before retirement reported significantly improved well-being and more positive attitudes toward retirement, even after 1 year.

In summary, it can be stated that findings are not consistent and in part contradictory. However, it is apparent that ageing preparation has positive consequences: How positive such effects turn out depends on many conditions, such as the life domain or the life situation targeted by preparation action. For example, findings differ according to whether well-being was assessed shortly after retirement or at a

later time and the extent to which specific life domains are also considered. To date, studies on impact of retirement planning have mostly focused on specific topics such as financial security, health care, or end of life preparation. Also, such topics of ageing preparation were usually examined in isolation and separately. For the first time, the project *Ageing as Future* examined the effects of ageing preparation on well-being simultaneously for various domains of life (e.g., finances, care, social integration).

### ***Does It Matter Which Life Domain One Prepares for?***

The subjective experience of ageing is context-dependent and may thus differ depending on the domain of life, for example, with regard to the family versus the work or health situation. The variety of life domains and tasks makes it difficult to exhaustively cover all preparation-relevant or preparation actions, especially since people's life contexts differ not only by origin, biography, and life situation, but also because they may change individually in the course of adulthood. Thus, when considering some life domains such as finances, housing, social integration, or health care, such contexts are representative of the variation of everyday contexts of ageing and old age. What needs to be clarified is the extent to which future-related action and ageing preparation differ depending on the life domain or whether it follows common or similar rules across all domains.

The diversity of ageing experience is also reflected in domain-specific timing of ageing-associated change: in some life domains the experience of ageing may be perceived earlier (e.g., physical fitness) than in other domains (e.g., housing situation). Therefore, it makes a difference whether the focus is on ageing preparation regarding the first years after the end of employment or on ageing preparation regarding the end of life. In addition, some age-associated changes go along with increased challenges or particular risks under certain living conditions such as poverty, social exclusion, loneliness, physical barriers in the living environment, or need for long-term care. The respective life domains can change differently and independently in the course of ageing, also depending on the respective personal preferences and priorities of the acting actors.

Looking at different domains of ageing preparation, such as finances, health care, and social participation, previous findings show that within each domain ageing preparation domain-differentially depends on the respective domain-specific views on old age (Kornadt & Rothermund, 2011b, 2014; Kornadt et al., 2019; Park et al., 2020, cf. Chap. 3). Positive expectations for the future self are thus not generally associated with increased ageing preparation, but only in those life domains that appear to be particularly flexible and controllable, such as social relationships and leisure activities. Those who have positive expectations for themselves in the future in terms of friendships, family, or leisure activities also report preparing more for them. In contrast, positive expectations about one's own financial or health situation in the future are not associated with increased preparation action planning (Kornadt et al., 2015). It is also important to note that future-related expectations of one's own self and preparation action are associated quite differently depending on the life domain.

Viewed over a longer period of life, there are no effects of change in preparation action on increased positive future perspectives: Those who make more preparations do not seem to develop significantly more positive expectations for their future over time. However, positive future views in the domains of social relationships and leisure activity were associated with increased preparation action in these domains over time. For example, when expecting positive relationships in the future, such participants were more likely to also increase their investment in relationship-related preparatory activities in the following years. Thus, ageing preparation may reflect an effort to shape and improve one's personal future life in accordance with one's views on ageing.

Ageing preparation is often oriented toward life goals that lie in a distant and mostly not very concrete future. In this vein, motivational psychological processes play a critical role. It should be considered that ageing-related action is often accompanied by two opposing valences—the expression and intensity of which differ from person to person: on the one hand, there is a hope for ageing well, for example, the hope to remain healthy and active. On the other hand, there is also a fear of loss or burden that one would like to avoid. Consequently, it needs to be clarified to what extent ageing preparation is motivated by hopes and expectations of gains or by efforts to counteract one's own fears and anxieties about losses (Lang & Rohr, 2013; Rohr & Lang, 2016).

Overall, ageing preparation and preparation-relevant action depend on the extent to which individuals subjectively construe their future in multifaceted and differentiated ways. In this context, it is possible to examine connections between preparation action and specific dimensions of one's subjective future perspective, for example, with regard to (a) one's own remaining lifetime, (b) the extent to which this future appears to be concrete and plannable, (c) the question of whether one expects an improvement or deterioration in the future for oneself or for others, and (d) the personal deadlines that one sets for oneself in order to make timely preparations for old age.

### ***What Are Age Differences in Ageing Preparation and Future-Related Action?***

Ageing preparation and preparation-related action are usually biographically anchored, insofar as many historical events, societal changes, and also personal life circumstances have a very diverse impact on how people perceive and evaluate their personal future. For example, whether people have ever experienced war, hardship, or even disaster could also play a role in preparatory action (Hobfoll et al., 1991). Park et al. (2005) asked older people about the most traumatic event in their lives to date and what they learned for themselves from it. One finding is that those who were able to interpret this experience positively for themselves in retrospect had less fear of death overall and showed more active forms of coping when dealing with future challenges.

In this respect, age differences in ageing preparation often reflect the particular life circumstances of the respective birth cohorts. Second, age differences can also be attributed to societal change over time. Earlier generations may have relied more

often on welfare state support than generations of older adults today. At the same time, there may also occur changes in future-related action over the course of a person's lifetime as a result of personal experience. Finally, third, when one's remaining time in life decreases, this also results in changes of one's ageing preparation and preparation-related action (Kim-Knauss & Lang, 2021; Kornadt et al., 2018b).

### ***Are There Cultural Differences in Ageing Preparation and Future-Related Action?***

Cultural influences on ageing preparation often pertain to differences in welfare regimes and socio-structural opportunities (Hershey et al., 2007). For example, Germany has different systems of public social and health care as compared to countries such as Hong Kong or the USA (Achenbaum, 2023). In Germany, pension, social security, health, and long-term care insurance are required by law. In Hong Kong, for example, pension insurance is predominantly company-based and private. Only since 1995 have employers in Hong Kong been obliged to pay into a Mandatory Provident Fund (MPF) for all their employees. In addition, all employees above a certain income level (approx. EUR 1000) are obliged to pay up to 5% of their income into a pension fund. In contrast, there is no public pension scheme in Hong Kong, although it is often expected to receive financial support from one's children in old age (Chou et al., 2015). The cultural and structural frameworks in different countries also differ concerning other areas and topics of preparatory action, for example, when it comes to organizing care in old age, housing, social participation, or end-of-life care. To date, there is a lack of systematic comparative overviews of the various care offerings and models in the areas of care, housing, participation, or medical care across different countries such as the USA, Germany, or China.

According to results from the Ageing as Future project, it appears that in the USA and Germany, people are engaging slightly more in ageing preparations than people in Hong Kong in most life domains under investigation (emergencies, financial protection, fitness, health, housing, leisure, relationships, and work). In contrast, respondents in the USA and Germany showed little or no culture-related differences (Kornadt et al., 2019). In general, the observed differences across countries tended to be somewhat small in young adulthood and, in contrast, were more accentuated in older adults. This suggests that cultural differences in ageing preparation emerge over the course of life, for example, because people internalize and adopt the specific norms and conventions of their respective culture over time or also because cultural norms and conventions were more deeply embedded in the early years of older birth cohorts. The cultural differences between the Western and the Eastern culture are often discussed in connection with different value orientations, for example, with regard to the role of the family (Fung & Jiang, 2016), but may also have to do with different welfare regimes and social security systems, which are virtually non-existent in Hong Kong, for example.

## 4.3 Overview of the Findings

The online survey study of the project *Ageing as Future* focuses on the question of when and how ageing preparation is planned, implemented, and carried out in different life domains and to what extent such preparation action differs depending on age, culture, and contextual conditions. First, we explored the extent to which people engage in preparation activities in different life domains. Second, we assessed the perceived personal deadlines of preparation, the subjective personal benefits, and the burdens of engaging in concrete ageing preparation activities in various life domains across cultures. In addition, several dimensions of thinking and acting about the future were surveyed, including, for example, the subjective perspective on the future and the subjective and ideal life expectancy.

### 4.3.1 Assessing Ageing Preparation and Future-Related Action

As part of the research project *Ageing as Future*, ageing preparation was assessed using various methods and for different life domains. In the questionnaire study, *ageing preparation* was assessed using newly developed scales consisting of 27 questions on preparation for old age in new life domains (Kornadt & Rothermund, 2014; Kornadt et al., 2015, 2018b). Here, respondents were asked about actions to prepare for their financial situation, the occurrence of emergency or exceptional situations, mental and physical fitness, housing situation, appearance and looks, personal relationships and social contacts, health, employment opportunities and living arrangements, and work activities in old age. For each preparation domain, respondents were asked three questions to report how much preparation they took in each domain, how much they were concerned with it, and how much they read about it. A short version of this questionnaire with a total of 11 questions was also developed, whereby the domain of personal relationships was additionally expanded to include the domain of family and close relationships, and the domain of employment opportunities and leisure time activities was expanded to include the domain of personality and life management (Kornadt et al., 2020). Initially, the question here is not in how many different domains anticipative preparation action can be found, but rather how preparatory action differs in the different domains.

In a second part of the project, additional dimensions and aspects of ageing preparation and preparatory-related activities were assessed in an online survey. First, respondents reported which preparatory-relevant activities they had engaged in and how often within a year. The selection of these preparatory-relevant actions was derived from the known research and findings on preparation for old age (Kim-Knauss & Lang, 2021).

In addition to actual activities of ageing preparation, the online study also investigated by which point in their lives people of different age and culture plan to start preparation action at the latest. Such perceived personal deadlines for ageing preparing were related to five specific domains: the financial situation, housing, care, avoiding loneliness, and dying and death (Lang & Rupprecht, 2020). Do differences

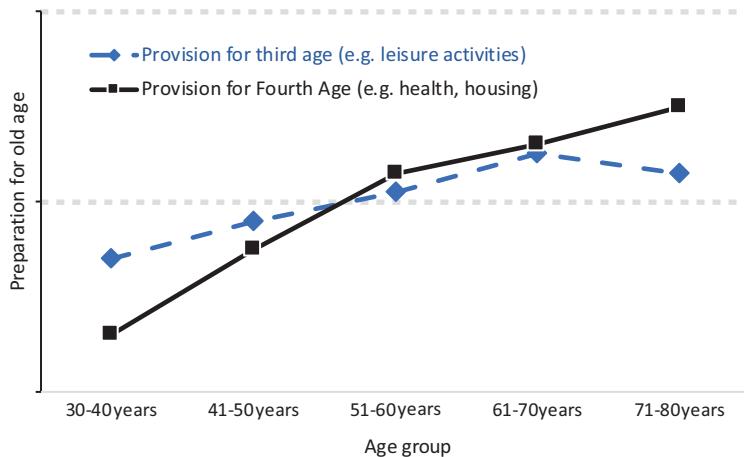
by age and culture exist in the timing of subjective deadlines of ageing preparation in different domains, respectively?—In order to clarify these questions, subjects could be asked about different domains of ageing preparation using graphical scales (see Fig. 4.2) to indicate from when and until when they believe that one should have started with preparation action in the respective area, for example, financial provision, provision for housing in old age, preparation for care needs, preparation against loneliness in old age, and preparation for dying and death. Finally, for each of the five domains examined, questions were also asked about the subjective usefulness, controllability, and importance of one's own ageing preparation (Kimm-Knauss & Lang, 2021). In addition, various domains and dimensions of attitudes toward the future were recorded, such as the expected and desired duration of one's own life and the subjective perspective on the future (Lang & Rupprecht, 2019b; Rohr et al., 2017).

### 4.3.2 Ageing Preparation in Different Life Domains

As the findings of the Ageing as Future project on views on ageing have shown (cf. Chap. 3), people differ not only in terms of their respective ideas about old age but also depending on what life domain is at stake, for example, regarding ideas about family life in old age, work, social engagement, or even health. In addition, many people's views vary depending on what circumstances of old age they are considering. For example, it makes a difference whether one imagines life circumstances during the first 5 years after retirement, or whether one reflects imagines circumstances in late life with frailty, or life circumstances at the end of life.

The diversity of ageing is also reflected in the fact that changes often do not follow a fixed chronological sequence or direction of change: they sometimes go upward, sometimes downward, sometimes are stable, or sometimes unstable or fluctuating. Such diversity of ageing can be observed both within the population and also between the various life domains of one individual, for example, with regard to health, housing situation, family situation, or financial situation. For instance, you can feel young in the context of your family, but not when you think about your physical fitness or health. So, what are people preparing for when they prepare for old age? Are they preparing for specific challenges in specific life domains, and are there life domains in which significantly fewer preparatory actions are observed? Are there similar patterns across different life domains in the individual domain-specific preparatory actions that relate to similar life circumstances, such as proximity to the end of life or, alternatively, living arrangements at the beginning of retirement?

In some life domains such as physical fitness, health, and family, individuals report to be more pronounced and intensively engaged in ageing preparation. In other domains of life related to work or leisure, individuals reported comparatively less strong engagement in ageing preparation (Kornadt et al., 2020). Altogether, older adults generally report more preparation action than younger adults (Kornadt



**Fig. 4.2** Age differences in ageing preparation for the third and fourth ages

Note: adapted from Kornadt & Rothermund, 2014; shown are the deviations per age group from the average value (= gray dotted) of the respective preparatory actions for the third and fourth ages

et al., 2019), although this age difference is more pronounced in the USA than in Germany and Hong Kong.

Another central finding of the project on Ageing as Future is that ageing preparation differs depending on the specific context of preparation, for example, depending on whether it involves issues related to preparing for the third age or issues related to preparing for the fourth age (see Fig. 4.2, cf. Kornadt & Rothermund, 2014). Preparation for the third age aims at activities that enable an experience of personal growth, such as through the organization of an active leisure life, lifestyle, physical fitness, and social participation. In contrast, preparation for the fourth age is more often aimed at actions that can still maintain quality of life, for example, in the event of emergency situations, physical or health limitations, or even at the end of life. Such ageing preparations for the third and fourth ages differ depending on chronological age and life circumstances. Ageing preparations for the third age are reported more frequently by younger people than preparations for the fourth age. The older people are, the more frequently they report ageing preparation. It is suggested that with increasing age, individuals engage in those preparation activities that are directed on issues and challenges of the respective next phase of life, that is, the third or fourth age. For example, third-age preparation activities were most frequently reported among adults between the ages of 60 and 70. Fourth-age ageing preparation was more frequently reported among adults between the ages of 70 and 80. Such age differences can be attributed in part to differences in people's future time horizons. The less time people believe they have in their own lives, the more they were concerned with preparations for the fourth age (Kornadt et al., 2018b), but also with preparing for dying and death (Lang & Rupprecht, 2019a). However, the experience of a subjectively limited lifespan only has a beneficial effect on those preparation actions that are dedicated to preparing for the fourth age, but not on

actions that serve to prepare for the third age. This effect of the remaining lifetime being experienced as limited was also shown in the change over the period of the study: if the remaining lifetime was experienced as shorter, this was accompanied by increased preparation for the fourth age, i.e., for possible emergencies or health crises, but not by increased preparation for the third age.

Age differences in the extent of third-age ageing preparation were accounted by dimensions of future thinking, in particular the concreteness of the future perspective (Kornadt et al., 2018b). The concreteness of the subjective future perspective refers to how precise people's ideas are regarding their goals and expectations for the future, for instance, to what extent there are already plans, wishes, and aspirations for the future that can be explicitly named. Those who have a more concrete perspective on the future are more likely to show preparatory actions that serve to prepare for the third age, i.e., for leisure and lifestyle, for example. One possible explanation here is that for many people, preparing for the third age is about expanding their self-determined options for action, which at the same time go hand in hand with a broader and more open time horizon (Petkoska & Earl, 2009).

There were also cultural differences between Western cultures such as Germany and the USA and the Eastern cultures in Hong Kong and Taiwan with regard to specific life domains of ageing preparation. In general, fewer preparatory actions are reported in Hong Kong than in the USA and Germany. In contrast, the differences in preparatory actions between Germany and the USA were minor with few exceptions: Preparatory actions related to housing and to physical appearance were slightly more prevalent in the USA than in Germany (Kornadt et al., 2019). Such cultural differences in preparatory behavior for old age, especially for financial and leisure-related domains, were partly due to individual differences in perspectives on the future and expectations about the future self. For example, American and German individuals were more likely than Hong Kong individuals to expect that they would still have sufficient financial means and an active leisure life in old age. Those who had more negative expectations about their future showed a lower propensity to engage in preparation action, explaining some of the differences across cultures (Kornadt et al., 2019). Specifically, this means that differences between countries are smaller when comparing individuals with similar future expectations.

It can be concluded that personal ageing preparation varies according to life domains and cultural context, although some of the cultural differences can also be attributed to differences in future-related views and also in response to COVID-19 worries (Kim-Knauss et al., 2022). In addition, more individuals were found to have concrete ideas about their future in the USA than in Germany and Hong Kong. In all cultures, it was observed that individuals with more concrete views of the future were more engaged across all domains of ageing preparation. Increased preparation action is thus associated overall with a concrete and positive outlook on the future. It was also suggested that negative future scenarios of one's own ageing tend to inhibit the extent of ageing preparation (Kornadt et al., 2015). This points to the issue whether future perspectives can also explain and predict differences in the timing of preparatory action over the life course.

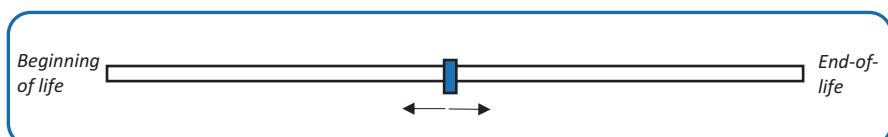
### 4.3.3 Timing of Ageing Preparation Over the Life Course

Another central research topic of the Ageing as Future project is the subjective timing of ageing preparation: When do people believe that there is an appropriate time in life to start preparing for their own old age? Such normative notions of the timing of ageing preparation reveal how people shape their lives and ageing in accordance with the possibilities and limitations of their life circumstances and contexts (Brandtstädt & Rothermund, 2003; Heckhausen, 1999). The personal deadlines within which preparation for old age is planned are an essential component of the temporal structuring of life, which also reflects how people flexibly adjust and adapt to different contexts and domains of preparation. For example, one can surmise that some people assume that at some point in life it is simply too late to prepare adequately for old age in financial terms. For other domains, such as preparing for end of life, some people refuse to deal with this in early or middle adulthood and accordingly consider it sufficient to start ageing preparation sometime later in life.

In the online study, we used graphical scales based on a schematic life ray to represent the time between the beginning and end of life. For each of the graphical life rays, it was possible to freely move a slider to indicate one's response to the respective item. For example, respondents indicated at what point in time they consider old age to begin (Fig. 4.3). With the use of graphical scale items, it was possible to circumvent normative responses revolving around overlearned and well-known legal age limits such as mandatory retirement age in Germany.

The graphical representation of the life ray scale was fixed to values ranging from 0 to 100. This way, each point selected on the line with the slider corresponds to a proportion of the subjectively expected lifespan and could thus be converted into calendar age in years using the formula: “selected point on life ray divided by 100 times the subjectively expected lifespan in years.” This way it was possible to compare the responses on when the life phase of old age begins between the various cultures based on a calculation of years (Table 4.1).

One may wonder to what extent the use of such a “graphical life ray” scale is at all capable of validly representing meaningful age responses. To test this, all participants also indicated their own current position with a slider between the beginning and the end of their life on a separate graphical life ray scale. The responses on their current age position obtained with this graphical life ray scale were almost identical to the chronological ages of the respondents and correlated with a value of 0.90. This means that the life position data quite correctly accounted for more than 80% of the variance of actual age differences among all participants. However, the



**Fig. 4.3** Graphical life ray for the question: At what point in life is one old?

**Table 4.1** Subjective life expectancy and age at which one is “old”

	Subjective life expectancy (SLE) in years (SD)	Age in years from which one is “old” (relative to SLE).
Hong Kong ( $N = 348$ )		
Young	79,4 (10,4)	60,3
Middle-aged	81,2 (14,1)	61,4
Older	87,6 (6,8)	65,7
Taiwan ( $N = 446$ )		
Young	77,4 (8,7)	58,0
Middle age	80,4 (9,3)	59,2
Older	89,0 (8,3)	64,3
USA ( $N = 140$ )		
Young	85,1 (12,2)	69,5
Middle age	87,1 (10,2)	75,2
Older	90,2 (7,0)	78,0
Germany ( $N = 591$ )		
Young	80,9 (11,6)	62,1
Middle age	83,1 (7,4)	67,5
Older	87,2 (7,4)	70,4
Czech Republic ( $N = 529$ )		
Young	78,5 (9,8)	63,5
Middle age	81,3 (9,2)	66,3
Older	84,7 (7,8)	66,8

Note: Young = 18–44 years, Middle = 45–64 years, Elder = 65 years and older

deviations from actual age were also significant insofar they indicated the *subjective* life position of the respondents, such as when someone feels younger than their actual age (Rubin & Berntsen, 2006). For example, the midpoint position of 50 on the life ray corresponded to a chronological age of 44.6 years. Then, over the course of the study after 6 years, the mean position of all respondents was on average about 7.7 points ( $SD = 8.0$ ) closer to the end of life. It can be seen from this that the graphic life ray is suitable for reflecting age-related changes in a sensitive and valid way.

On average across all respondents, the item at what point on the life ray one is old was set at approximately to 78.1 on the scale ranging from 0 to 100 ( $SD = 12.2$ ). Since the average expected life span was a mean age of 83.2 years ( $SD = 9.9$ ), this value corresponds to a beginning of old age at 65.0 years. Table 4. shows the points for the onset of old age separately by age group and culture. In Hong Kong and Taiwan, the points on the life ray chosen to indicate the beginning of old age were earlier than in the Western culture. Respondents from the USA in all age groups moved the sliders closer to the right-handed side indicating a later onset of old age than respondents from all other countries.

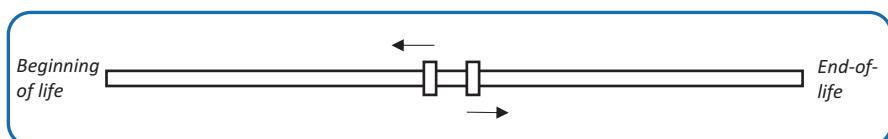
When comparing these results with earlier studies on this issue, dating back to the 1950s, it seems that there are only few historical variations (Kastenbaum, 1984). In a US study by Tuckman and Lorge (1953), young adults under 20 years of age reported the onset of age at approximately 65 years and adults over 70 years reported the onset of old age at 71 to 73 years. In a study conducted in the 1970s (Drevendstedt, 1976), the onset of old age was 61 to 63 years among young adults and 68 to 72 years among older adults. In a similar Japanese study from the 1990s, old age onset for young adults was 64 years and 71 to 72 years on average among old adults (Hori, 1994). However, recent studies clarified that the onset of old age differs significantly depending on what life domain is being considered (i.e., work, family, leisure activities, for example), at least in Western countries (see also Chapter 3.3.4, Kornadt & Rothermund, 2011b).

**Personal Deadlines of Ageing Preparation** The graphical scales were used to capture the perceived personal deadlines to begin with ageing preparation in each of five domains (Lang & Rupprecht, 2020). In this online questionnaire, respondents could move two sliders to indicate what time frames they thought were optimal to begin ageing preparation in the respective domain (see Fig. 4.4).

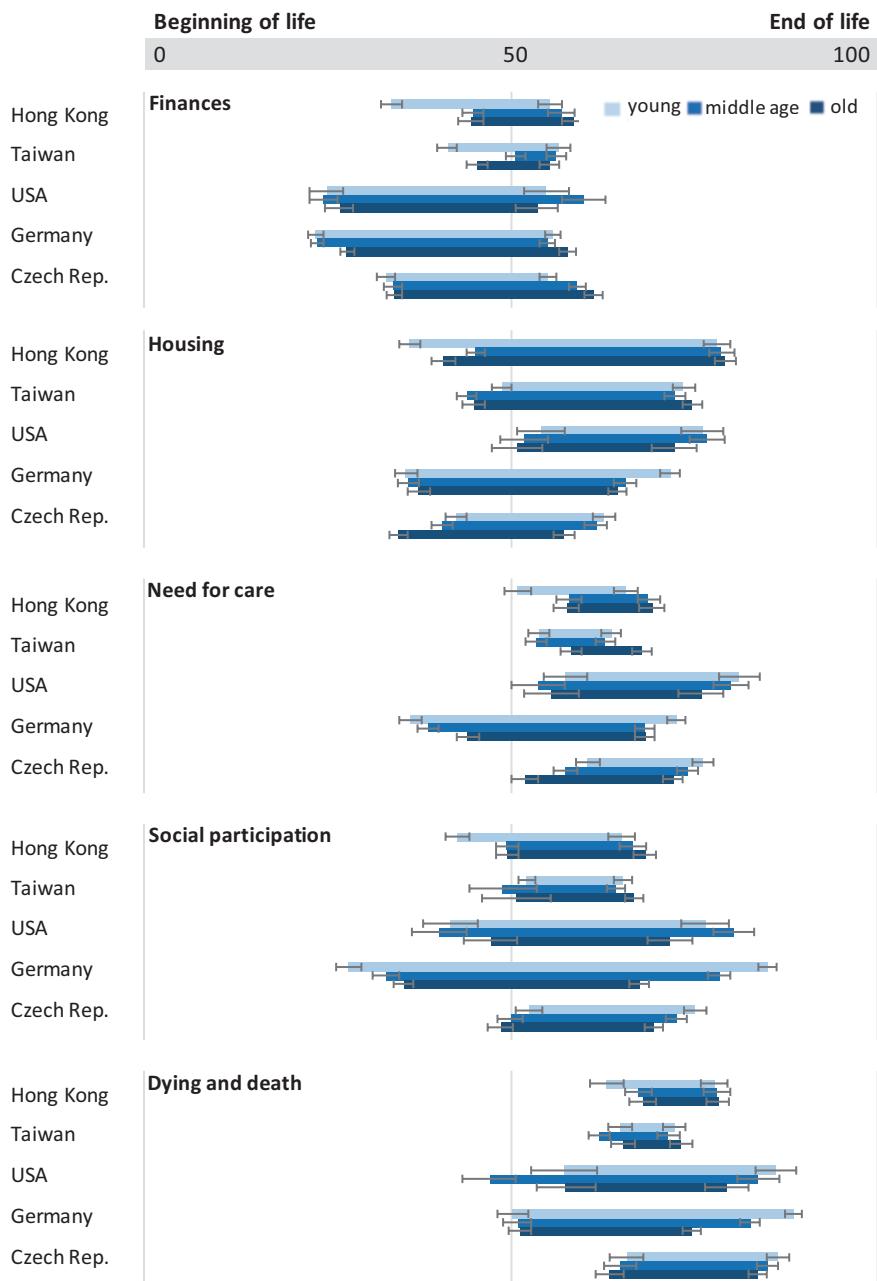
The positions of the two sliders could be freely set on the graphic life ray. The left slider could be used to indicate where the earliest good time in life would be to start preparing for old age. The right-hand slider was used to set when the latest and just good time in life would be to have started preparing for old age in the respective area. In total, these personal deadlines for preparation for old age were assessed for five life domains and in the five countries Hong Kong, Taiwan, the USA, Germany, and the Czech Republic. In Germany, these personal deadlines were assessed in four surveys to clarify how the personal deadlines changed between time points in the individual preparation domains.

Also, regarding the information on personal deadlines by which one should start preparing for old age, significant differences emerged depending on the life domain of preparation as well as between the five countries considered (Lang & Rupprecht, 2020). Figure 4.5 provides an overview of the time windows chosen by respondents for starting to prepare for old age in five preparatory domains, separated by country and by age group.

As a tendency, older adults tend to set their ageing preparation deadlines earlier than younger adults. Regarding preparation for housing, need for care, social participation, and dying and death, older adults prefer to start ageing preparing at the



**Fig. 4.4** Graphical life ray to capture preparation for old age deadlines



**Fig. 4.5** Personal deadlines for starting to prepare for old age in five preparation domains  
Note: 2018 survey; shown are the mean values of the start and end points of the time frames in each preparation domain. Young 18–44 years, middle-aged 45–64 years, old >65 years

latest by the beginning of the last third of their life course, while younger adults find a later start of ageing preparation appropriate for these life domains. Only in terms of financial preparation for old age does the age difference reverse: Here, younger adults prefer an earlier start of ageing preparation than older adults. In many other domains, being older was associated with the preference that ageing preparation should start *at latest* before retirement.

Differences also emerged between the various domains of ageing preparation: For example, financial preparation was seen as something that should best be started in the first quarter of life, or at the latest shortly after midlife, around age 50. By comparison, most respondents felt that personal preparations for dying and death were best started in midlife. However, there are considerable age differences with regard to deadlines, with these age differences showing up more clearly in the deadlines for the latest still appropriate start of preparatory actions and hardly at all in the starting points of the time windows for personal deadlines.

Finally, the next step was to compare the personal deadlines between the participating countries Hong Kong, Taiwan, the USA, Germany, and the Czech Republic. Figure 4.5 shows that timelines for preparation for old age differ among the five countries, with the Chinese countries of Hong Kong and Taiwan being more similar than the USA, Germany, and the Czech Republic in terms of timing of preparation for old age over the life course.

Overall, the time windows chosen for the start of ageing preparation in Hong Kong and Taiwan were significantly narrower in most areas and tended to be somewhat earlier, with one exception: for preparation for housing in old age, the deadlines in both Hong Kong and Taiwan were chosen in broader time windows with a later end. This may also have to do with the fact that it is more common in these countries for older people to be cared for by their family members in old age or to move into the household of their adult children. In contrast, in Germany, preparations for housing in old age often relate, for example, to moving to institutions or home remodeling (Beyer et al., 2017a, b). Cultural differences also reflect differences in the availability of specific services in the respective countries.

Regarding other domains of preparation for old age, on the other hand, respondents from China reported narrower time windows for personal deadlines within which preparation should be started, for example, for the need for care, social participation, or even dying and death. In contrast, the time windows for deadlines for the same preparation domains were chosen more broadly in the USA and Europe. It is striking that the younger adults from Germany chose the earliest possible start for preparations for the need for care situation in old age, with deadlines similarly early as for financial preparations. It stands to reason that the high cost of nursing care in Germany in particular plays a key role here and that this also explains the need to start preparing for nursing care in old age as early as possible.

The observed age differences in preparation for old age reflect the requirements of the different life phases within the respective cultural context to which people adapt their preparation plans. Those who have reached an older age may, in retrospect, assess preparing for the financial situation in old age somewhat more loosely than in younger years, but instead emphasize, for example, the need for more

long-term and better early preparation for social participation, need for care, and housing.

Many younger adults, on the other hand, may regard the financial situation in old age as the most urgent challenge for the future of old age, for which preparation should therefore be made as early as possible. In contrast, younger adults consider other tasks of preparing for old age to be less urgent and still solvable in later stages of life. Overall, the subjective timelines for preparation for old age demonstrate the context-dependence of ageing preparation, which adjusts and adapts individually, age and culture specifically to the respective requirements and conditions of ageing.

Finally, the question of whether the chosen deadlines for preparation for old age changed over time was also of interest. For Germany, the chosen deadlines in all five examined preparation domains proved to be relatively stable over the 6-year period with only a few changes: More generally, the deadlines for the earliest time of onset were set only about 2 to 3 points earlier for each time point, whereas the deadlines for the latest time remained almost unchanged and, after statistically controlling for other influences, were set only about half a point earlier for each time point (Lang & Rupprecht, 2020).

The temporal structure of ageing preparation also points to another significant issue, namely, the possibility that people move outside normative expectations in their preparatory actions. For example, according to the prevailing norm (see Fig. 4.5), someone may start preparing for old age too early or even too late in the view of many people and thus deviate from the expectation. Those who prepare for old age too early may hear from their immediate environment that this is not necessary after all and is premature: “You still have all the time in the world” and “Don’t worry about it.” Conversely, those who, after many years of working life, do not make any preparations for old age and who do not build up reserves, frequently change their place of residence and social environment, and live in the here and now, will probably occasionally hear or ask themselves the question of how things are to continue in later life. Such deviations from normative expectations of preparation for old age also raise the question of why one should invest time and resources in preparing for one’s old age in the first place. What subjective benefits and perhaps also costs do people associate with their preparatory actions?

#### 4.3.4 Subjective Benefits and Evaluation of Ageing Preparation

When people prepare for their old age, they are investing time and personal resources in an uncertain future that leaves open the extent to which the expectations, wishes, and goals of the preparatory actions will ever be achieved. In addition, there may also be undesirable consequences or side effects of preparatory actions: Those who set aside money for old age, for example, forgo fulfilling a wish right away and accept that there may be an economic crisis or monetary devaluation that wipes out the reserves. Every preparatory action is accompanied by expectations, experiences, or even attitudes that concern the subjective benefits or the subjective costs of preparation in the future, but also in the present. The subjective benefit of preparatory

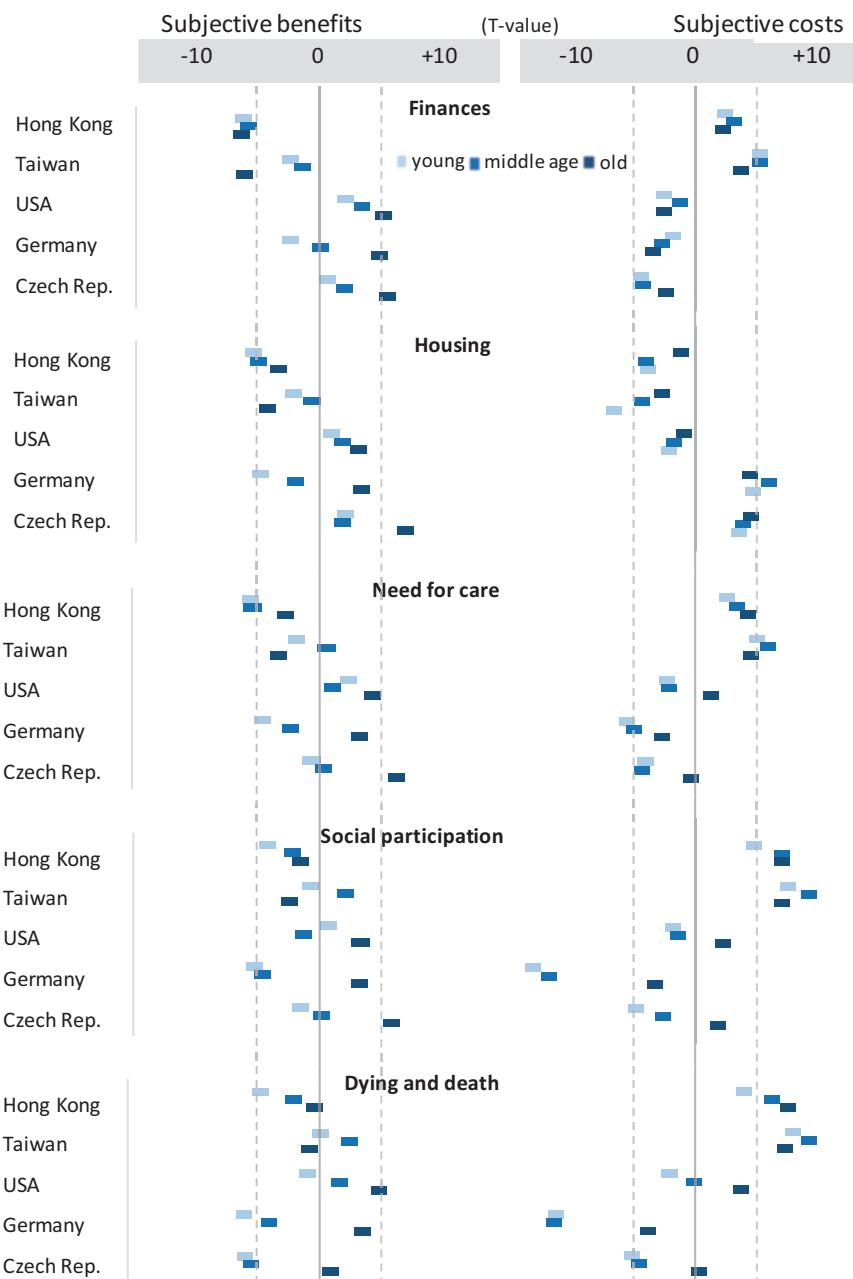
actions can, for example, consist in the fact that—by preparing for old age—one expects to retain more autonomy and independence, to relieve the burden on other people or oneself, or to obtain more security. The subjective costs of preparatory actions can relate to the fact that one limits oneself in everyday life, that one experiences burdens, or that one risks that preparatory actions prove to be useless in the end.

In addition, it happens that people postpone important tasks in order to get relief from time or task pressure in the present and thus gain time for other tasks and plans. As a result, postponing tasks to a later time leads to getting a quick benefit right now. This behavior is often accompanied by an attitude or mindset in which people subjectively devalue or even suppress the costs or burdens that arise later as a result of postponing or deferring. In psychological literature, this phenomenon is also referred to as *temporal discounting*, because possible consequences of (non-) action for one's future are not considered or are even suppressed. On the other hand, those who are willing to forego quick benefits for later rewards show a strong future preference in this sense. In contrast, we speak of present preference when people prefer the immediate benefits of their actions to possible future benefits (Löckenhoff, 2011; Zimbardo & Boyd, 2009).

How people evaluate the benefits and costs of certain preparatory actions for themselves or other people in their environment can therefore vary greatly depending on their life circumstances and conditions. To this end, the project *Ageing as Future* investigated how people experienced the benefits and costs of their own preparatory actions (Kim-Knauss et al., 2020): The benefits of preparation for old age encompassed the extent to which preparation contributes to maintaining one's own independence, providing relief for others, and giving oneself a sense of increased security. The subjective costs referred to the extent of experienced burden and risks associated with preparatory action in the respective life domains.

In most life domains, older people experience more personal benefits in their preparatory activities than younger respondents, although these age differences are more pronounced in the USA, Germany, and the Czech Republic. There are also domain-specific age differences regarding the experienced costs of preparatory action when it comes to subjective restrictions, burdens, or risks. In particular, when it comes to preventing loneliness, preparing for care, and preparing for dying and death, older people experience more burdens and risks than younger adults. This may be because older people also have more experience with the vagaries of caregiving, of personal relationships over the life course, and also in terms of powers of attorney, wills, and inheritance when it comes to dying and death. However, cultural differences between countries also play a role. In the two Chinese countries, for example, more subjective costs and burdens are associated with preparing for old age in most life domains, with the exception of housing, whereas in Western countries, greater emphasis is placed on the subjective benefits of making one's own preparations in these domains (cf. Fig. 4.6).

In a further step, we examined the extent to which the subjective benefits of preparatory action relate to one's own self or to other people. Some of the subjective benefits of ageing preparation involve, for example, a relief from worries or serve to



**Fig. 4.6** Subjective benefits and subjective costs of personal preparatory actions in five life domains, by age group and country

Note: 2018 survey; shown in T values with 95% confidence intervals around the mean (solid line). The dashed lines indicate the range of values of half a standard deviation ( $\pm 5$ ). Young 18–44 years, middle-aged 45–64 years, old >65 years

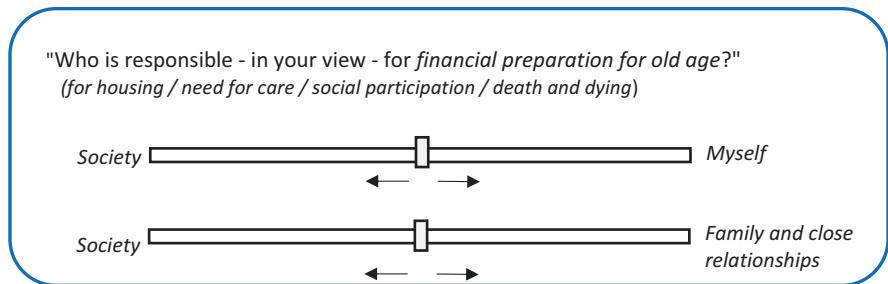
safeguard autonomy. Other benefits, on the other hand, relate to close relatives and their relief, to intergenerational cohesion or to the prevention of conflicts. In the comparison of the USA, Germany, and Hong Kong, there were clear and expected differences in this regard (Kim-Knauss et al., 2020): While in Hong Kong there was hardly any difference between self-related benefits of preparatory action and the subjective benefits for others, in Germany and the USA, the self-related benefits clearly outweighed the benefits related to others.

In all cultures, there was also a positive correlation between the expected benefits of preparation for old age and an optimistic view of the future. However, the relationship differed regarding whether preparatory action served more to relieve one's own burden and provide self-related benefits or whether one hoped that preparatory action would relieve the burden on one's own relatives. Whereas in Hong Kong participants who were more optimistic were the ones who hoped that their own preparatory action would also relieve the burden on themselves and benefit others, there were no such correlations in Germany and the USA. There, the more optimistic the respondents were, the more they expected benefits for themselves (Kim-Knauss et al., 2020).

#### 4.3.5 Subjective Norms of Responsibility for Ageing Preparation

Another question of the project *Ageing as Future* deals with the subjective perceptions of individual and societal responsibility for preparation for old age. Do people believe that they are responsible for their own preparation and that they can influence it? To what extent do people believe that the society is responsible for ageing preparation? For example, one may expect that in Germany, responsibility for financial ageing preparation is largely attributed to the governmental social security and pension systems. Furthermore, in other domains such as end-of-life preparation, people may place strong value on self-determination and accordingly see the responsibility as primarily their own.

Possible age differences in the attribution of responsibility for ageing preparation may also be a result of societal changes. It can be expected that especially seeing oneself as responsible for ageing preparation is somewhat more pronounced in Western countries, such as the USA, Germany, or the Czech Republic. In Eastern cultures such as in Hong Kong or Taiwan, in comparison, responsibilities were expected to be more strongly attributed to the family. The subjective attribution of responsibility for ageing preparation was again measured with a graphical assessment scale using slides to indicate how one allocates responsibility for ageing preparation in various domains (cf. Fig. 4.7). In relation to each of the five considered preparation domains, financial preparation, preparation for housing, preparation for need of care, preparation against loneliness, and preparation for dying and death, respondents indicated how they assigned responsibility between themselves, the society, and the family. For example, if it was assumed that oneself, society, and family were equally responsible, the “slider” in could be placed in a middle position.

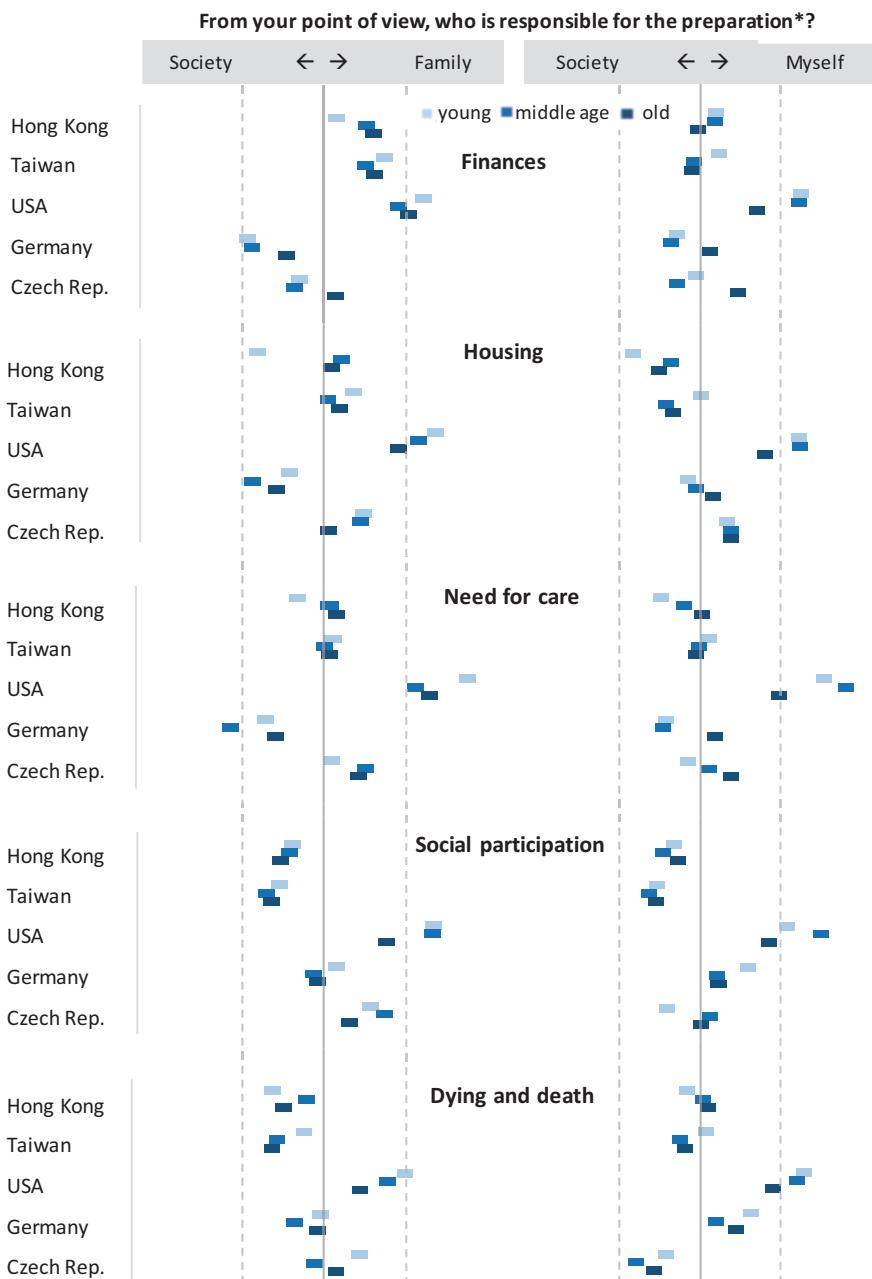


**Fig. 4.7** Capturing subjective responsibility for five domains of ageing preparation

Figure 4.8 summarizes the respective response patterns of the respondents in the five countries under consideration, broken down by age group in the respective preparation domain. For the purpose of better comparability of the responses shown, all scale values were standardized and transformed in such a way that the average values in each case lie in the middle of the scale and the individual values scatter in the same way. The dashed line shown in the figure indicates in each case in which value range approximately 68% of all respondents' answers lay. Figure 4.8 illustrates that there are clear differences between the countries surveyed, but also between the considered preparation domains.

In Germany, responsibility for almost all preparation domains was more often attributed to society (in relation to the self and the family) than in all other countries. Only in the preparation domains of dying and death and social participation in old age did many German respondents see responsibility as lying with themselves or, in a balanced way, also with the family. In contrast, respondents in the USA saw responsibility for preparation for old age in all domains mostly with themselves. In the two Chinese countries Hong Kong and Taiwan, the response patterns are similar and show a clear differentiation depending on the considered preparation domain. In Hong Kong, responsibility for the financial situation and for housing tends to be attributed to the family, while responsibility for social participation and for dying and death tends to be attributed to society. However, there were also some domain-specific differences between the countries. For example, Germany and the Czech Republic saw greater social responsibility in financial preparation for old age than the USA and China. Regarding the age groups considered, there were only relatively small and inconsistent age differences in all the examined countries.

It is apparent that older participants generally tended to lean toward the middle in their answers and were in favor of a balanced responsibility between society, family, and self. The findings of the online study show that the examined countries differ significantly in terms of the responsibility of society, the family, and the individuals themselves for preparation for old age depending on the different domains. Future evaluations of our project will also allow us to clarify the extent to which the differences between the countries also have a concrete impact on preparation for old age and preparatory behavior.



**Fig. 4.8** Subjective responsibilities of society, family, and self by preparation domain, country, and age group

Note: 2018 survey; shown in T values with 95% confidence intervals around the mean (solid line). The dashed lines indicate the range of values of half a standard deviation ( $\pm 5$ ). Young 18–44 years, middle-aged 45–64 years, older >65 years

### 4.3.6 Desire for Longevity as a Motive for Ageing Preparation

Future and preparatory action relates to a late phase of life that not all people reach and which, moreover, appears to many people to be less desirable. Accordingly, the question of the desired duration of one's own life could represent an important drive in preparing for a long life. Especially concerning how long one would like to live, attitudes and expectations differ quite significantly between people, also depending on the respective living conditions and life domains (Lang et al., 2007; Lang & Rupprecht, 2020).

Thus, many people regard the length of their own lives as mainly dependent on biomedical advances, due to which possible diseases can be increasingly better combated, delayed, or even prevented altogether. A view frequently associated with this is that a prolonged long life seems desirable only as long as it remains free of chronic and serious illnesses. Living longer if this is accompanied by dependence on medical care, nursing care, and care by others appears, by implication, as a daunting scenario to be avoided. One possible consequence is that preparatory action is primarily devoted to maintaining one's own health, functional capacity, and self-determination.

To some people, it seems desirable to live a long or even prolonged life even if this should be accompanied by functional limitations, with losses and care needs (Cicirelli, 2011). In our project, we assessed the desired and expected duration of one's own life with the help of two questions. First, we asked, "How old would you like to be?" and, subsequently, "How old do you expect to be?" The resulting difference between the desired minus the expected lifespan thereby denotes the *subjective life expectancy discrepancy* (Rupprecht & Lang, 2020). This now provides information on the extent to which one's own presumed life expectancy appears in principle to be rather too short or too long (Table 4.2). This also has various implications for how a long or extended life is assessed and how people prepare for old age (Lang & Rupprecht, 2019a).

In all countries, younger adults were more likely than older adults to report wanting to live somewhat longer than they expected. This subjective life expectancy discrepancy was particularly pronounced in Germany and the Czech Republic and significantly greater among young adults in the USA than in Hong Kong and Taiwan. In Chinese countries, for the clear majority of respondents (i.e., more than 50%), the ideal life span exactly matched the subjective expected life span. In Western countries such as the USA, the Czech Republic, and Germany, a clear majority of respondents wished to live longer than they subjectively expected to live. In all countries, there was a small proportion of people between 5% and 20% who even wished to live less long than they expected.

When people are asked how long they would like to live, a common and frequent response was to express reservations and uncertainty about how to answer to this question. Such uncertainty in one's response to a possible desired longevity was shown to also entail information about preferences, mindsets, and attitudes that people have toward living long and extended lives (Ekerdt et al., 2017; Lang, 2023;

**Table 4.2** Desired life span and subjective life expectancy discrepancy

	Desired longevity in years (SD)	Desires longer than expected (%)	Desires shorter than expected (%)	Desired duration applies in any case (% Yes)	Expressed uncertainty (% Yes)
<b>Hong Kong (N = 348)</b>					
Young	81,7 (13,3)	32	17	7	62
Middle age	82,5 (11,1)	31	10	15	77
Older	89,3 (7,3)	34	9	23	82
<b>Taiwan (N = 446)</b>					
Young	79,2 (10,0)	32	12	8	65
Middle age	82,6 (11,0)	31	7	13	76
Older	89,9 (9,8)	20	8	21	72
<b>USA (N = 140)</b>					
Young	89,9 (10,5)	49	13	7	51
Middle age	91,2 (12,2)	48	20	15	38
Older	92,0 (7,8)	40	11	7	62
<b>Germany (N = 591)</b>					
Young	89,2 (15,2)	67	14	7	45
Middle age	88,3 (11,2)	58	11	5	37
Older	89,8 (8,1)	43	5	6	54
<b>Czech Republic (N = 529)</b>					
Young	85,1 (11,3)	63	6	17	21
Middle age	87,2 (10,9)	58	4	13	30
Older	87,0 (10,4)	55	5	13	34

Note: Young = 18–44 years, Middle age = 45–64 years, Older = 65 years and older

Lang & Rupprecht, 2019b). In order to capture these reservations about their own desired lifespan, respondents were asked whether they would also want to live as long as they would like if they were seriously ill or in need of care. Only 12% answered this question in the affirmative. Around half (52%) of all participants said their answer was uncertain, as they were not sure what they wanted in this regard. Expressed uncertainty was strongest in Eastern cultures as compared to Western cultures (see far-most right column of Table 4.2). While the majority of respondents in the USA, Taiwan, and Hong Kong did not answer the question with certainty, a majority of German and Czech respondents were quite sure of their own lifespan wishes. In all countries, only a small proportion of respondents (7–23% depending on age) were convinced that they would want to live as long as they did, even if this meant being seriously ill and in need of care.

In sum, it can be seen that in all cultures, a rather cautious, reserved idea of what it means to live a long life prevails among most people, and a majority of people in

the Western countries wish to live a few years longer than they expect for themselves, subject to health reservations, while in the Eastern countries, such wishes were expressed much less frequently.

#### 4.4 Conclusion and Outlook: The Flexibility of Ageing

The findings on ageing preparation of the project *Ageing as Future* show that there is a high willingness among adults of different ages to deal with the subjectively expected topics and challenges of ageing and to take action to prepare for the last phase of life in an anticipatory and preventive way. All in all, this shows that the various domains of preparation for old age gain urgency and importance in the course of adulthood, especially for many older people. However, with regard to the findings of the online studies, the question arises to what extent the findings can be generalized. At the beginning of the project, for example, the participants in the online study were often female and more educated than in the questionnaire study. However, these differences increasingly evened out in the course of the project. Nevertheless, it remains to be clarified to what extent differences in education and income have an impact on preparatory and future action.

Most people adapt their preparatory behaviors flexibly to the requirements of the respective cultural conditions and, depending on culture and context, differentiate between the various domains of preparation, for example, between financial preparation, preparation for the need for long-term care, and preparation for dying and death. This differentiation of life domains is also evident regarding views of the future and with regard to specific benefit and cost expectations in one's own preparation for old age.

Overall, the findings suggest that younger adults are less likely than older people to engage in ageing preparation in all domains. Younger people generally see fewer benefits and also fewer risks in preparing for old age, and they usually believe that they have more time in their lives to prepare for most domains than older people do. However, there are also domains, such as finances or care, where many younger adults see a need to start preparing for old age early in life early in life. The findings indicate that most people specifically adjust their ageing preparation to the concretely anticipated requirements of various life contexts and situations in their own future.

Ageing preparation affects all areas of life in old age in a differentiated way. Thus, adults distinguish clearly between the necessities and challenges associated with the phase of life immediately after the end of working life and those that at a very late phase of life, when the particular vulnerability of old age is at stake. For example, the substantial age- and culture-related differences in personal timing for ageing preparation indicate, for example, that preparation for old age is fitted quite flexibly into one's life course, depending on the respective social and cultural conditions.

The overall picture shows that individual ageing preparation action are flexibly adapted to one's own respective life circumstances and the respective welfare state

conditions and thereby also reflect these. This is also partly reflected in the normative deadlines that people perceive for their preparatory actions, which vary according to life situation and cultural context. In all the considered domains of preparation for old age, differentiations are apparent not only according to age and culture, but also according to individual differences. Particularly in the personal handling of one's own finitude and limited lifetime, strong individual differences become apparent, which are ultimately also reflected in domain-specific preparations for the end of life.

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# Time Structures of Ageing: Acting Old Age Between Everyday Abundance of Time and Biographical Time Poverty

5

Stephan Lessenich

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## 5.1 Sociological Perspectives on Old Age and Ageing

### 5.1.1 The Sociality of Old Age

Age is a social phenomenon. At first, one might think the opposite: Doesn't every person lead their own lives and just get older? Is not the life course, as the long path of ageing towards death, the prototypical example of the individuality of human existence? From a sociological perspective, the appropriate answer—formulated as briefly as possible—must be: No. No: What we individually experience as our “own” life is in many ways a product of social conditions and social relations. And no: Even if we tend to reconstruct our biography as an autobiography (and some of us also write it down or even publish it), the course of our life is by no means in our—or even God's—hands alone, but to a very substantial extent in the hands of partly quite abstract, partly very concrete social powers.

As banal as this statement may seem, it is at the same time fundamental and far-reaching: Ageing takes place in society. Some sociologists would go even further and say that “age” is a social construction. And if one does not go so far as to claim in an obviously contradictory way that age “does not exist,” then there is a lot of arguments for this view. For already the chronological age—a category that seems natural to us—is a social convention: At some point, people agreed to measure the lifespan of a human being in years and to understand and describe the biological continuation of life as a process of “ageing.” The fact that the author of this article was “55” at the time it was written or identifies himself as “born in 1965” must be understood as a thoroughly social fact: As a 55-year-old, he may personally feel “young” (or at least “young at heart”), but socially he will no longer be counted among “the young,”

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though not yet among “the old” either, because his age will always be evaluated by his social environment in relation to the average life expectancy of German men and this is (as we all know even without knowing the current figures of the Federal Statistical Office) somewhere in the 80s. As the author was born in 1965, he is—as he has experienced himself and as others do know—part of the *baby boomer generation*, a member of a numerically large virtual group (*age cohort*) of people born at a certain historical time, who since then, without knowing each other, have in a certain way gone through life together and have shaped and formed the social world of the present in a kind of cooperation that no one really acknowledges.

What may appear to every one of us as highly special and individual—namely, our “own” life course—turns out from a sociological perspective to be an equally highly collective, social event: The life course is “institutionalized” (Kohli, 1985), i.e., set up in such a way that all members of society ultimately follow the same life path, ordered and controlled by social institutions. School, work, and old-age security are the institutions that mark different phases of life and at the same time frame them as differentiated age stages: Childhood or adolescence, adulthood, and retirement. Provided with very different social attributions (e.g., “curiosity,” “routine,” “experience”), only the last phase of such a three-part life course is regarded as “the age” in the generally shared understanding—i.e., shared by “young,” “adults,” and “old” alike. However—another genuinely social phenomenon—this latter attribution has tended to shift in recent times, from the “third age” (Laslett, 1987) of retirement to the “fourth age” (Higgs & Gilleard, 2015) of those in need of care and suffering from age dementia. The fact that “age” is, thus, externalized and attributed as a marker to the ‘very old’ others points to the socially prevailing negative construction of old age—but more on that in a moment.

### 5.1.2 The Relationality of Old Age

Every age determination is necessarily relational. A personal age statement does not have individual and social significance as an absolute value, but only in relation to other ages. “At 17, one still has dreams” means that these are youth-related and may already have been lost by the members of not too distant age groups (“Don’t trust anyone over 30”); “life begins at 66” is the feel-good motto of all those who are “not among the youngest,” but who, with the beginning of retirement age, enjoy a “late freedom” (Rosenmayr, 1983), which in turn is no longer granted to the “really” old.

Different ages thus “live” in the strong sense of the word from their respective differentiation from others. The practice of social comparison, otherwise known from the field of income distribution and the squinting at higher earners or looking down on those who are worse off, plays no less important role regarding age. Within the generations, as well as between them, people relate to one another in everyday practice: For example, one has “held up quite well” in comparison to other, supposedly less fit older people, and “the young folks” of the following generations are said to be less hardworking, critical, well educated, etc. than one’s own age cohort once was. And, most importantly: “Old” are always only the others - the neighbor who, unlike oneself, hardly ever leaves the apartment anymore, or the friend who “at his age” should rather not drive a car any longer.

Behind the talk of the relationality of age, however, there is more than the practices of demarcation from age peers or (at least perceived) elder people, which have a socializing effect in their own way. More significant for the life situations and life chances of older people are the intergenerational power relations in a society, which are characterized by the hegemony of the “middle” age. The age group of 25- to 55-year-olds, who can claim the status of the working and family-forming “core” of society, has a norm-setting power that should not be underestimated: It is here that decisions are made as to what is economically productive, socially valuable, and culturally legitimate. Older adults must measure themselves against the rules and values of these “middle-aged” groups, and they must answer to “them” (van Dyk & Lessenich, 2009a). Contrary to what striking formulas such as those about “pensioner democracy” suggest, the “society of long life” (Stöckl et al., 2016), in which more people tend to be in the post-employment stage of life, is by no means dominated by the retirees. However, the apparently widespread concern that this is or might be the case says a lot about the prevailing social image of old age.

### 5.1.3 The Negativity of Old Age

The negativity of the prevailing notions of old age—at least in public discourse—is quite remarkable, especially considering that longevity is becoming more widespread in rich Western societies, and thus the social phenomenon of very old age is also becoming increasingly “normal” (Lessenich, 2014). Perhaps, however, it is precisely here that the key to understanding the social devaluation of old age lies: For somehow everyone wants to grow old—but no one wants to *be* old. Obviously, contemporary society is dominated by an extremely ambivalent relationship to ageing, that is, to a biological process that is ultimately inevitably associated with losses of physical and mental capacity. It is, however, not only the relative certainty of psychophysical restrictions that must be accepted if one wants to live for a long time. Maybe more importantly, one has to face precisely the devaluation of one’s social position in old age, of which one already knows in advance as a person who has been ageing for decades—and to which we, quite paradoxically, often contribute ourselves in our younger years.

Against this backdrop, a countermovement has been underway for some time in the academic field, but also in politics and the media, which is attempting with great institutional and discursive effort to counter the structural dominance of a negative image of old age with its systematic revaluation (Denninger et al., 2014). However, this well-meaning promotion of positive ideas about life in old age has its own problems, as it links the recognition of old age to the image of old people who are healthy and mobile, active, and productive—i.e., with reference to qualities that are commonly associated with younger people or that in public discourse are considered attributes of youthfulness. Such a positive connotation of “young old-age” (van Dyk & Lessenich, 2009b) not only threatens to shift negative images of old age to the higher and highest ages. It rather, if only unwittingly, fuels the “othering” of old age (van Dyk, 2020), by socially constructing the dependent and even more so the demented old age as the other of a desirable life, indeed almost as non-life. However, the “scandal of ageing” (cf. Améry, 2020) cannot be eliminated in this way: Neither

the personal humiliation that the ageing process is often experienced as nor the associated resistance and disdain with which old age and older adults tend to be treated.

### 5.1.4 The Heterogeneity of Old Age

That there is neither “the” old age nor “the” old person as such, i.e., that neither all old people are the same nor their individual experiences of old age are identical, sounds like a scientific truism—which is, however, strangely enough consistently ignored in the public negotiations about this phase of life and this population group. What one would never claim of people in middle adulthood, i.e., of 35- or 45-year-olds, namely, that they exhibit characteristic features shared by all members of their group, is commonplace with reference to old people: From the bent old man with a cane to the “friendly old lady,” or recently alternatively the sporty-young grandma and the grandfather engaged in grandchildren’s care, stereotypical images and associations determine the phase of old age like no other. Although children are also assigned standardizing attributions (eager to learn, ready to discover, carefree), these are still counteracted in social practice by parents’ individualizing exaggeration of the special qualities and qualifications of their offspring.

The homogenization of old age, instead, remains largely socially uncontested, regardless of whether negative or positive stereotypes are mobilized to describe this life stage—think of the “popular disease of dementia” on the one hand, the “potentials of old age” on the other.<sup>1</sup> During the COVID-19 pandemic, this almost obsessive tendency for collective categorization was confirmed once again, as “the elderly” were immediately and reflexively identified as a particularly vulnerable group (Lessenich, 2020; Graefe et al., 2020, Kim-Knauss et al., 2022). Yet, of course, old and oldest-old age are no less diverse than any other age; on the contrary, they tend to be even more diverse, because the biographical accumulation dynamics of social inequalities (in education and occupation, income and wealth, nutrition and health) lead to very different social situations of older people (Simonson & Vogel, 2019). By no means, then, are all retirees (or even female retirees) “well off,” and by the same token, not all old people are “frail.” What the “Corona crisis” showed once again is the fact that health risks are by no means only a question of age, but at least as much a matter of class.<sup>2</sup>

<sup>1</sup> Remarkably, both formulas are not only disseminated by virtually all actors in the field of ageing policy—from welfare NGOs and medical associations to expert bodies—but often both at the same time.

<sup>2</sup> The likelihood of severe disease progression in the pandemic was lower among healthy older adults than among pre-diseased younger people—and the incidence of supposed “diseases of civilization” such as obesity or diabetes, in turn, is typically much higher in poorer households than in richer ones.

### 5.1.5 Old Age and Ageing as Process and Practice

Thus, “old age” is manifold—and it is a process. Even the everyday statement that one is x years old corresponds to a snapshot in the process of ageing, which again is to a certain extent cancelled out in the respective age statement: In one’s 56th year of life, for example, one already has 55 lived years “on the hump,” which becomes visible not only in its potential curvature or in other physical changes but also in the form of the accumulated experience from decades of lifetime—and thus from the passage of the different phases of one’s own biography, as well as from the experienced history of society. Someone who “is” 55 today, like the author was at the time of writing this piece, was only a year younger a short time ago and will soon be a year older again, has passed through various stages of life and repeatedly changed age groups and will continue to do so until his death. “Age” is thus a process category, in terms of individual as well as collective biographies (Crosnoe & Elder Jr, 2002; Moen & Hernandez, 2009). It is multiform in time and across time. Any sociology of old age, therefore, must always be a sociology of ageing.

Moreover, from a sociological perspective, age is—and with this, I would like to conclude the introductory framing of our research findings to be presented in the following—a practice category. Age is lived, not only in the sense of “doing age,” i.e., of a permanent everyday production of “age-typical” ways of acting and “age-appropriate” social behavior. Beyond that, age and ageing are fundamental categories of human existence and coexistence: They have a thoroughly material, biophysical foundation; they are embedded and incorporated into the reproduction of social contexts; and they are lived, practiced and enacted, that is, acted out and performed in the process of social life (cf. e.g., Twigg, 2004). In this respect, a sociology of old age and ageing deals with the social phenomenon of old-age lives or of “living old age.” In order to connote this praxis dimension of old age, we will follow Nina Degele (2008) in using the linguistically more manageable and, for our context of investigation, more suitable term of acting old age.<sup>3</sup>

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## 5.2 The Research Question

The research interest of the qualitative study (or studies) of the *Ageing as Future* project focused on the time management of older people as a specific dimension of ageing. The starting point of our investigations was the question of the relationship between everyday time wealth and biographical time poverty in old age, or more

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<sup>3</sup>On the understanding of the term (“Altershandeln” in German), see Degele (2008: 165): “Societal institutions, everyday knowledge and practices create templates, regulations and norms for normal old-age and ageing, and conversely, ageing also creates societal structures and norms. The intersections are the actors and the actresses who *do* this. This is what I call ‘acting old age’: positioning oneself vis-à-vis mental, physical, and psychological perceptions, sensations, and experiences of one’s own body in terms of one’s advancing life time, as well as vis-à-vis related structural conditions (e.g., retirement age) and media representations (e.g., ‘golden agers’ or ‘generation silver’).” (Emphasis in original).

precisely: Whether older people who are no longer in employment perceive a tension between increasing “free” time in everyday life and decreasing remaining lifetime—and how they deal with this tension. In short, we asked for the time management practices of older and very old adults.

The background to this empirical question was the initially theoretical consideration that people who are no longer employed are confronted with two different time logics that tend to contradict each other. On the one hand, with the onset of the post-employment phase, the available everyday time increases. In a certain sense, people as pensioners are entering the realm of leisure: Not only does the corset of the professional organization of work fall away, but it is not uncommon for the demands of family time organization to decrease, so the days are (or seem) now open to one’s own free disposal. On the other hand, the transition to “retirement” also brings the limitedness of the life span and the unavoidable fact of one’s own death into the experience and expectation horizon of older adults: For them, life’s “last chapter” opens, which could explain why among people who are said to have “all the time in the world” the saying “pensioners never have time” circulates.

In this context, we were not only interested in whether the older people we interviewed state or construct this tension for themselves, but above all in which factors—individual and structural, situation-specific, and socio-historical—are the ones that influence the dealing with the different time logics of old age and thus determine the empirically found constellation of everyday and lifetime agency in old age. Which roles do time and time agency play for the self-description of older people as “old”? Is the relation between already past and still remaining lifetime decisive here—or the feeling of being able to dispose of one’s own everyday time (or the experience that this is no longer possible)? What constitutes the experience of having the power of time disposal in old age, on which factors does it depend? Who has not only a large amount of time at his or her disposal, but can actually (i.e., effectively) dispose of it—and why? In what way and under what conditions do older people develop time management competencies, and how does the resulting feeling of sovereignty over one’s own time contribute to subjectively keeping the fact of old age at a distance and projecting it into a distant future? How do older people’s time management and time interpretation practices change in the transition to old age, e.g., under conditions of their own impending need for care or when they assume responsibility for the care of relatives, maybe for their own partner?

In answering these questions, we expected to find—as sociologists, and the open-qualitative approach to the subject matter notwithstanding—not only identifiable gender differences but also effects of social class (according to income, education, and origin). The intercultural comparative design of the project was also intended to capture “cultural effects” on the practice of “acting old age”—in the sense, for example, of the social significance of experiences of autonomy or of social norms in dealing with death—which would tend to remain hidden in an investigation restricted to only one single cultural context. Finally, we were also interested in specific age and cohort effects, which is why we interviewed both younger (60- to 75-year-old) and older (75- to 85-year-old) adults and, in some cases, repeated interviews with previously interviewed persons. In the second funding

phase, we concentrated on recruiting old and very old interviewees to be able to examine in more detail old-age agency with regard to the end of life.

The following presentation of the empirical findings is, of course, not primarily structured in line with our initial questions nor exclusively according to our original epistemological interests, but, following the logic of qualitative social research, sticks to the narratives, relevance orders, and meaning attributions of the older people we interviewed.

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### 5.3 The State of Research

Before coming to this, however, the state of scientific research on questions of time management in old age should be reported in the shortest possible form, with research by members of the *Ageing as Future* project network itself being particularly relevant in this respect.

The guiding principle for our qualitative research focusing on the time management of older people was the—actually unsurprising—insight gained during previous studies that time and temporality are central dimensions and influencing factors of old-age agency. In practically all social milieus, across different spheres of life, and well into older age (not yet in need of care), empirical evidence initially reveals a relatively ageless self-image among respondents (Graefe et al., 2011): Their self-concept is not dominated by the experience of transitioning into a new stage of life called “old age,” but rather by a perceived continuity of adult life that makes them “older adults” in their self-description (“adults who are older,” Harper, 2004: 3). For this self-concept as “ageless selves” (Kaufman, 1986), in the sense of subjectively not having completed yet the entry into the status of the “old,” the negativity of the socially prevailing views on ageing (see above) plays a crucial role. However, of essential importance for the subjectively perceived and claimed “agelessness,” in a positive respect, is the experience of “time sovereignty” that accompanies the transition to “post-employment life” (Geissler, 2008): The biographically new feeling for many older people of mastering their own time and time management (Münch, 2014). Age-related changes and losses are “offset,” so to speak, against the time autonomy gained in old age; the “late freedom” already cited above, especially in matters of time, proves to be an important pillar of an ageless self-image.

However, the question of everyday time management in old age has not yet been researched thoroughly from a sociological and qualitative perspective; it is quantitative studies on time use that dominate the literature (for Germany, e.g., Tokarski, 1989; Opaschowski, 1998, Engstler et al., 2004; internationally, e.g., Gauthier & Smeeding, 2003; for the following, see also Münch, 2021: 97ff.). These studies provide an insight into the diversity and frequency of activities in everyday retirement, basically revealing little that is spectacular: Media consumption, social (especially family) contacts, hobbies, and physical reproduction are identified as the main activities of older people. The most important qualitative study on the topic in the German context (Burzan, 2002), which distinguishes everyday patterns of time management according to their degree of structuration and relates them to the

relative biographical importance of different areas of life, now dates back two decades. A second relevant, hardly more recent study (Köller, 2006) emphasizes the importance of the employment biography for the time structuring of older people as well as, mediated by this, for their subjective perception of the everyday “flow of time.”

Even older, but of direct relevance for our interest in the question of time management in old age, is the research of the working group headed by Martin Kohli (cf. e.g., Kohli et al., 1989), which examined, at the historical high point of the West German early retirement regime, early retirees’ perceptions of time and future. Here, again, the central explanatory dimension is the employment biography of early retirees (Kohli et al., 1983), which in turn is closely related to their socio-structural position as employees and to the dispositions resulting from the respective position (cf. Wolf, 1988; cf. also Graefe & Lessenich, 2012). Thus, status-mobile employees (at that time consistently meaning those with experiences of upward mobility) conceive of time as a resource that enables them to tap into new opportunities for action in their post-employment lives. Early retirees socialized in stable, middle-class positions and oriented toward maintaining their employment status see time as a task of actively shaping a successful old age, whereas for rather low-skilled employees with experiences of occupational precariousness, time in the transition to retirement is seen more as the promise of experiencing a stability that is new to them.

The concomitant dimension of the subjective perception of everyday time, its inertia or speed, deceleration, or acceleration, is the analytical link also to the practical meaning of lifetime (cf. Brose et al., 1993, for a sociological definition of the two concepts). The perspective of a shrinking lifetime budget that emerges with increasing age and the resulting lifeworld distance from the employment system (Thomae, 1989; Weiss & Lang, 2012) is usually not a question of an abrupt, crisis-ridden insight into the finitude of life, but rather a gradual process of the imperceptible restructuring of time perspectives and the emergence of a more present-oriented lifestyle. This increasing “presentism” in the time management of older adults is likely to be a source of the compression of everyday time often perceived in old age. Despite the actual abundance of time, somehow a feeling of time shortage emerges in everyday life, constituting one of the limits of the “ageless” self-image discussed above.

Another boundary of the perceived non-membership to the group of the “old,” which is at least as important in social practice, lies in one’s own need for care. The anticipated loss of independence and self-determination subjectively associated with the care situation represents for many older people the “actual” transition into old age or into the “fourth,” final stage of ageing. As our own previous research has shown, the negative views on ageing, especially of a demented old age supposedly reduced to mere physicality, are of a remarkably abysmal nature. In the social imaginary of ageing, the onset of the need for care represents the end not only of the ability to shape everyday life, but the end of life itself, and not infrequently even the epitome of a life that is not worth living, an “abjected life” (cf. van Dyk, 2020: 140ff.).

## 5.4 An Outline of the Findings

### 5.4.1 Everyday Time Management

One of the many generalizing attributions to “the” old refers to their assumed “time prosperity” (Rinderspacher, 2002). At first glance, things seem to be clear: Those who retire at 65 or even a few years earlier have a phase of life ahead of them in which there is no shortage of time, or more precisely, of a daily available “free time.” Obviously, the fact that there is an objective gain in time that is not consumed otherwise, especially not in the form of gainful employment, cannot be dismissed. However, it has to be taken into account that not everyone was employed in his or her later adulthood and thus not everyone made the classic transition from work to retirement. For women in particular, at least the abrupt change from full-time employment to mandatory retirement was and still is by no means a completely normal experience of old age—either because they were no longer gainfully employed after the birth of their children or because they only worked part-time after raising them. In addition, the gender-specific nature of post-employment life is not only evident in time-use studies but also in our interviews: For many women, the time-consuming family and household obligations continue unabated after their partner’s retirement or even with their own retirement, the everyday division of household labor remaining unequal. The much-used image of “late freedom” is thus first and foremost a profoundly male stereotype or rather a stereotype geared to the life experiences and everyday practices of older men.

Even this finding, however, cannot simply be left as it is, but must in turn be qualified. The fact that the “corset” of time commitments disappears or at least becomes much less tight in the retirement phase of life, which in most of the cases is spent in partnership, is a frequent image used by men and women alike to describe the subjective experience of time in old age. This indicates that the phenomenon of a perceived “time wealth” is not only about the purely quantitative dimension of an absolute expansion of the time budget in old age but at least as much—and even more importantly—about the perception of a decreasing external determination, a reduced access of third parties to one’s own time resources. For most people, the decisive factor for subjective time prosperity in old age is the biographically new experience of being able to literally manage the available time budget, to have it at one’s disposal. The core of the matter is self-determination of “time use”: In this sense, old age is, it seems, the ultimate time of managing time.

As is always the case in the social world, however, the abundance of time understood and qualified in this way is an ambivalent matter, because connected to the possibility there is always the necessity of time agency. No matter whether men or women, whether previously employed, non-employed, or unemployed: Basically, they all face the age-specific or, more precisely, the life phase-specific challenge of restoring or reconstructing “everyday life” after retirement (cf. Wolf, 1988). Be it yourself or your partner who “loses their job” practically overnight, it is important for all older people to actively shape their everyday lives after having left employment. No matter how they do this (and that is what our interviews were about): the

restructuring of everyday life and more specifically the temporal reorganization of everyday practice are “the” tasks of life par excellence in old age (cf. Ekerdt & Koss, 2016).

The qualitative research conducted within the framework of the project *Ageing as Future* confirmed the findings from our own earlier studies insofar as older people themselves almost universally name ‘having time’ as an important and positive characteristic of their life situation. This is summed up in, given the societal conditions, an almost emblematic way by an interviewee who describes time as “my capital” and himself as a “capitalist in time.” Beyond all possible experiences of loss in the process of ageing, our interviewees consistently put the bulging time budget on the credit side of old age. Not every old person, however, claims the role of “capitalist” in the narrower sense, reporting that they use their time as a means of investment with corresponding expectations of return. Rather, the “investing” strategy is only one of the three age-specific everyday time styles that we have identified and that are confirmed in our empirical material.<sup>4</sup>

Investing, enjoying, or filling time: These are three distinct, empirically widespread *patterns of everyday time management* in old age, each of which has its own connection to the structural patterns of lifetime agency of our respondents. The “investing” mode is characterized by a subjective orientation not only towards a personal advantage, but at least as much towards a social benefit of time use in old age. Everyday time is managed in the sense that it is devoted to meaningful activities—as a voluntary commitment not only to oneself and one’s own well-being but also to that of the social surrounding. The time management mode of “enjoyment,” on the other hand, explicitly does not follow any logic of the meaningfulness or usefulness of one’s own actions: instead, time is considered a consumer good rather than an investment object. The “release” from the constraints of working life is taken at its word, and, in special appreciation of the everyday time gained, “having time” and “taking time” (above all for oneself) are given great importance in practical action. Finally, “filling time” means looking for activities and occupations that make the day go by. The activities documented by our interviewees in this regard tend to have a passive character, because they do not so much reflect one’s own interests, nor do they follow immediate external constraints, but they rather aim to retighten the lost “corset” of everyday life. Each new day appears here as a task to be mastered; each day one has “killed the clock” creates a certain feeling of relief.

Not only for this latter time practice, but for it in particular, the establishment of routines of everyday life in old age is important (cf. Ekerdt & Koss, 2016). For many older people, routines have an important ordering and stabilizing function: being able to practically shimmy from agenda item to agenda item in everyday life gives a sense of being located and secure in time—and thus also in the world. At the same time, the reference to such routines, not only in the interview but also in everyday communication with relatives, friends, and acquaintances, has a significant

<sup>4</sup>Cf. in detail Münch (2014), who, however, speaks of a model of retirement-specific “time sovereignty” and, in this context, of “strategies” of time agency in old age—both conceptualizations will be problematized below in the light of our more recent research.

function of suggesting competence: Here, so the story to be told goes, is an older person who literally “pulls their life off” and about whom one accordingly does not need to worry. This applies not least to the self-assessment of older people: everyday routines that provide support for a way of life no longer held together by gainful employment produce a thoroughly effective fiction of mastery in the sense of having one’s own life “under control.”

It is certainly not only older people who need such a handrail to support them on their way through everyday life—but people with more “free time” need it more than people who are very busy. Nevertheless, the importance of routines is by no means the same for all older people. Rather, their significance, like the three aforementioned everyday time styles themselves, depends strongly on the employment-related biographical experiences of older people and, mediated by this, on their respective socioeconomic status. From a sociological perspective, this is a main finding of our research: the practical everyday management of “abundance of time” in old age—and thus also “time abundance” itself—is socially unequal. It is people’s life histories and life situations that convert ‘time abundance’ in old age into an asset (or not).

In this sense, our qualitative empirical research shows that the importance of routines for the management of life in old age tends to decrease, or at least to be relativized, with higher occupational and income status. Those who in old age are practically oriented toward filling their time, or even to “kill” it, usually look back on an employment history in which there was little room for maneuver for an independent organization of everyday working life; typically, even the termination of employment in these cases was determined externally and rather involuntary, not least in anticipation of a comparatively low old-age pension. In contrast, the transition to retirement is framed positively by our interviewees belonging to the group of “time aficionados,” not least because it was largely self-determined and connected with the prospect of a good or even very good pension that opens sufficient options for action. Against the backdrop of the time pressure experienced in their employment life, members of this group are almost exuberant about the time gained through retirement and seek to use it to the fullest for themselves and their families. The “investing time” type, in turn, is associated with an early, but nevertheless voluntary, exit from gainful employment—for example, due to a perceived breaking point—which in a sense clears the way for an already existing interest in social engagement. However, the fact that one must be able to afford, also in concrete economic terms, being socially engaged is well-known from research on voluntary work, and the orientation of our respondents toward highly active, socially useful activity in old age was consistently based on a secure household income.

Ultimately, all three patterns of acting old age are characterized by social-structural, occupational biographical effects, starting with the seemingly most trivial aspect of the time of daily getting up: Those who have had to get out of bed very early all their lives are still “attached” to this habit even after the end of compulsory employment—unless they take the small liberty of ignoring the alarm clock and simply turning in bed once again, which is tied to having enjoyed a certain degree of self-determination of working hours throughout the employment biography.

Such biographically predetermined autonomy in individual time action tends to continue over the day, week, and year. Depending on whether the transition from work to retirement was perceived more as a gain in freedom or rather as a deprivation of security, the personal way of dealing with the experience of an unusually underdetermined, largely unbound everyday time is more or less “sovereign.” Social inequalities in old age are thus reproduced in two ways: In biographical perspective, high levels of agency are extended from the middle phase of life into old age; in socio-structural terms, gains in autonomy in old age tend to occur in social milieus that are used to enjoy a greater capacity for self-determination.

In addition to the three aforementioned patterns of everyday time management in the narrower sense, we were also able to identify three—actually four—*variants of social time orientation* among older people in our empirical material. In the background of this partial result was the question with whom older people spend their daily time, i.e., who are the partners of their “free time” organization. Interestingly, this focus of our qualitative research was a result of the intercultural comparative design of the project, because the particularities of social life in old age at the different national locations did not come to the attention of the local researchers in the first place. Rather, it was the colleagues from the other countries, who were not equally familiar with the culturally anchored features of life outside their own home countries, who noticed the unusual (for them) characteristics of the social organization of time in old age that was common and self-evident elsewhere (cf. Lessenich et al., 2018).

Our findings in this regard follow the considerations of Gergen and Gergen (2003), who distinguish three relevant social dimensions of life in old age, namely, the relationship(s) of older people to themselves, to other persons, and to the social community. Accordingly, in our empirical material—and expressed in our terminology—individualistic, interpersonal, and communal social orientations of time management can be found, with the interpersonal orientation being further differentiated into a familialistic and an age group-specific one. As with the previously discussed time styles, the patterns mentioned hardly ever occur in pure form in reality: The concrete practice of social time organization in everyday life is always a specific mixture of different orientations. And yet, beyond the individual cases and their particularities, certain widespread prioritizations can be identified. Thus, in addition to strongly individualistic, ego-centered ways of using time, which are subjectively often justified by the desire to be able to “finally do something for oneself” after the end of the working and/or family phase of life, there are also systematically strongly communal, community-oriented time practices, in which the most diverse forms of social engagement for more or less distant others form the essential content of everyday life.

A third type of social time orientation in old age is of an interpersonal nature, which in turn takes two forms. Either everyday life is shared primarily with one’s partner or with members of one’s own family (classically, the grandchildren) and/or relatives. This familialistic orientation is to be distinguished from the one in which time is spent mainly with people from one’s own age group or peer group, i.e., with one’s closest circle of friends, an age-homogeneous group of leisure partners, or in

institutional contexts, e.g., senior education. The intercultural comparison of social time orientations revealed interesting differences in the subjective attribution of meaning to one and the same time use practice. For example, while communal time orientation seemed completely self-evident and downright “not worth mentioning” in the North American context, corresponding orientations tended to be emphasized and normatively highlighted by German respondents—in line with the offensive political promotion of volunteer work in this country, especially in old age (cf. Neumann, 2016). In Hong Kong, on the other hand, a practice of actively socializing mainly with other older people seemed to be “normal” and not in need of further explanation, while this very practice was not infrequently accompanied by expressions of regret by German respondents that they could not (any longer) find access to younger leisure partners.

Underlying all this diversity of individual everyday life experiences, be it in social or organizational terms, there is a social requirement that is ultimately common to all older people: the subjectively perceived need to justify one’s own mode of everyday time practices. To a certain extent, such a need for legitimization exists—after early childhood—in every phase of life and for every age group. In older age, however, this is to a greater extent the case, precisely because of the “abundance of time” given in the self-perception as well as in the perception by others. For many older people, in part even for those who are confessedly in “enjoyment” mode, this *subjectively perceived compulsion to justify themselves* takes the form of a disposition that is imbued with the “ethos of being busy” (cf. Ekerdt, 1986). This “busy ethic” represents, functionally, a solution to a problem that is significant both individually and socially, the problem of establishing continuity between employment and retirement life, a continuity at least in the sense of the symbolic continuation of the normative references for one’s agency. Although retirees as such are freed from the demands and constraints of gainful employment, they still orient their lifestyles on the norms and values of working life (cf. Ekerdt & Koss, 2016). In this sense, activity (“busyness”) is good, passivity (‘laziness’) is bad, and a regular daily routine is highly appreciated even in old age, while letting oneself go is subjectively strictly forbidden. The retirement life of many older people is thus characterized by a logic of “as if”—as if they were still gainfully employed. Accordingly, in retirement the day must be “filled” in some other way than by way of employment, and “investment” activities, especially so-called hetero-productive activities (i.e., activities that benefit other people), sometimes take on a quasi-full time job character in terms of their scope. And even the “enjoyment” of time is not only measured against earlier, work-related deprivations, but also derives its value—in the sense of the interpretation as an extended, even endless “vacation”—from conformity with the norms and normalcies of working life.

All these findings ultimately point to the difficulty, or even inadmissibility, of speaking of “time sovereignty” in old age. If at all, the possibility of a truly sovereign, i.e., unrestricted, everyday time activity that is neither impaired by material or social nor by institutional or normative factors is reserved only for very specific, quite singular social situations. In the true sense of the word, hardly anyone in this society is sovereign over his or her time, in old age as well as in other phases of life;

the “mastery” of one’s own time, the individual establishment and maintenance of an autonomous time regime, requires extremely extensive time resources coupled with exceptionally well-developed time competencies. The generally false suggestion associated with the talk of “time sovereignty,” but just as well of “time prosperity,” that older people are masters in the house of their own everyday life, should definitely be avoided in the light of our research. The existence of “free time” must be legitimized even in old age, notwithstanding the public discourse formula of “deserved retirement”; subjectively, there is no feeling of de-responsibilization in old age, at least not in the sense of a moral relief from justification constraints. Against this background, it seems equally inappropriate to describe the practical ways in which older people deal with the “problem” of free time as individual “strategies.” The notion of planned, goal-oriented, calculative action suggested by this term does not do justice to the real existing practices of everyday time activities of older people and their subjective interpretations. For freedom in old age is, according to our qualitative interviews, only in a socially limited way the individual freedom to act differently: “one is free but not free to do nothing” (Ekerdt & Koss, 2016: 1297).

#### **5.4.2 Lifetime Management**

As seen, the everyday time management in old age is, on the one hand, in a way nothing special, but a reflection of conditions that basically affect all socialized individuals: Like everyone else, older people must organize their lives and structure their everyday time. Just as anybody else, they must justify the existence of “free time” to themselves and, above all, to others in a society permeated by the logic and ethics of work; for them, too, the possibilities of truly “free” disposal of their own time are limited, and among them, too, the scope for everyday action is unequally distributed, depending on the resources available.

And yet, on the other hand, it is true that the everyday time activities of older people certainly have their special moments and motives, which are due to the specific location of higher, “advanced” age in older people’s individual life courses. In contrast to younger people, older people have a comparatively long stretch of things that happened “before”: a past life that, although it may have taken place in very different ways, is in any case eventful and saturated with experiences, the imprints of which inevitably shape the old age life of 60-, 70- or 80-year-olds. Everyday time management in old age can thus, basically, only be understood as a practice influenced by the life already lived. And as such, according to the findings of our qualitative research, it is not uninfluenced by the concrete, life-time-related perceptions and orientations of the old. How everyday time is shaped in old age thus depends not least on how older people conceive of their own lifetime, both in retrospect of their life history and in outlook on the future, i.e., on what they still expect in and from their lives.

In this sense, we were able to empirically identify two clearly distinct, and in some ways contrasting, *life-time styles* in old age. These two ways in which older

adults use to deal with their subjectively remaining life time are to be understood as typical or typifiable combinations of biographical retrospection and prospection, both of which are of immediate importance for the organization of everyday life time. We have characterized them as the “logic of catching up” on the one hand and a “life in limbo” on the other (Münch, 2016)—two modes which, however, certainly do not exhaustively describe the spectrum of possibilities of individual life-time management.

The logic of catching up is found among older people who look back biographically on a structural lack of time and on years, often decades, of putting aside their own interests. In our interviews, it is especially women or mothers who express the life experience of never having had time for themselves between the multiple demands of raising children, household chores, and their own gainful employment (Beck-Gernsheim, 1983). The time of old age then appears to these respondents as an opportunity to finally be able to do all the things they always wanted to do but never got around to before—or at least to tackle some of the unfinished business. “So, then I just felt I had a whole lot of catching up to do”: this is the typical paraphrase of this life-time style, which translates in everyday terms into a multitude (sometimes a subjectively perceived excess) of activities, from fulfilling long-held desires such as learning languages or a musical instrument to traveling on one’s own and cultivating old, neglected friendships. As a rule, this self-chosen (hyper)activity, in the light of which not young and middle adulthood (Panova et al., 2017) but paradoxically the so-called retirement phase turns out to be the “rush hour of life,” is related to a perceived biographical scarcity of time: “It’s now or never” is the watchword—because who knows how long one has still to live. Or even more, the urgency to catch up sometimes seems imperative, because, for example, the early death of a parent or the statistical life expectancy are perceived as quasi-objective limits of one’s own biographical time budget. The latent time pressure associated with the life-time logic of catching up is summarized by one of our interviewees who, reflecting everyday communication with his acquaintances of the same age, expresses the following appeal: “Remember, you probably still have about 7,000 days to live.”

The life-time style that tends to oppose this activist concept of old age, and which we conceive of as a biographical limbo between life and death, is characterized by the fact that older people permanently pause in anticipation of their demise and begin to withdraw from social relationships, thus entering, as it were, a passive state of waiting. Regarding the perception of time and everyday activities, this disposition leads to a pronounced presentism: nothing major is tackled, nothing new is started, and longer-term planning is ruled out. Life is spent in the here and now. In this sense, our project partners in Hong Kong and the USA speak of “time freeze” (Ho et al., 2019), i.e., a downright halting of time, in which the future is subjectively not so much shortened but conceptualized as a mere extension of the present. The old-age agency of respondents who can be assigned to this life-time style takes place in the mode of suspension: the rhythm of life is scaled back, and everyday life is reduced to a minimum. The background of such an orientation toward inaction is often formed by critical life events: a survived heart attack, the death of close people, especially of the life partner. In all these cases, the end of one’s own life comes

closer; potentially imminent death comes into view: “I could drop dead at any moment.” From this perspective, restraint in all situations and concerns of life then appears as a form of precaution, because in the event of death, one is neither torn out of something important oneself nor does one cause others to experience loss if one has already said goodbye to everything and everyone beforehand. The subjective entanglement of lifetime orientation and everyday practice is also evident in this case: Expecting death at any time, life becomes a waiting room in which time passes but is effectively halted. And in which inconspicuousness is the first civic duty: the feeling of one of our interviewees of being “only temporarily present” led him to simulate his absence, to make himself downright invisible. In this sense, he began to practice activities that were once taken for granted and highly valued, namely, driving, less frequently, more carefully, and almost secretly—in other words, in such a way that no one would notice him. The fact that the value idea of “autonomy in old age” is taken literally—as “auto-nomy”—in Germany, especially by men, and is thus associated with the continued use of one’s own car, is an interesting finding of our qualitative studies, especially in an international comparison, which cannot be further elaborated here.

In one case as in the other, in the active catching up with what has been missed as well as in the passive pausing before death, it should have become clear that “individual life-time styles” are never only individual and never only related to lifetime. Life-time styles always have recognizable effects on the organization of everyday life or on corresponding patterns of everyday time management (see above). And they can never be understood without taking into account the concrete life management patterns of significant others: older women in the mode of catching up, for example, act against the experiential background of a family life in which they have systematically put aside their own desires in favor of their husbands and children; older men in a self-chosen state of limbo, on the other hand, seek to take into account the supposed or actual life plans of their children or younger partners. Thus, one of our very old interviewees, upon reaching his 90th birthday, decides to literally suspend his social life, because his own life expectancy and the time horizons of his preferred interaction partners increasingly diverge in his perception: “They cannot just take care of me. I’m only available for a short time, and the younger ones will live longer, so they must live on with the others.”

“I am only available for a short time”: This age-related attitude to life, which becomes more and more prevalent with increasing age, can obviously function as a motive for very different ways of organizing everyday life, i.e., more active, or more passive ways. Similar subjective perceptions of time can thus, in other words, result in a very different sense of *well-being in terms of time*. Based on our empirical research, we prefer the category of *time well-being* to the established sociological talk of “time wealth” and “time prosperity” on the one hand, and “time autonomy” and “time sovereignty” on the other. We prefer this category to “time sovereignty” (see above) because, according to our findings, it is not the perceived quantity of available time that is decisive for the subjective quality of life in old age—and because real autonomy in the disposal of time turns out to be a strongly milieu-bound attitude toward life that tends to be reserved for older people who are better

off in terms of resources. In contrast, time well-being—as the individual well-being *in and with time*—is a complex constellation of perceptions, which is fed by a multitude of sources and is neither equivalent to objective time wealth nor to individualistically conceived control practices. Well-being in time in old age is both a subjective and a social category in which factors such as personal resource endowment, health status, spatial mobility, involvement in social relationships and responsibilities, critical life events, chronological age, and the prevailing social time regime intersect and intertwine. In all its complexity and inner contradictions, it cannot be reduced to a single denominator and ultimately can only be explored in intensive qualitative interviews with older people—as socialized individuals—themselves.

In this context, and against this background, an important problematization of the concept of “retirement,” which we believe is overdue, must be undertaken—as well as a second order problematization, in the sense of a problematization of the common forms of its problematization. Originating as a political category, rooted in the National Socialist semantics of the “quitting time of life,” and becoming a socio-politically institutionalized figure with the Federal German pension reform of 1957, the concept of retirement (“Ruhestand”) has since become firmly established in German everyday language. In the world of social discourse, it has in fact become synonymous with the post-employment phase, indeed with the life phase of old age *per se* (Denninger et al., 2014; Göckenjan, 2000). The double problem of the conceptual politics revolving around this term lies in the fact that, on the one hand, the social conceptions of old age as a specific phase of life are shaped in a pejorative and exclusionary sense. Old age understood as retirement signals that people, once they have become “old,” move into a state of rest: Into a status position in which they have their peace and, consequently, are let alone—but in which they also are in rest, in which they are supposed to just let the others, not or not yet old, be as far as possible. Old age as retirement describes a social siding established by the welfare state, on which the material appreciation of the life old people lived goes hand in hand with the symbolic devaluation of their life still to be lived: Here, rest in this world has already been provided for, in the expectation of the old eventually finding “eternal rest” in the hereafter. Mind you, and as already indicated: this retreat of those who have been deprived of their duties in the working world to their now socially guaranteed old age was for a long time, and in part still is today, a real option at best for the elder males. For many women, especially for those who have been working only temporarily, intermittently, or marginally, the idea of retirement was and is nothing more than this: an idea, an institutional fiction, and more so in view of the gender-specific division of labor that is perpetuated even among older couples.

No less problematic than the symbolic (and in part also material) devaluation of the “evening of life” as a time of retirement, however, is the countervailing tendency to problematize a “retiree lifestyle” that has become prominent in recent times (van Dyk et al., 2013; Hasmanová Marhánková, 2011). Under the discursive umbrella of an “activation” of old age, the image of retirement has come to serve as the epitome of a historically outdated mode of existence to be socially overcome. To the extent

that, in the face of demographic change, the idea of a public collective provision for old age is discussed as a financial hangover, older adults themselves become a social burden that society can no longer afford (or may no longer want to afford). To solve the problem thus constructed, the delegitimization of retirement as a lifestyle is being resorted to more and more frequently—whereby the question as to what extent the social situations incriminated are existent at all or not rather fictitious is hardly ever raised in the public debate. Either way, older people are called upon not to lean back, but to keep the ball rolling. The “potentials of old age” is being discovered at every turn (Bundeszentrale für politische Bildung, 2008) and political efforts are being made to mobilize the resources of older people. A socially (if not economically) productive way of life, for instance, through practices of civic engagement, is becoming synonymous with “successful” ageing, not only in the political discourse on ageing but also—and even earlier—in gerontological discourse (Baltes & Baltes, 1990; Schroeter, 2004). Those who rest in old age, on the other hand, not only rust slowly, according to the new scientific-political image of old age, but also, intentionally or unintentionally, throw sand into the gears of economic and social dynamics—in a certain sense, this could be seen as an old-age activity, albeit one that is obviously unwelcome in the “ageing society.”

While retirement as a social construction of the last phase of life is increasingly being discredited in public discourses about ageing, the idea of just taking it easy in old age is still firmly anchored in the life plans of older people themselves, as earlier findings from our qualitative research indicate (Denninger et al., 2014; cf. also the concept of the “tranquil life” of our Taiwanese colleagues, Liou, 2016). However, this image of successful ageing, like the subjective future images of quality of life in old age in general, is subject to a major caveat shared by virtually all the individuals interviewed in our subproject: you must be or stay healthy. “As long as I am healthy and can do everything myself, that’s okay”: This statement by a 90+ years old pensioner could have been made in this or a similar way by almost all our interviewees. According to our findings, older people rarely have an absolute, unrestricted desire to live as long as possible. The ideal of longevity is rather often a qualified one, which as such is mostly closely tied to health criteria by the interviewees—and indeed in all countries included in the study (Ekerdt et al., 2017; Lang & Rupprecht, 2019a). In principle, people want to become “ancient,” maybe even join the illustrious circle of centenarians—but not unconditionally, only if and as long as body and mind cooperate. This “health fixation” of ageing ideals is complemented in the Western ageing cultures we have studied by an analogous autonomy focus of life plans: According to this, good old age (and ageing) takes place in autonomy. Dependence on third parties, although an unavoidable social normality for every person and at every age, is a horrifying image for many people in the final phase of life and one that consistently provokes strong defensive reactions (Ekerdt et al., 2023). The dependent old age—optionally translated as sick, bedridden, in need of support or care, and increasingly also demented—is to be avoided at all costs; it is the unwanted, rejected other of a successful life towards the end. “Better dead than seemingly dead”: This basic attitude devaluing the “fourth age” (Higgs & Gilleard, 2015) has been encountered again and again in the European-North

American research context, moderated at best by religiously based motives of uncomplaining indulgence or explicit acceptance of an uninfluenceable fate of life.

The widespread fear of loss of control, in the sense of an ultimately externally determined way of life in old or very old age, represents the background for a last finding of our qualitative research to be documented here. This refers to the—as is the case with so many things in old age—very individual way in which ageing people deal with the knowledge of the finitude of their existence in everyday life. Under the formula of *doing finitude*, which tries to capture linguistically that finitude does not remain an abstract body of knowledge in the process of ageing, but rather becomes a “practical idea” that is actively processed as such, we have specifically investigated older people’s *acting of finitude*. In doing so, we have unearthed two central insights. First, we can identify a continuum of agency that runs between the poles of openness and control: While some older adults take the end of life and its concrete form as it comes (“Because it’s guaranteed to turn out differently than I imagine. So I don’t have to worry about it at all.”), others, conversely, devote a lot of energy to shaping it themselves. A cornerstone case in this latter sense in the German sample was a 79-year-old man (at the time of the interview) who, as a precaution, tried to take the circumstances of his death into his own hands as far as possible: He drew up a living will, became a member of an association for self-determined dying, dealt with the possibilities of old-age suicide that came into question for him personally, and rounded off his plans for Day X by purchasing an emergency cell phone that he programmed to send a call in the event of his suicide, thus ruling out the possibility of an undiscovered death. This interviewee finds inner peace, and with it the willingness to go on living, only in his intensive preparations for the end of life—in the feeling of having done “everything that one thinks one can do at all.”

Of course, there are also less strictly finality-related practices that nevertheless address the fact of the finitude of life—the life-time style of catching up on what was missed in the “previous life” described above could be mentioned in this sense, but also, for example, the early “down-sizing” of living space and material possessions (Ekerdt, 2020). The latter form of ageing is particularly interesting insofar as it forms a bridge between practices of finitude that operate more in self-reference and those that take place more having others in mind. For example, moving out of a house that has become too big and into a smaller apartment or into an assisted living facility on one’s own decision, and in the process necessarily getting rid of a good part of the household goods that have sometimes accumulated over decades, can be understood as a form of self-determined preparation for old age, which at the same time also aims at relieving other people, typically one’s own children, from the obligation of a later household liquidation. Such forms of future-oriented action, which focus not only on one’s own life but also—and perhaps significantly—on the lives of (significant) others, were encountered repeatedly in our interviews. In their most pronounced variant, they are completely absorbed in the reference to others, and one’s own life takes a back seat, whereas the life of the following generation(s) becomes the epitome of ageing as future. Generativity as a process of giving meaning to one’s life that points to the future (Erikson, 1959) becomes, as it were, a

solution to the problem of finitude: “Children and grandchildren, that is the future. That’s the idea, that goes on, even if it doesn’t go on for me, but there is something going on. Basically, a part of me goes on, too”.

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## 5.5 Conclusion: The Ambivalences of Old Age and Ageing

One thing above all needs to be noted as a result of our research-based observations: the process of ageing or, if you will, the *process state* of old age is, from the perspective and in the experience of older—and further ageing—people themselves, a thoroughly ambiguous, indeed ambivalent phenomenon. “Old age” is a constellation of life that is lived—and must be lived—individually, but that at the same time is always socially structured. As we hope to have made clear, everyday time and lifetime are deeply socially shaped in their complex interplay, so that even though no one can be relieved of living his or her own life, it can undoubtedly be said that there are no “individual” everyday and life-time styles in old age in a strict sense. It is true that single, partner and family households, and especially households with and without care obligations, differ strongly regarding the forms of indirect and direct social dependence that exist for the respective household members. But ultimately, they all—we all—lead “linked lives” in a variety of ways and at every stage of life (Moen & Hernandez, 2009).

The specific feature of old age in the sense of post-employment life is that it is a comparatively undetermined or at least underdetermined phase of life in institutional terms. Against this background, a good part of the life practice of older people refers to the existential concern to make the unavailability of lifetime available via everyday time practices. The knowledge about life’s finitude is of major social relevance for the individual shaping of life, irrespectively of the more or less successful practices of repressing death itself. But not only the management of the finitude of life is given to all ageing people as a task of old age. The double coding of old age in the sense of its relief and its devaluation is also, in one way or another, part of older people’s experience. “[A]ll retirees face the same two challenges of retirement: to manage its threat of marginality and to utilize its promise of freedom” (Weiss, 2005: 14)—but it is by no means the case that all older people would or even could make the same out of it. It would therefore be necessary to really take seriously the invocation of the “diversity of old age,” a notion which all too often degenerates into a mere scientific-political phrase.

In conclusion, however, we must be self-critical in stating that our own qualitative research was ultimately unable to meet this goal of accounting for diversity. At all research locations, our sample shows a socio-structural imbalance in favor of (upper) middle-class households—an overrepresentation that inevitably also determines the research results presented here and that to a certain extent distorts them. Future research on old age and ageing is urgently asked to avoid the practical reproduction of social inequalities that this bias implies.

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# Age(ing) as Future: Future of Age(ing)

6

Frieder R. Lang, Stephan Lessenich, and Klaus Rothermund

## 6.1 Between Appreciation and Exclusion: The Paradoxical Politics of Age(ing)

Age and ageing in contemporary society are characterized by a fundamental, profound ambivalence. On the one hand, demographic change and the resulting expected increase in the presence of older people in social life are recognized as a social trend for the future. The “long life society,” in which a high life expectancy has become the norm, is seen as an achievement of civilization and a sociopolitical challenge. On the other hand, however, views and semantics of an “ageing society” continue to dominate the public discourse, with even scientifically framed positions sometimes contributing to promote threatening demographic scenarios. Paradoxically, the very political initiatives that aim to enhance the value of old age against this background ultimately undermine their own intentions by contributing to framing old age as a social problem.

In this mixed situation, the project *Ageing as Future* started with an intention to contribute to informing the “ageing society” about itself. Its findings, which are now available, are suitable for a different way of thinking about the presumed “problem” of age(ing): Specifically, the problem being one that late-modern society has with

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itself—and which, to put it casually, its older adults must pay for. In the following, we will develop this argument step by step.

The socially prevailing descriptions of old age are characterized by the fact that they are exaggerated in one or the other way and lack balance. Either they tend toward an idealization of old age, which is one-sidedly associated with positive qualities such as serenity, experience, and wisdom. Traditional views of sprightly, dignified old people then appear in idealized images of happy family gatherings, dominated by figures such as the grandmother telling pleasant stories while doing needlework by the fireplace or the grandfather who is buddy-buddy with his grandchildren and always ready to allow exceptions to the educational principles of their parents with a wink. On the other hand, however, and more often than not, a deficient image of this last phase of life, which now often lasts several decades (Lessenich, 2014), is shown. Accordingly, old age is characterized by limitations in physical and mental capacity, social networks seem to be thinning inexorably, so old people tend to be perceived as lonely people. At the same time, the financial burden of pension payments and care services for older people is regularly discussed, sometimes to the point that they live at the expense of younger people and would diminish the prospects of adequate provision in old age for the next generations. The past is then pitted against the future: While older people are denied their own future prospects, the social benefits and support they have acquired over the course of their lives are seen as a mortgage on the life chances of future generations.

As solutions to this supposed problem, two different paths are recommended to older people on which they can move toward the end of life—for their own good and that of the public. As contrasting as these two paths may seem at first, the norms of “a good old age” (de Paula Couto et al., 2022a; Rothermund, 2019) that underlie each of them equally promote the social devaluation and exclusion of old age. Although both age norms, that of disengagement and that of active ageing, contain positive elements, they often become converted into their opposite in social reality. When misused, both norms can nourish the collective wishful thinking that old age and older people should remain hidden from public attention: Be it because they restrict their interactions to their own age group and to their private lives (i.e., by adhering to the disengagement norm), or because they are able to adapt so successfully to their surrounding that they are no longer noticed as older people (i.e., by adhering to the norm of active ageing).

The norm of disengagement unquestionably reflects desirable aspects of old age. It is an expression of the possibility of shaping one’s life in old age free from external obligations and entirely according to one’s own ideas. It guarantees the freedom and the temporal resources to come to terms with the finitude of one’s own existence, to focus on the essential things in life, and to ultimately be able to “let go” and to bring one’s own life story to a good ending. The norm of active ageing, on the other hand, comes with the prospect of being able to participate in society even in old age by maintaining physical fitness and mental sharpness, and by taking an active approach to everyday life. Those who stay fit also remain socially alive and will be able to enjoy retirement as a time when life is anything but tranquilized.

Thus, as much as both age norms have positive implications, or at least could have, they turn into their opposite under the given social conditions. To solve the

“problems” of an ageing society, both norms are misused and perverted by the politics of ageing (Denninger et al., 2014). The norm of disengagement then becomes a norm of renunciation: Ideally, the disengaged, self-oriented older adults no longer make any claims, neither on their immediate social environment nor on the social community or on “politics.” The good old age becomes private, it takes place within one’s own four walls or behind the walls of institutionalized older people’s homes, and it is undemanding and self-sufficient. Nevertheless, it is precisely this self-sufficient type of old age which, because of its perceived non-sociality, even a-sociality, is always in danger of being portrayed as a social burden, as a social cost factor whose unproductive lifestyle is at the expense of the rest of society. Under this framing, disengagement implies renunciation, and even with far-reaching renunciation, the remaining demands are seen as critical consumption of scarce societal resources.

The constellation is exactly the opposite regarding the norm of active ageing, which in turn may represent a threat rather than an opportunity when becoming a productivity constraint. For not every activity in old age is able to satisfy the activation norm; rather, socially beneficial behaviors that serve the common good, from volunteering to caring for grandchildren, are primarily in demand. The activation norm then becomes a norm of what is considered to be age-appropriate behavior, which obliges older people to make their contribution in the service of the community—while at the same time forces them to actively keep themselves healthy, fit, and mobile, so that they can make their contribution for as long as possible. The participation opportunity embedded in the activation norm thus turns into an obligation to participate, the practical fulfillment of which is a prerequisite for the appreciation of old age.

Old age is construed as a problem that old people can only try to deal with by either renunciation of consumption or by active contributions to societal needs, without ever being able to fully meet expectations or to not be seen as a burden. This interpretive context is rooted in a deep-seated conviction, firmly anchored in both individual and collective consciousness, that life in old age is worthless. Here lies the core of the matter: in the generally shared certainty that “real” life takes place before and ends with entering old age—and thus long before death. Anyone who is “really” old has therefore nothing more to gain from life and has also nothing more to give. At most, it can then still be a matter of at least not being a burden to others—younger people. In the end, the only thing that helps is avoiding old age, either by fighting it and adapting to younger people or by disappearing from the scene and not disturbing the lives of others any further.

This societal conviction of the worthlessness of old age acquires an ethical quality in the individual and collective treatment of old age: It justifies the unequal treatment of older people, it makes their neglect and marginalization seem logical, it even asks for these inequalities. Older people have hardly any room left for self-confidence, because as soon as they appear in public at all, they are somehow always a nuisance: Sometimes they delay business, sometimes they give unsolicited good advice; if they do not adapt to social expectations, they are considered stubborn; if, on the other hand, they try to keep up and appear as young as possible, then they run the risk of being perceived as mortifying. Interestingly, the tendency to exclude older people by demanding inconspicuousness and modesty from them is, according to a recent study (Martin & North, 2021), particularly pronounced among

people who otherwise express strong egalitarian attitudes. On the one hand, they are massively opposed to sexism and racism; on the other hand, they are convinced that older people should not stand in the way of the younger generation. The age category thus stands, much more than the gender or race categories, for the counter-image of a successful life, for what is socially undesirable and to be split off from one's own self—which makes unequal treatment appear not only appropriate but even a necessity according to the norm of fairness.

In this respect, it is not surprising that the widespread forms of both everyday and institutionalized discrimination against older people attract little public attention or even criticism. In essence, the numerous discriminatory practices older people face (Ayalon & Tesch-Römer, 2018; Rothermund et al., 2021b; Rothermund & Mayer, 2009) have broad social acceptance, if not explicit approval. This is particularly true of rigid age limits in working life and in the transition to retirement: In many (mostly European) countries, there is a statutory exit from the labor market that is linked to a certain chronological age (e.g., 67 years in Germany). These strict age limits are sometimes abstractly problematized as being too rigid and inflexible and possibly also criticized in concrete terms when people are personally affected by it. In all other respects, however, when it comes to the old “others”, the regulated generational change in the company—despite all the talk of mixed-age teams—is still considered to be functional in economic and organizational terms.

At the same time, the contradiction remains unaddressed, namely, that precisely those people who have just been (dis)qualified as being “too old” for the first labor market are simultaneously targeted by a state engagement policy that never tires of emphasizing the importance, indeed indispensability, of social productivity in post-employment life. Similarly paradoxical are the calls and reminders to take precautions and to prepare for one's old age that older people are confronted with in an increasingly urgent manner: What initially appears as a societal conviction that preparation for and economic security in old age is important and meaningful suddenly becomes a political expectation directed at the ageing population. It is not public institutions that are held responsible for generally shared needs for provision, instead, the individual subjects—here older people—are required to take care of themselves and their own future.

Interestingly, the social idea of the worthlessness of life in old age, which is the major source of the diverse mechanisms of age discrimination, is also internalized by older people themselves, thus contributing to the reproduction of practices that devalue and exclude old age, or subjectively prolong and thereby cement such practices. The fact that the unequal treatment experienced socially by older people is duplicated in the form of self-discrimination (Rothermund, 2018; Rothermund et al., 2021a, b; Voss et al., 2018a) does not, of course, mean that they are “themselves to blame” for their social exclusion. Rather, it points to the complexity of the foundations and to the widespread appeal of the “social imaginary” of life being worthless in old age (Higgs & Gilleard, 2021) that underlies the social phenomenon that is referred to in international scientific as well as political debates as “ageism” and for which, quite significantly, there does not even exist a distinct word in some languages (e.g., in German). We will return to this point later.

## 6.2 Of Variability and Vulnerability: There Is Nothing Like Age(ing) per se

The manifold forms of factual devaluation of old age and everyday practical exclusion of older people culminate in recurring debates about a possible “abolition of old age”: What if the biological ageing process could be slowed down, stopped, postponed? What if it were possible to “defeat” ageing by means of medical technology? What at first seems to be a somewhat whimsical, playful continuation of classical ideas of the fountain of youth and timeless utopias of eternal life, nevertheless provides deeper insights into the tendency to not take the reality of old age and ageing seriously in our time. The imagination of a life without old age and a society without the old is ultimately only the radicalization of prevailing practices of reinterpreting old age on the one hand (e.g., in the idiom of the “young old”; van Dyk & Lessenich, 2009b), and on the other hand of its individual denial and collective repression: “Old” is then basically a designation of something that is different from regular life, and the “really” old only get to see relatives and the nursing staff. In the depth of psychosocial dealings with the unavoidable fact of ageing, we see a fatal escape from the reality principle: The old are punished for embodying the social fact of old age(ing), for holding up to us the mirror of our personal future—presented as a story of decay (Martens et al., 2005).

Yet old age and ageing are actually quite different from what is painted in the negative views that feed the bad utopia of society as an age-free zone. This is probably the most important empirical finding of the project *Ageing as Future*: Old age is not a uniform phenomenon; it is as diverse as life itself. There is also nothing like old age “as such,” because growing older is a process, a constant ageing that knows no clear boundaries and thresholds. In fact, ageing is a long quiet river that does not flow into the sea of old age at a fixed date—be it the departure of the youngest child or the death of the partner, the day of retirement, or the 80<sup>th</sup> birthday. The paths to old age, the individual courses of the rivers of ageing, so to speak, are extremely diverse; none is truly identical to the other. Even after critical life events such as a stroke or the diagnosis of a fatal illness, not all biographies are gray; even then, a wide variety of ways of dealing with the perhaps elementary experience of ageing can be observed: That things in life are suddenly no longer as they were before.

Our quantitative and qualitative findings show a remarkable variability of age(ing) in two respects: *between* individuals and *within* individuals. The variability of age(ing) *between* individuals refers to its *social-structural* dimension. There is no less diversity of life situations, life courses, and lifestyles among older people than among younger people, that is, people in adolescence or adulthood. How and why should it be any different? Why should millions of people who grew up in very different parental homes in their younger years come from very different social milieus, have gone through very different educational paths, can look back on very different employment biographies, are integrated into very different family constellations and social networks, have very unequal financial opportunities, and so on: why should this diverse assortment of people, as they transition into retirement or reach a certain chronological age—whether 70, 80, 90, or 100—all of a sudden converge,

merging all at once into an amorphous mass of “old people” who exhibit uniform social characteristics and psychological dispositions? To pose the question in this way is to declare absurd the background assumption of a uniform, homogeneous phase of life called “old age.” And yet, the homogenization of “old age” is common social practice: Depending on one’s point of view, all older people are considered to either enjoy being home or enjoy traveling, to either be spry or decrepit, well off or threatened by poverty, stubborn or wise. Whether they are to be envied or pitied, a burden, or an opportunity, the most common thing is to make the simplest possible collective judgment about old age and the old.

Contrary to that idea, the social reality of old age in the early twenty-first century, as it emerges in the findings of the project *Ageing as Future*, stands in sharp contrast to such undifferentiated and one-dimensional views on ageing. Both individual and institutional, material, and cultural factors contribute to the inherently multidimensional heterogeneity of old age. Different personality traits and formative life experiences influence the different ways in which people deal with issues such as preparing for old age or structuring their daily lives in old age. Equally, factors such as their own family circumstances, their (objective and subjective) state of health, or their endowment with financial resources and educational capital can be important. The rather low normative and institutional imprint of older age compared to other phases of life is also responsible for its many faces (Riley et al., 1994): After leaving the labor force, there are no longer any chronologically fixed events or tasks (such as compulsory schooling) or social transitional norms (such as moving out of the parental household at the latest when starting one’s own family). Instead, older people are free to decide whether they remain as long as possible in their current living environment or, on the contrary, whether they make an early effort to switch to forms of assisted living; they may choose to live alone for decades, or they may remarry even at the highest age, possibly also with persons of their own sex.

To avoid any misconceptions: It is not the case that in old age “everything is possible,” both individually and structurally (which, of course, is by no means the case even in younger years). But empirically, there is a wide variety of life design patterns and realized life plans also among older people. In turn, cultural factors are important for their range and specific design, which could be shown in the context of our project, especially through the international comparative perspective: From the question of when a person is considered “old” to that of what meaning is ascribed to the end of life or the finitude of life and what practical consequences this attribution of meaning has, striking differences are found not only between older people within a country but also between older people of different age cultures. These differences obtained not only between Western and East Asian societies (represented in our project by Hong Kong and Taiwan), but also between the European and the North American cultural contexts (e.g., the US-American practice of old-age employment, i.e., the absence of a mandatory retirement age policy, which seems extremely “foreign” in a German background of experience, has already been mentioned here).

Perhaps even more surprising and in contrast to the common understanding of old age as a homogeneous phenomenon is the fact that there is a high degree of

variability in age-related beliefs and experiences not only between individuals but also *within individuals*, that is, within a single person. A central research interest of our project was related to exactly this intraindividual diversity of age(ing), more precisely to its context-dependence and domain-specificity. Our findings impressively show exactly this: Different life domains each have their own criteria and rules of being old. In addition, each older person has different abilities and resources, options for social connections and relations in different life domains, leading to different self-evaluations in these contexts. One and the same person can, for example, experience themselves as “old” in the domain of work and occupation because they feel set back within the company or not valued in terms of their competencies and qualifications. Simultaneously the same person may still perceive themselves as clearly “younger” in the domain of partnership and family, whether because they have entered into a new love relationship or because they are developing new life relationships as a result of the birth of grandchildren.

It is not only the subjective perception of age and ageing that varies depending on the life domain. Personal evaluations of old age and older people are also strongly dependent on which life domain the people we surveyed had in mind: If, for example, older people are seen as being in their element with regard to religious life, they are more likely to be seen as being in a deficient position with regard to their social life. These perceptions about older adults’ lives or about life in old age, in turn, change across the lifetime: Younger people tend to have more negative views of old age(ing) than those for whom old age and the experience of old age are already a personal reality. In this regard different life domains are also important: In the domains of work and health, for example, with approaching old age people become more inclined to credit old age—and their own ageing—with positive attributes and to picture it in a less gloomy light. On the other hand, when it comes to family, friends, and leisure time, 50- to 60-year-olds, i.e., those who are about to but have not yet transitioned to old age, have the most negative views of old age—a seemingly paradoxical distancing from the age group to which they themselves will soon belong. Just like positive ageing experiences in a life domain that is of high personal importance can brighten the overall picture of old age or transfer to the assessment of other life domains, similar generalization effects can also occur with negative views of ageing that taint the outlook on ageing in other domains or in general. In this respect, both positive and negative spirals in the individual handling of ageing experiences are conceivable, including such dynamics during which older people “adjust” themselves in a world of objectively limited possibilities and perhaps even feel comfortable in it (Ong et al., 2009; Rothermund & Brandstädter, 2003b; Ryff et al., 1998).

In addition to variability, however, a second meta-finding of our empirical study needs to be reported at this point, namely, the *vulnerability of old age*. This result of the *Ageing as Future* project again has two dimensions, because the vulnerability of old age can be understood in such a way that on the one hand vulnerability *restricts* the variability just described and on the other hand—in an opposite way—*strengthens it at the same time*. This complex connection, which may seem confusing at first, will be briefly explained in the following.

On the one hand, old age can be described as a particularly vulnerable phase of life (Kruse, 2017). Vulnerability is a defining characteristic of human life, at basically any age: As social beings, we are existentially dependent on others, on their care and concern, from the first to the last day of our lives. No human being is truly autonomous—*independent*—in the conduct of their life; everyone, even the supposedly strongest, is in need of support from others, and vulnerable in that very neediness. Going beyond this fundamental vulnerability, which is constitutive of being human, however, there is indeed a specific vulnerability at the end of life—and the commonsense concept of old age is ultimately only a cipher, technically speaking a *proxy variable*, for precisely this form of social dependence that is specific for old age. To the extent that, with advancing age, experiences of illness and the need for care simply become statistically more probable, to the extent that the decrepitude of life announces itself on the horizon and life becomes recognizable as a long path “towards death,” the vulnerability of their existence becomes a shared body of knowledge of older—“very old” —people. In this respect, and only in this sense, one can speak of a standardization of living conditions and a de-differentiation of within-person capacities and resources in old age (e.g., La Fleur et al., 2018): What older people objectively share with each other is their increasingly scarce remaining lifetime, their relative proximity to death.

On the other hand, however, there are also variable states of vulnerability among older people, even among the oldest of the old. Apart from the general truth that is valid for people of all ages that every day lived brings us one step closer to death (which, although general, leads to social exclusion tendencies only with regard to the “really” old), it must be noted that by no means every older person is vulnerable to the same degree. This holds already for fundamental facts as their subjective remaining life expectancy, on which older people of the same age differ massively, and even more so regarding their desired longevity (de Paula Couto et al., 2023; Lang & Rupprecht, 2019a; Rupprecht & Lang, 2020). Not all older people want to maximize their lifespan, and by no means all of them think they will reach a certain age, such as living to see their 80th birthday. Statistically, too, not every very old person is subject to the same objective risk of having to face fundamental limitations to their quality of life, with different lived biographies being associated with massively different prospects. Even more importantly, the possibilities and abilities to deal with such limitations—should they actually occur—in a satisfactory way, are certainly not equally distributed. Thus, although it is true that all people are vulnerable in old age, their vulnerabilities are not the same. Instead, age-related vulnerability and coping with vulnerability depend on material resources and social networks, on biographical experiences and on personal ego strength.

The future actions of older and ageing people are shaped by this constellation of ultimately differentiated vulnerability: With the increasingly concrete life experience of vulnerability, the subjective urgency to make provisions for the contingencies of old age in the form of insurance and living wills also increases. However, the age at which this sense of urgency sets in, whether at 70 or already at 40, and how it then translates into practical action, depends on the circumstances of each

individual case (Lang & Rupprecht, 2021). The vulnerability of old age is thus not the destroyer of all inequalities; on the contrary, it only sets the shared framework within which the social diversity of ageing emerges.

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### 6.3 Appreciating Age(ing): But How?

Old age and ageing, as it should have become clear by now, is an ambivalent experience—for the ageing people themselves as well as for a society that is confronted with the collective reality of a long and constantly lengthening life but does not quite know how to deal with it. The world of ageing is no less ambiguous for ageing research, that is, for those who observe the individual as well as the societal ageing process from a scientific perspective, which itself is never completely free of normative judgments. As such a “biased” science committed to its research object, gerontology, and ageing research face a dilemma that is hardly manageable: In principle, these sciences would like to avoid the age category and its often negative social connotations, without, however, preaching the abovementioned doctrine that “age can be abolished”.

In the light of the unavoidable fact that the demarcation of a certain phase of life—the phase of “old age”—from other phases of life also leads to an exclusion, at least categorically, and thus possibly unintentionally paves the way for processes of social exclusion, ageing researchers age might be inclined to dispense with the category of age altogether. However, as much as this is a contradiction in terms and would not be an appropriate scientific or socio-political solution to the aforementioned problem, ageing research will continue to be in danger of contributing to the “segregation” of age.

However, it is precisely the societally special status of old age that should be avoided in the future, according to the common conclusion drawn from our interdisciplinary research on *Ageing as Future*, which has been conducted for more than a decade. For every social assignment of a special status, no matter how well-meaning the intention, tends to backfire like a boomerang on the group that is provided with this demarcation feature: The most recent experiences with the construction of older people as a “risk group,” whose increased vulnerability to the coronavirus has been used to justify their isolation in nursing homes and thus their social exclusion, can be taken as evidence of this connection (Ayalon et al., 2021). However, instead of standardizing “the older people” in large groups and characterizing them as “special”—whether in need of protection, in want of productivity, or worthy of worship—it would be time to understand and negotiate “old age” simply as what it basically is: just another phase of life. Nothing else (and “different”), as self-evident as the previous stages of life, and as the possibly still following ones.

Collectively and matter-of-factly accepting the social reality of a long life, and thus of an individually prolonged old-age life, would be the key to the personal recognition of old age as an independent phase of life, as a period of life of its own right and quality. Both sides of the experience of old age, the individual and the

collective, the personal as well as the social, are closely intertwined: The actors and institutions of old-age policy are called upon to take into account the variability and vulnerability of old age outlined here, so that not only a few privileged older people, and also not only a majority of older people, but actually all older people are empowered to recognize and realize old age as a period of life that promises a meaningful present and future, and is experienced as a source of personal life satisfaction.

Only if older people have the chance to participate in and thus become part of societal reality and only if they can choose from a set of different possibilities and opportunities will it be possible to structurally improve the quality of life of older people. These outcomes are commonly understood as resulting from purely individual competencies and qualities but should instead consistently be framed as social and societal problems. This requires a radical shift in perspective: The willingness and ability to accept the reality of ageing and to recognize old age as opening unique possibilities for new experiences would finally no longer be solely considered as challenges for ageing individuals, but would be discussed as what they are, namely, as public issues (Mills, 2016).

The “society of long lives” will only do justice to this designation if it is understood by all as a new social constellation in which it is not only statistically “normal” to enjoy a longer life, but in which there is, as a matter of course, a “right to be old”—or, formulated more generally, the equal right in any phase of life to be allowed to be as one is, including “being old,” in case of doubt.

This, in turn, would mean breaking the reproduction cycle of extremely negative views of old age (mostly projected onto the highest, “fourth” age, Higgs & Gilleard, 2015, 2021) and countering the extreme biologism of the debate on old age, which is expressed in mottoes like “health is the most important thing” or even “without health everything is nothing.” In this sense, gerontology and ageing research should also critically examine its own implicit normative assumptions and should break away from its widespread orientation towards questions of health promotion, medicalization, and activation—in particular its fixation on the functionality of age and the instrumentality of the old (Kocks & Unkhoff, 2021). Much would be gained in terms of age-related policy if at least scientific interest were directed primarily toward those topics that are of real importance for older people and their life satisfaction in old age: That is, on questions of material resources and social integration, social participation, and recognition.<sup>1</sup>

Regarding the social categories of gender and race, the political-social struggle over such issues of recognition is commonplace today. Sexism and racism, #metoo and #blacklivesmatter are now—and rightly so—receiving a great deal of public attention. For the time being, however, this does not apply to age and its recognition deficits: #themtoo or #oldlivesmatter are unknown as hashtags. *Ageism* is not only generally uncommon as a political concept designating a relevant societal problem;

<sup>1</sup> In this sense, too, we would like to express our gratitude to the Volkswagen Foundation: Its generous and long-term project funding was the prerequisite for research that differs significantly from the psycho- and socio-gerontological mainstream.

in German-speaking countries, there is not even a word for this phenomenon. Introducing the topic of ageism into the social debate would be an invaluable advance for age(ing) policy, but also in the longer term for improving the living conditions of older people. Should the present book be able to contribute, even modestly, to this progress, it would have served its purpose.

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# Appendices

## Appendix A: Overview of Scales, Variables, and Interview Guides

### A1 Central Variables and Scales of the Questionnaire Study (Table A1)

**Table A1** Overview of central variables collected in the questionnaire study (if no reference is given, the scales were developed for the present study)

Scale/variable	Capture	Measurement time points <sup>a</sup>
<i>Age-related attitudes and experiences</i>		
Views on ageing	Domain specific Personalized (“me as an older person...”) vs. general (“older people...”) Present vs. future	T1, T2, T3
Prescriptive views on ageing	Activation vs. Disengagement (dimensional) No burden	T3
Age thresholds	Domain specific	T1, T2
Attitudes towards life in old age	Active engagement vs. enjoyment (dimensional)	T1, T2, T3
Age discrimination	Domain specific Personal experience (“I was discriminated against because of my age...”) vs. social expectations (“older people are discriminated against...”)	T3
Situation of older people in society	Participation/exclusion, care, respect Current vs. future-related	T2
<i>Preparation for Old Age</i>		
Preparatory behavior	Domain specific	T1, T2, T3
<i>Experience of time</i>		
Subjective age	Domain specific and global	T1, T2, T3
Age	Expected and desired Under impairment (only T3)	T1, T2, T3

(continued)

**Table A1** (continued)

Scale/variable	Capture	Measurement time points <sup>a</sup>
Time and future perspective	Concreteness/openness, obsolescence, orientation to the past, finitude (modified from Brandtstädtter et al., 1997)	T1, T2, T3
<i>Cultural variables</i>		
Self-definition	Individualistic (independent) vs. collectivistic (interdependent; after Gudykunst & Lee, 2003)	T2
Social relations	Independence vs. connectedness Domain specific	T3
Values	Conformity, security, morality, achievement, power (modified from Schwartz, 1992)	T3
Social expectations	Expected support from the state	T3
<i>Reference variables</i>		
Life satisfaction	Domain specific and global	T1, T2, T3
Critical life events	Domain specific	T2
Control	Domain specific and global	T2, T3
Personality	Big Five (Lang et al., 2011).	T2
Social network	Contact with older people Domain specific	T3
Coping dispositions	Flexibility of goal adjustment, Tenacious goal pursuit (Brandtstädtter & Renner, 1990)	T1

Note:<sup>a</sup> T1: 2009 (D), T2: 2014 (D, USA, HK), T3: 2019 (D, USA, HK, TW, CZ)

## A2 Central Variables and Contents of the Online Survey (Table A2)

**Table A2** Overview of central variables collected in the online survey (if no reference is given, the scales were developed for the present study)

Scale/variable	Capture	Measurement time points <sup>a</sup>
<i>Age-related attitudes and experiences</i>		
Views on ageing	Perceived start of the old age phase Views on ageing (Kornadt & Rothermund, 2012) Age stereotypes (Kornadt & Rothermund, 2011a)	T2, T3, T4
<i>Preparatory behavior and future action</i>		
Preparatory behavior	Domain specific (5 domains) Subjective deadlines of preparation Perceived benefits and risks of precautionary action Subj. control/importance of preparations Behavioral preparatory activities Motivation for preparation	T0, T1, T2, T3, T4
<i>Experience of time</i>		
Subjective age	In years + related to life position	T0, T1, T2, T3, T4
Lifetime	Expected and desired Under impairment (only T3)	T0, T1, T2, T3, T4

(continued)

**Table A2** (continued)

Scale/variable	Capture	Measurement time points <sup>a</sup>
Subjective time acceleration	Context- and activity-specific experience of time in everyday life (John & Lang, 2015)	T0, T1, T2, T3
Time and future perspective	Transformational future perspective Future time perspective (Lang & Carstensen, 2002) Optimism (Scheier & Carver, 1985) Obsolescence, finitude (Modified from Brandstädter et al., 1997)	T1, T2, T3, T4
<i>Cultural variables</i>		
Self-definition (self-construal)	Individualistic vs. collectivistic (Gudykunst & Lee, 2003)	T2, T3, T4
Generativity	Generative thinking and acting (McAdams & de St. Aubin, 1992)	T1, T2, T3, T4
<i>Reference variables</i>		
Life satisfaction and well-being	Current and in 5 years Depression (BDI-K5) Affect (PANAS6, Watson et al., 1988)	
Health	Subjective health (Ware et al., 1995) Health behavior Everyday activities	
Personality	Big Five (Lang et al., 2011)	T1, T2, T3, T4
Technology acceptance	Subjective technique adaptivity inventory (STAI, Kamin & Lang, 2013)	T4

Note:<sup>a</sup> T0+T1: 2009+2012, T2: 2014 (D, USA, HK), T3+T4: 2016+2018 (D, USA, HK, TW, CZ)

### A3 Structure and Content of Interview Guides (Table A3)

**Table A3** Summary of the interview guidelines of the qualitative subproject

#### *Interview contents 1st survey wave*

- What do you associate with retirement?
- How long have you been retired? How has the transition been?
- How has your retirement evolved? (From the first day until today)
- Do you have a lot of time? (More today than in the past?)
- Change in the perception of time in recent years? (Acceleration, deceleration?)
- Yesterday's schedule (morning to evening)
- Postcard interpretation: What most symbolizes age for you?
- Does time pass more quickly in old age?
- Are you taking precautions? (Which ones, since when, why...)
- Need for more time? (Lifetime, everyday time?)
- Lifeline interpretation: graphical representation of the course of one's own life
- How do you explain (to a child, for example) the finite nature of life?
- Reflection on or presence of death (dying)
- How old do you feel? How old would you like to become?
- Plans or wishes for the future

(continued)

**Table A3** (continued)*Interview contents 2nd survey wave*

- Request for narration of the most important stages (stations) of life  
 Stages with age reference?  
 Future stages  
 Relevance of (round) birthdays  
 Do you have an age in mind that you would like to reach? Why?  
 Health limitations in old age (at what point is one no longer independent)  
 What role do health restrictions play for you?  
 Are you prepared for the need for care (dependency)?  
 Does your age affect how other people treat you?  
 How would you describe a “good” old age?  
 Yesterday’s schedule: Was yesterday a good day? Why (not)?  
 Ideas about what will happen in the next few years, life in the future
- Excursus for international project participants:*  
 Do you own a smartphone? Since when? Occasion?  
 Evaluate technical developments to help with continued self-sufficiency

**Appendix B: Sample Descriptions****B1 Participants of the Questionnaire Study (Table B1)**

**Table B1** Sample sizes, demographic information, and proportion of longitudinal participants in the questionnaire study at the three measurement time points in the participating countries

	D	USA	HK	TW	CZ
<i>T1 (2009)</i>					
N	768	—	—	—	—
Age <sup>a</sup>	55.3 (30–80)	—	—	—	—
Gender <sup>b</sup>	49.5%	—	—	—	—
Income <sup>c</sup>	4.60	—	—	—	—
Education <sup>d</sup>	4.84	—	—	—	—
<i>T2 (2014)</i>					
N	828	572	500	—	—
T1–T2	593	—	—	—	—
Age <sup>a</sup>	59.0 (33–84)	56.3 (26–89)	58.8 (35–95)	—	—
Gender <sup>b</sup>	49.6%	51.7%	55.9%	—	—
Income <sup>c</sup>	4.92	5.85	4.67	—	—
Education <sup>d</sup>	4.96	6.04	3.06	—	—
<i>T3 (2019)</i>					
N	790	494	524	660	619
T2–T3	623	315	317	—	—
T1–T3	514	—	—	—	—
T1–T2–T3	459	—	—	—	—

(continued)

**Table B1** (continued)

	D	USA	HK	TW	CZ
Age <sup>a</sup>	63.4 (39–90)	57.8 (20–96)	62.5 (39–99)	60.8 (34–95)	61.9 (26–95)
Gender <sup>b</sup>	51.1%	53.2%	54.4%	54.4%	53.8%
Income <sup>c</sup>	5.14	6.19	4.68	3.11	2.93
Education <sup>d</sup>	5.00	6.21	3.22	4.52	2.08

Note: <sup>a</sup> mean, range; <sup>b</sup>%♀; <sup>c</sup>monthly household net income (converted) in euros: 1 (0–500 euros), 2 (500–1000 euros), 3 (1000–1500 euros), 4 (1500–2000 euros), 5 (2000–3000 euros), 6 (3000–5000 euros), 7 (5.000–10,000 euros), 8 (>10,000 euros); <sup>d</sup>according to the International Standard Classification of Education (ISCED 2011; UNESCO Institute for Statistics, 2012): 0 – no primary education, 1 – primary education (ended i. (usually at age 10–11), 2 – lower secondary school or comparable qualification, 3 – higher secondary school qualification (intermediate school leaving certificate or Abitur), 4 – further post-school education (apprenticeship or comparable), 5 – higher education without qualification, 6 – university studies with intermediate diploma or bachelor's degree, 7 – university studies with diploma or master's degree, 8 – doctoral studies with doctorate

## B2 Participants in the Online Survey (Table B2)

**Table B2** Sample sizes, demographic information, and proportion of longitudinal participants in the online survey at the five measurement time points in the participating countries

	D	USA	HK	TW	CZ
<i>T0 (2009)</i>					
N	699	–	–	–	–
Age <sup>a</sup>	42.9 (18–90)	–	–	–	–
Gender <sup>b</sup>	72.1%	–	–	–	–
Income <sup>c</sup>	2.6	–	–	–	–
Education <sup>d,e</sup>	3.6	–	–	–	–
<i>T1 (2012)</i>					
N	573	–	–	–	–
T0–T1	97	–	–	–	–
Age <sup>a</sup>	52.8 (18–90)	–	–	–	–
Gender <sup>b</sup>	68.6%	–	–	–	–
Income <sup>c</sup>	3.2	–	–	–	–
Education <sup>d,e</sup>	3.6	–	–	–	–
<i>T2 (2014)</i>					
N	488	301	308	–	–
T1–T2	252	–	–	–	–
Age <sup>a</sup>	50.6 (18–90)	51.6 (20–85)	55.0 (18–85)	–	–
Gender <sup>b</sup>	60.1%	51.2%	55.5%	–	–
Income <sup>d</sup>	3.1	5.6	4.5	–	–
Education <sup>c,e</sup>	3.7	5.8	3.3	–	–
<i>T3 (2016)</i>					
N	1014	180	231	281	–
T2–T3	259	169	184	–	–
T1–T3	208	–	–	–	–
Age <sup>a</sup>	40.1 (18–93)	54.7 (22–87)	61.5 (38–87)	61.5 (32–87)	–

(continued)

**Table B2** (continued)

	D	USA	HK	TW	CZ
Gender <sup>b</sup>	52.2%	55.6%	48.5%	52.3%	–
Income <sup>c</sup>	3.0	5.9	4.6	4.5	–
Education <sup>d</sup>	4.7	5.9	3.0	2.9	–
<i>T4 (2018)</i>					
N	591	140	348	446	529
T3–T4	338	123	211	92	–
T1–T4	218	–	–	–	–
Age <sup>a</sup>	52.6 (18–93)	56.2 (24–89)	57.5 (21–96)	58.8 (34–89)	54.7 (20–90)
Gender <sup>b</sup>	57.9%	55.7%	50.0%	56.5%	55.2%
Income <sup>c</sup>	4.5	5.0	5.0	3.4	3.1
Education <sup>d</sup>	5.4	6.1	3.6	3.6	4.6

Note:<sup>a</sup> mean values (range); <sup>b</sup>%♀; <sup>c</sup>monthly household net income (equivalent per country) in €: 1 (€0–500), 2 (€500–1000), 3 (€1000–1500), 4 (€1500–2000), 5 (€2000–3000), 6 (€3000–5000), 7 (€5000–10,000), 8 (>€10,000); <sup>d</sup>education in years: ISCED classification, 1 primary/less, 2 lower secondary, 3 upper secondary, 4 post-secondary non-tertiary B., 5 short tertiary B., 6 bachelor's/ equivalent B., 7 Master's/equivalent B., 8 Ph.D.; <sup>e</sup>Education in T0–T2 in D. without tertiary B. with 1 no degree, 2 elementary/middle school degree, 3 junior high school degree, 4 high school diploma or similar

### B3 Participants of the Qualitative Interviews<sup>a</sup> (Table B3)

**Table B3** Sample sizes, demographic information on participants in the interview study for the two measurement time points in the participating countries

	D	USA	HK	TW	CZ
<i>First survey wave</i>					
Gender:					
Female	28	15	16	16	
Male	22	15	14	16	
Age:					
55–64 years	7	0	3	8	
65–74 years	22	10	12	10	
75–84 years	12	14	15	9	
85–94 years	9	6	0	5	
Family status:					
Single	1	2	0	1	
Married	30	12	23	28	
Divorced	9	6	0	0	
Widowed	10	10	7	3	
Household income <sup>b</sup>					
High (> 3000€)	12	13	10	0	
Medium (1701–3000€)	18	11	7	6	
Low (901–1700)	18	1	10	10	
Poverty risk (< 900€)	2	1		1	
Unknown	0	–	3	15	

(continued)

**Table B3** (continued)

	D	USA	HK	TW	CZ
<i>Second survey wave</i>					
Gender:					
Female	18	16	15	19	17
Male	12	14	15	11	13
Age:					
55–64 years	0	0	0	0	0
65–74 years	6	11	12	8	7
75–84 years	16	13	14	15	19
85–94 years	8	6	4	7	4
Family status					
Single	3	5	1	1	0
Married	11	8	21	14	15
Divorced	3	6	0	1	4
Widowed	13	11	8	14	11
Household income <sup>b</sup>					
High (> 3000€)	7	10	4	1	0
Medium (1701–3000€)	16	7	18	9	10
Low (901–1700)	6	13	5	6	18
Poverty risk (< 900€)	1	0	3	—	2
Unknown	—	—	—	14	—
Interviewees (N = 292), per country	80	60	60	62	30

*Note:*<sup>a</sup> The numbers of cases per cell with valid values are shown. <sup>b</sup>The threshold values shown are taken from the German survey; for the other countries studied, the values were adjusted to reflect the respective national income structure

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