

Empirical Articles

Adjustment to Aging, Subjective Age and Age Representation: Assessing a Nationally-Diverse Population of Older Adults

Sofia von Humboldt^{*a}, Isabel Leal^a, Filipa Pimenta^a, Georgeta Niculescu^b

[a] Research Unit in Psychology and Health, I&D, ISPA – Instituto Universitário, Lisboa, Portugal. [b] Romanian Association of Person-Centered Psychotherapy, Bucharest, Romania.

Abstract

Aim: This research sought to analyse older adults' conceptualization of adjustment to aging (AtA), subjective age (SA) and age representation (AR), adding a cross-national comparative perspective to aging well. **Method:** Questionnaires were completed, assessing participants' background information. Semi-structured interviews were performed, addressing three core areas: SA, AtA and AR. Complete information on 231 older adults aged between 74-102 years ($M = 83.1$; $SD = 6.692$) from four different nationalities, was available. Data was subjected to content analysis. **Results:** Seven categories were identified to contribute to AtA: 'accomplishment, personal fulfilment and future projects', 'occupation, profession, autonomy and leisure', 'health status, physical and intellectual functioning', 'valorisation of time and age', 'family, social and interpersonal attachment', 'stability, quality and financial situation', and 'sense of limit and existential issues'. Five categories were identified for SA: 'with congruence', 'without concern', 'with apprehension', 'young-at-heart' and 'good enough'. For AR, eight emergent categories were found: 'future investment', 'reconciliation with life', 'present challenge', 'regret about the past', 'dynamic life', 'with contentment', 'as an opportunity' and 'with dissatisfaction'. **Conclusion:** This research contributes for a better understanding of what defines AtA, SA and AR in older adults. Moreover, interventions and communication approaches in clinical practice and program development in health care context should focus on shared perceptions of aging well.

Keywords: adjustment to aging, subjective age, age representation, aging well, older adults, content analysis

Psychology, Community & Health, 2012, Vol. 1(3), 285–299, doi:10.5964/pch.v1i3.50

Received: 2012-09-07. Accepted: 2012-10-26. Published: 2012-11-30.

*Corresponding author at: Psychology and Health Research Unit, R&D, ISPA – Instituto Universitário, Rua Jardim do Tabaco, 34, 1149-041 Lisboa, Portugal, email: sofia.humboldt@gmail.com



This is an open access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

In past decades, research on the health and functioning of older adults has tended to focus on the prediction of negative outcomes (e.g., morbidity and disability) (Maddox & Clark, 1992; Nagi, 1976; Pinsky et al., 1985). Yet, psychosocial approaches to successful aging include more than one definition: as a state of being or as a process of continuous adjustment (Baltes & Baltes, 1990; Franklin & Tate, 2009; Kahana & Kahana, 1996; Kuh & New Dynamics of Ageing (NDA) Preparatory Network, 2007; Lewis, 2011; Rowe & Kahn, 1997; Vaillant & Mukamal, 2001).

Adjustment to aging (AtA) is a multidimensional function of the dynamic interaction of elements such as autonomy, control, self-acceptance, personal growth, positive social network, purpose in life (Bauer & McAdams, 2004; Keyes, Shmotkin, & Ryff, 2002; Neri, Cachioni, & Resende, 2002; Ryff, 1989; Ryff & Keyes, 1995; Slangen-De Kort, Midden, Aarts, & Van Wagenberg, 2001; Staudinger & Kunzmann, 2005). In addition, because of inconsistent

empirical outcomes, the term 'adjustment' has declined its frequency of appearance in the gerontological literature (Kozma, Stones, & McNeil, 1991; Lohmann, 1977; Ryff, 1982).

Being satisfied with one's own aging is expression of positive self-perceptions of aging (Levy, 2003). To date, this has been the only construct used in studies of self-perceptions on aging (Levy, 2003). Positive self-perceptions of aging can serve to boost biophysiological functioning (Baltes & Smith, 2003; Kleinspehn-Ammerlahn, Kotter-Grühn, & Smith, 2008; Sneed & Whitbourne, 2005). Contrasting with chronological age, subjective age (SA) is a multidimensional construct that indicates how old a person feels (Barrett, 2005; Kleinspehn-Ammerlahn et al., 2008).

Furthermore, when representing age, Coupland, Coupland, Giles, and Henwood (1991) identified two major processes through which older adults make age identities salient: age-related characteristics (e.g., age-related category/role references and experiences) and temporal framing (e.g., adding time-past perspective to present events and association of the self with the past).

This paper reports a qualitative study with the objective of: (a) exploring older adults' perceptions of AtA, SA and age representation (AR) in a group of community-dwelling elderly, and (b) analysing major categories that had impact on the conceptualization of AtA, SA and AR for older adults.

Methods

Participants

The total sample comprised 231 eligible non-institutionalized, nationally diverse individuals, aged 74 and over ($M = 83.1$; $SD = 6.692$; range 74-102), 59.3% female, 62.8% married and 27.7% Romanian. The sampling of participants was based on the availability of participants, through senior universities' message boards, local and art community centres list-serves, in Great Lisbon, Great Bucharest and in the Algarve regions. Sampling was performed purposefully (Miles & Huberman, 1994), with the objective of facilitating the understanding of SA, indicators of AtA and AR. Participants were included when not diagnosed concurrent severe mental disorders according to DSM-IV and excluded if they had difficulty completing the Mini-Mental State Examination (MMSE) (Folstein, Folstein, & McHugh, 1975). MMSE was administered to all subjects by the first author in standardized procedures. Table 1 shows the characteristics of the study's participants.

Measures and Procedure

Semi-structured individual interviews were held in participants' own homes. Participants were provided with a brief description of the study over the phone or in-person and invited to participate in an in-person interview. All the participants gave their informed consent after the presentation of the study. One interviewer for each area, in a total of three, was previously provided with an explanation of the interview guide which included the objectives of the study and the structure, sequence and conceptual framework of the three questions. Moreover, an on-going help-desk line was also available for further queries until interviews' completion.

Each interview began with a set of background questions to find out about the informant's living arrangements, health, family, education and work.

Our interview schedule was general and open-ended. It was composed by three open-ended questions: "How do you feel about your age?", "I would like to understand what in your point of view, contributes to your adjustment

Table 1

Distribution of the Study's Participants According to Sociodemographic and Health-Related Characteristics

	German		Portuguese		Romanian		Brazilian	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<i>n</i>	52		59		64		56	
Age (<i>M</i> ; <i>SD</i>)	82.3 (6.825)		84.5 (6.323)		82.4 (6.637)		83.1 (6.939)	
Gender								
Male	20	38.5	25	42.4	28	43.8	21	37.5
Female	32	61.5	34	57.6	36	56.2	35	62.5
Education								
Primary school	3	5.8	2	3.4	0	0.0	5	8.9
Middle school	0	0.0	15	25.4	6	9.4	18	32.1
High school	26	50.0	33	55.9	26	40.6	17	30.4
University degree or a higher	23	44.2	9	15.3	32	50.0	16	28.6
Marital Status								
Married or in a relationship	20	38.5	49	83.1	40	62.5	36	64.3
Single	22	42.3	0	0.0	14	21.9	8	14.3
Widowed	10	19.2	10	16.9	10	15.6	12	21.4
Professional Status								
Active	32	61.5	20	33.9	31	48.4	26	46.4
Inactive	20	38.5	39	66.1	33	51.6	30	53.6
Family Annual Income								
≤10,000 €	0	0.0	22	37.3	14	21.9	17	30.4
10,001–20,000 €	21	40.4	30	50.8	28	43.8	18	32.1
20,001–37,500 €	20	38.5	3	5.1	12	18.8	9	16.1
37,501–70,000 €	6	11.5	0	0.0	3	4.7	4	7.1
≥70,001 €	5	9.6	4	6.8	7	10.8	8	14.3
Perceived Health								
Good	32	61.5	33	55.9	43	67.2	39	69.6
Poor	20	38.5	26	44.1	21	32.8	17	30.4

Note. Total sample, *n* = 231; *SD* = standard deviation.

to aging in this phase of your life.” and “How do you represent your age at this moment?”. These questions were elaborated to address three core areas: SA, AtA and AR.

All interviews were digitally-recorded verbatim and then transcribed to typed format for analysis.

All the participants' responses were subjected to qualitative content analysis, using the following procedure: (a) definition of major emergent categories, mutually exclusive, for each one of the three pre-existing categories (contributors to AtA, SA and AR); (b) creation of a list of coding cues; (c) analysis of verbatim quotes of participants' narratives that better link to emerging categories; (e) identification of sub-categories, while preserving the principle of homogeneity of the category; (f) derivation of emergent categories, through constant comparison within and across interviews allowing for the clustering of related sub-categories until the point of theoretical saturation was reached (Bardin, 2007).

Our structure of sub-categories and categories was then subjected to an external review and critical feedback was obtained from reviewers with experience with older adults. An independent analysis of the 231 interviews was performed by a jury of two psychologists (both faculty) and a final group co-resolution regarding the categories was made. Data were analyzed using SPSS for Windows (version 19.0; SPSS Inc., Chicago, IL).

The Portuguese Science and Technology Foundation (FCT) and ISPA – Instituto Universitário, approved the study. Informed consent was received from all participants and the study protocol was approved by the Research Unit in Psychology and Health's coordination.

Results

Categories of AtA

Findings indicated a total of seven categories of contributors to AtA: (1) 'accomplishment, personal fulfilment, and future projects', (2) 'occupation, profession, autonomy and leisure', (3) 'health status, physical and intellectual functioning', (4) 'valorisation of time and age', (5) 'family, social and interpersonal attachment', (6) 'stability, quality and financial situation' and (7) 'sense of limit and existential issues'. 'accomplishment, personal fulfilment, and future projects' (18.0%) was the most mentioned contributor to AtA, as evidenced in [Figure 1](#).

Accomplishment, Personal Fulfilment and Future Projects — Participants placed importance on having accomplishments, and having a role that was recognised by others (e.g., artistic projects and travelling).

"Working on my garden makes me feel integrated with the world. I like to watch things grow." (Participant 124) ([Table 2](#))

Being able to dream about the future and to imagine further alternatives, as a result of a creative productivity, was a major source of satisfaction. Creative work brought discipline and engagement, on one hand, and sense of loss of time and abstract reasoning, on the other.

"I am proud of all my creations." (Participant 7)

Respecting their own rhythm was an aspect pointed out by several participants.

"Keeping my own schedules and rhythm That's my own private self-indulgence." (Participant 71)

Occupation, Profession, Autonomy and Leisure — Profession, or occupation, was considered to contribute towards the maintenance of a sense of purpose and validity towards the others; thus, to maintain a frequent contact with profession colleagues and a continued involvement in professional activities enabled a feeling of empowerment.

"I'm still working as a doctor and in spite of my family saying that I am too old for working, I don't imagine myself staying at home in front of the TV." (Participant 112) ([Table 2](#))

Autonomy (e.g., income from their own work) was also verbalized by participants. Leisure (e.g., getting out of the house) was essentially a means for socialising with others with common interests.

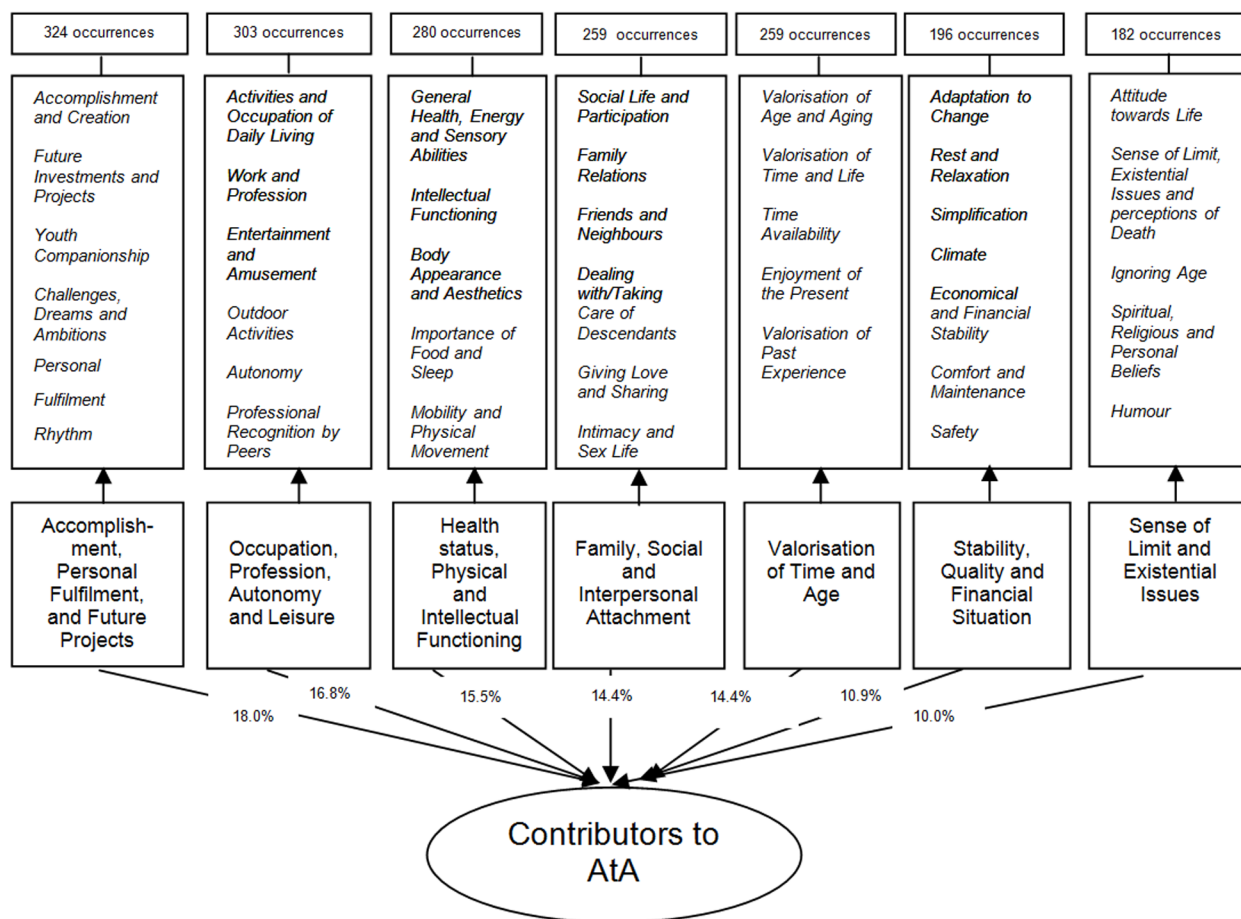


Figure 1. Emergent Categories Resulting From Content Analysis of the Pre-Category 'Contributors to AtA'.

Health Status, Physical and Intellectual Functioning — Participants indicated the importance of being healthy and physically well.

"All my sensory abilities are well." (Participant 43) (Table 2)

Health also impacted on opportunities to socialise. The aspects reported by the participants concerning their range of interests that older adults were able to pursue (e.g. distant holidaying) were shortened by, for example, lack of medical insurance.

Valorisation of Time and Age — Older adults expressed that old(er) age brought with it an increased amount of free time, mainly because of retirement.

"I am aware that I have much more free time now and that I can establish my priorities." (Participant 122) (Table 2)

Family, Social and Interpersonal Attachment — Family, neighbours, friends and professional peers were indicated as the main sources of support and key contributors for AtA.

"My children are always with me. They help me with everything they can." (Participant 113) (Table 2)

Participants also referred to friendships from different stages in their lives, namely from their children's school days.

Stability, Quality and Financial Situation — Comfort was considered very important for these participants. With this, came along the repeated desire of life simplification and increased value is attributed to the experiences' quality.

"It makes me feel comfortable to know that I have my own house." (Participant 11) (Table 2)

Sense of Limit and Existential Issues — Older adults showed a significant level of introspection, referring the uncertainty of not knowing how to cope with future loss of autonomy, of intellectual and physical abilities, of lack of dear ones, and of future death.

Optimism towards life, together with the contribution of humour, was verbalized as contributing to AtA.

To discover meaning in old age, a small number of older adults returned to faith-based endeavours. Older adults who referred having a positive attitude towards old age, both in their youth and in the present also succeeded in maintaining congruence in their internal accord of expectations and reinterpretation of life goals.

"I believe in something higher than us." (Participant 36) (Table 2)

Categories of SA

Moreover, findings suggested five emergent categories of answers for SA: (1) 'with congruence', (2) 'without concern', (3) 'with apprehension', (4) 'young-at-heart' and (5) 'good enough'. 'With congruence' (28.0%) was the most mentioned SA, as seen in Figure 2.

With Congruence — Participants verbalized that they felt in congruence with their present age, as it corresponded to their expectations at the present moment.

"I feel well about my age. I know I am 88 years. I have my house, my daily life, my friends, I feel I can still do everything I want." (Participant 93) (Table 2)

"I feel congruent about my age. I don't avoid thinking about it." (Participant 79)

Without Concern — Participants mentioned no concerns for their age. Moreover, they verbalized that aging was not a worry for them.

"I don't worry much about my age." (Participant 102)

"I don't worry about getting old." (Participant 133) (Table 2)

With Apprehension — Participants indicated that they were uneasy about their age and exemplified concerns about their autonomy and their future.

"I feel worried about what age will bring me. I'm afraid of losing my autonomy" (Participant 41)

"I'm old. I fear for my future." (Participant 131) (Table 2)

Table 2
Participants' Interview Quotes

Category	Interview quote
Contributors to aging	
Family, social and interpersonal attachment	"My children are always with me. They help me with everything they can."
Health status, physical and intellectual functioning	"All my sensory abilities are well."
Occupation, profession, autonomy and leisure	"I'm still working as a nurse although my family says that I should slow down."
Accomplishment, personal fulfilment and future projects	"Working on my garden makes me feel integrated with the world. I like to watch things grow."
Stability, quality and financial situation	"It makes me feel really comfortable to have my own house."
Valorisation of time and age	"I am aware that I have much more free time now and that I can establish my priorities."
Sense of limit and existential issues	"I believe in something higher than us."
Subjective age	
With congruence	"I feel well about my age. I know I am 88 years. I have my house, my daily life, my friends, I feel I can still do everything I want."
Without concern	"I don't worry about getting old."
With apprehension	"I'm old. I fear for my future."
Young-at-heart	"I do not think about my age. I still feel young-at-heart."
Good enough	"Years have brought me good things. I feel good about my age."
Age representation	
Regret about the past	"I wish I could go back in time. I would have done some things differently in a different way."
With dissatisfaction	"I don't like my age. I'm too old. I wish I was younger."
As an opportunity	"Every day brings me the opportunity to make the most of my age."
Future investment	"I'm always thinking about my next project. I love to be involved in my works."
Present challenge	"Every day brings me a new challenge. I believe I can make a difference."
Reconciliation with life	"Age has brought me many good things. Now it's my turn to pay back."
Dynamic life	"We are travelling next month again."
With contentment	"I have today. Why wouldn't I enjoy it?"

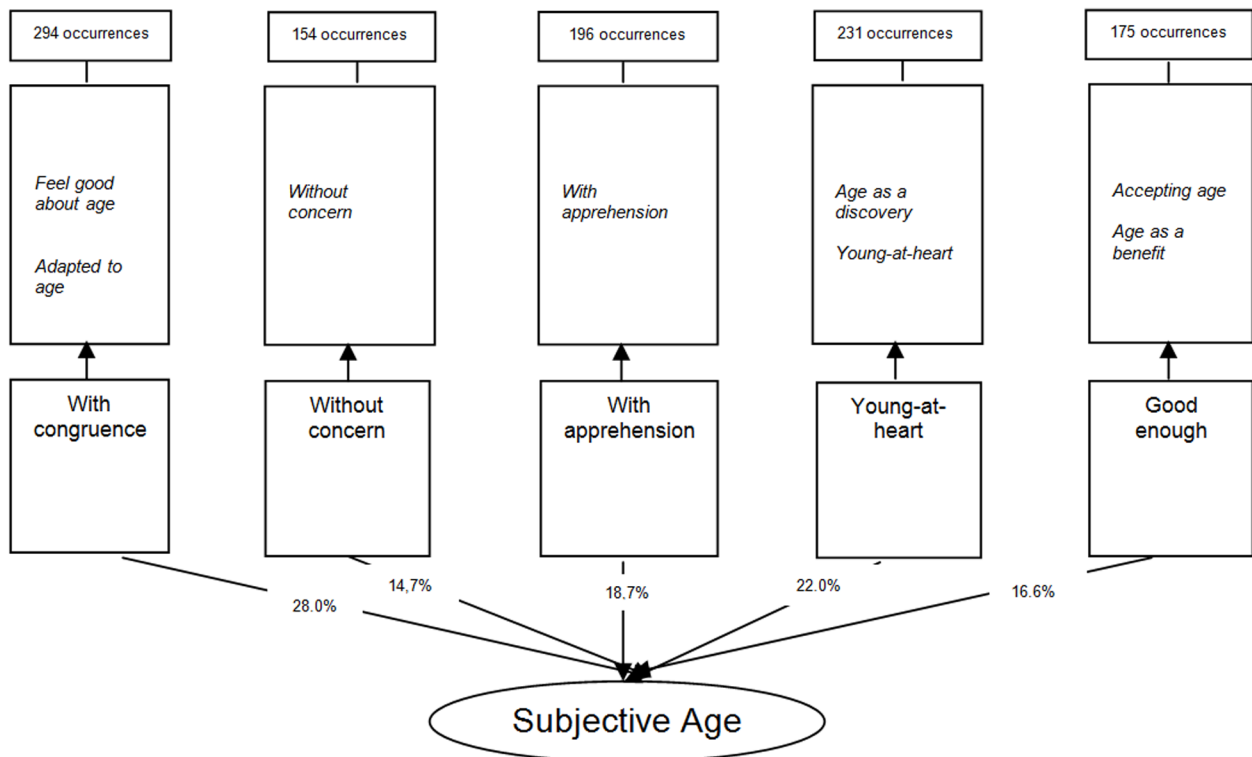


Figure 2. Emergent Categories Resulting From Content Analysis of the Pre-Category 'Subjective age'.

Young-at-Heart — A cognisant-childlike posture towards age was indicated by the participants.

"I do not think about my age. I still feel young-at-heart." (Participant 39) (Table 2)

Good Enough — Age was perceived by participants in a satisfactory way.

"Years have brought me good things. I feel good about my age." (Participant 121) (Table 2)

Categories of AR

Finally, eight emergent categories of answers were found for AR, namely, (1) 'future investment', (2) 'reconciliation with life', (3) 'present challenge', (4) 'regret about the past', (5) 'dynamic life', (6) 'with contentment', (7) 'as an opportunity' and (8) 'with dissatisfaction'. 'As an opportunity' (20.5%), was the most mentioned age representation, as indicated in Figure 3.

Future Investment — Participants acknowledged age as a means to outlay their future life.

"I want to leave a footprint." (Participant 76)

"I'm always thinking about my next project. I love to be involved in my works." (Participant 104) (Table 2)

Reconciliation With Life — Age was represented by participants as a means to balance their life cycle.

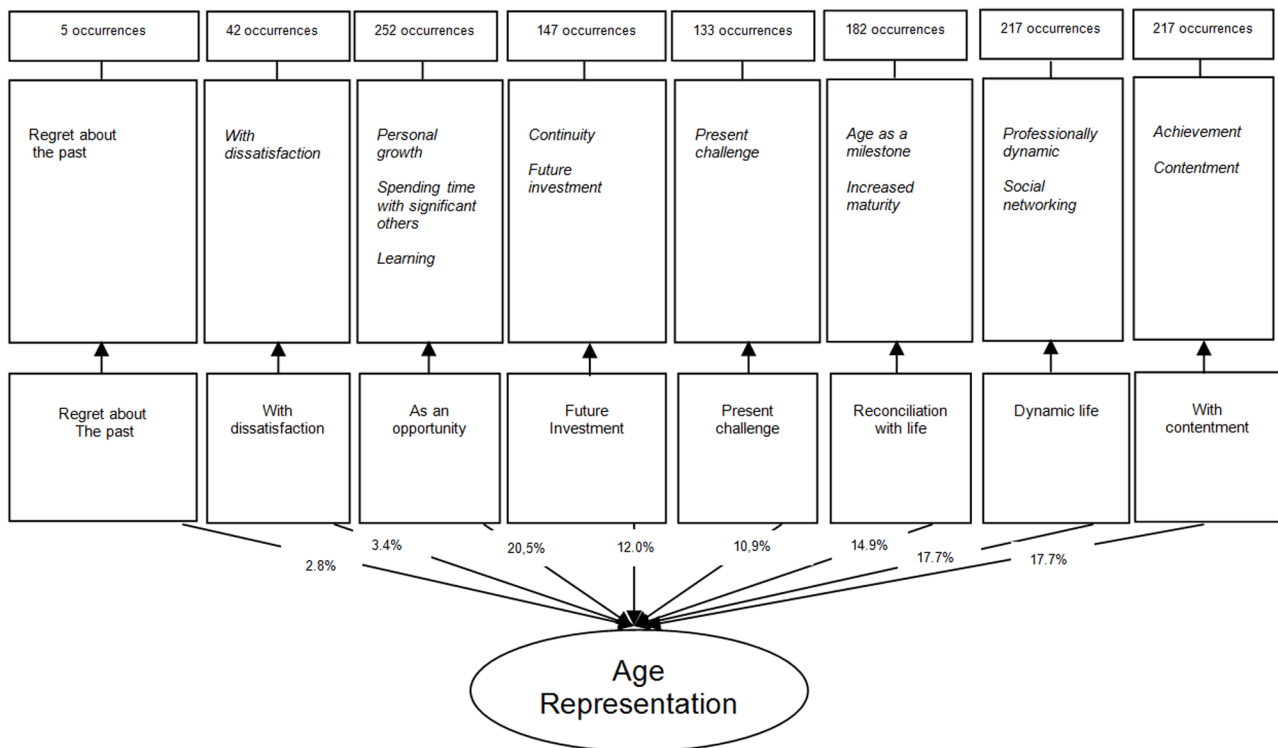


Figure 3. Emergent Categories Resulting From Content Analysis of the Pre-Category 'Age representation'.

"Age has brought me many good things. Now it's my turn to pay back." (Participant 81)

Present Challenge — Participants represented age as chance to be defied by themselves and their life.

"Every day brings me a new challenge. I believe I can make a difference." (Participant 111) (Table 2)

Regret About the Past — Participants regretted the totality or parts of their past life and verbalized their intention of doing things differently.

"If I could go back in time, I would do things in a different way." (Participant 114) (Table 2)

Dynamic Life — A lively and fulfilled life, in terms of profession and social networking was verbalized by the participants.

"Age brought me the opportunity to do what I always wanted to: painting." (Participant 97)

"We are travelling next month again." (Participant 132) (Table 2)

With Contentment — Participants were satisfied about their age and verbalized contentment.

"The older I am, the more satisfied I feel." (Participant 76)

"I have today. Why wouldn't I enjoy it?" (Participant 141) (Table 2)

As an Opportunity — Age was represented by the participants as a chance to decide what to do. This stimulated a *do all the things that you weren't capable to do before* attitude among participants.

"Every day brings me the opportunity to make the most of my age." (Participant 102) (Table 2)

With Dissatisfaction — Participants verbalized discontent about their age.

"I'm not happy about my age." (Participant 13)

"I don't like my age. I'm too old. I wish I was younger." (Participant 24) (Table 2)

Discussion

This paper aimed at capturing older adults' conceptualization of contributors to AtA, SA and AR. In relation to this, some participants, at moments of inner depth, seemed very connected with their narratives at an emotional level.

In addition to the multidimensionality feature of the AtA concept, the existence of objective (e.g. health) and subjective themes (e.g. spirituality) that emerged from participants' interviews, were consistent with the broader literature on the subject (Bauer & McAdams, 2004; Keyes et al., 2002; Neri et al., 2002).

Indeed, they were often consistently represented by relevant and interrelated themes (e.g., increased self-worth was achieved through engaging in fulfilling and creative activities). The naming of these themes corroborates existing literature (Brodsky, 1988; Ryff, 1989; Ryff & Keyes, 1995).

Some themes that were not initially predicted, emerged from this study, such as: youth companionship, relationships with neighbours, rhythm, climate, humour, amusement, creation, professional recognition from peers and need for simplification.

Literature suggests that simplification and relaxation can contribute to good adjustment (Whitbourne & Weinstock, 1986). Moreover, healthy, productive lifestyle and leisure were frequently indicated as contributors for aging well (Silverstein & Parker, 2002; Smith, Borchelt, Maier, & Jopp, 2002; Strawbridge, Cohen, Shema, & Kaplan, 1996), for bringing physical and social benefits, including risks of cognitive decline reduction (Laditka et al., 2009), which supports the importance of accomplishment and autonomy to enliven older adults' existence and remaining time (Brodsky, 1988).

Body appearance and aesthetics were not highly scored by participants in our study. According to Hurd (2000) this may reflect the shift that occurs in priorities as people reach old age; the emphasis on attractive appearance in the eyes of other people is replaced by one on health.

Growing evidence suggests that significant social networking is relevant for older adults (Low & Molzahn, 2007; Strawbridge et al., 1996). Extended support networks including neighbours were valued by participants. AtA is enhanced by improving the fit between the person and the environment. When family support was not available, more varied forms of support were tapped to meet their needs. Birren and Schaie (1996), Bowling (1995, 2007), and Whitbourne and Weinstock (1986) reported health and interpersonal relationships to be relevant for older adults. It must be noted that older adults live within a relatively steady social network which provides regular contact over time (Lang, 2001).

Physical environment, stability, existentialist and spiritual themes such as values and existential issues of participants appeared to influence how participants led their lives. These included, for example, strong beliefs about the need for being self-reliant and the valuing of happiness. Kotter-Grühn, Grühn, and Smith (2010) suggest that particularly older adults seem to have quite accurate perceptions of their nearness to death. Furthermore, awareness of mortality and limit for living is associated to older adults' concerns about end-of-life issues (Brodsky, 1988; Lockhart et al., 2001) and spiritual dimensions (Mueller, Plevak, & Rummans, 2001). Additionally, the importance of the physical environment and stability has also been identified in literature (Birren & Schaie, 1996; Low & Molzahn, 2007).

Financial contributors were not very highly valued. It is likely that local factors such as the guarantee of a formal pension scheme for older adults have influenced the participants' perceptions. This concurred with the findings of Keith and colleagues (1994), who identified financial circumstances as strongly contributing to the aging experience of older adults.

'As an opportunity' was the most verbalized AR for participants whereas 'with congruence' was the most referred SA for older adults. As suggested by previous studies, success in fulfilling challenges may yield more positive perceived age (Kleinspehn-Ammerlahn et al., 2008) and AR (Coupland et al., 1991). Moreover, the act of creating and accomplishing was considered very significant to the participants, in fact more relevant than the tangible outcome. Thus, accomplishment, professional engagement and the aspiration to be in control was significant for these participants. However, in old age, with the greater likelihood of declining income and deteriorating health, positive SA, AR and AtA can become difficult to achieve (Davidhizar & Shearer, 1999). Literature suggests that productive activities contribute to well-being of older adults (Wahrendorf & Siegrist, 2010) and that professional engagement especially with peers (Stevens-Ratchford, 2005; Stevens-Ratchford & Diaz, 2003), productive creativity (Brodsky, 1988), status (Hatch, 2000) contributes to positive SA, AR and AtA.

Future work should circumvent limitations of this study. Although a diverse sample of participants was recruited, the use of a purposeful sampling method could have resulted in some selection bias. This study has, however, enabled an insight into the categories for AtA, SA and AR for this population. Qualitative research was, thus, necessary to maximize validity. Moreover, participants' high education and income levels could indicate skewed results, namely in the contributors to AtA category. In fact, as in other qualitative studies, there is no certainty that participants with diverse background would not show different perceptions. Hence, further investigation should also comprise older adults' perceptions of aging disturbers. The subtle differences found in terms of objective and subjective categories within which they were valued, highlights the need for researchers and health professionals to be perceptive to the varying needs of older adults (Reichstadt, Sengupta, Depp, Palinkas, & Jeste, 2010).

Future research is needed into the conceptual framework of AtA for older adults. Therefore, this study represents the initial step in the development of an evaluative instrument designed to measure adjustment of older adults to aging and is part of a larger-scale quantitative investigation examining subjective well-being, sense of coherence and quality of life. Together with daily living and health status measures, this study's outcomes can form part of a comprehensive assessment for older people in clinical practice, service planning and evaluation.

In fact, instead of being measured based on standardized measures, we assert that the results of this study are an original contribution for a better understanding of what actually constitutes one's personal perception of age and aging. Although, AtA, AR and SA are distinct concepts in gerontological literature, these are related to the multidimensional and cross-cultural context of age and aging (Barak, 2009); their in-depth analysis can be

repercussive into future assessment of an overarching view of personal age perceptions. Additional implications of this study include a pertinent contribution to the under-developed potential of the AtA concept in this population and its association with SA and AR, in a future overall model of personal perception of aging. Taken together, our results lend further support to the usefulness of older adults' self-reports to deepening the distinctiveness of their experiences concerning the unique context of age and the aging process.

In sum, maybe the patterns of social reference towards older adults as a detached social category may not be pertinent in the next years. What the researchers presently know already altered the perspective on how future older adults will look and sound.

Funding

This work was supported by a grant of the Portuguese Foundation for Science and Technology (FCT) [grant number SFRH/BD/44544/2008].

References

- Baltes, P. B., & Baltes, M. M. (1990). Psychological perspectives on successful aging: The model of selective optimization with adaptation. In P. B. Baltes & M. M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences* (pp. 1-34). New York: Cambridge University Press.
- Baltes, P. B., & Smith, J. (2003). New frontiers in the future of aging: From successful aging of the young old to the dilemmas of the fourth age. *Gerontology*, 49, 123-135. doi:[10.1159/000067946](https://doi.org/10.1159/000067946)
- Barak, B. (2009). Age identity: A cross-cultural global approach. *International Journal of Behavioral Development*, 33, 2-11. doi:[10.1177/0165025408099485](https://doi.org/10.1177/0165025408099485)
- Bardin, L. (2007). *Análise de conteúdo* [Content analysis]. Lisboa: Edições 70.
- Barrett, A. E. (2005). Gendered experiences in midlife: Implications for age identity. *Journal of Aging Studies*, 19, 163-183. doi:[10.1016/j.jaging.2004.05.002](https://doi.org/10.1016/j.jaging.2004.05.002)
- Bauer, J. J., & McAdams, D. P. (2004). Growth goals, maturity, and well-being. *Developmental Psychology*, 40(1), 114-127. doi:[10.1037/0012-1649.40.1.114](https://doi.org/10.1037/0012-1649.40.1.114)
- Birren, J. E., & Schaie, K. W. (1996). *Handbook of the psychology of aging*. San Diego: Academic Press.
- Bowling, A. (1995). What things are important in people's lives? A survey of the public's judgments to inform scales of health-related quality of life. *Social Science & Medicine*, 41, 1447-1462. doi:[10.1016/0277-9536\(95\)00113-L](https://doi.org/10.1016/0277-9536(95)00113-L)
- Bowling, A. (2007). Aspirations for older age in the 21st century: What is successful aging? *International Journal of Aging & Human Development*, 64, 263-297. doi:[10.2190/L0K1-87W4-9R01-7127](https://doi.org/10.2190/L0K1-87W4-9R01-7127)
- Brodsky, S. L. (1988). *The psychology of adjustment and well-being*. New York: Holt, Rinehart and Winston.
- Coupland, J., Coupland, N., Giles, H., & Henwood, K. (1991). Formulating age: Dimensions of age identity in elderly talk. *Discourse Processes*, 14(1), 87-106. doi:[10.1080/01638539109544776](https://doi.org/10.1080/01638539109544776)
- Davidhizar, R., & Shearer, R. (1999). Helping elderly clients adjust to change and loss. *Home Care Provider*, 4, 147-149. doi:[10.1016/S1084-628X\(99\)90027-8](https://doi.org/10.1016/S1084-628X(99)90027-8)

- Folstein, M. F., Folstein, S. E., & McHugh, P. R. (1975). Mini-mental state: A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, 12, 189-198. doi:[10.1016/0022-3956\(75\)90026-6](https://doi.org/10.1016/0022-3956(75)90026-6)
- Franklin, N. C., & Tate, C. A. (2009). Lifestyle and successful aging: An overview. *American Journal of Lifestyle Medicine*, 3, 6-11. doi:[10.1177/1559827608326125](https://doi.org/10.1177/1559827608326125)
- Hatch, L. R. (2000). *Beyond gender differences: Adaptation to aging in life course perspective*. Amityville: Baywood.
- Hurd, L. C. (2000). Older women's body image and embodied experience: An exploration. *Journal of Women & Aging*, 12, 77-97. doi:[10.1300/J074v12n03_06](https://doi.org/10.1300/J074v12n03_06)
- Kahana, E., & Kahana, B. (1996). Conceptual and empirical advances in understanding aging well through proactive adaptation. In V. L. Bengtson (Ed.), *Adulthood and aging: Research on continuities and discontinuities* (pp. 18-40). New York: Springer.
- Keith, J. F., Glascock, A. P., Ikels, C., Dickerson-Putman, J., Harpending, H. C., & Draper, P. (1994). *The ageing experience: Diversity and commonality across cultures*. Thousand Oaks: Sage Publications.
- Keyes, C. L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology*, 82(6), 1007-1022. doi:[10.1037/0022-3514.82.6.1007](https://doi.org/10.1037/0022-3514.82.6.1007)
- Kleinspehn-Ammerlahn, A., Kotter-Grühn, D., & Smith, J. (2008). Self-perceptions of aging: Do subjective age and satisfaction with aging change during old age? *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 63(6), P377-P385. doi:[10.1093/geronb/63.6.P377](https://doi.org/10.1093/geronb/63.6.P377)
- Kotter-Grühn, D., Grühn, D., & Smith, J. (2010). Predicting one's own death: The relationship between subjective and objective nearness to death in very old age. *European Journal of Ageing*, 7(4), 293-300. doi:[10.1007/s10433-010-0165-1](https://doi.org/10.1007/s10433-010-0165-1)
- Kozma, A., Stones, M. J., & McNeil, J. K. (1991). *Psychological well-being in later life*. Markham: Butterworths.
- Kuh, D., & New Dynamics of Ageing (NDA) Preparatory Network. (2007). A life course approach to healthy aging, frailty, and capability. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, 62, 717-721. doi:[10.1093/gerona/62.7.717](https://doi.org/10.1093/gerona/62.7.717)
- Laditka, S. B., Corwin, S. J., Laditka, J. N., Liu, R., Tseng, W., Wu, B., . . . Ivey, S. L. (2009). Attitudes about aging well among a diverse group of older Americans: Implications for promoting cognitive health. *The Gerontologist*, 49(S1), S30-S39. doi:[10.1093/geront/gnp084](https://doi.org/10.1093/geront/gnp084)
- Lang, F. R. (2001). Regulation of social relationships in later adulthood. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 56, P321-P326. doi:[10.1093/geronb/56.6.P321](https://doi.org/10.1093/geronb/56.6.P321)
- Levy, B. R. (2003). Mind matters: Cognitive and physical effects of aging self-stereotypes. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 58, P203-P211. doi:[10.1093/geronb/58.4.P203](https://doi.org/10.1093/geronb/58.4.P203)
- Lewis, J. P. (2011). Successful aging through the eyes of Alaska Native elders: What it means to be an elder in Bristol Bay, AK. *The Gerontologist*, 51(4), 540-549. doi:[10.1093/geront/gnr006](https://doi.org/10.1093/geront/gnr006)
- Lockhart, L. K., Bookwala, J., Fagerlin, A., Coppola, K. M., Ditto, P. H., Danks, J. H., & Smucker, W. D. (2001). Older adults attitudes toward death: Links to perceptions of health and concerns about end-of-life issues. *OMEGA*, 43(4), 331-347.
- Lohmann, N. (1977). Correlations of life satisfaction, morale, and adjustment measures. *Journal of Gerontology*, 32, 73-75.

- Low, G., & Molzahn, A. E. (2007). Predictors of quality of life in old age: A cross-validation study. *Research in Nursing & Health*, 30(2), 141-150. doi:[10.1002/nur.20178](https://doi.org/10.1002/nur.20178)
- Maddox, G. L., & Clark, D. O. (1992). Trajectories of functional impairment in later life. *Journal of Health and Social Behavior*, 33, 114-125. doi:[10.2307/2137250](https://doi.org/10.2307/2137250)
- Mueller, P. S., Plevak, D. J., & Rummans, T. A. (2001). Religious involvement, spirituality and medicine: Implications for clinical practice. *Mayo Clinic Proceedings*, 76, 1225-1235. doi:[10.4065/76.12.1225](https://doi.org/10.4065/76.12.1225)
- Miles, M. B., & Huberman, A. (1994). *An expanded source book qualitative data analysis*. Thousand Oaks, CA: Sage.
- Nagi, S. Z. (1976). An epidemiology of disability among adults in the United States. *The Milbank Memorial Fund Quarterly*, 54, 439-467. doi:[10.2307/3349677](https://doi.org/10.2307/3349677)
- Neri, A. L., Cachioni, M., & Resende, M. C. (2002). *Atitudes em relação à velhice* [Attitudes toward old age]. In E. V. Freitas, L. Py, A. L. Neri, F. A. X. Cançado, M. L. Gorzoni, & S. M. Rocha (Eds.), *Tratado de Geriatria e Gerontologia* (pp. 972-980). Rio de Janeiro: Guanabara-Koogan.
- Pinsky, J. L., Branch, L. G., Jette, A. M., Haynes, S. G., Feinleib, M., Cornoni-Huntley, J. C., & Bailey, J. R. (1985). Framingham disability study: Relationship of disability to cardiovascular risk factors among persons free of diagnosed cardiovascular disease. *American Journal of Epidemiology*, 122(4), 644-656.
- Reichstadt, J., Sengupta, G., Depp, C. A., Palinkas, L. A., & Jeste, D. V. (2010). Older adults' perspectives on successful aging: Qualitative interviews. *The American Journal of Geriatric Psychiatry*, 18(7), 567-575.
- Ryff, C. D. (1982). Successful aging: A developmental approach. *The Gerontologist*, 22(2), 209-214. doi:[10.1093/geront/22.2.209](https://doi.org/10.1093/geront/22.2.209)
- Ryff, C. D. (1989). Beyond Ponce de Leon and life satisfaction: New directions in quest of successful ageing. *International Journal of Behavioral Development*, 12(1), 35-55. doi:[10.1177/016502548901200102](https://doi.org/10.1177/016502548901200102)
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revised. *Journal of Personality and Social Psychology*, 69(4), 719-727. doi:[10.1037/0022-3514.69.4.719](https://doi.org/10.1037/0022-3514.69.4.719)
- Rowe, J. W., & Kahn, R. L. (1997). Successful aging. *The Gerontologist*, 37, 433-440. doi:[10.1093/geront/37.4.433](https://doi.org/10.1093/geront/37.4.433)
- Silverstein, M., & Parker, M. G. (2002). Leisure activities and quality of life among the oldest old in Sweden. *Research on Aging*, 24(5), 528-547. doi:[10.1177/0164027502245003](https://doi.org/10.1177/0164027502245003)
- Slangen-De Kort, Y. A. W., Midden, C. J. H., Aarts, H., & Van Wagenberg, A. F. (2001). Determinants of adaptive behavior among older persons: Self-efficacy, importance, and personal dispositions as directive mechanisms. *International Journal of Aging & Human Development*, 53(4), 253-274. doi:[10.2190/V52N-Q5VN-C3KW-0LY9](https://doi.org/10.2190/V52N-Q5VN-C3KW-0LY9)
- Smith, J., Borchelt, M., Maier, H., & Jopp, D. (2002). Health and well-being in the young old and oldest old. *The Journal of Social Issues*, 58(4), 715-732. doi:[10.1111/1540-4560.00286](https://doi.org/10.1111/1540-4560.00286)
- Sneed, J. R., & Whitbourne, S. K. (2005). Models of the aging self. *The Journal of Social Issues*, 61, 375-388. doi:[10.1111/j.1540-4560.2005.00411.x](https://doi.org/10.1111/j.1540-4560.2005.00411.x)
- Staudinger, U. M., & Kunzmann, U. (2005). Positive adult personality development: Adjustment and/or growth? *European Psychologist*, 10(4), 320-329. doi:[10.1027/1016-9040.10.4.320](https://doi.org/10.1027/1016-9040.10.4.320)

- Stevens-Ratchford, R. G. (2005). Occupational engagement: Motivation for older adult participation. *Topics in Geriatric Rehabilitation, 21*(3), 171-181.
- Stevens-Ratchford, R. G., & Diaz, T. (2003). Promoting successful aging through occupation: An examination of engagement in life; a look at aging in place, occupation and successful aging. *Activities, Adaptation and Aging, 27*(3-4), 19-37.
doi:[10.1300/J016v27n03_02](https://doi.org/10.1300/J016v27n03_02)
- Strawbridge, W. J., Cohen, R. D., Shema, S. J., & Kaplan, G. A. (1996). Successful aging: Predictors and associated activities. *American Journal of Epidemiology, 144*(2), 135-141. doi:[10.1093/oxfordjournals.aje.a008900](https://doi.org/10.1093/oxfordjournals.aje.a008900)
- Vaillant, G. E., & Mukamal, K. (2001). Successful aging. *The American Journal of Psychiatry, 158*, 839-847.
- Wahrendorf, M., & Siegrist, J. (2010). Are changes in productive activities of older people associated with changes in their well-being? Results of a longitudinal European study. *European Journal of Ageing, 7*(2), 59-68.
doi:[10.1007/s10433-010-0154-4](https://doi.org/10.1007/s10433-010-0154-4)
- Whitbourne, S. K., & Weinstock, C. S. (1986). *Adult development*. New York: Praeger.