Assessing Subjective Age and Adjustment to Aging in a Portuguese and German Older Population: A Comparative Multiple Correspondence Analysis

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Abstract

Purpose: This study aims at examining the contributors to adjustment to aging (AtA) and subjective age (SA) identified by older adults and to investigate the latent constructs that can work as major determinants in AtA and SA in an older Portuguese and German population.

Method: Measures were completed, using a variety of appropriate methods, including demographics and interviews. Complete data were available for 102 older adults aged between 74-100 years (M=81.2; SD = 6.70). Data was subjected to content analysis. Representation of the associations and latent constructs were analyzed by a Multiple Correspondence Analysis (MCA).

Results: Findings showed a model for each nationality. SA and AtA for Portuguese elderly were explained by a three-factor overall model: “active”, “concentrated” and “attuned”. A three-dimension overall model formed by “harmonized”, “focused” and “young-at-heart” was indicated as a best-fit solution for German elderly.

Conclusion: SA is differently related to AtA in older adults in both samples. The findings presented in this paper highlighted the under-developed potential of an adjustment and age overall model for this population.

Keywords: adjustment to aging, subjective age, multiple correspondence analysis, German, Portuguese

1. Introduction

Perhaps, one of the most remarkable demographic developments in modern times is the progressive demographic aging of the older population itself. In particular, the oldest old segment is growing faster than its younger segment (Gwozdz & Sousa-Poza, 2009).

Alongside its incipient decline in numbers, the second strand to Europe’s demographic weakness is the shrinking share of young people and growing share of older people in its population (Immerfall & Therborn, 2011).

Indeed, according to United Nations Population Division’s (2002) projections, in Germany, about 6 million inhabitants are over the age of 75 (7.1% of the population), a figure projected to increase to over 13 million (18.6% of the population) by 2050.

In Portugal, German foreign community corresponded to 7.5% of the total foreign community. Moreover, the second most important region of location of the foreign community in Portugal is the Algarve with 13% (Organization for Economic Co-Operation and Development, 2001). To date, little attention has been paid to older Germans living in Portugal in the literature.

Moreover, it is estimated that, in Portugal, in 2020 the elderly will represent 18.1% of the population and the young 16.1%. Additionally, their social and psychological condition is mostly unknown (Instituto Nacional Estatistica, 2005; World Health Organization Quality of Life Assessment Group, 2011).

Adjustment was initially described by Cattell (1950) as the goodness of internal arrangements by which an adaptation is maintained. Recent developments on the scientific study of adjustment to aging (AtA), conceptualized it, according to identity process theory, as involving the three processes of identity assimilation (maintaining self-consistency), identity accommodation (making changes in the self), and identity balance (maintaining a sense of self but changing when necessary) (Sneed & Whitbourne, 2003) whereas according to
Brandstädter and Greve’s model, adjustment of a person’s goals and aspirations in the face of age-related challenges corresponds to what the authors named of ‘accommodation’ (Brandtstädter & Rothermund, 2003).

AtA is a relevant and proximate concept, yet distinct, from subjective well-being and quality of life, previously defined and validated in the gerontological literature. It is a multi-dimensional function of the dynamic interaction of elements such as autonomy, control, self-acceptance, personal growth, positive social network and purpose in life (Bauer & McAdams, 2004; Keyes, Shmotkin & Ryff, 2002; Ryff, 1989; Slængen-Dekort, Middend, Aarts & Wagenberg, 2001; Staudinger & Kunzmann, 2005). Regarding subjective well-being, it is a construct composed by two cognitive and affective (hedonic) facets: life satisfaction and affective balance, respectively (Diener, Suh, Lucas, & Smith, 1999; Kesebir & Diener, 2010; Pavot & Diener, 2004), whereas quality of life is defined as an individual's perception of their position in life, in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (World Health Organization Quality of Life Assessment Group, 1995). Additionally, measures of well-being and quality of life have become popular outcome measures and a key consideration for policy-makers (Al-Janabi, Flynn & Coast, 2012; Antonovsky, 1987; Diener, Emmons, Larsen, & Griffin, 1985; Fernández-Ballesteros, 2010; Hancock, Labonte, & Edwards, 1999; Low & Molzahn, 2007; Ranzijn, 2002; Smith, Borchelt, Maier & Jopp, 2002; Ware & Sherbourne, 1992; Watson, Clark & Tellegen, 1988). In spite of the findings described above, the study of AtA remains at the periphery of gerontological literature (Kozma, Stones & McNeil, 1991).

Moreover, how old a person feels, designates subjective age (SA) (Barak, 2009; Barrett, 2005; Kleinspehn-Ammerlahn, Kotter-Grühn & Smith, 2008; Montepare, 2009). In addition, SA was found to contribute to subjective health, memory self-efficacy, and life satisfaction, regardless of the chronological age (Stephan, Caudroit & Chalabaev, 2011), which is consistent with studies showing that older individuals’ own evaluation of their age is a better predictor of psychological functioning than an objective count of chronological years (Montepare, 2009; Schafer & Shippe, 2010).

In past decades, research on the health and functioning of older adults has tended to focus on the prediction of negative outcomes, such as morbidity, mortality, disability and dependence (Boult, Kane, Louis, Boult & McCaffrey, 1994; Maddox & Clark, 1992; Pinsky et al., 1985) or has been developed with samples limited to frail individuals (Manton, Stallard, & Corder, 1995; Wolinsky, Stump, Callahan & Johnson, 1996). Considering that the construct of health does not imply the absence of illness but the attempt of maximum functionality of the individual (Antonovsky, 1987; Eriksson & Lindstrom, 2006), the concept of “adjustment and age” is pertinent to a salutogenic approach focussed on the well-being, health, and adapted functioning of older adults (Brandtstädter & Rothermund, 2003; Eriksson & Lindstrom, 2006; Slængen-Dekort, Middend, Aarts & Wagenberg, 2001; Schafer & Shippe, 2010; Staudinger & Kunzmann, 2005).

Considering that self-perception of aging is defined as a personal evaluation of one’s own aging and that cultural and ethnical differences may influence the process of AtA (Barak, 2009; Torres, 2003), in-depth narrative interviews allow to uncover the uniqueness of older adults’ experiences concerning the multi-dimensional context of aging well. Instead of being measured based on the theoretical assumptions or on the researchers’ own definitions, we assert that to have a better understanding of what actually constitutes one’s perception of AtA and SA, it is essential to listen and to explore older adults’ narratives (Moser, Spagnoli & Santos-Eggimann, 2011). We found no previous research for an overall model that joins the concepts of “adjustment” and “age”. Thus, this paper aims at making a relevant contribution to the existing literature by: (a) eliciting categories that had impact on Portuguese and German older adults’ AtA and SA; (b) investigating latent constructs that can work as major contributors for AtA and SA and (c) examining the potential explanatory mechanisms of the overall model “adjustment and age”. Results suggest that the hypothesized link between the two concepts may exist.

2. Method

2.1 Participants

The total sample comprised 102 eligible non-institutionalized individuals, aged 74 and over (M=81.2; SD = 6.70; range 74-100), 58.8% female, 67.6% married, 50.0% German and 66.7% professionally active. The sampling of participants was based on the availability of respondents, through local and art community centres list-serves, in the Algarve region. Older adults were included when concurrent severe mental disorders, according to DSM-IV, were not diagnosed, and excluded if they had difficulty in completing the Mini-Mental State Examination (MMSE). (Folstein, Folstein & McHugh, 1975). Table 1 shows the characteristics of the interview informants.
Table 1. Distribution of the study’s participants according to socio demographic and health-related characteristics

<table>
<thead>
<tr>
<th></th>
<th>German</th>
<th></th>
<th>Portuguese</th>
<th></th>
</tr>
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<tr>
<td>N</td>
<td>51</td>
<td></td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Age (M; SD)</td>
<td>80.1 (6.526)</td>
<td></td>
<td>81.4 (6.931)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td>35.3</td>
<td>24</td>
<td>47.1</td>
</tr>
<tr>
<td>Female</td>
<td>33</td>
<td>64.7</td>
<td>27</td>
<td>52.9</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>4</td>
<td>7.8</td>
<td>14</td>
<td>27.5</td>
</tr>
<tr>
<td>Middle school</td>
<td>6</td>
<td>11.8</td>
<td>9</td>
<td>17.6</td>
</tr>
<tr>
<td>High school</td>
<td>32</td>
<td>62.8</td>
<td>20</td>
<td>39.2</td>
</tr>
<tr>
<td>University degree or higher</td>
<td>9</td>
<td>17.6</td>
<td>8</td>
<td>15.7</td>
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<tr>
<td>Marital Status</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Married or in a relationship</td>
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<td>66.7</td>
<td>35</td>
<td>68.6</td>
</tr>
<tr>
<td>Single</td>
<td>3</td>
<td>5.9</td>
<td>3</td>
<td>5.9</td>
</tr>
<tr>
<td>Widowed</td>
<td>14</td>
<td>27.4</td>
<td>13</td>
<td>25.5</td>
</tr>
<tr>
<td>Professional Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td>36</td>
<td>70.6</td>
<td>32</td>
<td>62.7</td>
</tr>
<tr>
<td>Inactive</td>
<td>15</td>
<td>29.4</td>
<td>19</td>
<td>37.3</td>
</tr>
<tr>
<td>Family Annual Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤10,000 €</td>
<td>3</td>
<td>5.9</td>
<td>6</td>
<td>11.8</td>
</tr>
<tr>
<td>10,001–20,000 €</td>
<td>2</td>
<td>3.9</td>
<td>14</td>
<td>27.4</td>
</tr>
<tr>
<td>20,001–37,500 €</td>
<td>7</td>
<td>13.7</td>
<td>15</td>
<td>29.4</td>
</tr>
<tr>
<td>37,501–70,000 €</td>
<td>26</td>
<td>51.0</td>
<td>6</td>
<td>11.8</td>
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<tr>
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<td>13</td>
<td>25.5</td>
<td>10</td>
<td>19.6</td>
</tr>
<tr>
<td>Perceived Health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>26</td>
<td>51.0</td>
<td>30</td>
<td>58.8</td>
</tr>
</tbody>
</table>

Note. Total sample: \( n = 102; \) SD = standard deviation.

2.2 Measures and Procedure

2.2.1 Data Collection

Semi-structured interviews based on an interview guide were conducted in the participants’ own homes. Each interview was performed individually and began with a set of straightforward background questions, to find out about the informant’s living arrangements, health, nationality, age, religion, family, education and work, followed by two open-ended questions that were created in order to be bias free and to allow any kind of narrative about each theme, as well as to facilitate the fluency of the participants’ narratives about their perceptions: “How do you feel about your age?” and “I would like to understand what, in your point of view, contributes to your adjustment to aging in this phase of your life”. These questions were elaborated to address two core areas: SA and AtA. The interview guide was used to ensure that basic questions were addressed, but the primary aim of the interview was to engage the participants in an in-depth interactive dialogue, during which richly descriptive responses would have the optimal possibility of emerging. Thus, emphasis was placed on the collaborative nature of the interview and the importance of the participants conveying how they saw and
interpreted their perceptions. The interviews were conducted in the language of the participant’s choice, necessary to enable full expression of their ideas and emotions. This allowed the questioning to be interactive and responsive to the participants’ language and perceptions.

Moreover, the approach to the analysis was based on an overarching concern for reflecting the participants’ perceptions. All interviews were conducted and audio-recorded by the same researcher (SvH) who had no previous relationship with the participants. The interviews lasted between 40–90 minutes, with the open-ended questions taking 30–70 minutes to complete. Upon completion of the interview, participants were asked to evaluate the schedule and the interview process. This evaluation included questions about the length of the interview and the appropriateness and relevance of questions asked. Participants were also asked to identify any questions that they found difficult to answer or offensive.

2.2.2 Data Analysis

Data was analyzed, employing content analysis and using the following procedure: a) development of major emergent categories, mutually exclusive, that reflected the 102 interviews, for each one of the two pre-existing categories: SA and contributors to AtA; b) creation a list of coding cues; c) analysis of verbatim quotes and best fit characterizations for a given emergent category d) definition of sub-categories, within and across the narratives, while preserving the principle of homogeneity of the category and e) derivation of major emergent categories until the point of theoretical saturation was reached (Bardin, 2007; Morse, 1995).

Our sub-categories and categories’ structure was then subjected to an external review and critical feedback was obtained from reviewers with experience with older adults. An independent analysis of the 102 interviews was performed by a jury of two psychologists (both faculty) and a final group co-resolution, regarding the categories, was made.

Representations of the associations between the emergent categories obtained from the narrative analysis, and latent constructs which can work as major determinants in older adults’ recognized SA and AtA, were assessed by a Multiple Correspondence Analysis (MCA). Statistic criteria included the following: (a) minimum of 5.0% of the total variance explained by each factor and (b) minimum eigenvalue of 1 for each factor. Data were analyzed using SPSS for Windows (version 19.0; SPSS Inc., Chicago, IL).

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

3. Results

3.1 Content Analysis of the Emergent Categories

This study indicates seven categories from the AtA answers emerging from content analysis, namely,(a) “accomplishment, personal fulfilment, and future projects”, (b) “occupation, profession, autonomy and leisure”, (c) “health status, physical and intellectual functioning”, (d) “valorization of time and age”, (e) “family, social and interpersonal attachment”, (f) “stability, quality and financial situation” and (g) “sense of limit and existential issues”.

3.1.1 Accomplishment, Personal Fulfilment, and Future Projects

Participants reported accomplishments (e.g., artistic projects), as contributing to AtA. Moreover, older adults verbalized future projects and creative productivity, as a major source of personal fulfilment.

“I need to contribute with something that I am proud of.” (Participant 73)

3.1.2 Occupation, Profession, Autonomy and Leisure

Profession and occupation were reported by participants as contributing to AtA. To maintain a frequent contact with professional peers was also verbalized as relevant for their AtA. Furthermore, autonomy (e.g., income from their own work) and leisure (e.g., traveling) were indicated by older adults as contributing to their AtA.

“I’m still working as a nurse, three times a week.” (Participant 13)

3.1.3 Health Status, Physical and Intellectual Functioning

Participants verbalized the importance of being healthy and physically well, as contributing to their AtA.

“I need to be physically well.” (Participant 43)

Additionally, participants stressed social security and medical insurance as a requisite for their AtA.

“I believe that any pensioner should have medical insurance to ensure a healthy aging.” (Participant 88)
3.1.4 Valorization of Time and Age
Participants verbalized that old(er) age made them perceive life as valuable time. Moreover, they reported that making the most of their time was relevant for their AtA.
“I am aware now that I will not live forever, therefore I want to make the most of my time.” (Participant 47)

3.1.5 Family, Social and Interpersonal Attachment
Family, neighbours and friends were reported as contributing to AtA. Moreover, friends often included professional peers.
“It’s very important to me to talk to someone that shares the same interests as I do.” (Participant 15)
“I love to have my family around me.” (Participant 74)

3.1.6 Stability, Quality and Financial Situation
Comfort was verbalized as contributing to these participants’ AtA. Moreover, older adults reported the need of life simplification, quality of life and financial stability, as important for their AtA.
“I am very proud of the fact that I am financially independent.” (Participant 11)

3.1.7 Sense of Limit and Existential Issues
Participants verbalized the need of integrating the absence of dear ones, and of future death, as contributing to their AtA. Moreover, participants reported that having existential issues and religious beliefs was relevant for their AtA.
“Age helped me integrating the perspective of death.” (Participant 6)
“Sense of limit and existential issues” was the most verbalized contributor to AtA for German participants (21.8%), whereas “accomplishment, personal fulfilment and future projects”, “family, social and interpersonal attachment” and “health status, physical and intellectual functioning” were the most mentioned contributors to AtA by Portuguese participants (all 25.4%), as seen in Table 2.
German participants verbalized their focus on death and existential issues, as contributing to their AtA.
“I know death is close but I live my life as if it was my own Indian summer.” (Participant 27)
“I enjoy talking to God.” (Participant 71)
Moreover, Portuguese older adults referred projects that presently fulfilled them and the determination to feel accomplished.
“Working on my paintings makes me feel integrated with the world.”(Participant 23)
“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 42)
“I am proud of all my creations.” (Participant 67)
Furthermore, Portuguese participants verbalized that social support and health issues contributed to their AtA.
“Being near my sister is very important to me because it gives me a sense of belonging.” (Participant 61)
“Teaching my grandchild makes me feel that I make a difference.” (Participant 68)
“All my sensory abilities are well.” (Participant 92)
Additionally, findings designated a total of five categories for SA: (a) “in congruence”, (b) “without concern”, (c) “with apprehension”, (d) “young-at-heart” and (e) “good enough”.

3.1.8 In 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)
“I feel congruent about my age. I don’t avoid thinking about it.” (Participant 79)

3.1.9 Without Concern
Participants reported no concerns about their age. Moreover, they verbalized that aging was not something that worried them.
“I don’t think about getting old.” (Participant 33)

3.1.10 With Apprehension
Participants verbalized concerns about their physical and intellectual autonomy.
“I feel worried about what age will bring me. I’m afraid of losing my autonomy” (Participant 41)

3.1.11 Young-at-heart
A cognisant-childlike posture towards age was reported by the participants.
“Sometimes I feel younger than my grandchildren.” (Participant 49)

3.1.12 Good Enough
Age was described by participants in a satisfactory way.
“I feel good about my age.” (Participant 21)
‘Without concern’ was the most mentioned SA for German participants (39.0%). This and ‘young-at-heart’ (both 25.5%) were the most referred SA for Portuguese older adults (see Table 2).
These participants verbalized that they did not worry about their age and that they felt young.
“I do not think about my age.” (Participant 17)
“One thing I learnt over the years is that age does not have to be a burden. I feel my age as something that I don’t worry about. Instead I try to enjoy the most of it, without really thinking about it” (Participant 59)
“I still feel young-at-heart.” (Participant 86)

Table 2. Emergent categories resulting from content analysis of the pre-categories “subjective age” and “contributors to AtA”

<table>
<thead>
<tr>
<th></th>
<th>German Category frequency</th>
<th>German Category percentage</th>
<th>Portuguese Category frequency</th>
<th>Portuguese Category percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subjective age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With congruence</td>
<td>45</td>
<td>36.6</td>
<td>39</td>
<td>23.6</td>
</tr>
<tr>
<td>Without concern</td>
<td>48</td>
<td>39.0</td>
<td>42</td>
<td>25.5</td>
</tr>
<tr>
<td>With apprehension</td>
<td>15</td>
<td>12.2</td>
<td>21</td>
<td>12.7</td>
</tr>
<tr>
<td>Young-at-heart</td>
<td>9</td>
<td>7.3</td>
<td>42</td>
<td>25.5</td>
</tr>
<tr>
<td>Good enough</td>
<td>6</td>
<td>4.9</td>
<td>21</td>
<td>12.7</td>
</tr>
<tr>
<td><strong>Score of pre-category</strong></td>
<td><strong>123</strong></td>
<td><strong>100.0</strong></td>
<td><strong>165</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td><strong>Subjective age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contributors to aging</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family, Social and</td>
<td>27</td>
<td>9.8</td>
<td>48</td>
<td>25.4</td>
</tr>
<tr>
<td>Interpersonal Attachment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health status, Physical and Intellectual Functioning</td>
<td>12</td>
<td>4.3</td>
<td>48</td>
<td>25.4</td>
</tr>
<tr>
<td>Occupation, Profession, Autonomy and Leisure Accomplishment, Personal Fulfilment and Future Projects</td>
<td>39</td>
<td>14.1</td>
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<td>12.6</td>
</tr>
<tr>
<td>Stability, Quality and Financial Situation</td>
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<td>16.3</td>
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<td>25.4</td>
</tr>
<tr>
<td>Valorization of Time and Age</td>
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<td>6</td>
<td>3.2</td>
</tr>
<tr>
<td>Sense of Limit and Existential Issues</td>
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<td>21.8</td>
<td>6</td>
<td>3.2</td>
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<tr>
<td><strong>Score of pre-category</strong></td>
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<td><strong>100.0</strong></td>
<td><strong>189</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
3.2 Multiple Correspondence Analysis of the Emergent Categories

Findings from MCA indicate a model for the pre-categories, with diverse factors and factor loadings and assess the correlational structure of the pre-categories in our study: AtA and SA, for each nationality.

When representing an overall model that joins the concepts of “adjustment” and “age”, we considered the correlational structure of the pre-categories in our study (contributors to AtA and SA). The results suggested a three-dimension “adjustment and age” overall model (accounting for 81.0% of the total variance) composed by: “active”, “concentrated”, and “attuned”, as a best-fit solution (see Table 3) for Portuguese participants and a three-dimension “adjustment and age” overall model (accounting for 87.2% of the total variance) composed by: “harmonized”, “focused”, and “young-at-heart”, as a best-fit solution for German participants (see Table 4).

Table 3. Three-dimensional representation for “subjective age” and “contributors to AtA” for Portuguese older adults: factor loadings for each dimension, mean loadings and % inertia (variance) explained

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Active</th>
<th>Concentrated</th>
<th>Attuned</th>
<th>Mean</th>
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<tbody>
<tr>
<td>With congruence</td>
<td>.675</td>
<td>.022</td>
<td>.009</td>
<td>.235</td>
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<tr>
<td>Without concern</td>
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<td>.001</td>
<td>.010</td>
<td>.274</td>
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<tr>
<td>With apprehension</td>
<td>.071</td>
<td>.638</td>
<td>.159</td>
<td>.289</td>
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<tr>
<td>Young-at-heart</td>
<td>.741</td>
<td>.005</td>
<td>.048</td>
<td>.265</td>
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<tr>
<td>Good enough</td>
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<td>.909</td>
<td>.045</td>
<td>.325</td>
</tr>
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<td>Family, Social and Interpersonal</td>
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<td>.063</td>
<td>.002</td>
<td>.280</td>
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<td>.032</td>
<td>.275</td>
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<td>.822</td>
<td>.079</td>
<td>.307</td>
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<td>Leisure</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accomplishment, Personal Fulfilment and</td>
<td>.479</td>
<td>.002</td>
<td>.143</td>
<td>.208</td>
</tr>
<tr>
<td>Future Projects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stability, Quality and Financial</td>
<td>.062</td>
<td>.008</td>
<td>.468</td>
<td>.180</td>
</tr>
<tr>
<td>Situation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valorization of Time and Age</td>
<td>.145</td>
<td>.252</td>
<td>.507</td>
<td>.302</td>
</tr>
<tr>
<td>Sense of Limit and Existential Issues</td>
<td>.145</td>
<td>.252</td>
<td>.507</td>
<td>.302</td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>4.712</td>
<td>3.003</td>
<td>2.009</td>
<td>3.241</td>
</tr>
<tr>
<td>Inertia</td>
<td>.393</td>
<td>.250</td>
<td>.167</td>
<td>.270</td>
</tr>
<tr>
<td>% of Variance</td>
<td>39.267</td>
<td>25.022</td>
<td>16.745</td>
<td>27.011</td>
</tr>
</tbody>
</table>
Table 4. Three-dimensional representation for “subjective age” and “contributors to AtA” for German older adults: factor loadings for each dimension, mean loadings and % inertia (variance) explained

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Harmonized</th>
<th>Focused</th>
<th>Young-at-heart</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>With congruence</td>
<td>.841</td>
<td>.049</td>
<td>.047</td>
<td>.312</td>
</tr>
<tr>
<td>Without concern</td>
<td>.889</td>
<td>.002</td>
<td>.008</td>
<td>.300</td>
</tr>
<tr>
<td>With apprehension</td>
<td>.057</td>
<td>.724</td>
<td>.112</td>
<td>.298</td>
</tr>
<tr>
<td>Young-at-heart</td>
<td>.281</td>
<td>.348</td>
<td>.349</td>
<td>.326</td>
</tr>
<tr>
<td>Good enough</td>
<td>.281</td>
<td>.348</td>
<td>.349</td>
<td>.326</td>
</tr>
<tr>
<td>Family, Social and Interpersonal Attachment</td>
<td>.002</td>
<td>.932</td>
<td>.040</td>
<td>.325</td>
</tr>
<tr>
<td>Health status, Physical and Intellectual Functioning</td>
<td>.125</td>
<td>.409</td>
<td>.454</td>
<td>.329</td>
</tr>
<tr>
<td>Occupation, Profession, Autonomy and Leisure</td>
<td>.126</td>
<td>.462</td>
<td>.026</td>
<td>.205</td>
</tr>
<tr>
<td>Accomplishment, Personal Fulfilment and Future Projects</td>
<td>.568</td>
<td>.009</td>
<td>.142</td>
<td>.239</td>
</tr>
<tr>
<td>Stability, Quality and Financial Situation</td>
<td>.770</td>
<td>.042</td>
<td>.037</td>
<td>.283</td>
</tr>
<tr>
<td>Valorization of Time and Age</td>
<td>.611</td>
<td>.004</td>
<td>.135</td>
<td>.250</td>
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<tr>
<td>Sense of Limit and Existential Issues</td>
<td>.685</td>
<td>.003</td>
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<td>.294</td>
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<td>3.486</td>
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<tr>
<td>Inertia</td>
<td>.436</td>
<td>.278</td>
<td>.158</td>
<td>.291</td>
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<tr>
<td>% of Variance</td>
<td>43.626</td>
<td>27.767</td>
<td>15.761</td>
<td>29.052</td>
</tr>
</tbody>
</table>

4. Discussion

The aim of this paper was to bring a fresh perspective to a relevant topic of interest in gerontology. This study prompted the emergence of contributors to AtA. “Sense of limit and existential issues”, “accomplishment, personal fulfilment and future projects”, “family, social and interpersonal attachment” and “health status, physical and intellectual functioning” were the most frequent contributors to AtA pointed out by this study’s participants. As to SA, overall older adults expressed positive SA in 87.5% of overall narratives). “Without concern” and “young-at-heart” were the most referred SA for older adults.

For the Portuguese participants, the largest factor – “active” - accounted for 39.3% of total variance, whereas for German participants, “harmonized” represented 43.6% of total variance. “Attuned” was the least representative factor for Portuguese elderly (16.7% of total variance) and “young-at-heart” for the German participants (15.8% of total variance).

The MCA regarding the correlational structure of the two pre-categories, contributors to AtA and SA, emphasizes that these are largely explained by a three-factor “adjustment and age” overall model, for each nationality. Thus, for Portuguese participants, “with congruence”, “without concern”, “young-at-heart”, “family, social and interpersonal attachment”, “health status, physical and intellectual functioning” and “accomplishment, personal fulfillment, and future projects”, constituted the first factor (“active”).

A larger circle of friends is important to provide socializing functions and social activities have been found to be a robust predictor of well-being (Okun, Stock, Haring & Witter, 1984). Moreover, literature suggests that social relationships are not always supportive and pleasant, as they can, at times, be problematic (Rook, 1984) as attrition in social networks is partially attributed to functional loss, health disparities and the discontinuation of personal relationships (Lang, 2001).
The second factor (“concentrated”) gathered “with apprehension”, “good enough” and “occupation, profession, autonomy and leisure”. Previous studies indicated that 67.5% of happiness variance occurs at a within-person level, which can be partly attributed to the time seniors spend on various activities (Oerlemans, Bakker & Veenhoven, 2011).

Furthermore, growing literature suggested that older adults place a high value on independence – especially when faced with the prospect of being dependent on others for support (Cornwell, 2011) and that success in fulfilling challenges may yield a more positive perceived age (Kleinspehn-Ammerlahn, Kotter-Grühn & Smith, 2008; Ward, 2010).

Moreover, in our study, the third factor (“attuned”) comprised “valorization of time and age”, “sense of limit and existential issues:” and: “stability, quality and financial situation”; hence these older adults reflected and balanced time, age, sense of limit and other existential issues, according to existing literature that indicates that older individuals search for existential meaning and conscious aging (Malette & Oliver, 2006). Moreover, Brandstädter and Rothermund (2003) stressed the importance of time as an action resource and a source of meaning. The authors suggested that when only a limited residual lifetime remains, the future consequences of actions may be questionable and individuals are therefore likely to shift their goals and value orientations. This theoretical assumption has been supported by a series of studies demonstrating that the experience and awareness that one’s lifetime is running out leads to a shift to intrinsic or ego-transcending goals (Brandstädter, Rothermund, Kranz & Kühn, 2010).

For German participants living in the community, the first factor (“harmonized”) assembled “with congruence”, “without concern”, “accomplishment, personal fulfillment, and future projects”, “stability, quality and financial situation”, “valorization of time and age”, “sense of limit and existential issues”. Literature indicates that productive activities (Wahrendorf & Siegrist, 2010) and that professional engagement especially with peers (Stevens-Ratchford, 2005; Stevens-Ratchford & Diaz, 2003), contributed to the well-being of older adults. Moreover, previous literature indicated that the relationship between subjective and objective closeness to death might further be indicative of a self-fulfilling prophecy (Kotter-Grühn, Grühn & Smith, 2010). That is, those who believe that their time is running out might die earlier because of this belief; they simply ‘give up’ or lose the will-to-live. In contrast to those who give up, some individuals might never report feeling close to death, which would be in line with the notion that, in general, people suppress or avoid death-related thoughts (Goldenberg & Arndt, 2008). This could represent either a form of denial (i.e., not being able or willing to admit to oneself that one’s time is running out) or optimism, which, in turn, may be adaptive in that this positive attitude contributes to longer survival (Seligman, 2000).

“With apprehension”, “family, social and interpersonal attachment” and “occupation, profession, autonomy and leisure” constituted the second factor (“focused”). Growing literature suggested that being active in old age may satisfy various personal needs (Ryan & Deci, 2000) and that the more a person is able to balance effortful activities with activities that enable recovery on a day-to-day level, the higher the potential happiness a person may experience (Oerlemans, Bakker & Veenhoven, 2011).

Furthermore, for German elderly living abroad, when family support was not available, more varied forms of support were tapped to meet their needs (e.g., friends, professional peers, neighbors). Despite the fact that no one would doubt that both family and friends play important support functions (Adams & Blieszner, 1995), recent research suggest friends may be more contributive to well-being in older adults than the family (Cheng, Li, Leung & Chan, 2011).

The third factor (“young-at-heart”) assembled “young-at-heart”, “good enough” and “health status, physical and intellectual functioning”. Yet, the first two categories (both .349) had a low loading in this factor, which indicated that these categories are not very significant in this factor. It must be noted that social activities, physical activities and cognitive activities do in fact appear to be positively related to psychological well-being among seniors (Oerlemans, Bakker, & Veenhoven, 2011).

Furthermore, following research will help shed light on the potential of aging well and on AtA. Future work should avoid the limitations of this study. Although our sample size is big enough for a qualitative study, the use of a convenience sample method could have resulted in some selection bias. Sampling of participants was performed with the objective of facilitating the detection of age-specific differences. Thus, normal age group classification was not followed, with resulting difficulty in further comparative analysis. Additionally, the interviews were only semi-structured. Even though the interviews were conducted with a view to being bias free, two core areas were predefined to be addressed. Thus, interviews tended to be steered to these areas which could have biased the results. Moreover, semi-structured interviews were analyzed, employing content analysis.
Further research should include the triangulation method of grounded theory by combining both qualitative and quantitative analysis (Glaser & Strauss, 1967; Strauss & Corbin, 1990). Finally, our findings cannot be generalized to other samples and only reveal the perceptions of our participants. It indicated only relevant clues to take into account in broad assessment for older adults, clinical practice and future research.

Although this sample comprised older adults from 74 to 100 years old, more studies are needed with older adults younger than 74. The support on variety of aging well presented in this paper is an important contribution to the under-developed potential of the overall model that joins the concepts of “adjustment” and “age” in this population.

Although we have a lot of possible indicators of quality of care, we should go deep in this discussion at EU level, to be able to settle what basic policies versus supplementary policies are. In brief, we consider the questions about adjustment to the process of aging and SA to be critical aspects for the well-being of the elderly.

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