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# Sense of humor among the elderly

## Findings using the German version of the SHS

**Little is known about sense of humor and its correlates in the elderly. Studying differences in humor across the lifespan is beneficial for people of all ages. However, knowing how elderly people deal with humor might be of added importance for those working with aged persons, as this might be crucial for finding a fruitful communication base. In addition, relationships with quality of life are of interest as they might be potential indicators for intervention programs. Paul McGhee's conceptualization of sense of humor is used in this study.**

### Concepts of humor

There are different conceptualizations of humor in personality research [7, 8]. Some researchers were interested in the temperamental basis of humor [10, 11], while others tried to comprehensively identify the behavioral domains of everyday humorous conduct, humor-related behaviors or behavior tendencies, aggregated styles of humorous conduct [2, 3], or adaptive and maladaptive dimensions of humor [4].

### The Sense of Humor Scale

Paul McGhee [5] favored a multi-faceted concept of sense of humor. He argues that humor is a form of play—the play with ideas. A playful frame of mind (as opposed to a serious one) is important to successfully process humorous stimuli. McGhee argues that *playfulness* forms the

basis for *sense of humor*, which is composed of six less basic components (facets) or humor skills. They are hierarchically organized from *enjoyment of humor* to *finding humor under stress*, with the ones higher in the hierarchy being more difficult to develop. He introduced a rationally constructed scale (Sense of Humor Scale, SHS) [5] for measuring these aspects.

### ➤ Humor is a form of play – the play with ideas

McGhee's model is not only of theoretical but also of practical interest. He postulates that playfulness is inherited but individuals become serious when they grow up, which in turn impairs their sense of humor. Thus, the rediscovery of playfulness is a trigger for activating a person's sense of humor. McGhee developed an eight-step program to train sense of humor. This dynamic part of this model is not yet supported. There is no empirical study aimed at examining whether a shift in seriousness vs. playfulness indeed enhances the sense of humor. There is first evidence that training changes several components of the sense of humor [15], and the intervention program that comes with the scale does involve a training of the skills measured by this scale. Thus far, there are no studies testing this program with an elderly population.

Ruch and Carrell [9] used the American and German versions of the SHS in an empirical study. Factor analyses of the data suggested two or three factors, but not the general factor implied by the original mo-

del. The six components (and only those) were found to form a homogeneous factor that is separate from the original good vs. bad mood and seriousness vs. playful factors. The reliabilities of the subscales (with five items each) yielded coefficients between 0.56 and 0.78 with a median of 0.71. This indicates that this version cannot be recommended for practical use because of its low reliabilities (subscale "laughter"). In addition, the trait cheerfulness and sense of humor correlated highly ( $r=0.85$ ), i.e., they were practically interchangeable. Overall, the SHS scales showed a high convergent validity with the State-Trait Cheerfulness Inventory (STCI) scales [9], and the sense of humor scale was almost interchangeable with the trait cheerfulness.

As a result of the Ruch and Carrell study, McGhee [5] introduced a new scoring scheme with three factors, i.e., playful vs. serious attitude, positive vs. negative mood, and sense of humor, whereby sense of humor consists of six facets (enjoyment of humor, laughter, verbal humor, finding humor in everyday life, laughing at yourself, and humor under stress). In addition, a total score can be computed using all the items of the SHS.

### Are there age differences in the SHS?

Studies by Ruch et al. [14, 14], who examined humor in a cross-sectional design within a positive psychology framework, suggested that there is a decline with age

**Tab. 1** Distribution, mean score differences, and reliability of the SHS scores in five different age samples

	Play	Mood	SoH	Enjoy	Laugh	Verbal	EDay	YSelf	Stress	Total
<b>Group 1</b>										
M	4.88	4.22 <sup>ab</sup>	17.28	15.93	16.18 <sup>abc</sup>	16.81	20.05	18.35	16.37	164.49
SD	0.86	1.13	3.52	4.14	4.56	4.76	4.22	4.79	5.22	29.53
Sk	-0.27	-0.07	-0.16	0.36	0.13	-0.15	-0.47	-0.49	-0.11	-0.11
K	-0.44	-0.66	-0.56	-0.16	-0.73	-0.34	0.53	0.48	-0.48	-0.55
Alpha	0.74	0.84	0.90	0.52	0.61	0.67	0.73	0.74	0.81	0.93
Cmin	0.24	0.47	0.07	0.21	0.30	0.39	0.47	0.45	0.59	0.01
Cmax	0.55	0.76	0.65	0.42	0.55	0.61	0.59	0.62	0.71	0.67
<b>Group 2</b>										
M	4.98	4.45 <sup>cd</sup>	17.0	15.34	15.80 <sup>def</sup>	16.00	19.53	18.66	16.97	164.33
SD	0.85	1.00	3.48	3.89	4.18	4.72	4.02	4.71	5.65	29.19
Sk	-0.64	-0.16	-0.50	-0.09	-0.10	-0.29	-0.78	-0.61	-0.21	-0.56
K	0.62	-0.54	0.29	0.01	-0.67	-0.33	1.32	0.41	-0.53	0.35
Alpha	0.73	0.82	0.90	0.44	0.55	0.71	0.68	0.74	0.88	0.92
Cmin	0.23	0.44	0.17	0.15	0.27	0.45	0.38	0.49	0.63	0.11
Cmax	0.58	0.76	0.76	0.31	0.41	0.59	0.53	0.63	0.77	0.72
<b>Group 3</b>										
M	4.90	4.50 <sup>c</sup>	16.70	15.17	14.94 <sup>ad</sup>	15.92	19.41	18.24	16.53	162.01
SD	0.87	1.02	3.35	4.10	4.34	4.66	3.76	4.83	5.34	29.01
Sk	-0.46	-0.23	-0.34	0.22	-0.11	-0.28	-0.40	-0.43	-0.14	-0.33
K	0.21	-0.41	0.16	0.15	-0.44	-0.34	0.85	-0.26	-0.37	0.06
Alpha	0.77	0.83	0.90	0.51	0.57	0.73	0.70	0.81	0.84	0.92
Cmin	0.35	0.51	0.13	0.23	0.29	0.46	0.44	0.56	0.65	0.13
Cmax	0.60	0.75	0.68	0.39	0.43	0.62	0.54	0.69	0.70	0.68
<b>Group 4</b>										
M	4.85	4.66 <sup>ac</sup>	16.68	14.84	14.58 <sup>be</sup>	15.92	19.36	18.40	16.97	162.50
SD	0.80	1.11	3.33	4.11	4.54	4.36	3.67	4.26	5.11	29.01
Sk	-0.12	-0.58	-0.11	0.17	-0.18	-0.09	-0.08	-0.18	-0.47	-0.08
K	0.08	-0.13	0.13	-0.22	-0.42	0.16	0.47	-0.54	-0.27	-0.10
Alpha	0.73	0.88	0.90	0.56	0.61	0.72	0.70	0.72	0.84	0.93
Cmin	0.29	0.53	0.21	0.28	0.25	0.48	0.39	0.42	0.66	0.16
Cmax	0.54	0.78	0.71	0.46	0.52	0.58	0.59	0.57	0.70	0.69
<b>Group 5</b>										
M	4.72	5.01 <sup>bde</sup>	16.28	14.15	13.61 <sup>cf</sup>	15.71	19.59	17.22	17.39	160.98
SD	0.71	0.93	2.88	4.02	4.55	3.48	3.18	4.46	4.69	23.09
Sk	0.39	-0.15	-0.04	0.13	0.11	-0.60	-0.12	-0.60	-0.26	-0.19
K	0.51	0.15	-0.36	-1.07	0.01	-0.10	-0.49	1.55	-0.24	0.36
Alpha	0.59	0.78	0.87	0.55	0.67	0.53	0.61	0.74	0.84	0.90
Cmin	0.13	0.37	0.00	0.01	0.35	0.02	0.26	0.43	0.60	0.02
Cmax	0.43	0.79	0.70	0.50	0.69	0.56	0.56	0.64	0.75	0.70
<b>ANOVA</b>										
SS	3.19	15.67	62.15	147.01	418.82	93.95	47.87	80.28	74.68	1296.70
MS	0.80	3.92	15.54	36.75	104.70	23.49	11.97	20.10	18.67	324.17
F	1.12	3.58 <sup>**</sup>	1.36	2.23	5.42 <sup>***</sup>	1.12	0.81	0.92	0.66	0.39

Group 1=18–29 years (n=143), Group 2=30–39 (n=238), Group 3=40–49 (n=378), Group 4=50–59 (n=198), Group 5=60–74 (n=41). Play playful vs. serious attitude; Mood positive vs. negative mood; SoH sense of humor; Enjoy enjoyment of humor; Laugh laughter; Verbal verbal humor; Eday humor in everyday life; YSelf laughing at yourself; Stress humor under stress; Total total score of all SHS items; M mean; SD standard deviation; Sk skewness; K kurtosis; alpha Cronbach alpha (internal consistency); Cmin/Cmax minimum/maximum of corrected item-total correlation; ANOVA: grouping variable age groups, dependent variables SHS scales; SS sum of squares, MS mean squares, F F ratio.<sup>a-f</sup> means sharing a superscript differ significantly from each other. <sup>\*</sup>p<0.05; <sup>\*\*</sup>p<0.01; <sup>\*\*\*</sup>p<0.001.

but that the oldest persons in the sample yielded higher scores again.

— This study depicts that there are changes in humor throughout the lifespan but that they are not linear.

Thus far, there are no data on the SHS that directly refer to an older population. There were two facets of sense of humor that yielded age differences. Younger participants were higher in their enjoyment of verbal humor ( $r=-0.30$ ,  $p<0.01$ ) and found more humor in everyday life ( $r=-0.20$ ,  $p<0.05$ , both  $n=151$ ). Thus, there is a hint of a decline of certain facets of the SHS with age. However, these results need a broader basis before they can be interpreted at the content level.

### The SHS in an elderly population

Ruch et al. [12] adapted the revised form of the SHS [5] to German. It consists of 40 items in a seven-point answer format (1=strongly agree to 7=strongly disagree) and measures the three domains of the sense of humor, i.e., playful vs. serious attitude (8 items; a sample item is: “I am in a serious frame of mind most of the time”), positive vs. negative mood (8 items; “I am often depressed”), sense of humor (24 items; “I generally look for sitcoms or other funny programs to watch on TV”) that consists of five humor skills (“enjoyment of humor,” “verbal humor,” “humor in everyday life,” “laughing at yourself,” and “humor under stress”).

The Ruch et al. [12] data show that the scale is reliable (the alpha coefficients for the domains were between 0.74 and 0.90) and useful for research purposes. It can be well localized within current personality models (it shows stable relations to higher extraversion and lower neuroticism), and to variables of positive psychological functioning. For example, optimism is a very potent predictor of playfulness, positive mood, and the sense of humor (while pessimism has an inverse relationship with these relations). The same was true for the humor skills—yet, enjoyment of humor existed independently from optimism and pessimism ( $r^2\leq 0.01$ ). A similar relation was found to personal (and to a lower degree for national) well-being

## Abstract · Zusammenfassung

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### Sense of humor among the elderly. Findings using the German version of the SHS

#### Abstract

Empirical studies on humor among the elderly are lacking. Based on the model of sense of humor by Paul McGhee, different age groups are compared ( $n=979$ ) in the present study. Data suggest that playfulness and sense of humor are stable across different age groups (in a cross-sectional design) but that elderly participants were highest in positive mood. However, they also indicated that they laughed less and less easily than younger participants. Among the elderly, those who frequently (more than once a week) meet with friends and colleagues yielded higher expressions in different aspects of the sense of humor than those who

meet friends and colleagues less often. Generally, humor was positively associated with personal and national well-being. However, among those participants older than 60 years of age, national well-being (i.e., satisfaction with the government, safety, or economics in the country) was negatively related to humor. Results are discussed together with a general outlook on the use of humor interventions for increasing the well-being and quality of life of elderly people.

#### Keywords

Elderly · Humor · Sense of humor scale · Well-being

### Sinn für Humor bei Älteren. Untersuchungen mit einer deutschen Fassung der Sense-of-Humor-Scale

#### Zusammenfassung

Es fehlt an empirischen Studien, die sich mit dem Humor älterer Menschen beschäftigen. Auf der Basis von Paul McGhees Modell zum Sinn für Humor wurden in der vorliegenden Untersuchung Menschen ( $n=979$ ) verschiedener Altersgruppen in ihrem Sinn für Humor verglichen. Die (Querschnitts-)Daten legen nahe, dass eine spielerische Haltung („playfulness“) und der Sinn für Humor über verschiedene Altersgruppen hinweg stabil bleiben. Die ältesten TeilnehmerInnen erzielten die höchsten Werte in positiver Stimmung, sie gaben allerdings auch an, dass sie weniger und weniger leicht lachen als Jüngere. Unter den älteren TeilnehmerInnen erzielten jene Personen, die sich häufig (mehr als einmal pro Woche) mit Freunden treffen, höhere Werte in verschiedenen Aspekten des Sinns

für Humor als jene, die sich weniger häufig mit Freunden treffen. Im Allgemeinen war Humor positiv mit persönlichem und nationalem Wohlbefinden korreliert, in der Gruppe der über 60-Jährigen zeigten sich allerdings negative Zusammenhänge mit dem nationalen Wohlbefinden (das betrifft beispielsweise die Zufriedenheit mit der Regierung, Fragen der Sicherheit oder der wirtschaftlichen Situation des Landes). Die Ergebnisse werden diskutiert im Zusammenhang mit den Möglichkeiten von Humorinterventionen, um Lebenszufriedenheit und Lebensqualität älterer Menschen zu steigern.

#### Schlüsselwörter

Ältere Menschen · Humor · Sinn für Humor-Skala · Wohlbefinden

(again enjoyment of humor but also verbal humor were virtually unrelated).

## Method

For the present article, we reanalyzed these data with a special focus on an elderly population. The basic sample consisted of  $n=979$  participants. There were 154 male and 823 female subjects (2 subjects did not specify their gender). The mean age was 41.92 years ( $SD=10.56$ ) and ranged from 18 to 74 years. From the answers given, 41.27% were married (or in a registered partnership), 16.45% were not married but lived together with their partner, 11.34% were in a partnership but did not live with their partner, 9.50% were separated or divorced, and 0.51% were widowed. In addition to the SHS, we also used the International Well-being Index (IWI) for some of the analyses [3, 6] which measures personal and national well-being.

## Results

### Mean score differences in the SHS across the lifespan

The total sample was split into five age groups. For each of these groups, we computed the distribution of the scores, reliabilities, and mean level differences across the groups (■ **Tab. 1**).

It is shown in ■ **Tab. 1** that the SHS scores were normally distributed in all age samples. Furthermore, they yielded acceptable to high reliability coefficients in each age group. Exceptions were playfulness in the sample of the oldest participants and enjoyment of humor in all groups. Some of the corrected-item total correlations were low, but on average, they were in an acceptable range.

Two of the SHS scales yielded significant age differences. First, there were considerable mean level differences for the mood scale. The older the participants were the higher their *positive mood* was. The oldest group (i.e., those older than 60) yielded the highest mean score—higher than any of the other groups (except for those older than 50). There were no differences within the three youngest groups. Second, with respect to humor skills, *laughing* decreased with age. The

three oldest groups differed significantly from the two youngest (neither the two youngest nor the three oldest groups differed from each other); thus, they indicate being able to laugh less and less easily.

Additional analyses (not shown in ■ **Tab. 1**) were conducted with the two oldest age groups to examine what their factors contribute to humor experiences in older age. There were no differences in the variables being single vs. being in a partnership, practicing one's religion vs. not practicing one's religion, educational level, or alcohol and nicotine consumption. However, those who frequently (more than once a week) met with friends and colleagues scored higher in all three of the main scales compared with those who do not meet friends at all or less than weekly, i.e., playfulness ( $t(230)=3.78$ ,  $p<0.01$ ;  $M=4.93$  [ $SD=0.78$ ] vs.  $M=4.45$  [ $SD=0.72$ ];  $d=0.63$ ); positive mood ( $t(230)=4.51$ ,  $p<0.01$ ;  $M=4.90$  [ $SD=0.97$ ] vs.  $M=4.13$  [ $SD=1.21$ ];  $d=0.75$ ); and sense of humor ( $t(230)=2.01$ ,  $p<0.05$ ;  $M=16.84$  [ $SD=3.32$ ] vs.  $M=15.77$  [ $SD=2.89$ ];  $d=0.33$ ). They were also higher in three humor skills: verbal humor ( $t(230)=2.27$ ,  $p<0.05$ ;  $M=16.19$  [ $SD=4.20$ ] vs.  $M=14.63$  [ $SD=4.15$ ];  $d=0.37$ ), finding humor in everyday life ( $t(230)=2.04$ ,  $p<0.05$ ;  $M=19.66$  [ $SD=3.68$ ] vs.  $M=18.46$  [ $SD=3.04$ ];  $d=0.33$ ), and humor under stress ( $t(230)=2.21$ ,  $p<0.05$ ;  $M=17.46$  [ $SD=5.00$ ] vs.  $M=15.62$  [ $SD=4.90$ ];  $d=0.37$ ).

### Humor and well-being among the elderly

Proyer et al. [12] also collected data on the relation between the SHS and different indicators of (personal and national) well-being. We reanalyzed these data by splitting the sample into four age groups and computed Pearson correlation coefficients with the items from the International Well-being Index [6] in each of the age groups (■ **Fig. 1**).

The differences in the relation to different indicators of well-being in the four age groups are shown in ■ **Fig. 1**.

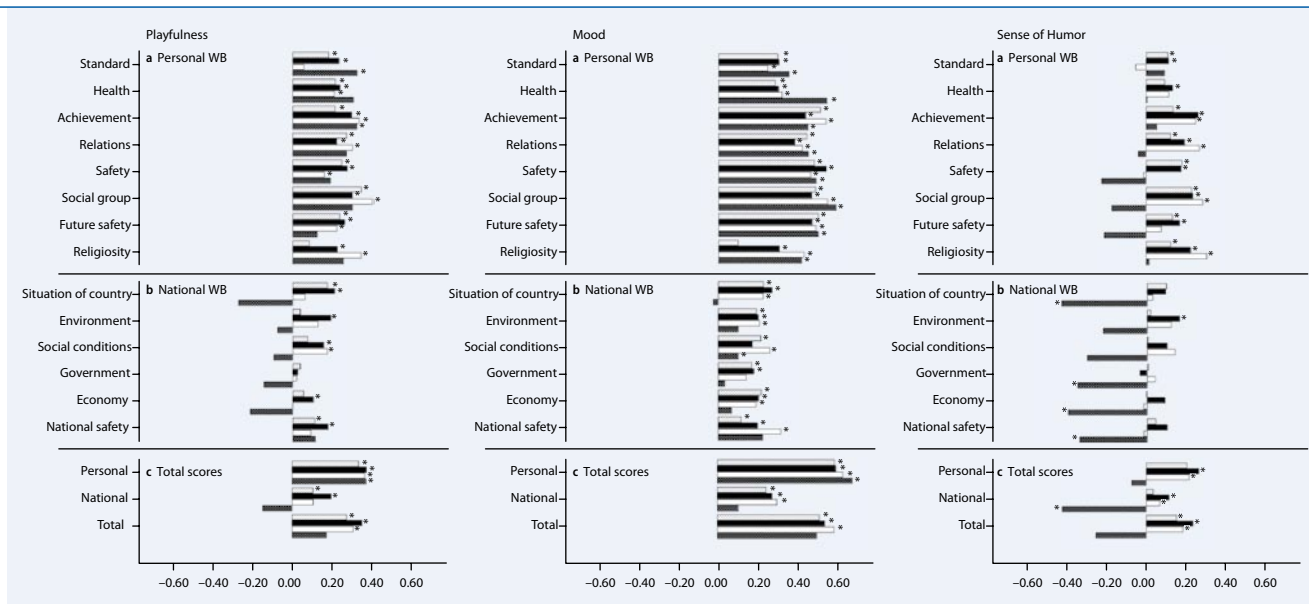
— **Striking is that all negative relations to indicators of well-being were found for the oldest group (i.e., >60 years).**

For example, elderly persons with a higher sense of humor tended to feel less safe (at the moment and expected for the future) and less happy with their social group. However, it should be noted that no data were available on whether those participants suffered from any physical illnesses or from psychological disturbances that might distort feelings of safety or whether they suffered from many losses within their social group.

Equally important as the discussion of negative relations is that there do not seem to be major differences in the relation of playfulness and (positive) mood to different indicators of personal well-being. Though some of the correlation coefficients failed to reach statistical significance (due to the smaller number of persons in these groups), a playful frame of mind seemed to contribute to personal well-being of the elderly. In some cases (disregarding statistical significance), it even exceeded the coefficients of younger participants (e.g., satisfaction with the standard of living or with one's own health condition or one's religiousness). A similar picture, yet with higher correlation coefficients, was found for the relation between positive mood and higher personal well-being.

These relations were also found for the total score. However, as this is an averaged score across all scales it would not be fair to say that a higher sense of humor correlates with a lower personal well-being in the elderly in general. This holds true (but is not statistically significant) for those indicators that deal with safety and group cohesion. For the latter, it could be hypothesized that the lack of social contacts or dissatisfaction with the existing contacts must be especially harmful to those with a higher sense of humor score and who want to share this with others.

The results were different for the indicators national well-being. A higher sense of humor score in the elderly was associated primarily with dissatisfaction about the economy and the economic situation of the country, about the government, and national safety. Likewise, playful elderly persons indicated lower satisfaction with the general (economic) situation of the country. Positive mood in the elderly



**Fig. 1** ▲ Correlations between single indicators of personal and national well-being and playfulness, mood, and sense of humor. White block with black dots=<40 years of age ( $n=381$ ), black block=<50 ( $n=378$ ), white block=<60 ( $n=198$ ), black block with white dots=>60 years ( $n=41$ ). WB well-being

existed independently to the expression of national well-being in the elderly.

Overall, these analyses suggest that the relation between well-being (be it personal or national) and humor is not as straightforward as among younger people. In particular, the negative relations to indicators of national well-being need further explanation. However, it should be pointed out that (unlike that for the personal well-being) there is little theoretical basis that humor should be related to national well-being at all. Despite this, there seems to be such a relation, of course lower than for the personal well-being, among younger adults. Different variables might mediate this relation. We tested (separately via partial correlations) the influence of both demographic (educational level, size of town the participants were living in) and psychological variables (psychoticism, extraversion, and neuroticism<sup>1</sup>) as potential mediators. Although some of them reduced the negative correlations for some of the variables (while others led to even higher negative relations, e.g., controlling for the educational level led to a higher negative correlation between playfulness and national well-being;  $r=-0.28$ , n.s.) but none of them see-

med to solely have a marked influence<sup>2</sup>. These analyses suggest that other variables seem to be of greater importance. For example, one might think of the economic situation of the person him-/herself that reflects on the national level but also on different factors such as care (needed and received) or the level of activity. In addition, one has to consider limitations of the sample, such as those persons over 60 years of age with access to the Internet and willing to complete longer test batteries on the Internet might not necessarily be representative for the population.

Without going into too many details it should be noted that the results were highly similar for the humor skills. In the younger age groups, finding humor in everyday life in particular was associated with higher satisfaction with one's social contacts ( $r$ s between  $r=0.24$  and  $0.36$ ,  $p<0.01$ ). Notable negative correlation coefficients were only found for those older than 60 years of age. A few of these relations should be highlighted. For example, those who felt dissatisfaction about their personal future were lower in verbal humor ( $r=-0.41$ ,  $p<0.01$ ). Greatest dissatisfaction about the national well-being was experienced by those who do not use humor under stress (me-

dian  $r=-0.33$ ) and by those with lower inclination to finding humor in everyday life (median  $r=-0.32$ ).

## Discussion and implications for practice

The study revealed several interesting findings about the sense of humor in the elderly. First of all, age does not seem to have a major impact on playfulness or on the sense of humor; both remain stable over the age span. Further good news is that positive mood increases with age. This might be related to the upcoming retirement. In our cross-sectional data, the oldest participants were those displaying the highest positive mood. However, the older people were, the less often and the less easily they laughed (facet laughter of the SHS). Those older than 60 years who spend more time with friends in a typical week yielded higher levels of playfulness, higher positive mood, and a higher sense of humor (compared to those who spend less time with their friends). Similar findings were found for the time spent with the partner or with the time spent with one's hobbies. Likewise one might think that the activity level seems to contribute to how people deal with humor and laughter in older age. Furthermore, a higher level of social activities might contribute to well-being among the elderly. However,

<sup>1</sup> Assessed via the standard form of the revised Eysenck Personality Questionnaire (EPQ-R).

<sup>2</sup> Controlling for all variables simultaneously in one analysis also did not change the coefficients strongly.

it has to be noted that the kind of activity is also of relevance. For example, those (elderly) participants who spend more time working or who spent more time using the Internet yielded higher negative mood and were less prone of finding humor in their everyday life.

► **Positive mood increases with age**

The sense of humor scales were generally related to positive aspects of life such as optimism (and negatively to pessimism) and to different aspects of well-being [12]. However, these relations were not found in all age groups. A higher sense of humor was related to lowered well-being in the oldest age-group (60–74 years) in our sample. This was mainly reflected in a greater dissatisfaction about indicators of national well-being (e.g., economic status of the country, its government, or safety of the country). It can only be speculated whether the financial crisis that hit countries all over the world had a special impact on the elderly and how this might be related to sense of humor. It might also be speculated how retirement affects these relations (e.g., different perspective towards society and institutions). However, these results should be replicated with a larger sample. Not only cross-sectional but also longitudinal data would be necessary to obtain a broader picture of the sense of humor among the elderly. Nevertheless, this study can be interpreted as a first step in this direction. It also suggests that interventions facilitating the sense of humor such as McGhee's eight-step program [5] might be key to improving well-being among the elderly. Two steps in the program are "finding humor in everyday life" and "surrounding oneself with humor." These two might be of special relevance for people who tend to laugh less and less easily!

**Conclusion**

Data and studies on sense of humor among elderly people are lacking. In this study, neither playfulness nor the sense of humor varied strongly across the lifespan, and positive mood was highest among the oldest participants. A higher sense of hu-

mor score seems to be negatively related to indicators of national well-being among the elderly, and intervention programs for fostering one's sense of humor might be useful in improving quality of life and satisfaction with life among the elderly.

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