

APPENDICES

Appendix A: Study 1

*Additional Information on Instructions of the Central Measurement Instruments*Box A1. *Study 1: Instruction on the Generation of Personal Goals (T1)*

People generally have quite a few **ideas of how they want to live their life**, what they personally **plan**, what they **wish, would like, or would not like**. Such projects or plans can pertain to various different life domains (e.g., leisure, work, health, social relationships). They can pertain to the near or distant future (e.g., “to remain in my apartment in the following years” or “to meet friends more frequently in the next few days”). They can pertain to everyday (e.g., “to eat healthy food every day”) or to far-reaching issues (e.g., “to live a mentally active life”). In addition, such projects/plans can focus on **improvement or learning of new things** (e.g., “to improve cognitive abilities”, “to learn a foreign language”). However, they can also focus on **maintenance** (e.g., “to keep going to participate in the drawing class”). And, they can focus on **prevention of negative outcomes or losses** (e.g., “not to spend less time on political activities”).

On the following pages we are interested in learning what your most important projects/plans are. (*We continue with the domain of **thinking and cognitive functioning**; we continue with the domain of **physical activity and fitness***).^(a) Please think for a few moments about what **your two most important projects or plans** are (*in the domain of **thinking and cognitive functioning**; in the domain of **physical activity and fitness***). Please list these on the respective lines. For each of these projects or plans, find a keyword and write this on the respective line.

What I personally plan, wish, would like, and would not like at present and in the following weeks, months, and years (*in the domain of **thinking and cognitive functioning**; in the domain of **physical activity and fitness***)...

German wording:

Menschen haben allgemein recht vielfältige **Vorstellungen** darüber, **wie sie ihr Leben gestalten**, was **sie sich vornehmen**, was **sie sich wünschen**, was **sie möchten** und was **sie nicht möchten**. Solche Vorhaben können sich auf ganz unterschiedliche Lebensbereiche beziehen (z.B. Freizeit, Arbeit, Gesundheit, zwischenmenschliche Beziehungen). Sie können langfristig oder auch kurzfristig sein (z.B. „In den nächsten Jahren in meiner Wohnung bleiben“ oder „In der nächsten Zeit regelmäßiger Freunde treffen“). Es kann sich hierbei um alltägliche Dinge handeln (z.B. „Sich jeden Tag gesund ernähren“) oder um weit reichende Angelegenheiten (z.B. „Ein geistig aktives Leben führen“). Darüber hinaus können sich Vorhaben auf **Verbessern oder Neues Erreichen** beziehen (z.B. „Geistige Fähigkeiten verbessern“, „Eine Fremdsprache lernen“). Sie können sich auch auf **Aufrechterhalten** richten (z.B. „Den Zeichenkurs weiterhin besuchen“). Und sie können sich auf **Vermeiden von schlechten Dingen und Verlusten** beziehen (z.B. „Ich möchte nicht weniger Zeit auf meine politischen Aktivitäten verwenden“).

Auf den nächsten Seiten sind wir daran interessiert von Ihnen zu erfahren, was **Ihre wichtigsten Vorhaben** sind. (*Wir kommen nun zum Bereich **Denken und geistige Fitness**; wir kommen nun zum Bereich **körperliche Bewegung und Fitness***). Bitte denken Sie einen Moment lang darüber nach, was **Ihre 2 wichtigsten Vorhaben** sind (*im Bereich **Denken und geistige Fitness**; im Bereich **körperliche Bewegung und Fitness***). Schreiben Sie diese dann bitte auf die dafür vorgesehenen Zeilen. Bitte finden Sie für jedes dieser Vorhaben ein Stichwort und schreiben Sie dieses auf die dafür vorgesehene Linie.

Was ich mir gegenwärtig und in den kommenden Wochen, Monaten und Jahren (*im Bereich **Denken und geistige Fitness**; im Bereich **körperliche Bewegung und Fitness***) **vornehme, was ich mir wünsche, was ich möchte und was ich nicht möchte...**

Box A2. *Study 1: Instruction on Personal Goal Orientation of Goals in Various Life Domains (T1)*

As mentioned above, projects and goals can pertain to various different life domains (e.g., partnership, physical functioning, cognitive functioning, family, health and well-being, personality and self, friends and acquaintances, leisure, finances and personal belongings, education, work, and work-related activities, living situation, and politics and world issues). You have already worked on some of these domains just now.

Next, we are interested in learning how you **evaluate your projects/plans in your life in general and in each of the different life domains**. For this reason, following next, we have listed some life domains. Please evaluate to what degree you think your projects/plans in your life in general and in each of the life domains constitute **growth, maintenance or prevention of loss goals**. Please indicate the number that represents your opinion best. There are no correct or wrong answers.

German wording:

Wie bereits erwähnt, können sich Vorhaben und Ziele auf ganz unterschiedliche Lebensbereiche beziehen (z.B. Partnerschaft, Körperliche Fähigkeiten, Geistige Fähigkeiten, Familie, Gesundheit und Wohlbefinden, Persönliche Eigenschaften und Selbstbild, Freunde und Bekannte, Freizeit und Hobbies, Finanzielle Situation und Persönlicher Besitz, Bildung, Arbeit und Arbeitsähnliche Beschäftigungen, Lebensort und Wohnsituation oder Politik und Weltsituation). Einige davon haben Sie gerade eben ja schon genauer bearbeitet.

Wir sind nun daran interessiert, von Ihnen zu erfahren, wie **Sie Ihre Vorhaben in Ihrem Leben insgesamt und in den einzelnen unterschiedlichen Lebensbereichen** beurteilen. Dazu haben wir im Folgenden einige Lebensbereiche für Sie zusammengestellt. Bitte beurteilen Sie, inwieweit es sich Ihrer Meinung nach bei Ihren Vorhaben in Ihrem Leben insgesamt und in jedem einzelnen dieser Lebensbereiche um **Verbesserns- oder Erreichensziele, Aufrechterhaltensziele** oder **Verlust-Vermeidensziele** handelt. Kreuzen Sie bitte jeweils die Zahl an, die Ihre eigene Einschätzung am Besten wiedergibt. Es gibt dabei keine richtigen oder falschen Antworten.

Additional Descriptive and Psychometrical Information on the Central Variables

Table A1. *Study 1: Descriptive Information on the Three Dimensions of Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (T1 and T2; Across All Self-Generated Goals; 6 Goals)*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) |
|--|--------------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|----------------------------------|
| Growth | | | | | | | | | |
| T1 | None | Total sample | 6.26 | 1.41 | -1.2 | (.25) | 1.33 | (.50) | .90 (.00) |
| | | <i>Younger sample</i> | 6.58 | 1.08 | -.97 | (.34) | .84 | (.67) | .93 (.01) |
| | | <i>Older sample</i> | 5.88 | 1.66 | -.91 | (.37) | .31 | (.72) | .91 (.00) |
| $F_{(1, 88)} = 5.72, MSE = 10.83, p < .05, \eta^2 = .06^{(b)(c)}$ | | | | | | | | | |
| T2 | 2 outliers (1 young, 1 old) | Total sample | 6.59 | 1.05 | -.99 | (.25) | .92 | (.50) | .92 (.00) |
| | | <i>Younger sample</i> | 6.70 | .83 | -.30 | (.34) | -.44 | (.67) | .95 (.04) |
| | | <i>Older sample</i> | 6.45 | 1.27 | -1.0 | (.37) | .21 | (.72) | .88 (.00) |
| $F_{(1, 88)} = 1.27, MSE = 1.40, n.s., \eta^2 = .01, 1 - \beta = .20^{(d)(e)}$ | | | | | | | | | |
| Maintenance | | | | | | | | | |
| T1 | 1 outlier (old) | Total sample | 5.45 | 1.67 | -.37 | (.25) | -.81 | (.50) | .96 (.01) |
| | | <i>Younger sample</i> | 4.77 | 1.61 | -.05 | (.34) | -.87 | (.67) | .97 (.27) |
| | | <i>Older sample</i> | 6.27 | 1.37 | -.81 | (.37) | .03 | (.72) | .92 (.01) |
| $F_{(1, 88)} = 22.17, MSE = 50.09, p < .05, \eta^2 = .20$ | | | | | | | | | |
| T2 | 1 outlier (old) | Total sample | 5.71 | 1.53 | -.39 | (.25) | -.55 | (.50) | .97 (.02) |
| | | <i>Younger sample</i> | 4.99 | 1.50 | .07 | (.34) | -.56 | (.67) | .98 (.53) |
| | | <i>Older sample</i> | 6.57 | 1.04 | -.37 | (.37) | -.64 | (.72) | .95 (.05) |
| $F_{(1, 88)} = 32.36, MSE = 55.80, p < .05, \eta^2 = .27^{(f)}$ | | | | | | | | | |
| Prevention of loss | | | | | | | | | |
| T1 | None | Total sample | 5.14 | 1.99 | -.56 | (.25) | -.76 | (.50) | .93 (.00) |
| | | <i>Younger sample</i> | 4.67 | 1.89 | -.33 | (.34) | -.88 | (.67) | .95 (.06) |
| | | <i>Older sample</i> | 5.70 | 1.98 | -1.0 | (.37) | .09 | (.72) | .87 (.00) |
| $F_{(1, 88)} = 6.34, MSE = 23.64, p < .05, \eta^2 = .07^{(g)}$ | | | | | | | | | |
| T2 | None | Total sample | 5.61 | 1.88 | -.69 | (.25) | -.41 | (.50) | .93 (.00) |
| | | <i>Younger sample</i> | 5.19 | 1.85 | -.34 | (.34) | -.92 | (.67) | .96 (.06) |
| | | <i>Older sample</i> | 6.10 | 1.82 | -1.3 | (.37) | 1.34 | (.72) | .87 (.00) |
| $F_{(1, 88)} = 5.46, MSE = 18.39, p < .05, \eta^2 = .06^{(h)}$ | | | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(c) Mann-Whitney *U* test: $U = 757.5, p < .05$

^(d) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(e) Mann-Whitney *U* test: $U = 979.5, n.s.$

^(f) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(g) Mann-Whitney *U* test: $U = 659, p < .05$

^(h) Mann-Whitney *U* test: $U = 689, p < .05$

Table A2. Study 1: Descriptive Information on the Three Dimensions of Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (T1 and T2; Across Self-Generated Domains; 2 Goals)

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) | |
|---|------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|----------------------------------|-------|
| Growth | | | | | | | | | | |
| T1 | 1 outlier (young) | Total sample | 6.49 | 1.65 | -1.4 | (.25) | 1.86 | (.50) | .83 | (.00) |
| | | <i>Younger sample</i> | 6.96 | 1.25 | -1.4 | (.34) | 1.28 | (.67) | .79 | (.00) |
| | | <i>Older sample</i> | 5.93 | 1.90 | -1.2 | (.37) | .82 | (.72) | .88 | (.00) |
| $F_{(1, 88)} = 9.55, MSE = 23.79, p < .05, \eta^2 = .10^{(b)(c)}$ | | | | | | | | | | |
| T2 | 1 outlier (old) | Total sample | 6.64 | 1.23 | -1.1 | (.25) | 1.01 | (.50) | .88 | (.00) |
| | | <i>Younger sample</i> | 6.91 | .85 | -.75 | (.34) | .26 | (.67) | .92 | (.00) |
| | | <i>Older sample</i> | 6.32 | 1.53 | -.74 | (.37) | -.37 | (.72) | .90 | (.00) |
| $F_{(1, 88)} = 5.37, MSE = 7.80, p < .05, \eta^2 = .06^{(d)(e)}$ | | | | | | | | | | |
| Maintenance | | | | | | | | | | |
| T1 | 1 outlier (old) | Total sample | 5.17 | 2.27 | -.35 | (.25) | -1.2 | (.50) | .92 | (.00) |
| | | <i>Younger sample</i> | 4.14 | 2.25 | .32 | (.34) | -1.1 | (.67) | .93 | (.01) |
| | | <i>Older sample</i> | 6.39 | 1.60 | -1.1 | (.37) | .36 | (.72) | .87 | (.00) |
| $F_{(1, 88)} = 28.78, MSE = 112.74, p < .05, \eta^2 = .25^{(f)(g)}$ | | | | | | | | | | |
| T2 | None | Total sample | 5.33 | 2.17 | -.48 | (.25) | -.92 | (.50) | .92 | (.00) |
| | | <i>Younger sample</i> | 4.47 | 2.20 | .05 | (.34) | -1.2 | (.67) | .94 | (.02) |
| | | <i>Older sample</i> | 6.35 | 1.65 | -1.2 | (.37) | 1.33 | (.72) | .86 | (.00) |
| $F_{(1, 88)} = 20.49, MSE = 79.26, p < .05, \eta^2 = .19^{(h)}$ | | | | | | | | | | |
| Prevention of loss | | | | | | | | | | |
| T1 | None | Total sample | 4.61 | 2.47 | -.11 | (.25) | -1.3 | (.50) | .90 | (.00) |
| | | <i>Younger sample</i> | 4.19 | 2.51 | .10 | (.34) | -1.4 | (.67) | .89 | (.00) |
| | | <i>Older sample</i> | 5.10 | 2.36 | -.34 | (.37) | -1.0 | (.72) | .91 | (.00) |
| $F_{(1, 88)} = 3.05, MSE = 18.2, n.s., \eta^2 = .03, 1 - \beta = .41^{(i)}$ | | | | | | | | | | |
| T2 | None | Total sample | 5.46 | 2.34 | -.58 | (.25) | -1.1 | (.50) | .88 | (.00) |
| | | <i>Younger sample</i> | 5.11 | 2.39 | -.36 | (.34) | -1.3 | (.67) | .89 | (.00) |
| | | <i>Older sample</i> | 5.87 | 2.24 | -.90 | (.37) | -.42 | (.72) | .84 | (.00) |
| $F_{(1, 88)} = 2.35, MSE = 12.7, n.s., \eta^2 = .03, 1 - \beta = .34^{(j)}$ | | | | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(c) Mann-Whitney U test: $U = 639, p < .05$

^(d) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(e) Mann-Whitney U test: $U = 827.5, n.s.$

^(f) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(g) Mann-Whitney U test: $U = 448, p < .05$

^(h) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

⁽ⁱ⁾ Mann-Whitney U test: $U = 789, n.s.$

^(j) Mann-Whitney U test: $U = 816.5, n.s.$

Table A3. *Study 1: Descriptive Information on the Three Dimensions of Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (T1 and T2; Across Cognitive Domain; 2 Goals)*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) | |
|---|--------------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|----------------------------------|-------|
| Growth | | | | | | | | | | |
| T1 | 1 outlier (young) | Total sample | 6.47 | 1.67 | -1.4 | (.25) | 1.9 | (.50) | .84 | (.00) |
| | | <i>Younger sample</i> | 6.91 | 1.19 | -.98 | (.34) | -.06 | (.67) | .84 | (.00) |
| | | <i>Older sample</i> | 5.94 | 1.99 | -1.1 | (.37) | .52 | (.72) | .87 | (.00) |
| $F_{(1, 88)} = 8.17, MSE = 20.97, p < .05, \eta^2 = .09^{(b)(c)}$ | | | | | | | | | | |
| T2 | 2 outliers (1 young, 1 old) | Total sample | 6.79 | 1.20 | -1.3 | (.25) | 1.51 | (.50) | .85 | (.00) |
| | | <i>Younger sample</i> | 6.81 | 1.09 | -1.1 | (.34) | .73 | (.67) | .88 | (.00) |
| | | <i>Older sample</i> | 6.78 | 1.32 | -1.5 | (.37) | 1.92 | (.72) | .81 | (.00) |
| $F_{(1, 88)} = .01, MSE = .01, n.s., \eta^2 = .00, 1 - \beta = .05^{(d)}$ | | | | | | | | | | |
| Maintenance | | | | | | | | | | |
| T1 | None | Total sample | 5.44 | 2.06 | -.56 | (.25) | -.63 | (.50) | .92 | (.00) |
| | | <i>Younger sample</i> | 4.92 | 1.92 | -.28 | (.34) | -.50 | (.67) | .96 | (.14) |
| | | <i>Older sample</i> | 6.07 | 2.07 | -1.1 | (.37) | .27 | (.72) | .84 | (.00) |
| $F_{(1, 88)} = 7.55, MSE = 29.77, p < .05, \eta^2 = .08$ | | | | | | | | | | |
| T2 | 1 outlier (old) | Total sample | 5.88 | 1.66 | -.48 | (.25) | -.66 | (.50) | .93 | (.00) |
| | | <i>Younger sample</i> | 5.22 | 1.63 | -.11 | (.34) | -.56 | (.67) | .96 | (.14) |
| | | <i>Older sample</i> | 6.67 | 1.33 | -1.0 | (.37) | .19 | (.72) | .84 | (.00) |
| $F_{(1, 88)} = 20.77, MSE = 46.69, p < .05, \eta^2 = .19$ | | | | | | | | | | |
| Prevention of loss | | | | | | | | | | |
| T1 | None | Total sample | 5.32 | 2.21 | -.53 | (.25) | -.81 | (.50) | .91 | (.00) |
| | | <i>Younger sample</i> | 4.77 | 2.07 | -.39 | (.34) | -.70 | (.67) | .94 | (.02) |
| | | <i>Older sample</i> | 5.98 | 2.21 | -.94 | (.37) | -.36 | (.72) | .84 | (.00) |
| $F_{(1, 88)} = 7.18, MSE = 32.70, p < .05, \eta^2 = .08$ | | | | | | | | | | |
| T2 | None | Total sample | 5.59 | 2.08 | -.72 | (.25) | -.44 | (.50) | .91 | (.00) |
| | | <i>Younger sample</i> | 5.17 | 1.97 | -.47 | (.34) | -.67 | (.67) | .94 | (.02) |
| | | <i>Older sample</i> | 6.09 | 2.12 | -1.2 | (.37) | .58 | (.72) | .83 | (.00) |
| $F_{(1, 88)} = 4.47, MSE = 18.56, p < .05, \eta^2 = .05^{(e)}$ | | | | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(c) Mann-Whitney *U* test: $U = 718.5, p < .05$

^(d) Mann-Whitney *U* test: $U = 963.5, n.s.$

^(e) Mann-Whitney *U* test: $U = 692.5, p < .05$

Table A4. *Study 1: Descriptive Information on the Three Dimensions of Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (T1 and T2; Across Physical Domain; 2 Goals)*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) | |
|--|------------------------|----------------|----------|-----------|-------------|---------------|-------------|---------------|----------------------------------|-------|
| Growth | | | | | | | | | | |
| T1 | None | Total sample | 5.81 | 2.05 | -.87 | (.26) | -.16 | (.51) | .89 | (.00) |
| | | Younger sample | 5.88 | 2.07 | -1.1 | (.34) | .38 | (.67) | .87 | (.00) |
| | | Older sample | 5.74 | 2.06 | -.68 | (.37) | -.61 | (.72) | .90 | (.00) |
| $F_{(1,87)} = .09, MSE = .40, n.s., \eta^2 = .00, 1 - \beta = .06^{(b)}$ | | | | | | | | | | |
| T2 | 1 outlier (young) | Total sample | 6.34 | 1.48 | -1.4 | (.26) | 2.59 | (.51) | .88 | (.00) |
| | | Younger sample | 6.43 | 1.17 | -.45 | (.34) | -.54 | (.67) | .93 | (.01) |
| | | Older sample | 6.23 | 1.78 | -1.5 | (.37) | 2.18 | (.72) | .83 | (.00) |
| $F_{(1,87)} = .38, MSE = .84, n.s., \eta^2 = .00, 1 - \beta = .09^{(c)}$ | | | | | | | | | | |
| Maintenance | | | | | | | | | | |
| T1 | None | Total sample | 5.70 | 2.07 | -.59 | (.26) | -.74 | (.51) | .90 | (.00) |
| | | Younger sample | 5.24 | 2.24 | -.40 | (.34) | -1.0 | (.67) | .92 | (.00) |
| | | Older sample | 6.23 | 1.74 | -.61 | (.37) | -1.0 | (.72) | .87 | (.00) |
| $F_{(1,87)} = 5.30, MSE = 21.77, p < .05, \eta^2 = .06^{(d)}$ | | | | | | | | | | |
| T2 | 1 outlier (old) | Total sample | 5.87 | 1.83 | -.63 | (.26) | -.57 | (.51) | .92 | (.00) |
| | | Younger sample | 5.32 | 1.93 | -.34 | (.34) | -.95 | (.67) | .94 | (.02) |
| | | Older sample | 6.51 | 1.48 | -.87 | (.37) | -.05 | (.72) | .88 | (.00) |
| $F_{(1,87)} = 10.39, MSE = 31.28, p < .05, \eta^2 = .11^{(e)(f)}$ | | | | | | | | | | |
| Prevention of loss | | | | | | | | | | |
| T1 | None | Total sample | 5.52 | 2.35 | -.85 | (.26) | -.50 | (.51) | .85 | (.00) |
| | | Younger sample | 5.11 | 2.36 | -.66 | (.34) | -.79 | (.67) | .89 | (.00) |
| | | Older sample | 6.00 | 2.36 | -1.2 | (.37) | .36 | (.72) | .78 | (.00) |
| $F_{(1,87)} = 3.3, MSE = 17.48, n.s., \eta^2 = .04, 1 - \beta = .43^{(g)}$ | | | | | | | | | | |
| T2 | None | Total sample | 5.82 | 2.10 | -.74 | (.26) | -.59 | (.51) | .88 | (.00) |
| | | Younger sample | 5.37 | 2.06 | -.22 | (.34) | -1.2 | (.67) | .92 | (.00) |
| | | Older sample | 6.34 | 2.05 | -1.5 | (.37) | 1.6 | (.72) | .77 | (.00) |
| $F_{(1,87)} = 4.93, MSE = 20.87, p < .05, \eta^2 = .05^{(h)}$ | | | | | | | | | | |

Notes. One younger woman did not report any physical functioning goals. Respective analyses therefore based on a reduced sample size ($n_{\text{young}} = 48$).

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Mann-Whitney *U* test: $U = 945, n.s.$

^(c) Mann-Whitney *U* test: $U = 954.5, n.s.$

^(d) Mann-Whitney *U* test: $U = 735.5, p < .05$

^(e) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(f) Mann-Whitney *U* test: $U = 623, p < .05$

^(g) Mann-Whitney *U* test: $U = 713, p < .05$

^(h) Mann-Whitney *U* test: $U = 703, p < .05$

Table A5. *Study 1: Descriptive Information on the Three Dimensions of Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (T1 and T2; Across Goals in Various Life Domains; 13 Domains)*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) | |
|--|------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|----------------------------------|-------|
| Growth | | | | | | | | | | |
| T1 | None | Total sample | 5.54 | 1.23 | -.63 | (.25) | -.18 | (.50) | .96 | (.00) |
| | | <i>Younger sample</i> | 6.06 | 1.12 | -.54 | (.34) | .18 | (.67) | .97 | (.32) |
| | | <i>Older sample</i> | 4.92 | 1.28 | -.23 | (.37) | -.83 | (.72) | .96 | (.17) |
| $F_{(1, 88)} = 24.43, MSE = 29.16, p < .05, \eta^2 = .22^{(b)(c)}$ | | | | | | | | | | |
| T2 | None | Total sample | 5.74 | 1.16 | -.60 | (.25) | .75 | (.50) | .97 | (.05) |
| | | <i>Younger sample</i> | 6.08 | .99 | -.38 | (.34) | .26 | (.67) | .98 | (.45) |
| | | <i>Older sample</i> | 5.33 | 1.23 | -.52 | (.37) | .68 | (.72) | .96 | (.13) |
| $F_{(1, 88)} = 10.32, MSE = 12.63, p < .05, \eta^2 = .11^{(d)}$ | | | | | | | | | | |
| Maintenance | | | | | | | | | | |
| T1 | None | Total sample | 5.64 | 1.31 | -.55 | (.25) | .10 | (.50) | .97 | (.07) |
| | | <i>Younger sample</i> | 5.17 | 1.33 | -.45 | (.34) | -.09 | (.67) | .97 | (.36) |
| | | <i>Older sample</i> | 6.21 | 1.06 | -.36 | (.37) | -.42 | (.72) | .97 | (.43) |
| $F_{(1, 88)} = 16.46, MSE = 24.25, p < .05, \eta^2 = .16^{(e)}$ | | | | | | | | | | |
| T2 | None | Total sample | 5.90 | 1.17 | -.45 | (.25) | .01 | (.50) | .98 | (.15) |
| | | <i>Younger sample</i> | 5.54 | 1.20 | -.25 | (.34) | -.03 | (.67) | .98 | (.39) |
| | | <i>Older sample</i> | 6.32 | .98 | -.51 | (.37) | .18 | (.72) | .97 | (.42) |
| $F_{(1, 88)} = 11.05, MSE = 13.61, p < .05, \eta^2 = .11$ | | | | | | | | | | |
| Prevention of loss | | | | | | | | | | |
| T1 | 1 outlier (old) | Total sample | 5.41 | 1.74 | -.58 | (.25) | -.54 | (.50) | .95 | (.00) |
| | | <i>Younger sample</i> | 4.81 | 1.68 | -.31 | (.34) | -.79 | (.67) | .97 | (.18) |
| | | <i>Older sample</i> | 6.12 | 1.53 | -1.2 | (.37) | 1.0 | (.72) | .90 | (.00) |
| $F_{(1, 88)} = 14.78, MSE = 38.54, p < .05, \eta^2 = .14^{(f)}$ | | | | | | | | | | |
| T2 | 1 outlier (old) | Total sample | 5.70 | 1.60 | -.57 | (.25) | -.31 | (.50) | .95 | (.00) |
| | | <i>Younger sample</i> | 5.25 | 1.48 | -.47 | (.34) | -.27 | (.67) | .97 | (.18) |
| | | <i>Older sample</i> | 6.23 | 1.60 | -1.0 | (.37) | .54 | (.72) | .90 | (.00) |
| $F_{(1, 88)} = 9.22, MSE = 21.62, p < .05, \eta^2 = .10^{(g)}$ | | | | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(c) Mann-Whitney *U* test: $U = 474, p < .05$

^(d) Mann-Whitney *U* test: $U = 638, p < .05$

^(e) Mann-Whitney *U* test: $U = 554, p < .05$

^(f) Mann-Whitney *U* test: $U = 541, p < .05$

^(g) Mann-Whitney *U* test: $U = 601.5, p < .05$

Table A6. *Study 1: Descriptive Information on General Subjective Well-Being, the Five Facets of Subjective Well-Being, and Goal Satisfaction in the Total Sample and in the Younger and Older Sub-Samples (T1 and T2)*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|---|------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| <i>General subjective well-being</i> | | | | | | | | | | |
| T1 | None | Total sample | .00 | .75 | -.27 | (.25) | -.75 | (.50) | .98 | (.08) |
| | | <i>Younger sample</i> | -.33 | .71 | .07 | (.34) | -.88 | (.67) | .97 | (.29) |
| | | <i>Older sample</i> | .40 | .59 | -.53 | (.37) | .09 | (.72) | .96 | (.22) |
| $F_{(1, 88)} = 27.44, MSE = 11.85, p < .05, \eta^2 = .24$ | | | | | | | | | | |
| T2 | None | Total sample | .00 | .80 | -.20 | (.25) | -.90 | (.50) | .97 | (.02) |
| | | <i>Younger sample</i> | -.32 | .77 | .21 | (.34) | -.69 | (.67) | .97 | (.29) |
| | | <i>Older sample</i> | .39 | .67 | -.62 | (.37) | -.26 | (.72) | .95 | (.06) |
| $F_{(1, 88)} = 21.38, MSE = 11.24, p < .05, \eta^2 = .20$ | | | | | | | | | | |
| <i>Facets of subjective well-being</i> | | | | | | | | | | |
| <i>Positive psychological functioning</i> | | | | | | | | | | |
| T1 | None | Total sample | 5.97 | .66 | -.37 | (.25) | -.26 | (.50) | .98 | (.13) |
| | | <i>Younger sample</i> | 5.82 | .62 | -.03 | (.34) | -.33 | (.67) | .99 | (.88) |
| | | <i>Older sample</i> | 6.14 | .67 | -.91 | (.37) | .84 | (.72) | .93 | (.02) |
| $F_{(1, 88)} = 5.69, MSE = 2.36, p < .05, \eta^2 = .06$ | | | | | | | | | | |
| T2 | None | Total sample | 6.00 | .73 | -.13 | (.25) | -.39 | (.50) | .99 | (.77) |
| | | <i>Younger sample</i> | 5.82 | .70 | .09 | (.34) | -.33 | (.67) | .99 | (.92) |
| | | <i>Older sample</i> | 6.22 | .71 | -.46 | (.37) | .23 | (.72) | .97 | (.38) |
| $F_{(1, 88)} = 7.19, MSE = 3.60, p < .05, \eta^2 = .08$ | | | | | | | | | | |
| <i>Cognitive-subjective life satisfaction</i> | | | | | | | | | | |
| T1 | None | Total sample | 5.67 | 1.08 | -.22 | (.25) | -.87 | (.50) | .97 | (.06) |
| | | <i>Younger sample</i> | 5.32 | 1.07 | .02 | (.34) | -1.0 | (.67) | .97 | (.18) |
| | | <i>Older sample</i> | 6.09 | .95 | -.41 | (.37) | -.49 | (.72) | .97 | (.28) |
| $F_{(1, 88)} = 12.43, MSE = 12.93, p < .05, \eta^2 = .12$ | | | | | | | | | | |
| T2 | None | Total sample | 5.78 | 1.15 | -.34 | (.25) | -.55 | (.50) | .97 | (.07) |
| | | <i>Younger sample</i> | 5.44 | 1.14 | -.13 | (.34) | -.58 | (.67) | .98 | (.57) |
| | | <i>Older sample</i> | 6.18 | 1.03 | -.61 | (.37) | -.02 | (.72) | .96 | (.12) |
| $F_{(1, 88)} = 10.28, MSE = 12.23, p < .05, \eta^2 = .11$ | | | | | | | | | | |
| <i>Desire for change</i> | | | | | | | | | | |
| T1 | None | Total sample | 4.35 | 1.23 | -.01 | (.25) | -.69 | (.50) | .99 | (.42) |
| | | <i>Younger sample</i> | 4.98 | .96 | -.10 | (.34) | -.54 | (.67) | .99 | (.87) |
| | | <i>Older sample</i> | 3.60 | 1.09 | .65 | (.37) | .48 | (.72) | .97 | (.23) |
| $F_{(1, 88)} = 40.96, MSE = 42.86, p < .05, \eta^2 = .32$ | | | | | | | | | | |
| T2 | None | Total sample | 4.48 | 1.09 | -.20 | (.25) | -.82 | (.50) | .97 | (.06) |
| | | <i>Younger sample</i> | 4.92 | .95 | -.47 | (.34) | -.29 | (.67) | .96 | (.10) |
| | | <i>Older sample</i> | 3.96 | 1.03 | .21 | (.37) | -.73 | (.72) | .97 | (.39) |
| $F_{(1, 88)} = 20.95, MSE = 20.46, p < .05, \eta^2 = .19$ | | | | | | | | | | |
| <i>Emotional well-being</i> | | | | | | | | | | |
| <i>Positive affect</i> | | | | | | | | | | |
| T1 | 1 outlier (young) | Total sample | 5.77 | .87 | -.44 | (.25) | -.20 | (.50) | .98 | (.08) |
| | | <i>Younger sample</i> | 5.58 | .88 | -.58 | (.34) | -.27 | (.67) | .95 | (.03) |
| | | <i>Older sample</i> | 6.00 | .81 | -.21 | (.37) | -.70 | (.72) | .97 | (.44) |
| $F_{(1, 88)} = 5.37, MSE = 3.90, p < .05, \eta^2 = .06$ | | | | | | | | | | |
| T2 | 1 outlier (old) | Total sample | 5.77 | .97 | -.43 | (.25) | .17 | (.50) | .98 | (.21) |
| | | <i>Younger sample</i> | 5.54 | .99 | -.55 | (.34) | .20 | (.67) | .97 | (.19) |
| | | <i>Older sample</i> | 6.04 | .88 | -.10 | (.37) | -.65 | (.72) | .98 | (.50) |
| $F_{(1, 88)} = 6.42, MSE = 5.68, p < .05, \eta^2 = .07$ | | | | | | | | | | |

(Table continues)

Table A6 (continued)

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|--|------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| Negative affect | | | | | | | | | | |
| T1 | None | Total sample | 3.21 | 1.23 | .71 | (.25) | .19 | (.50) | .96 | (.01) |
| | | <i>Younger sample</i> | 3.80 | 1.21 | .55 | (.34) | -.26 | (.67) | .97 | (.17) |
| | | <i>Older sample</i> | 2.51 | .83 | .38 | (.37) | -.97 | (.72) | .94 | (.03) |
| $F_{(1, 88)} = 33.44, MSE = 36.84, p < .05, \eta^2 = .28^{(b)(c)}$ | | | | | | | | | | |
| T2 | None | Total sample | 3.05 | 1.18 | .55 | (.25) | -.60 | (.50) | .95 | (.00) |
| | | <i>Younger sample</i> | 3.60 | 1.16 | .20 | (.34) | -1.1 | (.67) | .95 | (.03) |
| | | <i>Older sample</i> | 2.39 | .82 | .66 | (.37) | -.31 | (.72) | .95 | (.05) |
| $F_{(1, 88)} = 31.18, MSE = 32.54, p < .05, \eta^2 = .26^{(d)(e)}$ | | | | | | | | | | |
| General depressive affect | | | | | | | | | | |
| T1 | 1 outlier (old) | Total sample | 1.71 | .47 | .63 | (.25) | -.49 | (.50) | .94 | (.00) |
| | | <i>Younger sample</i> | 1.83 | .47 | .15 | (.34) | -1.2 | (.67) | .95 | (.04) |
| | | <i>Older sample</i> | 1.58 | .42 | 1.43 | (.37) | 2.4 | (.72) | .86 | (.00) |
| $F_{(1, 88)} = 7.04, MSE = 1.43, p < .05, \eta^2 = .07^{(f)}$ | | | | | | | | | | |
| T2 | None | Total sample | 1.67 | .44 | .73 | (.25) | .09 | (.50) | .95 | (.00) |
| | | <i>Younger sample</i> | 1.82 | .49 | .33 | (.34) | -.58 | (.67) | .96 | (.14) |
| | | <i>Older sample</i> | 1.50 | .30 | .48 | (.37) | -.35 | (.72) | .97 | (.25) |
| $F_{(1, 88)} = 13.68, MSE = 2.35, p < .05, \eta^2 = .14^{(g)(h)}$ | | | | | | | | | | |
| <i>Goal satisfaction</i> | | | | | | | | | | |
| Satisfaction with goal attainment | | | | | | | | | | |
| T1 | None | Total sample | 6.68 | .97 | -.91 | (.25) | -1.0 | (.50) | .94 | (.00) |
| | | <i>Younger sample</i> | 6.64 | .76 | -.49 | (.34) | -.15 | (.67) | .96 | (.11) |
| | | <i>Older sample</i> | 6.73 | 1.18 | -1.1 | (.37) | .84 | (.72) | .89 | (.00) |
| $F_{(1, 88)} = .19, MSE = .18, n.s., \eta^2 = .00, 1 - \beta = .07^{(i)(j)}$ | | | | | | | | | | |
| T2 | None | Total sample | 6.62 | .98 | -.52 | (.25) | -.32 | (.50) | .96 | (.00) |
| | | <i>Younger sample</i> | 6.45 | .87 | -.39 | (.34) | -.20 | (.67) | .97 | (.32) |
| | | <i>Older sample</i> | 6.82 | 1.06 | -.87 | (.37) | .02 | (.72) | .91 | (.00) |
| $F_{(1, 88)} = 3.40, MSE = 3.16, n.s., \eta^2 = .04, 1 - \beta = .45$ | | | | | | | | | | |
| Satisfaction with goal progress | | | | | | | | | | |
| T1 | None | Total sample | 5.20 | 1.09 | .27 | (.25) | -.00 | (.50) | .98 | (.28) |
| | | <i>Younger sample</i> | 4.80 | .87 | .38 | (.34) | .34 | (.67) | .98 | (.55) |
| | | <i>Older sample</i> | 5.68 | 1.15 | -.23 | (.37) | .38 | (.72) | .98 | (.53) |
| $F_{(1, 88)} = 16.91, MSE = 17.14, p < .05, \eta^2 = .16$ | | | | | | | | | | |
| T2 | None | Total sample | 5.28 | 1.16 | -.23 | (.25) | -.15 | (.50) | .98 | (.21) |
| | | <i>Younger sample</i> | 4.94 | .90 | -.29 | (.34) | .13 | (.67) | .98 | (.46) |
| | | <i>Older sample</i> | 5.69 | 1.30 | -.78 | (.37) | .26 | (.72) | .94 | (.03) |
| $F_{(1, 88)} = 10.60, MSE = 12.85, p < .05, \eta^2 = .11$ | | | | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(c) Mann-Whitney U test: $U = 396, p < .05$

^(d) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(e) Mann-Whitney U test: $U = 411.5, p < .05$

^(f) Mann-Whitney U test: $U = 676, p < .05$

^(g) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(h) Mann-Whitney U test: $U = 616.5, p < .05$

⁽ⁱ⁾ Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(j) Mann-Whitney U test: $U = 859, n.s.$

Table A7. *Study 1: Bivariate Pearson Correlations Among the Facets of Subjective Well-Being and Goal Satisfaction at T1 (Above Diagonal) and T2 (Below Diagonal)*

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|-------------|-------------|-------------|------------------|------------------|------------------|------------------|------------------|
| Positive psychological functioning | | .62* | .31* | .43* | .42* | .40* | .16 | .46* |
| Cognitive-subjective life satisfaction | .73* | | .50* | .61* | .75* | .60* | .08 | .38* |
| Desire for change (reflected) | .48* | .62* | | .23 ⁺ | .57* | .23 ⁺ | .06 | .27 ⁺ |
| Positive affect | .50* | .57* | .42* | | .48* | .23 ⁺ | .27 ⁺ | .50* |
| Negative affect (reflected) | .60* | .76* | .58* | .44* | | .55* | .13 | .35* |
| General depressive affect (reflected) | .57* | .71* | .52* | .47* | .66* | | .15 | .32* |
| Satisfaction with goal attainment | .29* | .18 | .12 | .36* | .09 | .11 | | .20 |
| Satisfaction with goal progress | .41* | .42* | .41* | .53* | .26 ⁺ | .26 ⁺ | .46* | |

Notes. ⁺ $p < .05$; * $p < .007$ (alpha-level adjustment for 7 repeated analyses). Reanalyzing the data using Spearman's rho (rank correlations) yielded the same results.

Additional Descriptive and Psychometrical Information on the Correlate and Control Variables

Table A8. *Study 1: Descriptive Information on the Concepts of Self-Regulation, Goal Resources, and Additional Goal Characteristics in the Total Sample and in the Younger and Older Sub-Samples (T1 and T2)*

| Construct | Outlier ^(a) | Sample | M | SD | Skew | (SE) | Kurt | (SE) | Shapiro-Wilk | (p) |
|--|--------------------------------|-----------------------|------|------|------|-------|------|-------|--------------|-------|
| <i>Self-regulation</i> | | | | | | | | | | |
| T2 SOC life-management strategies | | | | | | | | | | |
| Elective selection | | | | | | | | | | |
| | None | Total Sample | .45 | .28 | .14 | (.25) | -.92 | (.50) | .93 | (.00) |
| | | <i>Younger Sample</i> | .39 | .27 | .30 | (.34) | -.69 | (.67) | .90 | (.00) |
| | | <i>Older Sample</i> | .51 | .29 | -.10 | (.37) | -.97 | (.72) | .95 | (.05) |
| $F_{(1, 88)} = 4.20, MSE = .32, p < .05, \eta^2 = .05$ | | | | | | | | | | |
| Loss-based selection | | | | | | | | | | |
| | None | Total Sample | .64 | .25 | -.39 | (.25) | -.33 | (.50) | .93 | (.00) |
| | | <i>Younger Sample</i> | .54 | .24 | -.22 | (.34) | .07 | (.67) | .94 | (.01) |
| | | <i>Older Sample</i> | .76 | .21 | -.65 | (.37) | -.48 | (.72) | .87 | (.00) |
| $F_{(1, 88)} = 20.40, MSE = 1.04, p < .05, \eta^2 = .19$ | | | | | | | | | | |
| Optimization | | | | | | | | | | |
| | None | Total Sample | .63 | .23 | -.69 | (.25) | .25 | (.50) | .92 | (.00) |
| | | <i>Younger Sample</i> | .60 | .26 | -.49 | (.34) | .03 | (.67) | .93 | (.01) |
| | | <i>Older Sample</i> | .67 | .20 | -.87 | (.37) | .46 | (.72) | .88 | (.00) |
| $F_{(1, 88)} = 2.05, MSE = .11, n.s., \eta^2 = .02, 1 - \beta = .29^{(b)}$ | | | | | | | | | | |
| Compensation | | | | | | | | | | |
| | 1 outlier (old) | Total Sample | .70 | .23 | -.51 | (.25) | -.36 | (.50) | .91 | (.00) |
| | | <i>Younger Sample</i> | .66 | .23 | -.30 | (.34) | -.75 | (.67) | .93 | (.01) |
| | | <i>Older Sample</i> | .74 | .21 | -.80 | (.37) | .70 | (.72) | .88 | (.00) |
| $F_{(1, 88)} = 2.90, MSE = .15, n.s., \eta^2 = .03, 1 - \beta = .39$ | | | | | | | | | | |
| T2 Proactive and preventive coping | | | | | | | | | | |
| Proactive coping | | | | | | | | | | |
| | 3 outliers (1 young, 2 old) | Total Sample | 5.56 | .81 | .08 | (.25) | -.52 | (.50) | .98 | (.17) |
| | | <i>Younger Sample</i> | 5.43 | .75 | .21 | (.34) | -.13 | (.67) | .98 | (.45) |
| | | <i>Older Sample</i> | 5.70 | .86 | -.15 | (.37) | -.67 | (.72) | .96 | (.16) |
| $F_{(1, 88)} = 2.50, MSE = 1.61, n.s., \eta^2 = .03, 1 - \beta = .35$ | | | | | | | | | | |
| Preventive coping | | | | | | | | | | |
| | None | Total Sample | 5.51 | 1.1 | .08 | (.25) | -.73 | (.50) | .98 | (.11) |
| | | <i>Younger Sample</i> | 5.00 | .94 | .26 | (.34) | -.49 | (.67) | .96 | (.14) |
| | | <i>Older Sample</i> | 6.12 | .99 | -.29 | (.37) | -.39 | (.72) | .96 | (.13) |
| $F_{(1, 88)} = 30.47, MSE = 28.32, p < .05, \eta^2 = .26$ | | | | | | | | | | |
| T2 Habitualized styles of coping | | | | | | | | | | |
| Tenacious goal pursuit | | | | | | | | | | |
| | None | Total Sample | 5.28 | 1.0 | .15 | (.25) | .28 | (.50) | .99 | (.69) |
| | | <i>Younger Sample</i> | 5.25 | .88 | .29 | (.34) | -.04 | (.67) | .97 | (.35) |
| | | <i>Older Sample</i> | 5.31 | 1.2 | .03 | (.37) | .15 | (.72) | .98 | (.78) |
| $F_{(1, 88)} = .07, MSE = .08, n.s., \eta^2 = .00, 1 - \beta = .06$ | | | | | | | | | | |
| Flexible goal pursuit | | | | | | | | | | |
| | None | Total Sample | 5.36 | 1.04 | .09 | (.25) | -.44 | (.50) | .99 | (.90) |
| | | <i>Younger Sample</i> | 5.04 | .99 | .11 | (.34) | -.56 | (.67) | .98 | (.63) |
| | | <i>Older Sample</i> | 5.73 | .98 | .12 | (.37) | -.44 | (.72) | .99 | (.93) |
| $F_{(1, 88)} = 10.98, MSE = 10.59, p < .05, \eta^2 = .11$ | | | | | | | | | | |

(Table continues)

Table A8 (continued)

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|--|------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| <i>Goal resources</i> | | | | | | | | | | |
| T1 Objective cognitive functioning | | | | | | | | | | |
| Knowledge | | | | | | | | | | |
| | None | Total sample | 24.7 | 4.81 | -.30 | (.25) | -.61 | (.50) | .98 | (.13) |
| | | <i>Younger sample</i> | 22.0 | 4.02 | -.14 | (.34) | -.57 | (.67) | .98 | (.49) |
| | | <i>Older sample</i> | 28.1 | 3.31 | -.62 | (.37) | .29 | (.72) | .97 | (.27) |
| $F_{(1, 88)} = 60.92, MSE = 840.64, p < .05, \eta^2 = .41$ | | | | | | | | | | |
| Perceptual-motor speed | | | | | | | | | | |
| | None | Total sample | 50.3 | 11.6 | -.28 | (.25) | -.53 | (.50) | .98 | (.16) |
| | | <i>Younger sample</i> | 56.8 | 9.13 | -.69 | (.34) | .26 | (.67) | .96 | (.07) |
| | | <i>Older sample</i> | 42.4 | 9.14 | -.29 | (.37) | -.27 | (.72) | .98 | (.54) |
| $F_{(1, 88)} = 55.5, MSE = 4629.82, p < .05, \eta^2 = .39$ | | | | | | | | | | |
| T1 Subjective cognitive functioning | | | | | | | | | | |
| | 1 outlier (young) | Total sample | 5.78 | 1.00 | -.29 | (.25) | .70 | (.50) | .89 | (.00) |
| | | <i>Younger sample</i> | 5.67 | 1.11 | -.27 | (.34) | .65 | (.67) | .89 | (.00) |
| | | <i>Older sample</i> | 5.90 | .86 | -.05 | (.37) | .14 | (.72) | .89 | (.00) |
| $F_{(1, 88)} = 1.17, MSE = 1.17, n.s., \eta^2 = .01, 1 - \beta = .19$ | | | | | | | | | | |
| T1 Objective physical functioning | | | | | | | | | | |
| | None | Total sample | 23.9 | 9.15 | .03 | (.25) | -.05 | (.50) | .99 | (.51) |
| | | <i>Younger sample</i> | 27.1 | 8.38 | .44 | (.34) | -.35 | (.67) | .94 | (.01) |
| | | <i>Older sample</i> | 19.9 | 8.54 | -.96 | (.37) | -.38 | (.72) | .97 | (.44) |
| $F_{(1, 88)} = 16.26, MSE = 1162.34, p < .05, \eta^2 = .16$ | | | | | | | | | | |
| T1 Subjective health | | | | | | | | | | |
| | None | Total sample | 6.11 | 1.16 | -.55 | (.25) | -.37 | (.50) | .95 | (.00) |
| | | <i>Younger sample</i> | 6.01 | .99 | -.45 | (.34) | .10 | (.67) | .97 | (.16) |
| | | <i>Older sample</i> | 6.23 | 1.35 | -.73 | (.37) | -.60 | (.72) | .90 | (.00) |
| $F_{(1, 88)} = .79, MSE = 1.1, n.s., \eta^2 = .01, 1 - \beta = .14^{(c)(d)}$ | | | | | | | | | | |
| T1 Subjective general resources | | | | | | | | | | |
| | None | Total sample | 5.21 | .73 | .20 | (.25) | -.42 | (.50) | .99 | (.59) |
| | | <i>Younger sample</i> | 5.07 | .67 | .08 | (.34) | -.50 | (.67) | .98 | (.74) |
| | | <i>Older sample</i> | 5.37 | .78 | .14 | (.37) | -.57 | (.72) | .98 | (.82) |
| $F_{(1, 88)} = 4.11, MSE = 2.13, p < .05, \eta^2 = .05$ | | | | | | | | | | |
| T1 Expectation of goal-specific resource demands | | | | | | | | | | |
| | None | Total sample | 5.65 | 1.07 | -.28 | (.25) | -.18 | (.50) | .99 | (.37) |
| | | <i>Younger sample</i> | 5.55 | 1.09 | -.14 | (.34) | -.57 | (.67) | .98 | (.62) |
| | | <i>Older sample</i> | 5.77 | 1.03 | -.47 | (.37) | .69 | (.72) | .96 | (.21) |
| $F_{(1, 88)} = 1.01, MSE = 1.15, n.s., \eta^2 = .01, 1 - \beta = .17$ | | | | | | | | | | |
| T1 Subjective availability of goal-specific resources | | | | | | | | | | |
| | 1 outlier (old) | Total sample | 6.22 | 1.1 | -.25 | (.25) | -.23 | (.50) | .98 | (.08) |
| | | <i>Younger sample</i> | 6.01 | 1.0 | -.28 | (.34) | -.32 | (.67) | .98 | (.58) |
| | | <i>Older sample</i> | 6.46 | 1.0 | -.26 | (.37) | -.07 | (.72) | .94 | (.04) |
| $F_{(1, 88)} = 4.22, MSE = 4.49, p < .05, \eta^2 = .05$ | | | | | | | | | | |

(Table continues)

Table A8 (continued)

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) | |
|---|------------------------|-----------------------|--|-----------|-------------|---------------|-------------|---------------|----------------------------------|-------|
| <i>Additional goal characteristics</i> | | | | | | | | | | |
| T1 Importance of goal | | | | | | | | | | |
| | None | Total Sample | 6.09 | .81 | -.65 | (.25) | .06 | (.50) | .94 | (.00) |
| | | <i>Younger Sample</i> | 6.58 | .75 | -.82 | (.34) | .08 | (.67) | .93 | (.01) |
| | | <i>Older Sample</i> | 7.28 | .72 | -.94 | (.37) | .54 | (.72) | .88 | (.00) |
| | | | $F_{(1, 88)} = 19.79, MSE = 10.74, p < .05, \eta^2 = .18^{(c)}$ | | | | | | | |
| T1 Goal progress | | | | | | | | | | |
| | None | Total Sample | 5.03 | 1.02 | .50 | (.25) | .53 | (.50) | .98 | (.09) |
| | | <i>Younger Sample</i> | 4.54 | .71 | -.06 | (.34) | -.72 | (.67) | .98 | (.59) |
| | | <i>Older Sample</i> | 5.61 | 1.03 | .13 | (.37) | .76 | (.72) | .98 | (.52) |
| | | | $F_{(1, 88)} = 33.81, MSE = 25.58, p < .05, \eta^2 = .28$ | | | | | | | |
| T1 State satisfaction before goal setting | | | | | | | | | | |
| | None | Total Sample | 4.76 | 1.22 | -.02 | (.25) | -.05 | (.50) | .99 | (.80) |
| | | <i>Younger Sample</i> | 4.80 | 1.13 | -.29 | (.34) | -.01 | (.67) | .98 | (.41) |
| | | <i>Older Sample</i> | 4.72 | 1.32 | .21 | (.37) | -.02 | (.72) | .98 | (.50) |
| | | | $F_{(1, 88)} = .08, MSE = .12, n.s., \eta^2 = .00, 1 - \beta = .06$ | | | | | | | |
| T1 Goal-related future orientation | | | | | | | | | | |
| | None | Total Sample | 4.82 | 1.69 | -.28 | (.25) | -.58 | (.50) | .98 | (.19) |
| | | <i>Younger Sample</i> | 5.01 | 1.27 | -.49 | (.34) | .07 | (.67) | .98 | (.53) |
| | | <i>Older Sample</i> | 4.61 | 2.08 | .00 | (.37) | -1.2 | (.72) | .95 | (.07) |
| | | | $F_{(1, 88)} = 1.3, MSE = 3.54, n.s., \eta^2 = .01, 1 - \beta = .20^{(f)}$ | | | | | | | |
| T1 Goal engagement | | | | | | | | | | |
| | None | Total Sample | 5.44 | 1.2 | .18 | (.25) | -.44 | (.50) | .98 | (.15) |
| | | <i>Younger Sample</i> | 4.80 | .89 | -.11 | (.34) | -.43 | (.67) | .98 | (.47) |
| | | <i>Older Sample</i> | 6.21 | 1.2 | -.39 | (.37) | -.03 | (.72) | .97 | (.27) |
| | | | $F_{(1, 88)} = 42.03, MSE = 44.28, p < .05, \eta^2 = .32$ | | | | | | | |
| T1 Concreteness of goal attainment | | | | | | | | | | |
| | 1 outlier (young) | Total Sample | 6.53 | 1.01 | -.32 | (.25) | -.63 | (.50) | .96 | (.01) |
| | | <i>Younger Sample</i> | 6.17 | .97 | -.22 | (.34) | -.55 | (.67) | .98 | (.49) |
| | | <i>Older Sample</i> | 6.96 | .90 | -.52 | (.37) | -.70 | (.72) | .92 | (.01) |
| | | | $F_{(1, 88)} = 15.51, MSE = 13.65, p < .05, \eta^2 = .15$ | | | | | | | |
| T1 Control over goal attainment | | | | | | | | | | |
| | 1 outlier (young) | Total Sample | 7.04 | .84 | -1.2 | (.25) | 1.43 | (.50) | .90 | (.00) |
| | | <i>Younger Sample</i> | 7.15 | .67 | -.78 | (.34) | .06 | (.67) | .93 | (.01) |
| | | <i>Older Sample</i> | 6.91 | 1.00 | -1.1 | (.37) | .80 | (.72) | .89 | (.00) |
| | | | $F_{(1, 88)} = 1.8, MSE = 1.2, n.s., \eta^2 = .02, 1 - \beta = .26^{(g)(h)}$ | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Mann-Whitney *U* test: $U = 835, n.s.$

^(c) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(d) Mann-Whitney *U* test: $U = 828.5, n.s.$

^(e) Mann-Whitney *U* test: $U = 490, p < .05$

^(f) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(g) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(h) Mann-Whitney *U* test: $U = 916, n.s.$

Table A9. *Study 1: Descriptive Information on the Person Control Variables in the Total Sample and in the Younger and Older Sub-Samples (T1 and T2)*

| Construct | Outlier | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|-----------|-------------------------------------|-----------------------|--|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| T1 | Social desirability | | | | | | | | | |
| | None | Total Sample | .66 | .19 | -.25 | (.25) | -.50 | (.50) | .98 | (.08) |
| | | <i>Younger Sample</i> | .59 | .17 | -.01 | (.34) | -.15 | (.67) | .98 | (.62) |
| | | <i>Older Sample</i> | .74 | .17 | -.68 | (.37) | .16 | (.72) | .95 | (.05) |
| | | | $F_{(1,88)} = 18.13, MSE = .52, p < .05, \eta^2 = .17$ | | | | | | | |
| T2 | Personality traits | | | | | | | | | |
| | Neuroticism | | | | | | | | | |
| | None | Total Sample | 3.36 | 1.29 | .24 | (.25) | -.63 | (.50) | .98 | (.10) |
| | | <i>Younger Sample</i> | 3.85 | 1.24 | .10 | (.34) | -.86 | (.67) | .97 | (.22) |
| | | <i>Older Sample</i> | 2.76 | 1.08 | .22 | (.37) | -.67 | (.72) | .97 | (.38) |
| | | | $F_{(1,88)} = 19.32, MSE = 26.50, p < .05, \eta^2 = .18$ | | | | | | | |
| | Extraversion | | | | | | | | | |
| | None | Total Sample | 5.47 | 1.09 | -.63 | (.25) | .44 | (.50) | .97 | (.04) |
| | | <i>Younger Sample</i> | 5.61 | .98 | -.76 | (.34) | .78 | (.67) | .95 | (.05) |
| | | <i>Older Sample</i> | 5.29 | 1.19 | -.43 | (.37) | .21 | (.72) | .97 | (.44) |
| | | | $F_{(1,88)} = 2.0, MSE = 2.28, n.s., \eta^2 = .02, 1 - \beta = .28^{(a)}$ | | | | | | | |
| | Openness | | | | | | | | | |
| | None | Total Sample | 5.19 | .94 | .12 | (.25) | -.42 | (.50) | .99 | (.40) |
| | | <i>Younger Sample</i> | 5.30 | .95 | .17 | (.34) | -.38 | (.67) | .99 | (.82) |
| | | <i>Older Sample</i> | 5.05 | .93 | .05 | (.37) | -.49 | (.72) | .97 | (.42) |
| | | | $F_{(1,88)} = 1.62, MSE = 1.44, n.s., \eta^2 = .02, 1 - \beta = .24$ | | | | | | | |
| | Agreeableness | | | | | | | | | |
| | None | Total Sample | 6.05 | .99 | -.20 | (.25) | -.44 | (.50) | .98 | (.29) |
| | | <i>Younger Sample</i> | 5.84 | .87 | -.04 | (.34) | -.95 | (.67) | .97 | (.19) |
| | | <i>Older Sample</i> | 6.31 | 1.08 | -.60 | (.37) | .20 | (.72) | .95 | (.08) |
| | | | $F_{(1,88)} = 5.20, MSE = 4.91, p < .05, \eta^2 = .06$ | | | | | | | |
| | Conscientiousness | | | | | | | | | |
| | None | Total Sample | 5.71 | 1.17 | -.44 | (.25) | .00 | (.50) | .98 | (.13) |
| | | <i>Younger Sample</i> | 5.24 | 1.11 | -.51 | (.34) | -.30 | (.67) | .97 | (.17) |
| | | <i>Older Sample</i> | 6.28 | .97 | -.29 | (.37) | -.14 | (.72) | .97 | (.45) |
| | | | $F_{(1,88)} = 21.52, MSE = 23.75, p < .05, \eta^2 = .20$ | | | | | | | |
| T2 | Generalized outcome expectancies | | | | | | | | | |
| | Optimism | | | | | | | | | |
| | None | Total Sample | 5.72 | 1.31 | -.16 | (.25) | -.64 | (.50) | .98 | (.10) |
| | | <i>Younger Sample</i> | 5.37 | 1.19 | -.33 | (.34) | -.59 | (.67) | .97 | (.25) |
| | | <i>Older Sample</i> | 6.15 | 1.33 | -.28 | (.37) | -.86 | (.72) | .95 | (.08) |
| | | | $F_{(1,88)} = 8.73, MSE = 13.79, p < .05, \eta^2 = .09$ | | | | | | | |
| | Pessimism | | | | | | | | | |
| | None | Total Sample | 3.58 | 1.43 | .14 | (.25) | -.61 | (.50) | .97 | (.06) |
| | | <i>Younger Sample</i> | 3.83 | 1.31 | .01 | (.34) | -.81 | (.67) | .97 | (.23) |
| | | <i>Older Sample</i> | 3.29 | 1.52 | .42 | (.37) | -.25 | (.72) | .96 | (.19) |
| | | | $F_{(1,88)} = 3.20, MSE = 6.36, n.s., \eta^2 = .04, 1 - \beta = .42$ | | | | | | | |
| T2 | Generalized perceived self-efficacy | | | | | | | | | |
| | None | Total Sample | 5.45 | 1.19 | -.32 | (.25) | -.29 | (.50) | .98 | (.27) |
| | | <i>Younger Sample</i> | 5.24 | .99 | -.43 | (.34) | .03 | (.67) | .98 | (.41) |
| | | <i>Older Sample</i> | 5.70 | 1.36 | -.56 | (.37) | -.41 | (.72) | .96 | (.11) |
| | | | $F_{(1,88)} = 3.41, MSE = 4.69, n.s., \eta^2 = .04, 1 - \beta = .45^{(c)}$ | | | | | | | |
| T2 | Agency beliefs | | | | | | | | | |
| | None | Total Sample | 5.65 | .95 | -.28 | (.25) | -.34 | (.50) | .98 | (.25) |
| | | <i>Younger Sample</i> | 5.53 | .83 | .04 | (.34) | -.57 | (.67) | .99 | (.80) |
| | | <i>Older Sample</i> | 5.80 | 1.06 | -.65 | (.37) | -.00 | (.72) | .95 | (.07) |
| | | | $F_{(1,88)} = 1.77, MSE = 1.58, n.s., \eta^2 = .02, 1 - \beta = .26$ | | | | | | | |

Note.

^(a) Mann-Whitney *U* test: $U = 838.5, n.s.$

Table A10. *Study 1: Instruments Assessing Concepts of Self-Regulation, Goal Resources, and Additional Goal Characteristics: Overview and Psychometrical Information*

| Construct | Description of measurement instrument |
|------------------------|---|
| <i>Self-regulation</i> | |
| T2 | SOC-Questionnaire on life-management strategies <i>Author:</i> P. B. Baltes et al. (1999) <i>Dimensions & Items:</i> 4 dimensions (24 items): Elective selection (6), Loss-based selection (6), Optimization (6), Compensation (6) <i>Modification:</i> Short version <i>Response format:</i> Forced choice format between a SOC target and a distractor item <i>Scale aggregation:</i> Mean scores of target choices <i>Internal consistency:</i> Elective selection: $\alpha = .60$; Loss-based selection: $\alpha = .53$; Optimization: $\alpha = .40$; Compensation: $\alpha = .47$ |
| T2 | Proactive Coping Inventory [German version of the PCI] (Proactive and preventive coping) <i>Author:</i> Greenglass, Schwarzer, Jakubiec, Fiskensbaum, & Taubert (1999); German translation by Schwarzer, Greenglass, & Taubert (2000) <i>Dimensions & Items:</i> 2 dimensions (27 items): Proactive coping (17), Preventive coping (10) <i>Modification:</i> Only two sub-scales used; two items (item 6, 10) modified to adapt to use in an older sample; response options <i>Response format:</i> 1 “not at all sure” to 8 “very sure” <i>Scale aggregation:</i> Mean scores after recoding negatively pooled items <i>Internal consistency:</i> Proactive coping: $\alpha = .84$; Preventive coping: $\alpha = .83$ |
| T2 | Tenflex-Scale (Habitualized styles of coping) <i>Author:</i> Brandtstädter & Renner (1990) <i>Dimensions & Items:</i> 2 dimensions (20 items): Tenacious goal pursuit (10), Flexible goal adjustment (10) <i>Modification:</i> Response options <i>Response format:</i> 1 “does not apply at all” to 8 “applies very well” <i>Scale aggregation:</i> Mean scores after recoding negatively pooled items <i>Internal consistency:</i> Tenacious goal pursuit: $\alpha = .78$; Flexible goal adjustment: $\alpha = .79$ |
| <i>Goal resources</i> | |
| T1 | Objective cognitive functioning Spot-a-Word (Knowledge; objective performance-based test) <i>Author:</i> Lehrl (1977) <i>Task:</i> Mark the correct word out of 5 alternatives (35 items) <i>Score aggregation:</i> Sum of correct responses Digit-Symbol-Substitution (Perceptual-motor speed; objective performance-based test) <i>Author:</i> Wechsler (1982) <i>Task:</i> Fill in the symbol corresponding to the digit (93 items) <i>Score aggregation:</i> Mean of correct responses |
| T1 | Subjective cognitive functioning <i>Author:</i> Newly developed <i>Item:</i> Single item: “How would you describe your present cognitive functioning in general?” [German wording: <i>Wie würden Sie Ihre derzeitigen geistigen Fähigkeiten im Allgemeinen beschreiben?</i>] <i>Response format:</i> 1 “bad” to 8 “excellent” |

(Table continues)

Table A10 (continued)

| Construct | Description of measurement instrument |
|-----------|--|
| T1 | Grip strength (Physical vigor; objective performance-based test) |
| | <i>Author:</i> Steinhagen-Thiessen & Borchelt (1993) |
| | <i>Task:</i> Pressing a standardized dynamometer (Dynachip®; with results expressed in kilograms; 3 trials per hand) |
| | <i>Score:</i> Maximum grip strength: highest reading of both hands |
| T1 | SF-12 (Subjective health) |
| | <i>Author:</i> Bullinger & Kirchberger (1998) |
| | <i>Items:</i> 12 items on mental health and physical functioning |
| | <i>Modification:</i> Response options, time frame |
| | <i>Response format:</i> 1 “bad” to 8 “very good” (item 1), 1 “not at all limited” to 8 “very limited” (item 2, 3), 1 “none of the time” to 8 “all of the time” (item 4, 5, 6, 7, 9, 10, 11, 12), 1 “not at all” to 8 “very much” (item 8) |
| | <i>Scale aggregation:</i> Mean score after recoding negatively pooled items |
| | <i>Internal consistency:</i> $\alpha = .87$ |
| T1 | Resource Scale (Subjective general resources) |
| | <i>Author:</i> E. Diener & Fujita (1995) |
| | <i>Items:</i> 23 items |
| | <i>Modification:</i> Response options |
| | <i>Response format:</i> 1 “clearly below average” to 8 “clearly above average” |
| | <i>Scale aggregation:</i> Mean score |
| | <i>Internal consistency:</i> $\alpha = .84$ |
| T1 & T2 | Expectation of goal-specific resource demands |
| | <i>Author:</i> Newly developed |
| | <i>Item:</i> Single item: “How many resources (time, strength, energy) would you have to invest to achieve this goal (T2: have you invested into this goal since our last session two weeks ago)?” [German wording: <i>Wie viele Mittel (Zeit, Kraft, Energie) müssen Sie (T2: mussten Sie seit unserer ersten Befragung vor 2 Wochen für dieses Ziel aufwenden) dafür aufwenden, dieses Ziel zu verwirklichen?</i>] |
| | <i>Response format:</i> 1 “very few” to 8 “very many” |
| | <i>Score aggregation:</i> Mean score across six self-generated goals |
| | <i>Internal consistency:</i> $\alpha_{T1} = .60, \alpha_{T2} = .76$ |
| | <i>Test-retest-reliability:</i> $r_{T1-T2} = .42$ |
| T1 & T2 | Subjective availability of goal-specific resources |
| | <i>Author:</i> Newly developed |
| | <i>Item:</i> Single item: “I do possess the necessary resources (time, strength, energy) to achieve this goal. (T2: I did possess the necessary resources to achieve this goal since our last session two weeks ago).” [German wording: <i>Ich habe tatsächlich die notwendigen Mittel (Zeit, Kraft, Energie), um dieses Ziel zu verwirklichen (T2: Ich hatte tatsächlich seit unserer ersten Befragung vor 2 Wochen die notwendigen Mittel (Zeit, Kraft, Energie) für dieses Ziel.)</i>] |
| | <i>Response format:</i> 1 “does not apply at all” to 8 “applies very well” |
| | <i>Score aggregation:</i> Mean score across six self-generated goals |
| | <i>Internal consistency:</i> $\alpha_{T1} = .68, \alpha_{T2} = .77$ |
| | <i>Test-retest-reliability:</i> $r_{T1-T2} = .19$ |

(Table continues)

Table A10 (continued)

| Construct | Description of measurement instrument |
|--|--|
| <i>Additional goal characteristics</i> | |
| T1 & T2 | Importance of goal |
| | <p><i>Author:</i> Modified after B. R. Little (1983)</p> <p><i>Item:</i> Single item: "How important is this goal for you?" [German wording: <i>Wie wichtig ist Ihnen dieses Ziel?</i>]</p> <p><i>Response format:</i> 1 "not important at all" to 8 "very important"</p> <p><i>Score aggregation:</i> Mean score across six self-generated goals</p> <p><i>Internal consistency:</i> $\alpha_{T1} = .65, \alpha_{T2} = .75$</p> <p><i>Test-retest-reliability:</i> $r_{T1-T2} = .74$</p> |
| T1 & T2 | Goal progress (Recent approach and close distance to goal attainment) |
| | <p><i>Author:</i> Modified after Brandtstädter (1984b)</p> <p><i>Items:</i> 2 items: "In the last four to six weeks (T2: since our first session two weeks ago), have you moved toward this goal or have you moved away from it?" (Item 1) [German wording: <i>Sind Sie in den vergangenen 4 bis 6 Wochen (T2: Sind Sie in der Zeit seit unserer ersten Befragung vor zwei Wochen) diesem Ziel näher gekommen oder haben Sie sich davon entfernt?</i>].</p> <p>"How far away are you currently from this goal?" (Item 2) [German wording: <i>Wie weit sind Sie Ihrer Meinung nach von diesem Ziel derzeit entfernt?</i>]</p> <p><i>Modification:</i> Response options, time frame (Item 1)</p> <p><i>Response format:</i> 1 "moved very far away" to 8 "moved very close toward" (Item 1); 1 "very far away" to 8 "very close" (T2: 9 "goal achieved") (Item 2)</p> <p><i>Score aggregation:</i> Mean score (composite of 2 items) across six self-generated goals</p> <p><i>Internal consistency:</i> $\alpha_{T1} = .80, \alpha_{T2} = .86$</p> <p><i>Test-retest-reliability:</i> $r_{T1-T2} = .74$</p> |
| T1 & T2 | State satisfaction before goal setting |
| | <p><i>Author:</i> Newly developed</p> <p><i>Item:</i> Single item: "How satisfied were you before setting this specific goal?" [German wording: <i>Wie zufrieden waren Sie mit Ihrem Zustand, bevor Sie sich dieses Ziel gesetzt haben?</i>]</p> <p><i>Response format:</i> 1 "very dissatisfied" to 8 "very satisfied"</p> <p><i>Score aggregation:</i> Mean score across six self-generated goals</p> <p><i>Internal consistency:</i> $\alpha_{T1} = .72, \alpha_{T2} = .85$</p> <p><i>Test-retest-reliability:</i> $r_{T1-T2} = .73$</p> |
| T1 & T2 | Goal-related future orientation |
| | <p><i>Author:</i> Newly developed</p> <p><i>Item:</i> Single item: "This is a short-term goal that relates to the near future." [German wording: <i>Bei diesem Ziel handelt es sich um ein kurzfristiges, auf die nahe Zukunft bezogenes Ziel.</i>]</p> <p><i>Response format:</i> 1 "does not apply at all" to 8 "applies very well"</p> <p><i>Score aggregation:</i> Mean score across six self-generated goals</p> <p><i>Internal consistency:</i> $\alpha_{T1} = .77, \alpha_{T2} = .79$</p> <p><i>Test-retest-reliability:</i> $r_{T1-T2} = .60$</p> |

(Table continues)

Table A10 (continued)

| Construct | Description of measurement instrument |
|-----------|---|
| T1 & T2 | Goal engagement |
| | <p><i>Author:</i> Modified after Riediger (2001)</p> <p><i>Item:</i> Single item: T1: "I do a lot for this goal."; T2: "During the last two weeks I have done a lot for this goal."; [German wording: T1: <i>Ich tue viel für dieses Ziel</i>; T2: <i>In den letzten 2 Wochen habe ich viel für dieses Ziel getan.</i>]</p> <p><i>Response format:</i> 1 "does not apply at all" to 8 "applies very well"</p> <p><i>Score aggregation:</i> Mean score across six self-generated goals</p> <p><i>Internal consistency:</i> $\alpha_{T1} = .76, \alpha_{T2} = .72$</p> <p><i>Test-retest-reliability:</i> $r_{T1-T2} = .70$</p> |
| T1 & T2 | Concreteness of goal attainment |
| | <p><i>Author:</i> Newly developed</p> <p><i>Item:</i> Single item: "I have concrete ideas how to achieve this goal." [German wording: <i>Ich habe klare Vorstellungen darüber, wie ich dieses Ziel verwirklichen kann.</i>]</p> <p><i>Response format:</i> 1 "does not apply at all" to 8 "applies very well"</p> <p><i>Score aggregation:</i> Mean score across six self-generated goals</p> <p><i>Internal consistency:</i> $\alpha_{T1} = .69, \alpha_{T2} = .73$</p> <p><i>Test-retest-reliability:</i> $r_{T1-T2} = .71$</p> |
| T1 & T2 | Control over goal attainment |
| | <p><i>Author:</i> Modified after Brandtstädter (1984b)</p> <p><i>Item:</i> Single item: "The achievement of this goal depends on myself." [German wording: <i>Das Erreichen dieses Ziels ist von mir selbst abhängig.</i>]</p> <p><i>Modification:</i> Response options</p> <p><i>Response format:</i> 1 "does not apply at all" to 8 "applies very well"</p> <p><i>Score aggregation:</i> Mean score across six self-generated goals</p> <p><i>Internal consistency:</i> $\alpha_{T1} = .60, \alpha_{T2} = .67$</p> <p><i>Test-retest-reliability:</i> $r_{T1-T2} = .65$</p> |

Table A11. *Study 1: Instruments Assessing Person Control Variables: Overview and Psychometrical Information*

| Construct | Description of measurement instrument |
|-------------------------|--|
| <i>Person variables</i> | |
| T1 | Social Desirability Scale-17 [SD-17; Soziale Erwünschtheits-Skala-17] (Social desirability) <p><i>Author:</i> Stöber (1999) <i>Items:</i> 16 items <i>Modification:</i> Item 4 (“<i>tried out drugs</i>”) excluded <i>Response format:</i> 0 “<i>not true</i>” to 1 “<i>true</i>” <i>Scale aggregation:</i> Mean score after recoding negatively pooled items <i>Internal consistency:</i> $\alpha = .68$</p> |
| T2 | NEO-Five-Factor-Inventory [NEO Fünf-Faktoren-Inventar; NEO-FFI] (Personality traits) <p><i>Author:</i> Costa & McCrae (1992); German translation by Borkenau & Ostendorf (1993) <i>Dimensions & Items:</i> 5 dimensions (30 items): Neuroticism (6), Extraversion (6), Openness (6), Agreeableness (6), Conscientiousness (6) <i>Modification:</i> Short version (items selected by Smith & Baltes (1999), response options <i>Response format:</i> 1 “<i>does not apply at all</i>” to 8 “<i>applies very well</i>” <i>Scale aggregation:</i> Mean scores after recoding negatively pooled items <i>Internal consistency:</i> Neuroticism: $\alpha = .70$; Extraversion: $\alpha = .59$; Openness: $\alpha = .18$; Agreeableness: $\alpha = .64$; Conscientiousness: $\alpha = .71$</p> |
| T2 | Life Orientation Test (LOT; Generalized outcome expectancies) <p><i>Author:</i> Scheier & Carver (1985); German translation by Wieland-Eckelmann & Carver (1990) <i>Dimensions & Items:</i> 2 dimensions (8 items): Dispositional optimism (4), Dispositional pessimism (4) <i>Modification:</i> No filler items, response options <i>Response format:</i> 1 “<i>does not apply at all</i>” to 8 “<i>applies very well</i>” <i>Scale aggregation:</i> Mean scores <i>Internal consistency:</i> Dispositional optimism: $\alpha = .75$; Dispositional pessimism: $\alpha = .74$</p> |
| T2 | Generalized Self-Efficacy Scale [Allgemeine Selbstwirksamkeitserwartung] (Generalized perceived self-efficacy) <p><i>Author:</i> Schwarzer & Jerusalem (1999) <i>Items:</i> 10 items <i>Modification:</i> Response options <i>Response format:</i> 1 “<i>does not apply at all</i>” to 8 “<i>applies very well</i>” <i>Scale aggregation:</i> Mean score <i>Internal consistency:</i> $\alpha = .91$</p> |
| T2 | CAMI-General (Agency beliefs) <p><i>Author:</i> Jopp & Lindenberg (2000) <i>Items:</i> 16 items <i>Modification:</i> Only one sub-scale used (i.e., Agency); response options <i>Response format:</i> 1 “<i>never</i>” to 8 “<i>always</i>” <i>Scale aggregation:</i> Mean scores after recoding negatively pooled items <i>Internal consistency:</i> CAMI-general: $\alpha = .88$</p> |

Relations of Personal Goal Orientation to Concepts of Self-Regulation, Goal Resources, and Additional Goal Characteristics

Table A12. *Study 1: Differences in Bivariate Pearson Correlations Between Personal Goal Orientation (T1; Across All Self-Generated Goals) and Concepts of Self-Regulation, Goal Resources, and Additional Goal Characteristics*

| Construct | Growth <i>r</i> | Maintenance <i>r</i> | Prevention of loss <i>r</i> | $\tilde{\chi}^{(a)}$ Growth/ Maintenance | $\tilde{\chi}^{(a)}$ Maintenance/ Prevention of loss | $\tilde{\chi}^{(a)}$ Growth/ Prevention of loss |
|--|----------------------|-------------------------|-----------------------------------|--|---|--|
| <i>Self-regulation</i> | | | | | | |
| SOC life-management strategies | | | | | | |
| Elective selection | -.10 | .06 | .07 | -1.02 | -.11 | -1.11 |
| Loss-based selection | -.11 | .22 ⁺ | .13 | -2.16* | .99 | 1.58 |
| Optimization | -.02 | .07 | .04 | -.57 | .32 | -.39 |
| Compensation | -.10 ^(b) | .05 | .01 | -.95 | .43 | -.72 |
| Proactive and preventive coping | | | | | | |
| Proactive coping | .06 | .22 | .12 | -1.03 | 1.10 | -.39 |
| Preventive coping | -.07 | .34* | .22 ⁺ | -2.76* | 1.36 | -1.94 ⁺ |
| Habitualized styles of coping | | | | | | |
| Tenacious goal pursuit | -.01 | -.00 | .01 | -.06 | -.11 | -.13 |
| Flexible goal pursuit | -.00 ^(c) | .28 ^{+(d)} | .29 ⁺ | -1.84 ⁺ | .11 | -1.96 ⁺ |
| <i>Goal resources</i> | | | | | | |
| Objective cognitive functioning | | | | | | |
| Knowledge | -.24 ^{+(e)} | .27 ^{+(f)} | .03 | -3.49* | 2.66* | -1.81 ⁺ |
| Perceptual-motor speed | .14 | -.32* | -.29 ^{+(g)} | 3.12* | .34 | 2.97* |
| Subjective cognitive functioning | | | | | | |
| Objective physical functioning | -.05 | .12 | -.09 | -1.08 | 2.29* | .26 |
| Subjective health | .06 | -.02 ^(h) | -.11 | .51 | .97 | 1.11 |
| General subjective resources | | | | | | |
| Expectation of goal-specific resource demands | -.06 | .20 | -.02 | -1.68 ⁺ | 2.41* | -.26 |
| Subjective availability of goal- specific resources | .15 ⁽ⁱ⁾ | .10 | .13 | .32 | -.32 | .13 |
| <i>Additional goal characteristics</i> | | | | | | |
| Importance of goal | .21 ^(j) | .47* | .40* | -1.85 ⁺ | .85 | -1.34 |
| Goal progress | -.20 ^(k) | .46* | .11 | -4.84* | 4.05* | -2.07 ⁺ |
| State satisfaction before goal setting | -.32* | .05 ^(l) | -.25 ⁺ | -2.47* | 3.34* | -.49 |
| Goal-related future orientation | .23 ⁺ | .01 | -.01 | 1.50 | .21 | 1.60 |
| Goal engagement | .02 | .49* | .22 ⁺ | -3.34* | 3.17* | -1.33 |
| Concreteness of goal attainment | .09 | .34* | .07 | -1.67 ⁺ | 3.04* | .13 |
| Control over goal attainment | .05 | -.04 ^(m) | -.02 | .57 | -.21 | .45 |

Notes. ⁺ $p < .05$; * $p < .002$ (alpha-level adjustment for 23 repeated analyses). Reanalyzing the data using Spearman's rho (rank correlations) yielded the same results.

^(a) Test for differences in dependent correlations ($\tilde{\chi}$ -values): ⁺ $p < .05$; * $p < .017$ (alpha-level adjustment for 3 repeated analyses)

^(b) Age-group difference: $r_{\text{younger}} = -.26$; $r_{\text{older}} = .12$

^(c) Age-group difference: $r_{\text{younger}} = -.08$; $r_{\text{older}} = .13$

^(d) Age-group difference: $r_{\text{younger}} = -.04$; $r_{\text{older}} = .44$ ⁺

^(e) Age-group difference: $r_{\text{younger}} = -.34$ ⁺; $r_{\text{older}} = .09$

^(f) Age-group difference: $r_{\text{younger}} = -.16$; $r_{\text{older}} = .22$

^(g) Age-group difference: $r_{\text{younger}} = -.36$ ⁺; $r_{\text{older}} = .04$

^(h) Age-group difference: $r_{\text{younger}} = -.27$; $r_{\text{older}} = .14$

⁽ⁱ⁾ Age-group difference: $r_{\text{younger}} = .45$ ⁺; $r_{\text{older}} = -.03$

^(j) Age-group difference: $r_{\text{younger}} = .58$ ⁺; $r_{\text{older}} = .20$

^(k) Age-group difference: $r_{\text{younger}} = -.32$ ⁺; $r_{\text{older}} = .05$

^(l) Age-group difference: $r_{\text{younger}} = -.14$; $r_{\text{older}} = .32$ ⁺

^(m) Age-group difference: $r_{\text{younger}} = -.18$; $r_{\text{older}} = .24$

Additional Analyses on Age-Group Differences in Personal Goal Orientation of Self-Generated Goals at T2

Table A13. *Study 1: Between-Age-Group Differences in Personal Goal Orientation Across All Self-Generated Goals (T2; 6 Goals): Multi- and Univariate Follow-Up Analyses*

| Goal orientation | Younger adults | | Older adults | | $F^{(a)}$ | MSE | η^2 |
|---|----------------|------|--------------|------|---------------|-------|----------|
| | M | SE | M | SE | | | |
| <i>Across all self-generated goals^(b)</i> | | | | | | | |
| Growth ^(c) | 6.70 | .12 | 6.45 | .20 | 1.27 | 1.50 | .01 |
| Maintenance ^(d) | 4.99 | .21 | 6.57 | .16 | 32.36* | 55.80 | .27 |
| Prevention of loss | 5.19 | .26 | 6.10 | .28 | 5.46* | 18.39 | .06 |
| Wilks' $\lambda = .70$, $F_{(3, 86)} = 12.06$, $p < .05$, $\eta^2 = .30^{(e)}$ | | | | | | | |

Notes. * $p < .05$

^(a) F -values with 1, 88 degrees of freedom across all self-generated goals, across self-generated domains, across cognitive domain; F -values with 1, 87 degrees of freedom across physical domain, as one younger person did not report any physical functioning goals and was therefore dropped from all respective analyses.

^(b) Reanalyzing the data with the Mann-Whitney U test for two independent samples yielded the same results: $U_{\text{Growth}} = 979.5$, n.s.; $U_{\text{Prevention of Loss}} = 689$, $p < .05$.

^(c) Levene's test ($p < .05$) indicated departures from equality of variances in the two age groups.

^(d) Levene's test ($p < .05$) indicated departures from equality of variances in the two age groups.

^(e) Box's M test of homogeneity of variance-covariance matrices ($F_{(6, 51484)} = 2.85$, $p < .05$).

Repeated-measures ANOVAs with goal orientation as within-subject factor separately conducted in younger and older adults showed that the effect of goal orientation in the younger age group was significant (Wilks' $\lambda = .44$, $F_{(2, 47)} = 29.67$, $p < .05$, $\eta^2 = .56$). In the older sub-sample the within-factor did not reach significance (Wilks' $\lambda = .91$, $F_{(2, 39)} = 1.99$, n.s., $\eta^2 = .09$, $1 - \beta = .39$).

Table A14. *Study 1: Within-Age-Group Differences in Personal Goal Orientation Across All Self-Generated Goals (T2; 6 Goals): Paired-Sample t -Tests Follow-Up Analyses*

| Goal orientation | Growth | Maintenance | Prevention of loss |
|--|--------|---------------------|---------------------|
| <i>Across all self-generated goals^(a)</i> | | | |
| Growth | | $t_{(48)} = 7.65^*$ | $t_{(48)} = 6.03^*$ |
| Maintenance | n.a. | | $t_{(48)} = -1.03$ |
| Prevention of loss | n.a. | n.a. | |

Notes. * $p < .05$; n.a. = not applicable. Results for younger adults are printed above the diagonal and results for older adults below the diagonal.

^(a) Reanalyzing the data with the Wilcoxon's Signed-Ranks test for two related samples did not alter the results for younger adults ($Z_{\text{Growth/Maintenance}} = -5.59$, $p < .05$; $Z_{\text{Growth/Prevention of loss}} = -4.67$, $p < .05$; $Z_{\text{Maintenance/Prevention of loss}} = -.74$, n.s.).

*Additional Analyses on Personal Goal Orientation and General Subjective Well-Being*Table A15. *Study 1: Associations Between Personal Goal Orientation (T1; Across All Self-Generated Goals) and Each Facet of Subjective Well-Being (T2): Bivariate Pearson Correlations and Multiple Correlations*

| Facets of well-being | Growth <i>r</i> | Maintenance <i>r</i> | Prevention of loss <i>r</i> | Multiple R |
|---|--------------------|-------------------------|--------------------------------|------------------|
| Positive psychological functioning ^(a) | | | | |
| Total sample | -.03 | .14 | -.15 | .32 ⁺ |
| <i>Younger adults</i> | .24 | -.21 | -.39* | .50* |
| <i>Older adults</i> | -.10 | .33 ⁺ | -.06 | .45 ⁺ |
| Subjective-cognitive satisfaction ^(b) | | | | |
| Total sample | -.17 | .09 | -.15 | .32 ⁺ |
| <i>Younger adults</i> | .03 | -.27 | -.43* | .44 ⁺ |
| <i>Older adults</i> | -.22 | .24 | -.05 | .40 |
| Desire for change in life in general and across various life domains ^(c) | | | | |
| Total sample | .30* | -.21 ⁺ | -.02 | .37* |
| <i>Younger adults</i> | .22 | .13 | .35 ⁺ | .39 |
| <i>Older adults</i> | .23 | -.20 | -.13 | .29 |
| Emotional well-being | | | | |
| Positive affect | | | | |
| Total sample | .02 | .32* | .12 | .34 ⁺ |
| <i>Younger adults</i> | .12 | .16 | .03 | .22 |
| <i>Older adults</i> | .07 | .35 ⁺ | .09 | .39 |
| Negative affect ^(d) | | | | |
| Total sample | .24 ⁺ | -.15 | .06 | .32 ⁺ |
| <i>Younger adults</i> | .10 | .27 | .43* | .43 ⁺ |
| <i>Older adults</i> | .19 | -.22 | -.08 | .29 |
| General depressive affect | | | | |
| Total sample | .08 | -.09 | .11 | .24 |
| <i>Younger adults</i> | -.08 | .17 | .30 ⁺ | .33 |
| <i>Older adults</i> | .06 | -.09 | .11 | .22 |

Notes. ⁺ $p < .05$; * $p < .008$ (alpha-level adjustment for 6 repeated analyses). Reanalyzing the data using Spearman's rho (rank correlations) yielded the same results.

^(a) Age-group difference in goal orientation toward maintenance ($\chi = -2.54, p < .05$).

^(b) Age-group difference in goal orientation toward maintenance ($\chi = -2.38, p < .05$).

^(c) Age-group difference in goal orientation toward prevention of loss ($\chi = 2.26, p < .05$).

^(d) Age-group differences in goal orientation toward maintenance ($\chi = 2.28, p < .05$) and prevention of loss ($\chi = 2.46, p < .05$).

Two-step hierarchical multiple regression analyses tested whether goal orientation measured at T1 could predict the various facets of subjective well-being at T2 while controlling for the level of well-being at T1. In the first step, the initial (T1) level of the respective facet of subjective well-being was entered into the model. In the second step, I added the three dimensions of goal orientation (T1) to the prediction. Goal orientation did not predict change over time in subjective well-being in any of these models (alpha-level adjusted for 6 repeated analyses ($p < .008$): (1) Positive psychological functioning: $\Delta R^2 = .009$, (2) cognitive-subjective life satisfaction: $\Delta R^2 = .006$, (3) desire for change: $\Delta R^2 = .004$, (4) emotional well-being: $\Delta R^2_{\text{Positive affect}} = .01$, $\Delta R^2_{\text{Negative affect}} = .005$, and (5) general depressive affect: $\Delta R^2 = .05$.

Appendix B: Study 2

*Additional Information on Instructions of the Central Measurement Instruments*Box B1. *Study 2: Instruction on the Generation of Personal Goals*

People generally have quite a few **ideas of how they want to live their life**, what they personally **plan**, what they **wish, would like**, or **would not like**. Such projects/plans can pertain to various different life domains (e.g., cognitive functioning, physical fitness). They can pertain to the near or distant future (e.g., “to learn a new sport in the following years” or “to accumulate knowledge in the following days”). They can pertain to everyday (e.g., “to solve a crossword–puzzle every day”) or to far reaching issues (e.g., “to live a physically active life”). In addition, such projects/plans can focus on **improvement or learning of new things** (e.g., “to improve physical mobility and endurance”, “to learn a foreign language”). However, they can also focus on **maintenance or prevention of negative outcomes or losses** (e.g., “to maintain fitness to climb stairs”, “to try not to forget phone numbers, faces, and names”).

On the following pages we are interested to learn what your most important projects/plans are in the domains of **thinking and cognitive functioning** and **physical activity and fitness**. We start with the domain of **thinking and cognitive functioning**. (*We continue with the domain of **physical activity and fitness***).⁽⁴⁾ Please think for a few moments what **your two most important projects/plans** are in the domain of **thinking and cognitive functioning** (*physical activity and fitness*). Please list these on the respective lines. Find for each of these projects/plans a keyword and write this on the respective line.

What I personally plan, wish, would like, and would not like at present and in the following weeks, months, and years in the domain of thinking and cognitive functioning (*physical activity and fitness*)...

German wording:

Menschen haben allgemein recht vielfältige **Vorstellungen** darüber, **wie sie ihr Leben gestalten**, was **sie sich vornehmen**, was **sie sich wünschen**, was **sie möchten** und was **sie nicht möchten**. Solche Vorhaben können sich auf ganz unterschiedliche Lebensbereiche beziehen (z.B. geistige Fitness, körperliche Fitness). Sie können langfristig oder auch kurzfristig sein (z.B. „In den nächsten Jahren eine neue Sportart erlernen“ oder „In den nächsten Tagen mehr Wissen aneignen“). Es kann sich hierbei um alltägliche Dinge handeln (z.B. „Jeden Tag ein Kreuzworträtsel lösen“) oder um weit reichende Angelegenheiten (z.B. „Ein körperlich aktives Leben führen“). Darüber hinaus können sich Vorhaben auf **Verbessern oder Neues Erreichen** beziehen (z.B. „Körperliche Ausdauer und Mobilität steigern“, „Eine Fremdsprache lernen“). Sie können sich aber auch auf **Aufrechterhalten oder Vermeiden von schlechten Dingen und Verlusten** beziehen (z.B. „Die Kondition zum Treppensteigen erhalten“, „Versuchen, Telefonnummern, Gesichter und Namen nicht zu vergessen“).

Auf den nächsten Seiten sind wir daran interessiert von Ihnen zu erfahren, was **Ihre wichtigsten Vorhaben** in den Bereichen **Denken und geistige Fitness** und **körperliche Bewegung und Fitness** sind. Wir beginnen mit dem Bereich **Denken und geistige Fitness** (*Wir kommen nun zum Bereich **körperliche Bewegung und Fitness***). Bitte denken Sie einen Moment lang darüber nach, was **Ihre 2 wichtigsten Vorhaben** im Bereich **Denken und geistige Fitness** (*körperliche Bewegung und Fitness*) sind. Schreiben Sie diese dann bitte auf die dafür vorgesehenen Zeilen. Bitte finden Sie für jedes dieser Vorhaben ein Stichwort und schreiben Sie dieses auf die dafür vorgesehene Linie.

Was ich mir gegenwärtig und in den kommenden Wochen, Monaten und Jahren im Bereich Denken und geistige Fitness (*körperliche Bewegung und Fitness*) **vornehme, was ich mir wünsche, was ich möchte und was ich nicht möchte...**

Note.

⁽⁴⁾ Instructions that refer to the domain of physical functioning are printed in parentheses and italics.

Additional Descriptive and Psychometrical Information on the Central Variables

Table B1. *Study 2: Descriptive Information on the Two Dimensions of Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (Across all Self-Generated Goals; 4 Goals)*

| Construct | Outlier | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|--------------------------------|---------|--|----------|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| Growth | None | Total Sample | 6.33 | 1.29 | -.64 | (.24) | -.35 | (.48) | .94 | (.00) |
| | | <i>Younger Sample</i> | 6.53 | 1.19 | -.77 | (.34) | .12 | (.67) | .93 | (.01) |
| | | <i>Older Sample</i> | 6.14 | 1.36 | -.51 | (.33) | -.64 | (.65) | .94 | (.01) |
| | | $F_{(1, 98)} = 2.35, MSE = 3.9, n.s., \eta^2 = .02, 1 - \beta = .33^{(a)}$ | | | | | | | | |
| Maintenance–Prevention of loss | None | Total Sample | 5.80 | 1.72 | -.63 | (.24) | -.21 | (.48) | .94 | (.00) |
| | | <i>Younger Sample</i> | 4.75 | 1.60 | -.27 | (.34) | -.10 | (.67) | .98 | (.68) |
| | | <i>Older Sample</i> | 6.77 | 1.18 | -.99 | (.33) | .49 | (.65) | .89 | (.00) |
| | | $F_{(1, 98)} = 52.17, MSE = 101.84, p < .05, \eta^2 = .35^{(b)}$ | | | | | | | | |

Notes.

^(a) Mann-Whitney *U* test: $U = 1045.5, n.s.$

^(b) Mann-Whitney *U* test: $U = 377, p < .05$

Table B2. *Study 2: Descriptive Information on the Two Dimensions of Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (Across Cognitive Domain; 2 Goals)*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|--------------------------------|------------------------|--|----------|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| Growth | 1 outlier (young) | Total Sample | 6.51 | 1.40 | -.55 | (.24) | .82 | (.48) | .89 | (.00) |
| | | <i>Younger Sample</i> | 6.67 | 1.43 | -.91 | (.34) | -.30 | (.67) | .84 | (.00) |
| | | <i>Older Sample</i> | 6.36 | 1.37 | -.25 | (.33) | -1.0 | (.65) | .91 | (.00) |
| | | $F_{(1, 98)} = 1.21, MSE = 2.4, n.s., \eta^2 = .01, 1 - \beta = .19^{(b)}$ | | | | | | | | |
| Maintenance–Prevention of loss | 1 outlier (old) | Total Sample | 5.70 | 2.00 | -.43 | (.24) | -.84 | (.48) | .91 | (.00) |
| | | <i>Younger Sample</i> | 4.59 | 1.96 | .19 | (.34) | -.70 | (.67) | .96 | (.07) |
| | | <i>Older Sample</i> | 6.73 | 1.41 | -.72 | (.33) | .94 | (.65) | .82 | (.00) |
| | | $F_{(1, 98)} = 39.59, MSE = 114.42, p < .05, \eta^2 = .29$ | | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Mann-Whitney *U* test: $U = 1067.5, n.s.$

Table B3. *Study 2: Descriptive Information on the Two Dimensions of Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (Across Physical Domain; 2 Goals)*

| Construct | Outlier | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|--------------------------------|---------|--|----------|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| Growth | None | Total Sample | 6.18 | 1.53 | -.69 | (.24) | -.07 | (.48) | .93 | (.00) |
| | | <i>Younger Sample</i> | 6.45 | 1.39 | -.49 | (.34) | -.88 | (.67) | .90 | (.00) |
| | | <i>Older Sample</i> | 5.92 | 1.61 | -.75 | (.33) | .02 | (.65) | .93 | (.01) |
| | | $F_{(1, 98)} = 3.13, MSE = 7.2, n.s., \eta^2 = .03, 1 - \beta = .42^{(a)}$ | | | | | | | | |
| Maintenance–Prevention of loss | None | Total Sample | 5.93 | 1.8 | -.88 | (.24) | .25 | (.48) | .89 | (.00) |
| | | <i>Younger Sample</i> | 4.92 | 1.87 | -.51 | (.34) | -.27 | (.67) | .94 | (.01) |
| | | <i>Older Sample</i> | 6.85 | 1.23 | -.99 | (.33) | -.17 | (.65) | .84 | (.00) |
| | | $F_{(1, 98)} = 37.3, MSE = .9, p < .05, \eta^2 = .3, 1 - \beta = 1^{(b)(c)}$ | | | | | | | | |

Notes.

^(a) Mann-Whitney *U* test: $U = 1016, n.s.$

^(b) Mann-Whitney *U* test: $U = 466.5, p < .05$

^(c) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

*Additional Descriptive and Psychometrical Information on the Correlate and Control Variables*Table B4. *Study 2: Descriptive Information on the Concepts of Self-Regulation, Goal Resources, Additional Goal Characteristics, and Goal Satisfaction in the Total Sample and in the Younger and Older Sub-Samples*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|---|------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| <i>Self-regulation</i> | | | | | | | | | | |
| SOC life-management strategies | | | | | | | | | | |
| Elective selection | | | | | | | | | | |
| | None | Total Sample | .43 | .26 | .30 | (.24) | -.91 | (.48) | .93 | (.00) |
| | | <i>Younger Sample</i> | .43 | .27 | .25 | (.34) | -.96 | (.67) | .93 | (.01) |
| | | <i>Older Sample</i> | .43 | .26 | .35 | (.33) | -.84 | (.65) | .93 | (.00) |
| $F_{(1,98)} = .00, MSE = .00, n.s., \eta^2 = .00, 1 - \beta = .05$ | | | | | | | | | | |
| Loss-based selection | | | | | | | | | | |
| | None | Total Sample | .69 | .23 | -.70 | (.24) | .03 | (.48) | .91 | (.00) |
| | | <i>Younger Sample</i> | .66 | .25 | -.71 | (.34) | -.28 | (.67) | .90 | (.00) |
| | | <i>Older Sample</i> | .72 | .21 | -.55 | (.33) | .15 | (.65) | .91 | (.00) |
| $F_{(1,98)} = 1.54, MSE = .08, n.s., \eta^2 = .02, 1 - \beta = .23^{(b)}$ | | | | | | | | | | |
| Optimization | | | | | | | | | | |
| | None | Total Sample | .57 | .22 | .04 | (.24) | -.65 | (.48) | .94 | (.00) |
| | | <i>Younger Sample</i> | .58 | .21 | .02 | (.34) | -.46 | (.67) | .94 | (.02) |
| | | <i>Older Sample</i> | .56 | .23 | .08 | (.33) | -.74 | (.65) | .94 | (.01) |
| $F_{(1,98)} = .27, MSE = .01, n.s., \eta^2 = .00, 1 - \beta = .08$ | | | | | | | | | | |
| Compensation | | | | | | | | | | |
| | None | Total Sample | .69 | .21 | -.55 | (.24) | .49 | (.48) | .92 | (.00) |
| | | <i>Younger Sample</i> | .66 | .22 | -.60 | (.34) | .59 | (.67) | .93 | (.01) |
| | | <i>Older Sample</i> | .71 | .19 | -.38 | (.33) | .13 | (.65) | .92 | (.00) |
| $F_{(1,98)} = 1.54, MSE = .07, n.s., \eta^2 = .02, 1 - \beta = .23^{(c)}$ | | | | | | | | | | |
| Proactive and preventive coping | | | | | | | | | | |
| Proactive coping | | | | | | | | | | |
| | None | Total Sample | 5.40 | .96 | -.15 | (.24) | -.12 | (.48) | .99 | (.89) |
| | | <i>Younger Sample</i> | 5.52 | .96 | -.33 | (.34) | -.19 | (.67) | .98 | (.66) |
| | | <i>Older Sample</i> | 5.29 | .95 | .01 | (.33) | .21 | (.65) | .99 | (.98) |
| $F_{(1,98)} = 1.44, MSE = 1.31, n.s., \eta^2 = .01, 1 - \beta = .22$ | | | | | | | | | | |
| Preventive coping | | | | | | | | | | |
| | None | Total Sample | 5.49 | 1.22 | -.21 | (.24) | -.67 | (.48) | .98 | (.19) |
| | | <i>Younger Sample</i> | 4.91 | 1.16 | .15 | (.34) | -.47 | (.67) | .99 | (.84) |
| | | <i>Older Sample</i> | 6.02 | 1.02 | -.39 | (.33) | -.42 | (.65) | .97 | (.20) |
| $F_{(1,98)} = 25.77, MSE = 30.67, p < .05, \eta^2 = .21$ | | | | | | | | | | |
| Achievement motives | | | | | | | | | | |
| Motive to approach success | | | | | | | | | | |
| | None | Total Sample | 6.05 | 1.02 | -.39 | (.24) | -.10 | (.48) | .98 | (.24) |
| | | <i>Younger Sample</i> | 5.90 | .81 | -.05 | (.34) | .19 | (.67) | .99 | (.96) |
| | | <i>Older Sample</i> | 6.19 | 1.18 | -.68 | (.33) | -.19 | (.65) | .95 | (.03) |
| $F_{(1,98)} = 1.96, MSE = 2.0, n.s., \eta^2 = .02, 1 - \beta = .28^{(d)}$ | | | | | | | | | | |
| Motive to avoid failure | | | | | | | | | | |
| | None | Total Sample | 3.62 | 1.36 | .31 | (.24) | -.60 | (.48) | .98 | (.07) |
| | | <i>Younger Sample</i> | 3.64 | 1.35 | .17 | (.34) | -.63 | (.67) | .98 | (.53) |
| | | <i>Older Sample</i> | 3.61 | 1.38 | .43 | (.33) | -.50 | (.65) | .97 | (.18) |
| $F_{(1,98)} = .01, MSE = .03, n.s., \eta^2 = .00, 1 - \beta = .05$ | | | | | | | | | | |

(Table continues)

Table B4 (continued)

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) |
|--|------------------------|-----------------------|---|-----------|-------------|---------------|-------------|---------------|----------------------------------|
| <i>Goal resources</i> | | | | | | | | | |
| Objective cognitive functioning | | | | | | | | | |
| Knowledge | | | | | | | | | |
| | 1 outlier (young) | Total Sample | 25.1 | 5.22 | -.65 | (.24) | -.10 | (.48) | .95 (.00) |
| | | <i>Younger Sample</i> | 21.3 | 4.39 | -.52 | (.34) | -.28 | (.67) | .95 (.04) |
| | | <i>Older Sample</i> | 28.7 | 2.92 | -.60 | (.33) | .30 | (.65) | .97 (.14) |
| | | | $F_{(1,98)} = 99.28, MSE = 1356.20, p < .05, \eta^2 = .50^{(e)(f)}$ | | | | | | |
| Perceptual-motor speed ^(g) | | | | | | | | | |
| | 1 outlier (old) | Total Sample | 47.8 | 12.8 | .21 | (.24) | -.80 | (.48) | .98 (.07) |
| | | <i>Younger Sample</i> | 57.0 | 9.87 | -.19 | (.34) | -.54 | (.67) | .98 (.56) |
| | | <i>Older Sample</i> | 38.9 | 8.11 | .22 | (.34) | -.59 | (.66) | .98 (.38) |
| | | | $F_{(1,96)} = 98.90, MSE = 8041.58, p < .05, \eta^2 = .51$ | | | | | | |
| Subjective cognitive functioning | | | | | | | | | |
| | None | Total Sample | 5.93 | 1.08 | -.31 | (.24) | -.26 | (.48) | .92 (.00) |
| | | <i>Younger Sample</i> | 6.00 | 1.07 | -.22 | (.34) | -.45 | (.67) | .91 (.00) |
| | | <i>Older Sample</i> | 5.87 | 1.09 | -.39 | (.33) | -.05 | (.65) | .92 (.00) |
| | | | $F_{(1,98)} = .39, MSE = .45, n.s., \eta^2 = .00, 1 - \beta = .10$ | | | | | | |
| Subjective health | | | | | | | | | |
| | None | Total Sample | 6.07 | 1.09 | -.59 | (.24) | -.51 | (.48) | .95 (.00) |
| | | <i>Younger Sample</i> | 6.22 | .93 | -.81 | (.34) | .24 | (.67) | .95 (.03) |
| | | <i>Older Sample</i> | 5.93 | 1.21 | -.37 | (.33) | -.95 | (.65) | .95 (.04) |
| | | | $F_{(1,98)} = 1.8, MSE = 2.1, n.s., \eta^2 = .02, 1 - \beta = .26^{(h)(i)}$ | | | | | | |
| Expectation of goal-specific resource demands | | | | | | | | | |
| | None | Total Sample | 5.53 | 1.07 | .05 | (.24) | -.03 | (.48) | .99 (.30) |
| | | <i>Younger Sample</i> | 5.43 | 1.10 | -.12 | (.34) | -.06 | (.67) | .99 (.82) |
| | | <i>Older Sample</i> | 5.64 | 1.04 | .27 | (.33) | -.05 | (.65) | .98 (.38) |
| | | | $F_{(1,98)} = .96, MSE = 1.09, n.s., \eta^2 = .01, 1 - \beta = .16$ | | | | | | |
| Subjective availability of goal-specific resources | | | | | | | | | |
| | None | Total Sample | 5.89 | 1.09 | -.35 | (.24) | -.04 | (.48) | .98 (.09) |
| | | <i>Younger Sample</i> | 5.77 | 1.08 | -.42 | (.34) | -.01 | (.67) | .97 (.22) |
| | | <i>Older Sample</i> | 6.00 | 1.11 | -.32 | (.33) | .03 | (.65) | .98 (.40) |
| | | | $F_{(1,98)} = 1.06, MSE = 1.26, n.s., \eta^2 = .01, 1 - \beta = .18$ | | | | | | |
| <i>Additional goal characteristics</i> | | | | | | | | | |
| State satisfaction before goal setting | | | | | | | | | |
| | None | Total Sample | 4.52 | 1.24 | .06 | (.24) | -.53 | (.48) | .98 (.17) |
| | | <i>Younger Sample</i> | 4.59 | 1.18 | -.10 | (.34) | -.54 | (.67) | .97 (.25) |
| | | <i>Older Sample</i> | 4.45 | 1.30 | .19 | (.33) | -.46 | (.65) | .98 (.50) |
| | | | $F_{(1,98)} = .45, MSE = .29, n.s., \eta^2 = .00, 1 - \beta = .08$ | | | | | | |
| Goal-related future orientation | | | | | | | | | |
| | None | Total Sample | 3.86 | 1.77 | .33 | (.24) | -.70 | (.48) | .97 (.02) |
| | | <i>Younger Sample</i> | 3.85 | 1.35 | .24 | (.34) | -.79 | (.67) | .96 (.14) |
| | | <i>Older Sample</i> | 3.87 | 2.09 | .32 | (.33) | -.11 | (.65) | .94 (.01) |
| | | | $F_{(1,98)} = .01, MSE = .02, n.s., \eta^2 = .00, 1 - \beta = .05^{(j)}$ | | | | | | |
| Goal engagement | | | | | | | | | |
| | None | Total Sample | 5.34 | 1.42 | -.16 | (.24) | -.84 | (.48) | .98 (.07) |
| | | <i>Younger Sample</i> | 4.71 | 1.37 | .26 | (.34) | -.72 | (.67) | .97 (.36) |
| | | <i>Older Sample</i> | 5.93 | 1.20 | -.40 | (.33) | -.38 | (.65) | .97 (.23) |
| | | | $F_{(1,98)} = 22.38, MSE = 36.92, p < .05, \eta^2 = .19$ | | | | | | |

(Table continues)

Table B4 (continued)

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) |
|------------------------------------|------------------------|-----------------------|---|-----------|-------------|---------------|-------------|---------------|----------------------------------|
| Concreteness of goal attainment | | | | | | | | | |
| | None | Total Sample | 6.17 | 1.23 | -.52 | (.24) | -.19 | (.48) | .96 (.00) |
| | | <i>Younger Sample</i> | 6.04 | 1.30 | -.58 | (.34) | -.09 | (.67) | .95 (.04) |
| | | <i>Older Sample</i> | 6.30 | 1.15 | -.37 | (.33) | -.55 | (.65) | .96 (.10) |
| | | | $F_{(1,98)} = 1.16, MSE = 1.8, n.s., \eta^2 = .01, 1 - \beta = .19^{(b)}$ | | | | | | |
| Control over goal attainment | | | | | | | | | |
| | None | Total Sample | 6.90 | 1.11 | -1.16 | (.24) | 1.17 | (.48) | .88 (.00) |
| | | <i>Younger Sample</i> | 7.28 | .81 | -.92 | (.34) | -.39 | (.67) | .83 (.00) |
| | | <i>Older Sample</i> | 6.55 | 1.24 | -.93 | (.33) | .41 | (.65) | .92 (.00) |
| | | | $F_{(1,98)} = 12, MSE = 13, p < .05, \eta^2 = .11, 1 - \beta = .90^{(m)}$ | | | | | | |
| Clear outcome criteria | | | | | | | | | |
| | None | Total Sample | 5.12 | 1.59 | -.22 | (.24) | -.63 | (.48) | .98 (.13) |
| | | <i>Younger Sample</i> | 5.10 | 1.63 | -.21 | (.34) | -.54 | (.67) | .98 (.63) |
| | | <i>Older Sample</i> | 5.13 | 1.56 | -.23 | (.33) | -.67 | (.65) | .97 (.32) |
| | | | $F_{(1,98)} = .01, MSE = .02, n.s., \eta^2 = .00, 1 - \beta = .05$ | | | | | | |
| Recent approach to goal attainment | | | | | | | | | |
| | None | Total Sample | 5.18 | .99 | -.11 | (.24) | -.14 | (.48) | .99 (.35) |
| | | <i>Younger Sample</i> | 4.96 | .97 | -.35 | (.34) | .20 | (.67) | .98 (.49) |
| | | <i>Older Sample</i> | 5.39 | .97 | .09 | (.33) | -.77 | (.65) | .97 (.20) |
| | | | $F_{(1,98)} = 4.89, MSE = 4.62, p < .05, \eta^2 = .05$ | | | | | | |
| <i>Goal Satisfaction</i> | | | | | | | | | |
| Satisfaction with goal attainment | | | | | | | | | |
| | None | Total Sample | 6.57 | 1.19 | -.72 | (.24) | -.15 | (.48) | .92 (.00) |
| | | <i>Younger Sample</i> | 6.54 | 1.20 | -.96 | (.34) | .30 | (.67) | .90 (.00) |
| | | <i>Older Sample</i> | 6.60 | 1.18 | -.51 | (.33) | -.54 | (.65) | .92 (.00) |
| | | | $F_{(1,98)} = 18.60, MSE = 22.28, p < .05, \eta^2 = .16$ | | | | | | |
| Satisfaction with goal progress | | | | | | | | | |
| | None | Total Sample | 5.22 | 1.19 | .18 | (.24) | -.47 | (.48) | .98 (.23) |
| | | <i>Younger Sample</i> | 4.73 | 1.02 | .08 | (.34) | -.33 | (.67) | .97 (.34) |
| | | <i>Older Sample</i> | 5.68 | 1.16 | .05 | (.33) | -.75 | (.65) | .98 (.37) |
| | | | $F_{(1,98)} = .07, MSE = .09, n.s., \eta^2 = .00, 1 - \beta = .06$ | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Mann-Whitney *U* test: $U = 1124, n.s.$

^(c) Mann-Whitney *U* test: $U = 1088, n.s.$

^(d) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(e) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(f) Mann-Whitney *U* test: $U = 178.5, p < .05$

^(g) For reasons of time, two older adults did not respond to the Digit-Symbol Substitution test. Respective analyses therefore based on a reduced sample size ($n_{\text{older}} = 50$).

^(h) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

⁽ⁱ⁾ Mann-Whitney *U* test: $U = 1100, n.s.$

^(j) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(k) Mann-Whitney *U* test: $U = 1116.5, n.s.$

^(l) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(m) Mann-Whitney *U* test: $U = 780.5, p < .05$

Table B5. *Study 2: Descriptive Information on the Person Control Variables in the Total Sample and in the Younger and Older Sub-Samples*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|---------------------|------------------------|-----------------------|--|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| Social desirability | | | | | | | | | | |
| | None | Total Sample | .67 | .19 | -.54 | (.24) | -.22 | (.48) | .96 | (.00) |
| | | <i>Younger Sample</i> | .59 | .18 | -.46 | (.34) | -.28 | (.67) | .96 | (.13) |
| | | <i>Older Sample</i> | .75 | .16 | -.82 | (.33) | .33 | (.65) | .93 | (.01) |
| | | | $F_{(1, 98)} = 24.04, MSE = .70, p < .05, \eta^2 = .20^{(b)}$ | | | | | | | |
| Personality traits | | | | | | | | | | |
| Neuroticism | | | | | | | | | | |
| | None | Total Sample | 3.69 | 1.31 | .64 | (.24) | .18 | (.48) | .97 | (.01) |
| | | <i>Younger Sample</i> | 3.94 | 1.45 | .64 | (.34) | -.18 | (.67) | .95 | (.03) |
| | | <i>Older Sample</i> | 3.45 | 1.12 | .29 | (.33) | -.31 | (.65) | .98 | (.63) |
| | | | $F_{(1, 98)} = 3.5, MSE = 5.9, n.s., \eta^2 = .04, 1 - \beta = .46^{(c)(d)}$ | | | | | | | |
| Extraversion | | | | | | | | | | |
| | None | Total Sample | 5.46 | .96 | .01 | (.24) | -.65 | (.48) | .98 | (.27) |
| | | <i>Younger Sample</i> | 5.70 | .90 | .02 | (.34) | -1.1 | (.67) | .95 | (.03) |
| | | <i>Older Sample</i> | 5.24 | .97 | .10 | (.33) | -.36 | (.65) | .97 | (.16) |
| | | | $F_{(1, 98)} = 6.0, MSE = 5.3, p < .05, \eta^2 = .06, 1 - \beta = .68$ | | | | | | | |
| Openness | | | | | | | | | | |
| | None | Total Sample | 5.29 | 1.12 | .04 | (.24) | -.04 | (.48) | .99 | (.86) |
| | | <i>Younger Sample</i> | 5.70 | 1.07 | .14 | (.34) | -.53 | (.67) | .98 | (.74) |
| | | <i>Older Sample</i> | 4.91 | 1.02 | -.16 | (.33) | .14 | (.65) | .98 | (.69) |
| | | | $F_{(1, 98)} = 14.37, MSE = 15.74, p < .05, \eta^2 = .13$ | | | | | | | |
| Agreeableness | | | | | | | | | | |
| | 1 outlier (young) | Total Sample | 6.10 | .91 | -.98 | (.24) | 1.45 | (.48) | .94 | (.00) |
| | | <i>Younger Sample</i> | 5.89 | 1.04 | -.92 | (.34) | .82 | (.67) | .93 | (.01) |
| | | <i>Older Sample</i> | 6.29 | .74 | -.48 | (.33) | .43 | (.65) | .96 | (.12) |
| | | | $F_{(1, 98)} = 5.03, MSE = 4.01, p < .05, \eta^2 = .05^{(e)(f)}$ | | | | | | | |
| Conscientiousness | | | | | | | | | | |
| | None | Total Sample | 5.30 | 1.32 | -.62 | (.24) | -.07 | (.48) | .96 | (.01) |
| | | <i>Younger Sample</i> | 4.86 | 1.49 | -.20 | (.34) | -.67 | (.67) | .98 | (.47) |
| | | <i>Older Sample</i> | 5.70 | 1.01 | -.71 | (.33) | .78 | (.65) | .96 | (.11) |
| | | | $F_{(1, 98)} = 10.86, MSE = 17.25, p < .05, \eta^2 = .10^{(g)(h)}$ | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Mann-Whitney *U* test: $U = 594, p < .05$

^(c) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(d) Mann-Whitney *U* test: $U = 1039.5, n.s.$

^(e) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(f) Mann-Whitney *U* test: $U = 981, n.s.$

^(g) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(h) Mann-Whitney *U* test: $U = 813.5, p < .05$

Table B6. *Study 2: Instruments Assessing Concepts of Self-Regulation, Goal Resources, and Additional Goal Characteristics: Overview and Psychometrical Information*

| Construct | Description of measurement instrument |
|--|---|
| <i>Self-regulation variables</i> | |
| SOC-Questionnaire (Life-management strategies) | see Table A10 |
| <i>Internal consistency:</i> | Elective selection: $\alpha = .52$; Loss-based selection: $\alpha = .41$; Optimization: $\alpha = .29$; Compensation: $\alpha = .25$ |
| Proactive Coping Inventory [German version of the PCI] (Proactive and preventive coping) | see Table A10 |
| <i>Internal consistency:</i> | Proactive coping: $\alpha = .82$; Preventive coping: $\alpha = .82$ |
| Achievement Motives Scale | |
| <i>Author:</i> | Dahme, Jungnickel, & Rathje (1993); Gjesme & Nygard (1970); German translation by Göttert & Kuhl (1980) |
| <i>Dimensions & Items:</i> | 2 dimensions (30 items): Motive to approach success (15), Motive to avoid failure (15) |
| <i>Modification:</i> | Response options |
| <i>Response format:</i> | 1 “does not apply at all” to 8 “applies very well” |
| <i>Scale aggregation:</i> | Mean scores |
| <i>Internal consistency:</i> | Motive to approach success: $\alpha = .87$; Motive to avoid failure: $\alpha = .91$ |
| <i>Goal resources</i> | |
| Objective cognitive functioning | |
| Knowledge | see Table A10 |
| Perceptual-motor speed | see Table A10 |
| Subjective cognitive functioning | see Table A10 |
| Subjective health | |
| <i>Internal consistency:</i> | see Table A10 $\alpha = .86$ |
| Expectation of goal-specific resource demands | see Table A10 |
| <i>Score aggregation:</i> | Mean score across four self-generated goals |
| <i>Internal consistency:</i> | $\alpha = .56$ |
| Subjective availability of goal-specific resources | see Table A10 |
| <i>Score aggregation:</i> | Mean score across four self-generated goals |
| <i>Internal consistency:</i> | $\alpha = .59$ |
| <i>Additional goal characteristics</i> | |
| Satisfaction with goal attainment | |
| <i>Author:</i> | Modified after B. R. Little (1983) |
| <i>Item:</i> | Single item: “When I reach this goal, I will be happy.” [German wording: <i>Wenn ich dieses Ziel erreiche, bin ich glücklich.</i>] |
| <i>Response format:</i> | 1 “does not apply at all” to 8 “applies very well” |
| <i>Score aggregation:</i> | Mean score across four self-generated goals |
| <i>Internal consistency:</i> | $\alpha = .80$ |

(Table continues)

Table B6 (continued)

| Construct | Description of measurement instrument |
|--|--|
| Satisfaction with goal progress | <p><i>Author:</i> Modified after Brandtstädter (1984b)</p> <p><i>Item:</i> Single item: "With respect to this specific goal, how satisfied are you currently with yourself and your development?" [German wording: <i>Inwieweit sind Sie gegenwärtig im Hinblick auf dieses Ziel mit sich und Ihrer Entwicklung zufrieden?</i>]</p> <p><i>Modification:</i> Response options, time frame</p> <p><i>Response format:</i> 1 "very dissatisfied" to 8 "very satisfied"</p> <p><i>Score aggregation:</i> Mean score across four self-generated goals</p> <p><i>Internal consistency:</i> $\alpha = .68$</p> |
| Goal progress (Recent approach to goal attainment) | <p><i>Author:</i> Modified after Brandtstädter (1984b)</p> <p><i>Item:</i> Single item: "In the last four to six weeks, have you moved toward this goal or have you moved away from it?" [German wording: <i>Sind Sie in den vergangenen 4 bis 6 Wochen diesem Ziel näher gekommen oder haben Sie sich davon entfernt?</i>].</p> <p><i>Modification:</i> Response options, time frame</p> <p><i>Response format:</i> 1 "moved very far away" to 8 "moved very close toward"</p> <p><i>Score aggregation:</i> Mean score across four self-generated goals</p> <p><i>Internal consistency:</i> $\alpha = .40$</p> |
| State satisfaction before goal setting | <p>see Table A10</p> <p><i>Score aggregation:</i> Mean score across four self-generated goals</p> <p><i>Internal consistency:</i> $\alpha = .61$</p> |
| Goal-related future orientation | <p>see Table A10</p> <p><i>Score aggregation:</i> Mean score across four self-generated goals</p> <p><i>Internal consistency:</i> $\alpha = .71$</p> |
| Goal engagement | <p>see Table A10</p> <p><i>Score aggregation:</i> Mean score across four self-generated goals</p> <p><i>Internal consistency:</i> $\alpha = .72$</p> |
| Concreteness of goal attainment | <p>see Table A10</p> <p><i>Score aggregation:</i> Mean score across four self-generated goals</p> <p><i>Internal consistency:</i> $\alpha = .64$</p> |
| Control over goal attainment | <p>see Table A10</p> <p><i>Score aggregation:</i> Mean score across four self-generated goals</p> <p><i>Internal consistency:</i> $\alpha = .71$</p> |
| Clear goal outcome criteria | <p><i>Author:</i> Newly developed</p> <p><i>Item:</i> Single item: "I know exactly when I have achieved this goal." [German wording: <i>Ich weiss genau, wann ich dieses Ziel erreicht habe.</i>]</p> <p><i>Response format:</i> 1 "does not apply at all" to 8 "applies very well"</p> <p><i>Score aggregation:</i> Mean score across four self-generated goals</p> <p><i>Internal consistency:</i> $\alpha = .64$</p> |

Table B7 *Study 2: Instruments Assessing Person Control Variables: Overview and Psychometrical Information*

| Construct | Description of measurement instrument |
|--|---|
| <i>Person variables</i> | |
| Social Desirability Scale-17 [Soziale Erwünschtheits-Skala-17] (Social desirability) | see Table A11 |
| <i>Internal consistency:</i> | $\alpha = .70$ |
| NEO-Five-Factor-Inventory [NEO Fünf-Faktoren-Inventar NEO-FFI] (Personality traits) | see Table A11 |
| <i>Internal consistency:</i> | Neuroticism: $\alpha = .69$; Extraversion: $\alpha = .39$; Openness: $\alpha = .44$; Agreeableness: $\alpha = .51$; Conscientiousness: $\alpha = .74$ |

Relations of Personal Goal Orientation to Concepts of Self-Regulation, Goal Resources, and Additional Goal Characteristics

Table B8. *Study 2: Differences in Bivariate Pearson Correlations Between Personal Goal Orientation (Across All Self-Generated Goals) and Concepts of Self-Regulation, Goal Resources, and Additional Goal Characteristics*

| Construct | Growth <i>r</i> | Maintenance– Prevention of loss <i>r</i> | χ^2 ^(a) Growth/Maintenance– Prevention of loss |
|--|--------------------|--|--|
| <i>Self-regulation</i> | | | |
| SOC life-management strategies | | | |
| Elective selection | -.02 | -.05 | .23 |
| Loss-based selection | .05 | .02 | .23 |
| Optimization | .07 | -.11 | 1.36 |
| Compensation | .05 ^(b) | .15 | -.76 |
| Proactive and preventive coping | | | |
| Proactive coping | .22 ⁺ | .01 | 1.61 |
| Preventive coping | -.06 | .36^(c) | -3.38* |
| Achievement motives | | | |
| Motive to approach success | .15 | .13 ^(d) | .15 |
| Motive to avoid failure | .03 | -.06 | .68 |
| <i>Goal resources</i> | | | |
| Objective cognitive functioning | | | |
| Knowledge | -.17 | .30* | -3.80* |
| Perceptual-motor speed | .22 ⁺ | -.35* | 4.77* |
| Subjective cognitive functioning | .06 | .03 | .23 |
| Subjective health | -.09 | -.03 | -.45 |
| Expectation of goal-specific resource demands | .36* | .22 ^(e) | 1.15 |
| Subjective availability of goal-specific resources | .11 | .13 ^(f) | -.15 |
| <i>Additional goal characteristics</i> | | | |
| Satisfaction with goal attainment | .36* | .32^(g) | .33 |
| Satisfaction with goal progress | -.05 | .38* | -3.48* |
| Goal progress | .18 | .26 ⁺ | -.62 |
| State satisfaction before goal setting | -.27 ⁺ | .04 | -2.42* |
| Goal-related future orientation | .04 | .00 ^(h) | .30 |
| Goal engagement | .12 | .36* | -1.91 ⁺ |
| Concreteness of goal attainment | .19 | .16 ⁽ⁱ⁾ | .23 |
| Control over goal attainment | .23 ⁺ | -.12 ^(j) | 2.73* |
| Clear goal outcome criteria | .05 | -.02 | .53 |

Notes. + $p < .05$; * $p < .002$ (alpha-level adjustment for 23 repeated analyses). Reanalyzing the data using Spearman's rho (rank correlations) yielded the same results.

^(a) Test for differences in dependent correlations (χ^2 -values): + $p < .05$; * $p < .025$ (alpha-level adjustment for 2 repeated analyses).

^(b) Age-group difference: $r_{\text{younger}} = .25$; $r_{\text{older}} = -.10$

^(c) Age-group difference: $r_{\text{younger}} = -.03$; $r_{\text{older}} = .36^+$

^(d) Age-group difference: $r_{\text{younger}} = -.18$; $r_{\text{older}} = .28^+$

^(e) Age-group difference: $r_{\text{younger}} = .02$; $r_{\text{older}} = .43^+$

^(f) Age-group difference: $r_{\text{younger}} = -.07$; $r_{\text{older}} = .28^+$

^(g) Age-group difference: $r_{\text{younger}} = .19$; $r_{\text{older}} = .63^*$

^(h) Age-group difference: $r_{\text{younger}} = .22$; $r_{\text{older}} = -.18$

⁽ⁱ⁾ Age-group difference: $r_{\text{younger}} = -.09$; $r_{\text{older}} = .40^+$

^(j) Age-group difference: $r_{\text{younger}} = -.16$; $r_{\text{older}} = .30^+$

Appendix C: Studies 3a and 3b

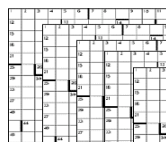
*Study 3a: Additional Information on Instructions of the Central Measurement Instruments*Box C1. *Study 3a: Sample Instruction on the Behavioral Preference Task*

We are interested to learn how people set up their cognitive training program. Therefore, next, we present 5 different cognitive tasks, that influence cognitive abilities. Each of these tasks **can be approached in two different ways**.

One approach serves the **improvement of cognitive abilities over time**. (*To work at and to solve the task under this specific approach is more demanding. Afterwards, energy for other domains will temporarily no longer be available.*)^(a) Another approach serves the **maintenance and loss-prevention of cognitive abilities over time**. (*To work on and to solve the task under this specific approach are less demanding. Afterwards, energy for other domains will still be available.*) Both approaches require the same demands. Afterwards, energy for other domains will still be available. Please read the instructions on both approaches for each task. Next, please choose the approach you are more interested in and according to which you want to solve the task.

Solving crossword-puzzles

With this specific approach to the task “Solving crossword-puzzles” you can **maintain your verbal knowledge** over time. (*To work and to solve the task with this specific approach is less demanding. Afterwards, energy for other domains will still be available.*)



With this specific approach to the task “Solving crossword-puzzles” you can **improve your verbal knowledge** over time. (*To work and to solve the task with this specific approach is more demanding. Afterwards, energy for other domains will temporarily no longer be available.*)

If you are interested in this left approach to the task and you want to work on the task according to this approach, please press ‘C’.

If you are interested in this right approach to the task and you want to work on the task according to this approach, please press ‘M’.

German wording:

Wir sind daran interessiert zu erfahren, wie Menschen ihr persönliches Denk-Training zusammenstellen. Dazu stellen wir Ihnen im Folgenden 5 verschiedene Denkaufgaben vor, mit denen man das persönliche Denken auf lange Sicht beeinflussen kann. Jede dieser Denkaufgaben kann nach **zwei unterschiedlichen Herangehensweisen** bearbeitet werden.

Eine Herangehensweise dient dem **Steigern der eigenen Denkleistung auf lange Sicht**. (*Das Bearbeiten und Lösen dieser Aufgabenversion erfordert größere Anstrengung. Energie für andere Bereiche steht Ihnen danach vorübergehend nicht mehr zur Verfügung.*) Eine andere Herangehensweise dient dem **Aufrechterhalten und Verlust-Vermeiden der eigenen Denkleistung auf lange Sicht**. (*Das Bearbeiten und Lösen dieser Aufgabenversion erfordert geringere Anstrengung. Energie für andere Bereiche steht Ihnen danach weiterhin zur Verfügung.*) Beide Herangehensweisen erfordern die gleiche Anstrengung. Energie für andere Bereiche steht Ihnen danach jeweils weiterhin zur Verfügung. Lesen Sie sich bitte für jede Denkaufgabe beide Herangehensweisen durch. Wählen Sie dann die Aufgabenversion aus, für die Sie sich interessieren und nach der Sie die Denkaufgabe gerne bearbeiten wollen.

Kreuzworträtsel lösen

Mit dieser spezifischen Aufgabenversion „Kreuzworträtsel lösen“ können Sie Ihren **Umgang mit Wissen** auf lange Sicht **erhalten**. (*Das Bearbeiten und Lösen dieser Aufgabenversion erfordert geringere Anstrengung. Energie für andere Bereiche steht Ihnen danach weiterhin zur Verfügung.*)



Mit dieser spezifischen Aufgabenversion „Kreuzworträtsel lösen“ können Sie Ihren **Umgang mit Wissen** auf lange Sicht **steigern**. (*Das Bearbeiten und Lösen dieser Aufgabenversion erfordert größere Anstrengung. Energie für andere Bereiche steht Ihnen danach vorübergehend nicht mehr zur Verfügung.*)

Wenn Sie sich für die linke Aufgabenversion interessieren und die Denkaufgabe danach bearbeiten möchten, drücken Sie bitte ‚C‘.

Wenn Sie sich für die rechte Aufgabenversion interessieren und die Denkaufgabe danach bearbeiten möchten, drücken Sie bitte ‚M‘.

Study 3a: Additional Descriptive and Psychometrical Information on the Central Variables

Table C1. *Study 3a: Descriptive Information on the Dimensions of Behavioral Preference for Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples*

| Construct | Outlier | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) | |
|--|---------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|----------------------------------|-------|
| Behavioral preference for growth goal orientation | | | | | | | | | | |
| | None | Total sample | 2.36 | 1.77 | .05 | (.23) | -1.3 | (.45) | .89 | (.00) |
| | | <i>Younger sample</i> | 2.82 | 1.45 | -.20 | (.32) | -.63 | (.63) | .92 | (.00) |
| | | <i>Older sample</i> | 1.93 | 1.95 | .46 | (.31) | -1.4 | (.62) | .82 | (.00) |
| $F_{(1,111)} = 7.48, MSE = 22.22, p < .05, \eta^2 = .06^{(a)}$ | | | | | | | | | | |

Note.

^(a) Mann-Whitney *U* test: $U = 1134, p < .05$

Table C2. *Study 3a: Item Characteristics of Behavioral Preference for Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (Equal Expected Resource Demands)*

| Cognitive component | Sample | Frequency of endorsement of choice option | | <i>M</i> | <i>Md</i> | <i>SD</i> | $r^{(a)(b)}$ |
|-----------------------|-----------------------|---|---|----------|-----------|-----------|-------------------|
| | | 1 'Growth' | 2 'Maintenance– Prevention of loss' | | | | |
| Knowledge | Total sample | 35 (62.5%) | 21 (37.5%) | 1.38 | 1 | .49 | -.60* |
| | <i>Younger sample</i> | 19 (66.9%) | 9 (32.1%) | 1.32 | 1 | .48 | -.48 ⁺ |
| | <i>Older sample</i> | 16 (57.1%) | 12 (42.9%) | 1.43 | 1 | .50 | -.71* |
| Geometrical reasoning | Total sample | 35 (62.5%) | 21 (37.5%) | 1.38 | 1 | .49 | -.71* |
| | <i>Younger sample</i> | 17 (60.7%) | 11 (39.3%) | 1.39 | 1 | .50 | -.70* |
| | <i>Older sample</i> | 18 (64.3%) | 10 (35.7%) | 1.39 | 1 | .49 | -.85* |
| Memory | Total sample | 34 (60.7%) | 22 (39.3%) | 1.39 | 1 | .49 | -.63* |
| | <i>Younger sample</i> | 21 (75.0%) | 7 (25.0%) | 1.25 | 1 | .44 | -.29 |
| | <i>Older sample</i> | 13 (46.4%) | 15 (53.6%) | 1.54 | 2 | .51 | -.79* |
| Mathematical skills | Total sample | 28 (50.0%) | 28 (50.0%) | 1.50 | 1.5 | .51 | -.73* |
| | <i>Younger sample</i> | 16 (57.1%) | 12 (42.9%) | 1.43 | 1 | .50 | -.50* |
| | <i>Older sample</i> | 12 (42.9%) | 16 (57.1%) | 1.57 | 2 | .50 | -.84* |
| Vocabulary | Total sample | 38 (67.9%) | 18 (32.1%) | 1.32 | 1 | .47 | -.71* |
| | <i>Younger sample</i> | 25 (89.3%) | 3 (10.7%) | 1.11 | 1 | .32 | -.56* |
| | <i>Older sample</i> | 13 (46.4%) | 15 (53.6%) | 1.54 | 2 | .51 | -.76* |

Notes. ⁺ $p < .05$; * $p < .01$ (alpha-level adjustment for 5 repeated analyses)

^(a) Item discriminability: Item-total mean score correlation

^(b) Spearman's rho (rank correlations)

Table C3. *Study 3a: Item Characteristics of Behavioral Preference for Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (Unequal Expected Resource Demands)*

| Cognitive component | Sample | Frequency of endorsement of choice option | | <i>M</i> | <i>Md</i> | <i>SD</i> | <i>r</i> ^{(a)(b)} |
|-----------------------|----------------|---|---|----------|-----------|-----------|----------------------------|
| | | 1 'Growth' | 2 'Maintenance– Prevention of loss' | | | | |
| Knowledge | Total sample | 24 (42.1%) | 33 (57.9%) | 1.58 | 2 | .50 | -.61* |
| | Younger sample | 12 (44.4%) | 15 (55.6%) | 1.56 | 2 | .51 | -.52* |
| | Older sample | 12 (40.0%) | 18 (60.0%) | 1.60 | 2 | .50 | -.76* |
| Geometrical reasoning | Total sample | 15 (26.3%) | 42 (73.7%) | 1.74 | 2 | .44 | -.71* |
| | Younger sample | 8 (29.6%) | 19 (70.4%) | 1.70 | 2 | .47 | -.63* |
| | Older sample | 7 (23.3%) | 23 (76.7%) | 1.77 | 2 | .43 | -.77* |
| Memory | Total sample | 18 (31.6%) | 39 (68.4%) | 1.68 | 2 | .47 | -.65* |
| | Younger sample | 13 (48.1%) | 14 (51.9%) | 1.52 | 2 | .51 | -.50* |
| | Older sample | 5 (16.7%) | 25 (83.3%) | 1.83 | 2 | .38 | -.68* |
| Mathematical skills | Total sample | 17 (29.8%) | 40 (70.2%) | 1.70 | 2 | .46 | -.65* |
| | Younger sample | 12 (44.4%) | 15 (55.6%) | 1.56 | 2 | .51 | -.52* |
| | Older sample | 5 (16.7%) | 25 (83.3%) | 1.83 | 2 | .38 | -.68* |
| Vocabulary | Total sample | 23 (40.4%) | 34 (59.6%) | 1.60 | 2 | .50 | -.77* |
| | Younger sample | 12 (44.4%) | 15 (55.6%) | 1.56 | 2 | .51 | -.69* |
| | Older sample | 11 (36.7%) | 19 (63.3%) | 1.63 | 2 | .49 | -.88* |

Notes. * $p < .01$ (alpha-level adjustment for 5 repeated analyses)

^(a) Item discriminability: Item-total mean score correlation

^(b) Spearman's rho (rank correlations)

Table C4. *Studies 3a: Composite Score Characteristics of Behavioral Preference for Personal Goal Orientation Across the Five Tasks for the Four Conditions in the Total Sample and the Younger and Older Sub-Samples*

| Condition | Sample | Frequency of endorsement of choice options across five tasks ^(a) | | | | | <i>M</i> | <i>Md</i> | <i>SD</i> | <i>p</i> ^(b) | |
|-----------------------------------|----------------|---|------------|-----------|------------|-----------|------------|-----------|-----------|-------------------------|----|
| | | 0 | 1 | 2 | 3 | 4 | | | | | 5 |
| Equal expected resource demands | | | | | | | | | | | |
| | Total sample | 7 (12.5%) | 4 (7.1%) | 7 (12.5%) | 15 (26.8%) | 8 (14.3%) | 15 (26.8%) | 3.0 | 3 | 1.7 | 68 |
| | Younger sample | 0 (0.0%) | 1 (3.6%) | 3 (10.7%) | 13 (46.4%) | 3 (10.7%) | 8 (28.6%) | 3.5 | 3 | 1.1 | 86 |
| | Older sample | 7 (25.0%) | 3 (10.7%) | 4 (14.3%) | 2 (7.1%) | 5 (17.9%) | 7 (25.0%) | 2.6 | 2.5 | 2.0 | 50 |
| Unequal expected resource demands | | | | | | | | | | | |
| | Total sample | 19 (33.3%) | 11 (19.3%) | 8 (14.0%) | 10 (17.5%) | 5 (8.8%) | 4 (7.0%) | 1.7 | 1 | 1.6 | 33 |
| | Younger sample | 4 (14.8%) | 6 (22.2%) | 6 (22.2%) | 6 (22.2%) | 4 (14.8%) | 1 (3.7%) | 2.1 | 2 | 1.4 | 41 |
| | Older sample | 15 (50.0%) | 5 (16.7%) | 2 (6.7%) | 4 (13.3%) | 1 (3.3%) | 3 (10.0%) | 1.3 | .5 | 1.7 | 27 |

Notes.

^(a) Higher scores represent a stronger goal orientation toward growth.

^(b) Item difficulty: Percentage of frequency of endorsement of choice options across the five tasks larger than 3.

*Study 3a: Additional Descriptive and Psychometrical Information on the Correlate Variables*Table C5. *Study 3a: Descriptive Information on Goal Resources and Additional Goal Characteristics in the Total Sample and in the Younger and Older Sub-Samples*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> | (<i>p</i>) |
|--|------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|---------------------|--------------|
| <i>Goal resources</i> | | | | | | | | | | |
| Objective cognitive functioning | | | | | | | | | | |
| Knowledge | | | | | | | | | | |
| | 1 outliers (young) | Total sample | 26.2 | 3.42 | -.32 | (.23) | -.49 | (.45) | .97 | (.02) |
| | | <i>Younger sample</i> | 24.4 | 3.12 | -.23 | (.32) | -.74 | (.63) | .96 | (.09) |
| | | <i>Older sample</i> | 28.0 | 2.75 | -.34 | (.31) | -.63 | (.62) | .95 | (.01) |
| $F_{(1,111)} = 41.19, MSE = 355.24, p < .05, \eta^2 = .27$ | | | | | | | | | | |
| Perceptual-motor speed | | | | | | | | | | |
| | None | Total sample | 50.5 | 12.4 | .00 | (.23) | -.51 | (.45) | .99 | (.53) |
| | | <i>Younger sample</i> | 58.6 | 9.77 | -.23 | (.32) | -.05 | (.63) | .96 | (.10) |
| | | <i>Older sample</i> | 42.8 | 9.48 | .03 | (.31) | -.11 | (.62) | .98 | (.40) |
| $F_{(1,111)} = 75.82, MSE = 7020.3, p < .05, \eta^2 = .41$ | | | | | | | | | | |
| Subjective functioning in goal domain | | | | | | | | | | |
| | None | Total sample | 4.86 | .88 | -.12 | (.23) | -.21 | (.45) | .88 | (.00) |
| | | <i>Younger sample</i> | 4.73 | .91 | -.33 | (.32) | -.59 | (.63) | .87 | (.00) |
| | | <i>Older sample</i> | 4.98 | .83 | .23 | (.31) | -.07 | (.62) | .88 | (.00) |
| $F_{(1,111)} = 2.39, MSE = 1.82, n.s., \eta^2 = .02, 1 - \beta = .34$ | | | | | | | | | | |
| <i>Additional goal characteristics</i> | | | | | | | | | | |
| Satisfaction with goal domain | | | | | | | | | | |
| | None | Total sample | 4.48 | 1.12 | -.10 | (.23) | -.36 | (.45) | .93 | (.00) |
| | | <i>Younger sample</i> | 4.02 | .97 | -.16 | (.32) | -.59 | (.63) | .90 | (.00) |
| | | <i>Older sample</i> | 4.91 | 1.08 | -.34 | (.31) | .03 | (.62) | .92 | (.00) |
| $F_{(1,111)} = 21.38, MSE = 22.64, p < .05, \eta^2 = .16$ | | | | | | | | | | |
| Importance of goal domain | | | | | | | | | | |
| | 1 outlier (old) | Total sample | 6.37 | .85 | -1.9 | (.23) | 5.65 | (.45) | .71 | (.00) |
| | | <i>Younger sample</i> | 6.24 | .96 | -1.9 | (.32) | 5.84 | (.63) | .74 | (.00) |
| | | <i>Older sample</i> | 6.50 | .71 | -1.4 | (.31) | 1.72 | (.62) | .70 | (.00) |
| $F_{(1,111)} = 2.78, MSE = 2.0, n.s., \eta^2 = .02, 1 - \beta = .38^{(b)}$ | | | | | | | | | | |
| Frequency of engagement in goal domain | | | | | | | | | | |
| | None | Total sample | 5.40 | 1.65 | -1.2 | (.23) | 1.15 | (.45) | .83 | (.00) |
| | | <i>Younger sample</i> | 4.81 | 1.78 | -.94 | (.32) | .14 | (.63) | .91 | (.00) |
| | | <i>Older sample</i> | 5.98 | 1.27 | -1.5 | (.31) | 3.17 | (.62) | .85 | (.00) |
| $F_{(1,111)} = 15.56, MSE = 37.11, p < .05, \eta^2 = .13^{(c)(d)}$ | | | | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Mann-Whitney U test: $U = 1354.5, n.s.$

^(c) Levene's test ($p < .05$) indicated departure from equality of error variances in the two age groups.

^(d) Mann-Whitney U test: $U = 867, p < .05$

Table C6. *Studies 3a: Instruments Assessing Goal Resources and Additional Goal Characteristics: Overview and Psychometrical Information*

| Construct | Description of measurement instrument |
|--|--|
| <i>Goal resources</i> | |
| Objective cognitive functioning | |
| Knowledge | see Table A10 |
| Perceptual-motor speed | see Table A10 |
| Subjective functioning in goal domain | |
| <i>Author:</i> | Newly developed |
| <i>Item:</i> | Single item: "How would you rate your present cognitive functioning?" [German wording: <i>Wie schätzen Sie Ihre gegenwärtige geistige Fitness ein?</i>] |
| <i>Response format:</i> | 1 "very bad" to 7 "very good" |
| <i>Additional goal characteristics</i> | |
| Satisfaction with goal domain | |
| <i>Author:</i> | Newly developed |
| <i>Item:</i> | Single item: "How satisfied are you with your present cognitive functioning?" [German wording: <i>Wie zufrieden sind Sie mit Ihrer gegenwärtigen geistigen Fitness?</i>] |
| <i>Response format:</i> | 1 "very dissatisfied" to 7 "very satisfied" |
| Importance of goal domain | |
| <i>Author:</i> | Newly developed |
| <i>Item:</i> | Single item: "How important is cognitive functioning to you?" [German wording: <i>Wie wichtig ist Ihnen Ihre geistige Fitness?</i>] |
| <i>Response format:</i> | 1 "not important at all" to 7 "very important" |
| Frequency of engagement in goal domain | |
| <i>Author:</i> | Newly developed |
| <i>Item:</i> | Single item: "How frequently do you do anything for your cognitive functioning?" [German wording: <i>Wie oft tun Sie etwas für Ihre geistige Fitness?</i>] |
| <i>Response format:</i> | 1 "less than once a month", 2 "once a month", 3 "two to three times a month", 4 "once a week", 5 "two to three times a week", 6 "four to five times a week", 7 "every day" |

Study 3a: Relations of Personal Goal Orientation to Concepts of Goal Resources and Additional Goal Characteristics

Table C7. *Study 3a: Bivariate Pearson Correlations Between Behavioral Preference for Growth Goal Orientation and Goal Resources and Additional Goal Characteristics*

| Construct | Behavioral preference for growth goal orientation <i>r</i> |
|--|---|
| <i>Goal resources</i> | |
| Objective cognitive functioning | |
| Knowledge | -.13 |
| Perceptual-motor speed | .30* |
| Subjective cognitive functioning | .03 |
| <i>Additional goal characteristics</i> | |
| Satisfaction with goal domain | -.08 |
| Importance of goal domain | .18 |
| Frequency of engagement in goal domain | .01 ^(a) |

Notes. * $p < .008$ (alpha-level adjustment for 6 repeated analyses). Reanalyzing the data using Spearman's rho (rank correlations) yielded the same results.

^(a) Age-group difference: $r_{\text{younger}} = .28$; $r_{\text{older}} = -.07$

Study 3b: Additional Information on Instructions of the Central Measurement Instruments

Box C2. *Study 3b: Sample Instruction on the Behavioral Preference Task*

We are interested to learn how people set up their physical fitness training. Therefore, next, we present 5 different sports tasks, that influence physical fitness. Each of these sports tasks allows **two different ways to workout**.

One workout serves the **improvement of physical fitness over time**. (*Following this specific workout is more demanding. Afterwards, energy for other domains will temporarily no longer be available.*)^(a) The other workout serves the **maintenance and loss-prevention of physical fitness over time**. (*Following this specific workout is less demanding. Afterwards, energy for other domains will still be available.*) Both workouts require the same demands. Afterwards, energy for other domains will still be available. Please read the instructions on both approaches for each sports task. Next, please choose the approach you are more interested in and according to which you want to workout.

Jogging or Walking on the Treadmill

With this specific workout on the “Treadmill” you can **maintain your endurance** over time. (*Following this specific workout is less demanding. Afterwards, energy for other domains will still be available.*)



With this specific workout on the “Treadmill” you can **improve your endurance** over time. (*Following this specific workout is more demanding. Afterwards, energy for other domains will temporarily no longer be available.*)

If you are interested in this left program and you want to workout following this approach, please press ‘C’.

If you are interested in this right program and you want to workout following this approach, please press ‘M’.

German wording:

Wir sind daran interessiert zu erfahren, wie Menschen ihr persönliches Fitness-Training zusammenstellen. Dazu stellen wir Ihnen im Folgenden 5 verschiedene Sportgeräte vor, mit denen man die persönliche Fitness auf lange Sicht beeinflussen kann. Mit jedem dieser Sportgeräte kann nach **zwei unterschiedlichen Trainingsprogrammen** trainiert werden.

Das eine Trainingsprogramm dient dem **Steigern der persönlichen Fitness auf lange Sicht**. (*Das Trainieren nach diesem Programm erfordert größere Anstrengung. Energie für andere Bereiche steht Ihnen danach vorübergehend nicht mehr zur Verfügung.*) Das andere Trainingsprogramm dient dem **Aufrechterhalten und Verlust-Vermeiden der persönlichen Fitness auf lange Sicht**. (*Das Trainieren nach diesem Programm erfordert geringere Anstrengung. Energie für andere Bereiche steht Ihnen danach weiterhin zur Verfügung.*) Beide Programme erfordern die gleiche Anstrengung. Energie für andere Bereiche steht Ihnen danach jeweils weiterhin zur Verfügung. Lesen Sie sich bitte für jedes Sportgerät beide Trainingsprinzipien durch. Wählen Sie dann das Trainingsprogramm aus, für das Sie sich interessieren und nach dem Sie gerne trainieren wollen.

Laufen oder Gehen auf dem Fitness-Laufband

Mit diesem spezifischen Trainingsprogramm auf dem „Laufband“ können Sie Ihre **Ausdauer** auf lange Sicht **erhalten**. (*Das Trainieren nach diesem Programm erfordert geringere Anstrengung. Energie für andere Bereiche steht Ihnen danach weiterhin zur Verfügung.*)



Mit diesem spezifischen Trainingsprogramm auf dem „Laufband“ können Sie Ihre **Ausdauer** auf lange Sicht **steigern**. (*Das Trainieren nach diesem Programm erfordert größere Anstrengung. Energie für andere Bereiche steht Ihnen danach vorübergehend nicht mehr zur Verfügung.*)

Wenn Sie sich für das linke Programm interessieren und danach trainieren möchten, drücken Sie bitte ‘C’.

Wenn Sie sich für das rechte Programm interessieren und danach trainieren möchten, drücken Sie bitte ‘M’.

Note.

^(a) Alternative instructions in conditions with unequal expected resource demands are printed in parentheses and italics.

*Study 3b: Additional Descriptive and Psychometrical Information on the Central Variables*Table C8. *Study 3b: Descriptive Information on the Dimensions of Behavioral Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples*

| Construct | Outlier | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) |
|---|---------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|----------------------------------|
| Behavioral preference for growth goal orientation | | | | | | | | | |
| | None | Total sample | 1.81 | 1.64 | .54 | (.24) | -.82 | (.48) | .88 (.00) |
| | | <i>Younger sample</i> | 2.60 | 1.65 | .00 | (.33) | -1.0 | (.65) | .91 (.00) |
| | | <i>Older sample</i> | .98 | 1.16 | 1.03 | (.34) | .19 | (.67) | .80 (.00) |
| $F_{(1, 99)} = 32.07, MSE = 65.93, p < .05, \eta^2 = .25$ | | | | | | | | | |

Table C9. *Study 3b: Item Characteristics of Behavioral Preference for Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (Equal Expected Resource Demands)*

| Physical component | Sample | Frequency of endorsement of choice option | | <i>M</i> | <i>Md</i> | <i>SD</i> | $r^{(a)(b)}$ |
|--------------------------|-----------------------|---|---|----------|-----------|-----------|--------------|
| | | 1 'Growth' | 2 'Maintenance– Prevention of loss' | | | | |
| Muscle strength | Total sample | 21 (40.4%) | 31 (59.6%) | 1.60 | 2 | .50 | -.66* |
| | <i>Younger sample</i> | 17 (60.7%) | 11 (39.3%) | 1.39 | 1 | .50 | -.70* |
| | <i>Older sample</i> | 4 (16.7%) | 20 (83.3%) | 1.83 | 2 | .38 | -.39 |
| Endurance | Total sample | 29 (55.8%) | 23 (44.2%) | 1.44 | 1 | .50 | -.70* |
| | <i>Younger sample</i> | 23 (82.1%) | 5 (17.9%) | 1.18 | 1 | .39 | -.53* |
| | <i>Older sample</i> | 6 (25.0%) | 18 (75.0%) | 1.75 | 2 | .44 | -.52* |
| Speed | Total sample | 19 (36.5%) | 33 (63.5%) | 1.63 | 2 | .49 | -.67* |
| | <i>Younger sample</i> | 17 (60.7%) | 11 (39.3%) | 1.39 | 1 | .50 | -.52* |
| | <i>Older sample</i> | 2 (8.3%) | 22 (91.7%) | 1.92 | 2 | .28 | -.45+ |
| Lung functions | Total sample | 31 (59.6%) | 21 (40.4%) | 1.40 | 1 | .50 | -.69* |
| | <i>Younger sample</i> | 21 (75.0%) | 7 (25.0%) | 1.25 | 1 | .44 | -.75* |
| | <i>Older sample</i> | 10 (41.7%) | 14 (58.3%) | 1.58 | 2 | .50 | -.53* |
| Cardiovascular functions | Total sample | 24 (46.2%) | 28 (53.8%) | 1.54 | 2 | .50 | -.71* |
| | <i>Younger sample</i> | 18 (64.3%) | 10 (35.7%) | 1.36 | 1 | .49 | -.70* |
| | <i>Older sample</i> | 6 (25.0%) | 18 (75.0%) | 1.75 | 2 | .44 | -.57* |

Notes. + $p < .05$; * $p < .01$ (alpha-level adjustment for 5 repeated analyses)

(a) Item discriminability: Item-total mean score correlation

(b) Spearman's rho (rank correlations)

Table C10. *Study 3b: Item Characteristics of Behavioral Preference for Personal Goal Orientation in the Total Sample and in the Younger and Older Sub-Samples (Unequal Expected Resource Demands)*

| Physical component | Sample | Frequency of endorsement of choice option | | <i>M</i> | <i>Md</i> | <i>SD</i> | <i>r</i> ^{(a)(b)} |
|--------------------------|----------------|---|---|----------|-----------|-----------|----------------------------|
| | | 1 'Growth' | 2 'Maintenance– Prevention of loss' | | | | |
| Muscle strength | Total sample | 9 (18.4%) | 40 (81.6%) | 1.82 | 2 | .39 | -.67* |
| | Younger sample | 7 (29.2%) | 17 (70.8%) | 1.71 | 2 | .46 | -.73* |
| | Older sample | 2 (8.0%) | 23 (92.0%) | 1.92 | 2 | .28 | -.53* |
| Endurance | Total sample | 13 (26.5%) | 36 (73.5%) | 1.73 | 2 | .45 | -.55* |
| | Younger sample | 8 (33.3%) | 16 (66.7%) | 1.67 | 2 | .48 | -.49+ |
| | Older sample | 5 (20.0%) | 20 (80.0%) | 1.80 | 2 | .41 | -.62* |
| Speed | Total sample | 9 (18.4%) | 40 (81.6%) | 1.82 | 2 | .39 | -.45* |
| | Younger sample | 7 (29.2%) | 17 (70.8%) | 1.71 | 2 | .46 | -.29 |
| | Older sample | 2 (8.0%) | 23 (92.0%) | 1.92 | 2 | .28 | -.48+ |
| Lung functions | Total sample | 14 (28.5%) | 35 (71.4%) | 1.71 | 2 | .46 | -.62* |
| | Younger sample | 8 (33.3%) | 16 (66.7%) | 1.67 | 2 | .48 | -.58* |
| | Older sample | 6 (24.0%) | 19 (76.0%) | 1.76 | 2 | .44 | -.72* |
| Cardiovascular functions | Total sample | 8 (16.3%) | 41 (83.7%) | 1.84 | 2 | .37 | -.38* |
| | Younger sample | 6 (25.0%) | 18 (75.0%) | 1.75 | 2 | .44 | -.26 |
| | Older sample | 2 (8.0%) | 23 (92.0%) | 1.92 | 2 | .28 | -.38 |

Notes. + $p < .05$; * $p < .01$ (alpha-level adjustment for 5 repeated analyses)

^(a) Item discriminability: Item-total mean score correlation

^(b) Spearman's rho (rank correlations)

Table C11. *Studies 3b: Composite Score Characteristics of Behavioral Preference for Personal Goal Orientation Across the Five Tasks for the Four Conditions in the Total Sample and the Younger and Older Sub-Samples*

| Condition | Sample | Frequency of endorsement of choice options across five tasks ^(a) | | | | | <i>M</i> | <i>Md</i> | <i>SD</i> | <i>p</i> ^(b) | |
|-----------------------------------|----------------|---|------------|------------|-----------|-----------|------------|-----------|-----------|-------------------------|----|
| | | 0 | 1 | 2 | 3 | 4 | | | | | 5 |
| Equal expected resource demands | Total sample | 9 (17.3%) | 9 (17.3%) | 8 (15.4%) | 9 (17.3%) | 7 (13.5%) | 10 (19.2%) | 2.5 | 2.5 | 1.8 | 50 |
| | Younger sample | 1 (3.6%) | 2 (7.1%) | 3 (10.7%) | 7 (25.0%) | 5 (17.9%) | 10 (35.7%) | 3.5 | 4 | 1.5 | 79 |
| | Older sample | 8 (33.3%) | 7 (29.2%) | 5 (20.8%) | 2 (8.3%) | 2 (8.3%) | 0 (0.0%) | 1.3 | 1 | 1.3 | 17 |
| Unequal expected resource demands | Total sample | 21 (42.9%) | 10 (20.4%) | 11 (22.4%) | 7 (14.3%) | 0 (0.0%) | 0 (0.0%) | 1.1 | 1 | 1.1 | 14 |
| | Younger sample | 6 (25.0%) | 5 (20.8%) | 8 (33.3%) | 5 (20.8%) | 0 (0.0%) | 0 (0.0%) | 1.5 | 2 | 1.1 | 21 |
| | Older sample | 15 (60.0%) | 5 (20.0%) | 3 (12.0%) | 2 (8.0%) | 0 (0.0%) | 0 (0.0%) | .7 | 0 | 1.0 | 8 |

Notes.

^(a) Higher scores represent a stronger goal orientation toward growth.

^(b) Item difficulty: Percentage of frequency of endorsement of choice options across the five tasks larger than 3.

*Study 3b: Additional Descriptive and Psychometrical Information on the Correlate Variables*Table C12. *Study 3b: Descriptive Information on Goal Resources and Additional Goal Characteristics in the Total Sample and in the Younger and Older Sub-Samples*

| Construct | Outlier ^(a) | Sample | <i>M</i> | <i>SD</i> | <i>Skew</i> | (<i>SE</i>) | <i>Kurt</i> | (<i>SE</i>) | <i>Shapiro-Wilk</i> (<i>p</i>) |
|--|------------------------|-----------------------|----------|-----------|-------------|---------------|-------------|---------------|----------------------------------|
| <i>Goal resources</i> | | | | | | | | | |
| Objective cognitive functioning | | | | | | | | | |
| Knowledge | | | | | | | | | |
| | 2 outliers (young) | Total sample | 26.0 | 3.56 | -.35 | (.24) | -.52 | (.48) | .97 (.02) |
| | | <i>Younger sample</i> | 24.3 | 3.33 | -.17 | (.33) | -.79 | (.65) | .96 (.12) |
| | | <i>Older sample</i> | 27.9 | 2.76 | -.36 | (.35) | -.60 | (.69) | .94 (.01) |
| $F_{(1,99)} = 35.30, MSE = 332.41, p < .05, \eta^2 = .26$ | | | | | | | | | |
| Perceptual-motor speed | | | | | | | | | |
| | None | Total sample | 53.0 | 12.8 | .02 | (.24) | -.93 | (.48) | .97 (.04) |
| | | <i>Younger sample</i> | 62.2 | 9.28 | -.71 | (.33) | 1.03 | (.65) | .96 (.10) |
| | | <i>Older sample</i> | 43.2 | 7.87 | .09 | (.35) | -.55 | (.69) | .98 (.40) |
| $F_{(1,99)} = 122.22, MSE = 9093.7, p < .05, \eta^2 = .55$ | | | | | | | | | |
| Subjective functioning in goal domain | | | | | | | | | |
| | None | Total sample | 4.49 | 1.32 | -.47 | (.24) | -.12 | (.48) | .93 (.00) |
| | | <i>Younger sample</i> | 4.44 | 1.45 | -.63 | (.33) | -.30 | (.65) | .91 (.00) |
| | | <i>Older sample</i> | 4.54 | 1.17 | -.07 | (.35) | -.16 | (.69) | .94 (.02) |
| $F_{(1,99)} = .14, MSE = .25, n.s., \eta^2 = .00, 1 - \beta = .07$ | | | | | | | | | |
| <i>Additional goal characteristics</i> | | | | | | | | | |
| Satisfaction with goal domain | | | | | | | | | |
| | None | Total sample | 4.17 | 1.51 | -.12 | (.24) | -.65 | (.48) | .94 (.00) |
| | | <i>Younger sample</i> | 3.92 | 1.52 | .13 | (.33) | -.80 | (.65) | .94 (.01) |
| | | <i>Older sample</i> | 4.46 | 1.46 | -.41 | (.35) | -.03 | (.69) | .94 (.03) |
| $F_{(1,99)} = 3.13, MSE = 6.95, n.s., \eta^2 = .03, 1 - \beta = .42$ | | | | | | | | | |
| Importance of goal domain ^(b) | | | | | | | | | |
| | None | Total sample | 5.45 | 1.34 | -.78 | (.34) | .16 | (.67) | .71 (.00) |
| | | <i>Younger sample</i> | 4.79 | 1.38 | -.45 | (.47) | -.28 | (.92) | .93 (.11) |
| | | <i>Older sample</i> | 6.08 | .95 | -.80 | (.46) | -.18 | (.90) | .83 (.00) |
| $F_{(1,47)} = 14.52, MSE = 20.32, p < .05, \eta^2 = .24^{(c)}$ | | | | | | | | | |
| Frequency of engagement in goal domain | | | | | | | | | |
| | None | Total sample | 4.50 | 1.42 | -.61 | (.24) | .70 | (.48) | .90 (.00) |
| | | <i>Younger sample</i> | 4.21 | 1.29 | -.30 | (.33) | .81 | (.65) | .91 (.00) |
| | | <i>Older sample</i> | 4.83 | 1.51 | -1.1 | (.35) | 1.63 | (.69) | .85 (.00) |
| $F_{(1,99)} = 4.73, MSE = 9.22, p < .05, \eta^2 = .05^{(d)}$ | | | | | | | | | |

Notes.

^(a) I adjusted univariate within-group outliers to the closest non-outlying value in the respective data distribution.

^(b) Information on importance of goal domain under equal resource demands was not available. Respective analyses therefore referred to a reduced sample size ($N = 49$).

^(c) Mann-Whitney U test: $U = 136, n.s.$

^(d) Mann-Whitney U test: $U = 819, n.s.$

Study 3b: Relations of Personal Goal Orientation to Concepts of Goal Resources and Additional Goal Characteristics

Table C13. *Study 3b: Bivariate Pearson Correlations Between Behavioral Preference for Growth Goal Orientation and Goal Resources and Additional Goal Characteristics*

| Construct | Behavioral preference for growth goal orientation <i>r</i> |
|--|---|
| <i>Goal resources</i> | |
| Objective cognitive functioning | |
| Knowledge | -.28* |
| Perceptual-motor speed | .46* |
| Subjective functioning in goal domain | -.05 |
| <i>Additional goal characteristics</i> | |
| Satisfaction with goal domain | -.08 |
| Importance of goal domain ^(a) | -.14 |
| Frequency of engagement in goal domain | -.17 |

Notes. * $p < .008$ (alpha-level adjustment for 6 repeated analyses). Reanalyzing the data using Spearman's rho (rank correlations) yielded the same results.

^(a) Information on importance of physical domain under equal resources was not available. Respective analyses therefore referred to a reduced sample size ($N = 49$).