

## **Supplementary Material: Intention and Action in Retirement Preparation**

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### **Study 1: Method**

See Figure S1 for a plot of the class-conditional probabilities.

Importance of retirement saving: “I find it important to have sufficient retirement savings later in life” (1 = completely disagree; 5 = completely agree;  $M = 3.82$ ;  $SD = 0.76$ ).

Difficulty of retirement preparation: “I find it difficult to understand retirement saving” (1 = completely disagree; 5 = completely agree;  $M = 3.28$ ;  $SD = 1.02$ ).

Financial literacy – Q1: “Suppose you had €100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?” (A = more than \$102; B = exactly \$102; C = less than \$102; D = don’t know; E = refuse to answer)

Financial literacy – Q2: “Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, with the money in this account, would you be able to buy...” (A = more than today; B = exactly the same as today; C = less than today; D = don’t know; E = refuse to answer)

Financial literacy – Q3: “Do you think the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.” (A = true; B = false; C = don’t know; D = refuse to answer)

Household income – Q1: “What is the income of you and your partner together, after taxes? Please indicate the amount that you and your partner (if applicable) receive on your bank account every month in salary, net gains, and/or government benefits.”

Household income – Q2 [only if answer to Q1 is “I don’t know”]: “What is the income of you and your partner together, after taxes?” (1 = less than €1000/m; 2 = €1000-€1500/m; 3 = €1500-€2000/m; 4 = €2000-€2500/m; 5 = €2500-€3000/m; 6 = €3000-€4000/m; 7 = €4000-€5000/m; 8 = €5000-€6000/m; 9 = more than €6000/m; NA = I don’t know / I’d rather not say).

Participants were first asked Q1. Participants who could not answer this question were asked Q2. For analyses, we combined the answers to these two questions by recoding the brackets to a monthly dollar value following Ravallion (1992): the midpoint of the selected bracket was taken as value for monthly income, except for when the lowest bracket (80% of the higher bound) or the highest bracket (130% of the lower bound) was selected. The responses of 18 participants who reported a monthly income of over €7800 were considered outliers and recoded as missing. This threshold was determined by multiplying the value of the 75th percentile of reported monthly income values by 3. Finally, values were mean-centered before analyses.

### **Study 1: Results**

Predicted class was transformed into a binary variable *help* (i.e., is the participant classified as having completed their retirement preparations with or without help from others? 0 = no; 1 = yes). We had no explicit predictions as to how importance and difficulty would be associated with soliciting help or not in the completion of retirement preparations.

Table S1 shows the results of an additional binary logistic regression analysis, examining the relation between importance and difficulty as predictors, age, gender, income, and financial literacy as covariates, and *help* as dependent variable. Higher scores on importance were associated with a lower likelihood of receiving help. Higher scores on difficulty were associated with a higher likelihood of receiving help. The absolute effect of difficulty on help was not

significantly different from the absolute effect of importance on help,  $\chi^2(1, 370) = 21.24, p < .001$ .

Table S2 shows the results of an additional binary logistic regression analysis, examining the relation between importance and difficulty as predictors, age, gender, income, and financial literacy as covariates, and *action* as dependent variable, excluding participants who were categorized as completed-help in the LCA. Importance did not predict the likelihood of action. Higher scores on difficulty were associated with a lower likelihood of action. The effect of difficulty on action was significantly larger than the effect of importance on action,  $\chi^2(1, 597) = 12.09, p < .001$ .

Table S3 shows the results of an additional binary logistic regression analysis, examining the relation between importance and difficulty as predictors, age, gender, income, and financial literacy as covariates, and *action* as dependent variable, excluding participants who were categorized as completed-no help in the LCA. Importance did not predict the likelihood of action. Higher scores on difficulty were associated with a lower likelihood of action. The effect of difficulty on action was significantly larger than the effect of importance on action,  $\chi^2(1, 504) = 11.17, p < .001$ .

## **Study 2: Method**

See Figure S2 for a plot of the class-conditional probabilities.

Importance of retirement saving: “I find it important to have sufficient retirement savings later in life” (1 = completely disagree; 7 = completely agree;  $M = 5.34$ ;  $SD = 1.35$ ).

Difficulty of retirement preparation: “I find it difficult to understand retirement saving” (1 = completely disagree; 7 = completely agree;  $M = 4.74$ ;  $SD = 1.66$ ).

Education: For analyses, we used a categorization of highest completed education into three levels: 1 = low (no education, primary education only, or vocational secondary education); 2 = middle (higher secondary education or vocational tertiary education); 3 = high (bachelor or higher).

Household income: “What is the total gross annual income of your household?” (1 = less than €12900/y; 2 = €12.900-€17600/y; 3 = €17600-€24100/y; 4 = €24100-€27000/y; 5 = €27000-€33500/y; 6 = €33500-€40000/y [modal]; 7 = €40000-€52900/y; 8 = €52900-€67000/y; 9 = €67000-€79900/y; 10 = €79900/y or more; NA = I don’t know / I’d rather not say). For analyses, answers were recoded and mean-centered following the same procedure as in Study 1.

### **Robustness Check Table 10: Method**

Propensity to procrastinate: “I frequently take time to learn about my retirement situation” (1 = completely agree; 5 = completely disagree). Responses were reverse-coded for analysis.

Importance of retirement income: “After retirement, I want to be able to spend as much money as I do right now.” (1 = completely agree; 5 = completely disagree).

Difficulty of retirement preparation: “I find it difficult to understand retirement information.” (1 = completely agree; 5 = completely disagree).

Education: Participants were asked to indicate their highest completed level of education by selecting one of seven categories (1 = “Geen onderwijs/ basisonderwijs/ cursus inburgering/ cursus Nederlandse taal” [i.e., no education / only elementary education]; 2 = “LBO/ VBO/ VMBO (kader- en beroepsgerichte leerweg)/ MBO 1 (assistentenopleiding)”; 3 = “MAVO, HAVO of VWO (eerste drie jaar)/ ULO/ MULO/ VMBO (theoretische of gemengde leerweg)/ voortgezet speciaal onderwijs”; 4 = “MBO 2, 3, 4 (basisberoeps-, vak-, middenkader- of

specialistenopleiding) of MBO oude structuur (vóór 1998)”; 5 = “HAVO of VWO (overgegaan naar de 4e klas) / HBS / MMS”; 6 = “HBO propedeuse of WO propedeuse / HBO (behalve HBO-master) / WO-kandidaats of WO-bachelor”; 7 = “WO-doctoraal of WO-master of HBO-master/ postdoctoraal onderwijs” [i.e., postgraduate level education or higher]; NA = I don’t know).

Income: “What is the total gross annual income of your household? Gross annual income is the sum of your fiscal income + gains from all paid employment, government benefits, and pensions of all person in the household per year.” (1 = minimum, less than €12500/y; 2 = below modal, €12.500-€26000/y; 3 = almost modal, €26000-€32500/y; 4 = modal, €32500-€39000/y; 5 = between 1 and 2 times modal, €39000-€65000/y; 6 = 2 times modal, €65000-€77500/y; 7 = more than 2 times modal, €77500/y or more; NA = I don’t know / I’d rather not say). For analyses, answers were recoded and mean-centered following the same procedure as in Study 1.

Figure S1

*Class-conditional probabilities of answer to six retirement preparations in Study 1.*

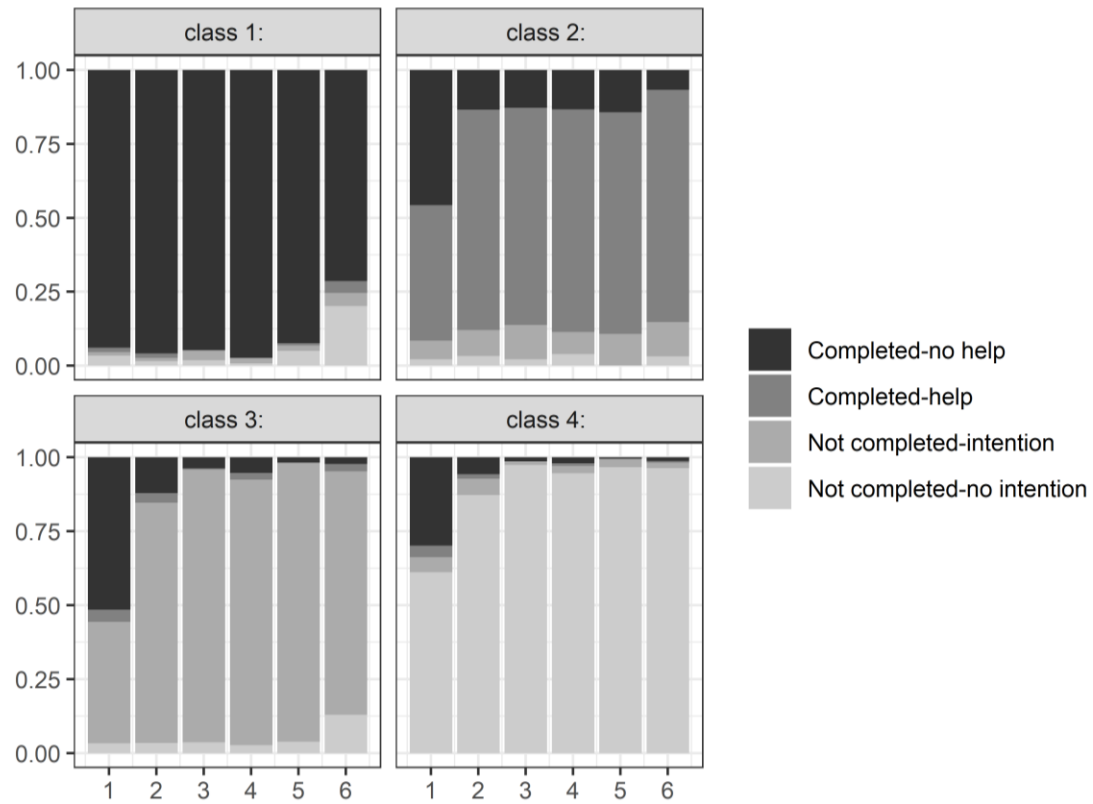


Figure S2

*Class-conditional probabilities of answer to six retirement preparations in Study 2.*

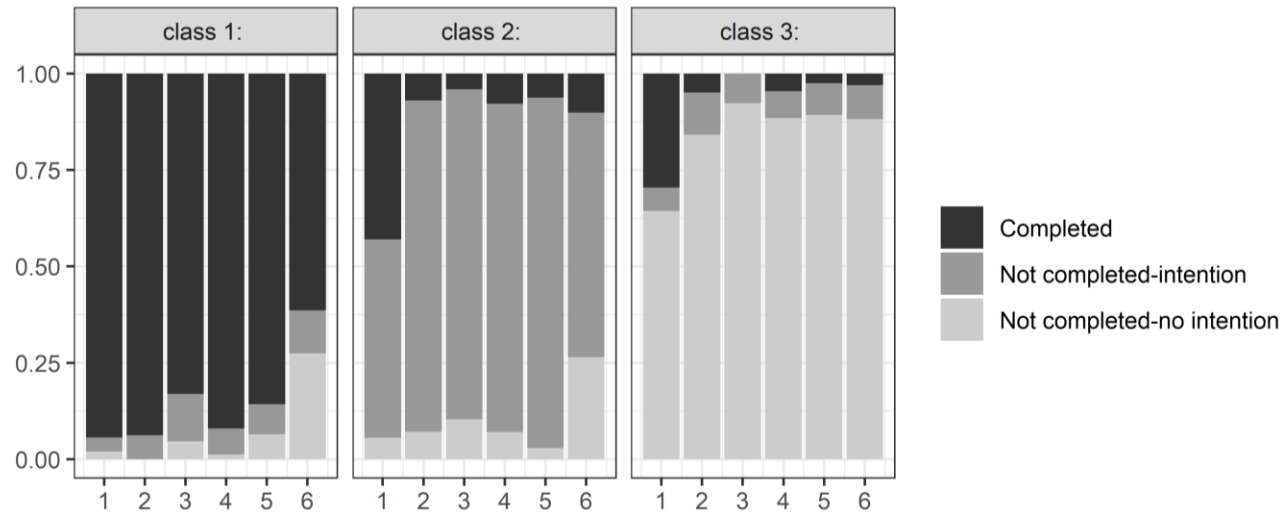


Table S1

*Binary logistic regression analysis with help as dependent variable (Study 1). Last column shows predicted % of people receiving help to prepare for retirement for 1 standard deviation below and above the mean of importance and difficulty respectively, while holding all other variables constant at their mean.*

	<b><i>B</i></b>	<b><i>SE</i></b>	<b>Wald <math>\chi^2</math></b>	<b><i>p</i></b>	<b><i>OR</i></b>	<b>95% <i>CI OR</i></b>	<b>Predicted % help [-1SD, +1SD]</b>
Importance	-0.376	0.166	5.17	.023	0.69	[0.49, 0.95]	[51%, 37%]
Difficulty	0.435	0.121	12.98	< .001	1.54	[1.22, 1.97]	[34%, 55%]
Age	-0.029	0.011	7.32	.007	0.97	[0.95, 0.99]	
Female	-0.240	0.242	0.99	.320	0.79	[0.49, 1.26]	
Income	0.043	0.110	0.15	.699	1.04	[0.84, 1.30]	
Fin. literacy	-0.568	0.127	20.13	< .001	0.57	[0.44, 0.72]	
Constant	2.218	0.841					
Observations	377						
Log Likelihood	-217.672						
Akaike Inf. Crit.	449.343						
Nagelkerke $R^2$	.50						



Table S2

*Binary logistic regression analysis with action as dependent variable, excluding participants who were categorized as completed-help in the LCA (Study 1). Last column shows predicted % of people taking action to prepare for retirement for 1 standard deviation below and above the mean of importance and difficulty respectively, while holding all other variables constant at their mean.*

	<b><i>B</i></b>	<b><i>SE</i></b>	<b>Wald <math>\chi^2</math></b>	<b><i>p</i></b>	<b><i>OR</i></b>	<b>95% <i>CI OR</i></b>	<b>Predicted % action [-1SD, +1SD]</b>
Importance	0.186	0.146	1.64	.201	1.20	[0.91, 1.61]	[29%, 36%]
Difficulty	-0.783	0.103	157.93	< .001	0.46	[0.37, 0.56]	[52%, 18%]
Age	0.057	0.009	37.32	< .001	1.06	[1.04, 1.08]	
Female	0.002	0.199	< 0.01	.991	1.00	[0.68, 1.48]	
Income	0.357	0.103	12.00	< .001	1.43	[1.17, 1.75]	
Fin. literacy	0.275	0.111	6.18	.013	1.32	[1.06, 1.64]	
Constant	1.929	0.789					
Observations	604						
Log Likelihood	-323.141						
Akaike Inf. Crit.	660.282						
Nagelkerke $R^2$	.55						

Table S3

*Binary logistic regression analysis with action as dependent variable, excluding participants who were categorized as completed-no help in the LCA (Study 1). Last column shows predicted % of people taking action to prepare for retirement for 1 standard deviation below and above the mean of importance and difficulty respectively, while holding all other variables constant at their mean.*

	<b><i>B</i></b>	<b><i>SE</i></b>	<b>Wald <math>\chi^2</math></b>	<b><i>p</i></b>	<b><i>OR</i></b>	<b>95% <i>CI OR</i></b>	<b>Predicted % action [-1SD, +1SD]</b>
Importance	-0.167	0.143	1.36	.243	0.85	[0.64, 1.12]	[30%, 25%]
Difficulty	-0.391	0.116	11.46	< .001	0.68	[0.54, 0.85]	[36%, 20%]
Age	0.022	0.010	4.75	.029	1.02	[1.00, 1.04]	
Female	-0.516	0.215	5.75	.016	0.60	[0.39, 0.91]	
Income	0.410	0.109	14.15	< .001	1.51	[1.22, 1.87]	
Fin. literacy	-0.346	0.106	10.58	.001	0.71	[0.57, 0.87]	
Constant	0.864	0.734					
Observations	511						
Log Likelihood	-277.529						
Akaike Inf. Crit.	569.058						
Nagelkerke $R^2$	.43						