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The impact of tailoring on the decision to glance over one's pension information and the role of financial literacy

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Background

- Financial risk has shifted towards individuals (Krijnen et al., 2014)
- Pension Information Act from 2015: clearer and more effective pension communication required from pension plan providers
- But: people are inert (Krijnen et al., 2014 and 2016)
- Challenge: how to motivate them?



Tailoring and behaviour

- Possible solution: provide information tailored to personal pension situation
- Aim: get people to look into their personal pension information \approx (desired) behaviour
- Behavioural intention, attitudes and skills are the main ingredients that determine behaviour (Ajzen, 1991; Yzer, 2012). Elicited in a survey.
- Skill: financial literacy (multi-dimensional approach)



Impact of tailoring

- Experiment to test the impact of tailoring on pension information behaviour: performing the PensionCheck (PC)
- Research questions:
 1. Does tailoring have an impact on the probability of respondents responding to the mail invitation to perform the PensionCheck?
 2. And furthermore, what is the role of financial literacy in this relationship?



Procedure

- Mail with invitation to do PensionCheck: generic or tailored
- Reminder about invitation to PC (identical)
- Mail with invitation to survey (no tailoring)
- Reminder about invitation to survey



Experimental set-up

- Based on age (three categories) and gender: six groups
- Three types of tailoring:
 - Tailoring on age
 - Tailoring on gender
 - Tailoring on age and gender

Experimental set-up

Gender	Age group 18-34				55+	
	Male	tailoring gender and age (4)	tailoring age (6)	tailoring gender (7)	tailoring age (9)	tailoring gender and age (10)
tailoring gender (1)		no tailoring (3)	tailoring gender (1)	no tailoring (3)	tailoring gender (1)	no tailoring (3)
Female	tailoring gender and age (5)	tailoring age (6)	tailoring gender and age (8)	tailoring age (9)	tailoring gender and age (11)	tailoring age (12)
	tailoring gender (2)	no tailoring (3)	tailoring gender (2)	no tailoring (3)	tailoring gender (2)	no tailoring (3)

One version for men and one for women

Table 1: Distribution of the versions (version number between brackets) over the six subgroups of the population



One version for each age category

Experimental set up

Gender	Age group 18-34		35-54		55+	
	Male	tailoring gender and age (4)	tailoring age (6)	tailoring gender and age (7)	tailoring age (9)	tailoring gender and age (10)
tailoring gender (1)		no tailoring (3)	tailoring gender (1)	no tailoring (3)	tailoring gender (1)	no tailoring (3)
Female	tailoring gender and age (5)	tailoring age (6)	tailoring gender and age (8)	tailoring age (9)	tailoring gender and age (11)	tailoring age (12)
	tailoring gender (2)	no tailoring (3)	tailoring gender (2)	no tailoring (3)	tailoring gender (2)	no tailoring (3)

Table 1: Distribution of the versions (version number between brackets) over the six subgroups of the population



Experimental set-up

Six different versions:
tailoring on
age group
and gender

Gender	Age group 18-34		35-54		55+	
	Male	tailoring gender and age (4)	tailoring age (6)	tailoring gender and age (7)	tailoring age (9)	tailoring gender and age (10)
tailoring gender (1)		no tailoring (3)	tailoring gender (1)	no tailoring (3)	tailoring gender (1)	no tailoring (3)
Female	tailoring gender and age (5)	tailoring age (6)	tailoring gender and age (8)	tailoring age (9)	tailoring gender and age (11)	tailoring age (12)
	tailoring gender (2)	no tailoring (3)	tailoring gender (2)	no tailoring (3)	tailoring gender (2)	no tailoring (3)

Table 1: Distribution of the versions (version number between brackets) over the six subgroups of the population



Experimental set up

One non-tailored version

Gender	Age group 18-34		35-54		55+	
	Male	tailoring gender and age (4)	tailoring age (6)	tailoring gender and age (7)	tailoring age (9)	tailoring gender and age (10)
tailoring gender (1)		no tailoring (3)	tailoring gender (1)	no tailoring (3)	tailoring gender (1)	no tailoring (3)
Female	tailoring gender and age (5)	tailoring age (6)	tailoring gender and age (8)	tailoring age (9)	tailoring gender and age (11)	tailoring age (12)
	tailoring gender (2)	no tailoring (3)	tailoring gender (2)	no tailoring (3)	tailoring gender (2)	no tailoring (3)

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Tailoring in particular

Differences between versions

- Content of quote on top of mail
- Name and age of the person underneath the quote
- Tailored sentences in the body of the mail about
 - Urgency
 - Possible actions



Tailoring on age: urgency

- Young group: *Probably it still feels like your pension is really far away. And yet, why not already take a look at how you are faring? It is nice to have an overview.*
- Middle aged group: *Perhaps your pension still feels far away. And yet, why not already take a look at how you are faring? Don't delay it any longer!*
- Old group: *You are about to retire, so have a look at how you are faring. Know what you can expect!*



Overview Data I

- Dependent variables:
 - Clicked on PC-link in email invitation?
 - Who logged in PC (by entering DigID)? How often?
 - Time spent per session
- Administrative data pension plan provider



Overview Data II

Survey collects data on:

- **Demographics:** age, gender, household composition, self-reported health, income
- **Financial literacy:** self-assessed FL, vocabulary test, pension knowledge test, classic four questions developed by Lusardi & Mitchell (2006; 2011)
- **Behavioural factors:** attitudes towards pension information, intention, future time perspective, need for cognition (in general and wrt pension information)



Overview pension information behaviour: total sample

PIB	Total sample	Survey
Clicked	42,21	61,22
Logged in	10,86	21,64
Sample size	N=3298	n= 998



Overview pension information behaviour: survey sample

PIB	Total sample	Survey
Clicked	42,21	61,22
Logged in	10,86	21,64
Sample size	N=3298	n= 998

Results: clicking behaviour

VARIABLES	(1) raw sample	(2) all FL vars	(3) incl behavioural vars	(4) All
tailoring on age	-0.0456* (0.0240)	-0.0549 (0.0475)	-0.0623 (0.0469)	-0.0634 (0.0470)
tailoring on age and gender	-0.0133 (0.0242)	0.0487 (0.0481)	0.0429 (0.0475)	0.0440 (0.0475)
tailoring on gender	-0.0280 (0.0239)	-0.0648 (0.0468)	-0.0617 (0.0465)	-0.0612 (0.0465)
age 18-34 yrs	0.0407* (0.0234)	0.120*** (0.0465)	0.155*** (0.0429)	0.148*** (0.0445)
age 55+ yrs	0.168*** (0.0222)	0.153*** (0.0405)	0.105** (0.0427)	0.102** (0.0431)
male dummy	0.0856*** (0.0177)	0.0122 (0.0383)	-0.0161 (0.0362)	-0.00772 (0.0378)
NFC General			0.0264 (0.0310)	0.0317 (0.0316)
NFC Pension information			0.104*** (0.0269)	0.105*** (0.0270)
Future time perspective			-0.0645** (0.0315)	-0.0602* (0.0319)
Attitudes PIB - negative to positive			0.0392 (0.0319)	0.0441 (0.0326)
Observations	3,257	833	833	833

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: We also control for education level, income category, household composition, self-reported health and domain of work.

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Results: checking intention

	(1)	(2)	(3)	(4)	(5)
VARIABLES	attitudes	NFC	FTP	all behavioural	incl FL vars
NFC General		0.0427 (0.0590)		-0.0358 (0.0591)	0.00192 (0.0619)
NFC Pension information		0.608*** (0.0456)		0.490*** (0.0502)	0.497*** (0.0515)
Age 18-34 yrs	-0.0501 (0.0989)	0.0414 (0.0947)	-0.154 (0.0966)	0.00228 (0.0913)	-0.0465 (0.0921)
Age 55+ yrs	0.402*** (0.0818)	0.227*** (0.0789)	0.427*** (0.0800)	0.197*** (0.0756)	0.178** (0.0798)
Male dummy variable	-0.0236 (0.0716)	-0.102 (0.0676)	0.0157 (0.0694)	-0.0889 (0.0664)	-0.0662 (0.0713)
Attitudes PIB - negative to positive	0.485*** (0.0580)			0.106* (0.0592)	0.121* (0.0618)
Future time perspective			0.583*** (0.0587)	0.344*** (0.0598)	0.345*** (0.0598)
Observations	833	833	833	833	833
R-squared	0.173	0.281	0.196	0.318	0.342

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 3: Examining the relationship between intention and attitudes, NFC and FTP



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VARIABLES	attitudes	NFC	FTP	all behavioural	incl FL vars
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So far

- Looked at the effect of tailored invitation to an online pension tool on the probability to click through
⇒ First stage of pension information behaviour
- Tailoring does not appear to have an effect on clicking
- Older and younger people responded more often to the invitation (independent of tailoring) by clicking
- Need for cognition is positively associated with the probability to click



So far

- No evidence for an effect of financial literacy on the probability to click
- Behavioural intention is positively correlated with need for cognition (pension context), future time perspective and attitudes towards pension information



But we are not done yet...

We still need to look at...

- the link between intention and pension information behaviour
- the clicking behaviour across the six groups that we defined at the beginning of the experiment
- who logged in the PensionCheck after having clicked through?
- how much time did people spend on their online pension journey?



References

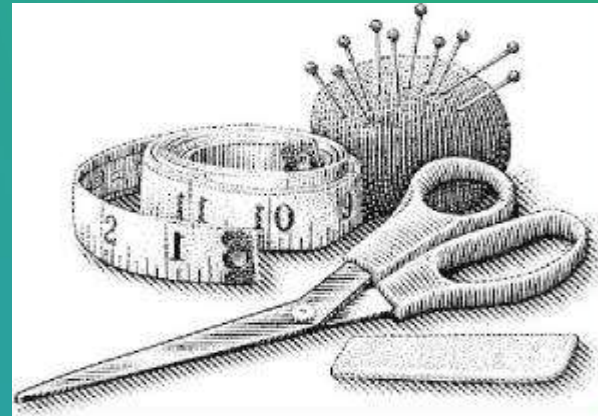
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Krijnen, J., Breugelmans, S., & Zeelenberg, M. (2014). Waarom mensen de pensioenvoorbereiding uitstellen en wat daar tegen te doen is. *NEA Paper*, (52).
- Krijnen, J.M.T., Zeelenberg, M. & Breugelmans, S.M. (2016). *Overcoming inertia in retirement saving. Why now and how?* Netspar survey paper 46.
- Lentz, L., & Pander Maat, H. (2013). De gebruiksvriendelijkheid van het Uniform Pensioenoverzicht. *Netspar Occasional Paper*.
- Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of Pension Economics and Finance*, 10(4), 497–508.
<http://doi.org/10.1017/S1474747211000448>
- Yzer, M. (2012). The Integrative Model of Behavioral Prediction as a Tool for Designing Health Messages. *Health Communication Message Design: Theory and Practice*, 21–40.



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