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NED Event: Behavioural Finance and Boards





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Actuaries and Behavioural Finance

Kathy Byrne, Metfriendly



Behavioural Finance is topical

Financial Conduct Authority



Occasional Paper No.1

Applying behavioural economics at the Financial Conduct Authority

April 2013

Kristine Erta, Stefan Hunt, Zanna Iscenko, Will Brambley



THE BEHAVIOURAL INSIGHTS TEAM

IN PARTNERSHIP WITH  Cabinet Office

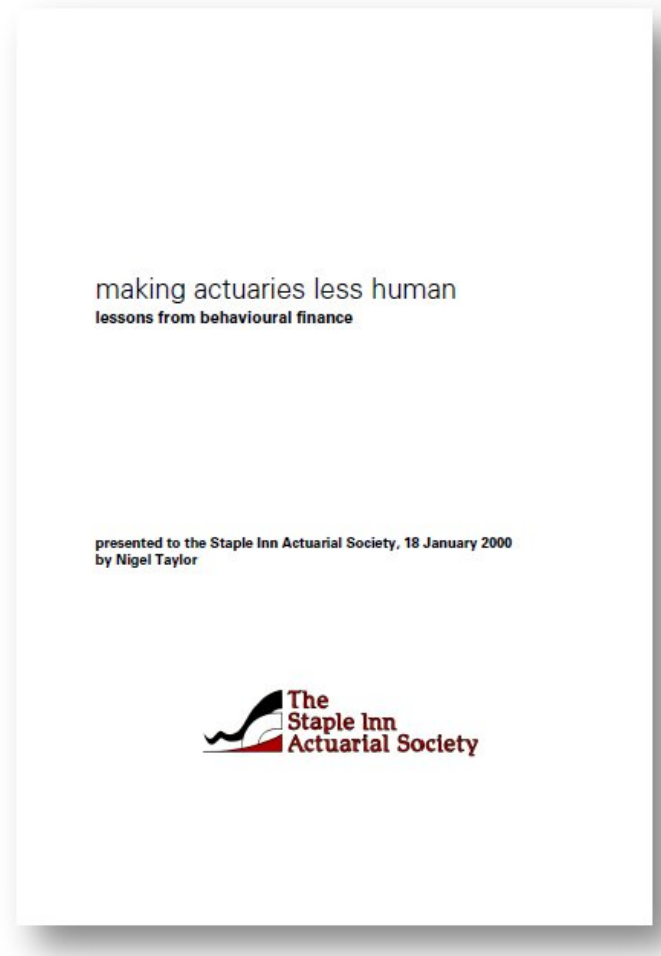


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Actuaries and Behavioural Finance



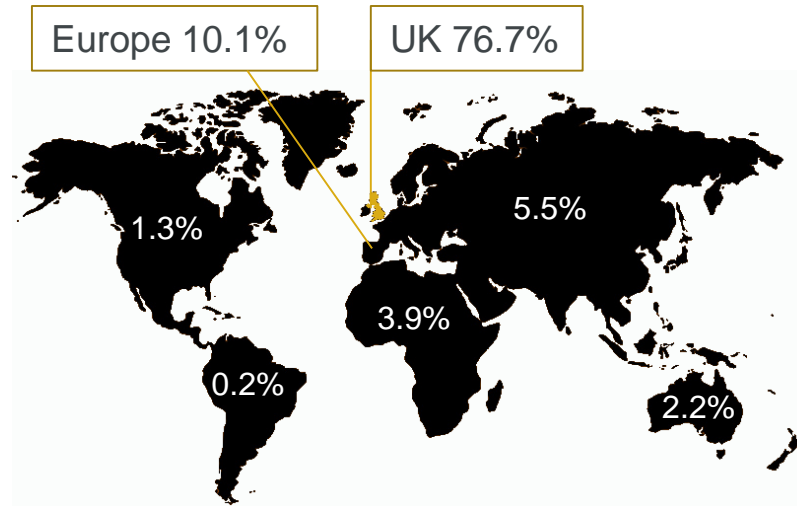
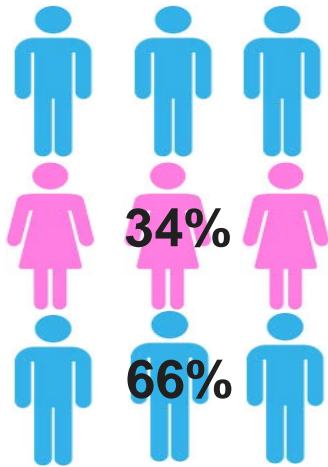
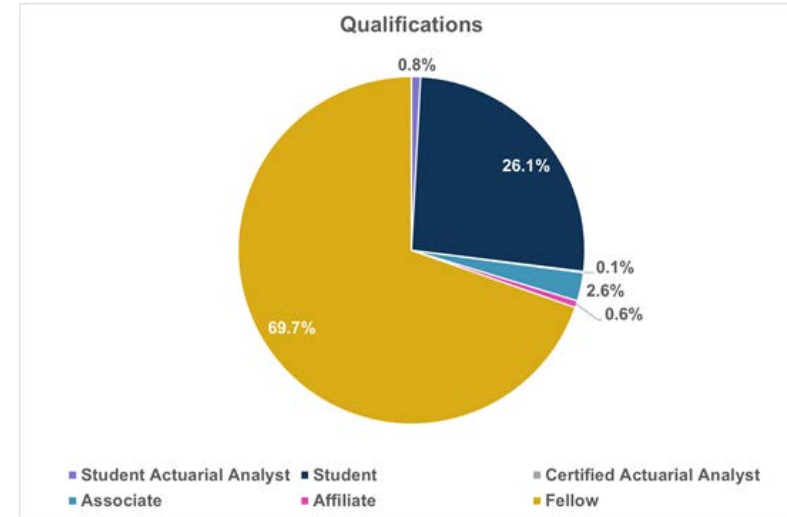
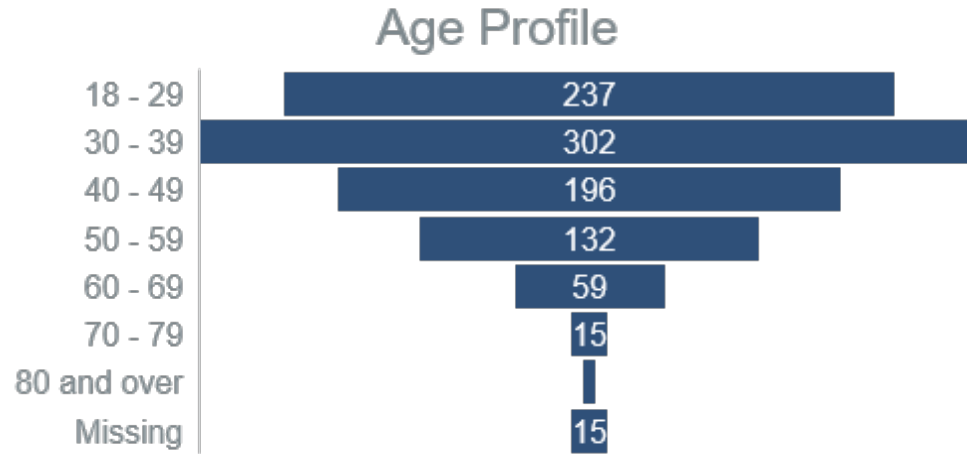
Behavioural Finance for Actuaries Working Party Research

Research Questions

- Do actuaries show the same biases as other people?
- Are actuaries more or less biased than other people?



Research Sample



Biases tested

- Framing
- Loss Aversion
- Preference for guarantees
- Representativeness
- Availability
- Anchoring
- Overconfidence
- Status Quo (inertia)
- Mental Accounting
- Present Bias



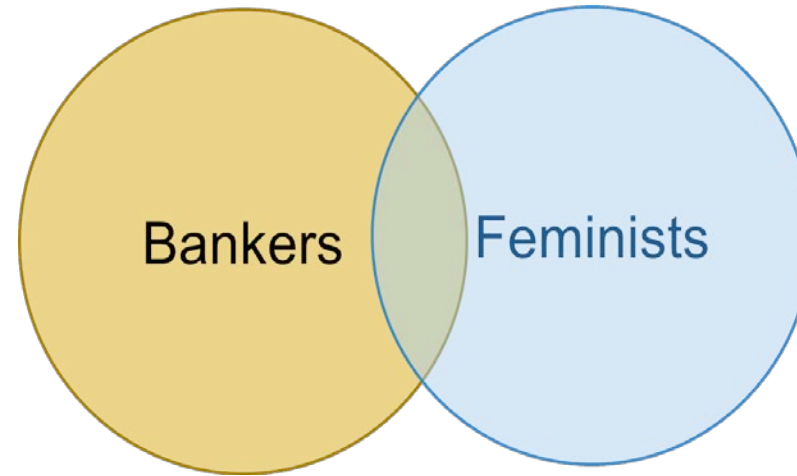
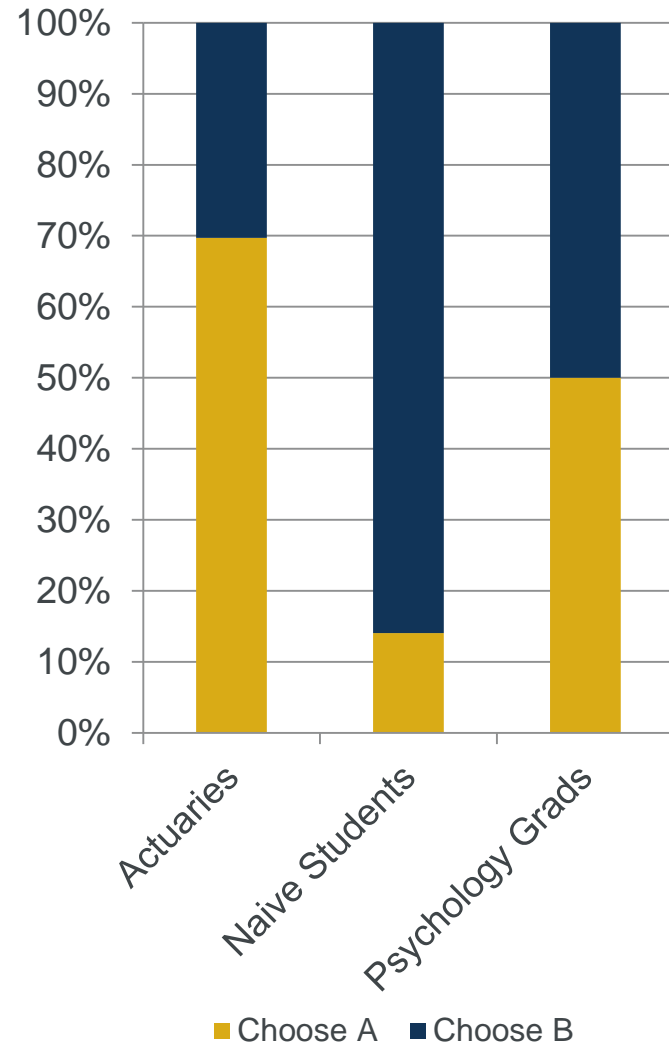
Example: Representativeness

Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations. Which is more probable?

- A Linda works in a bank
- B Linda works in a bank and is active in the feminist movement



Representativeness



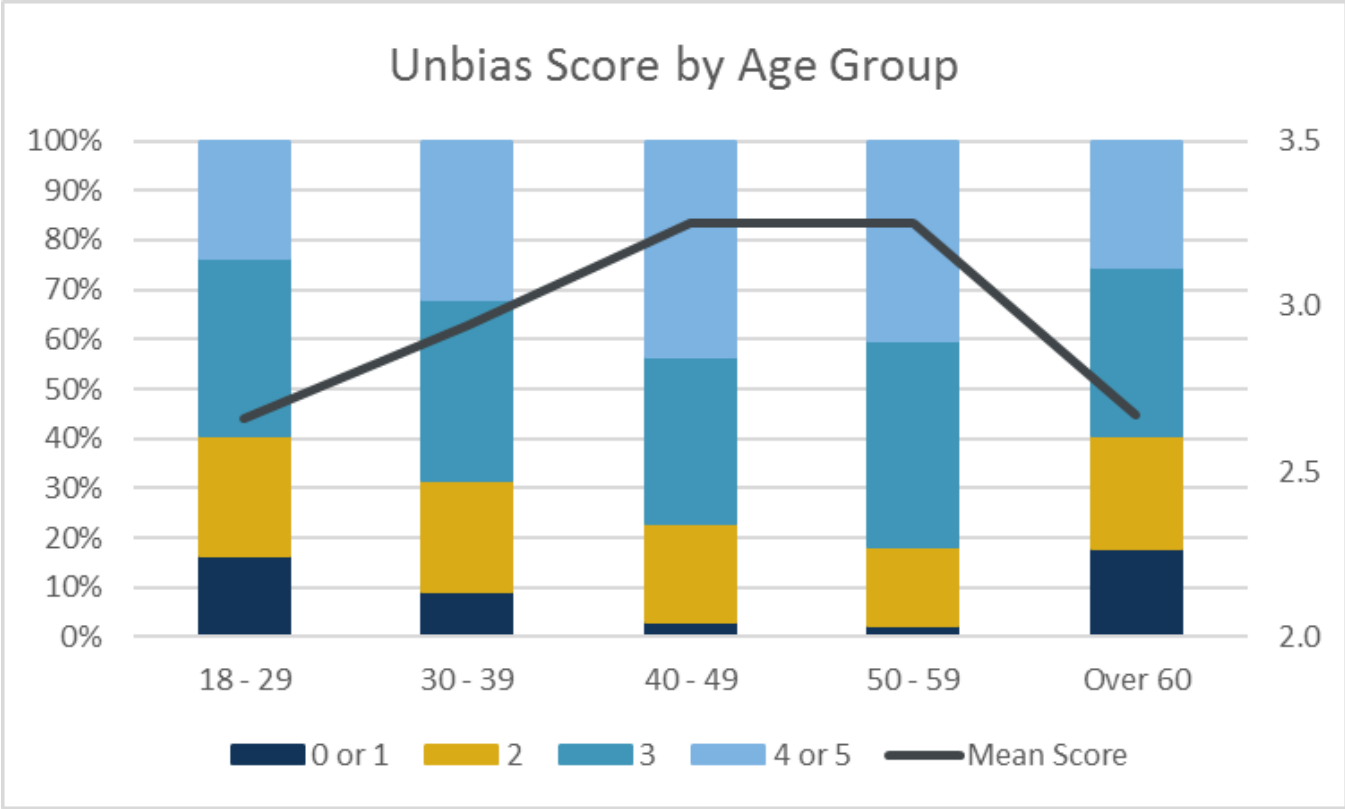
Bias concept

Unbiased score

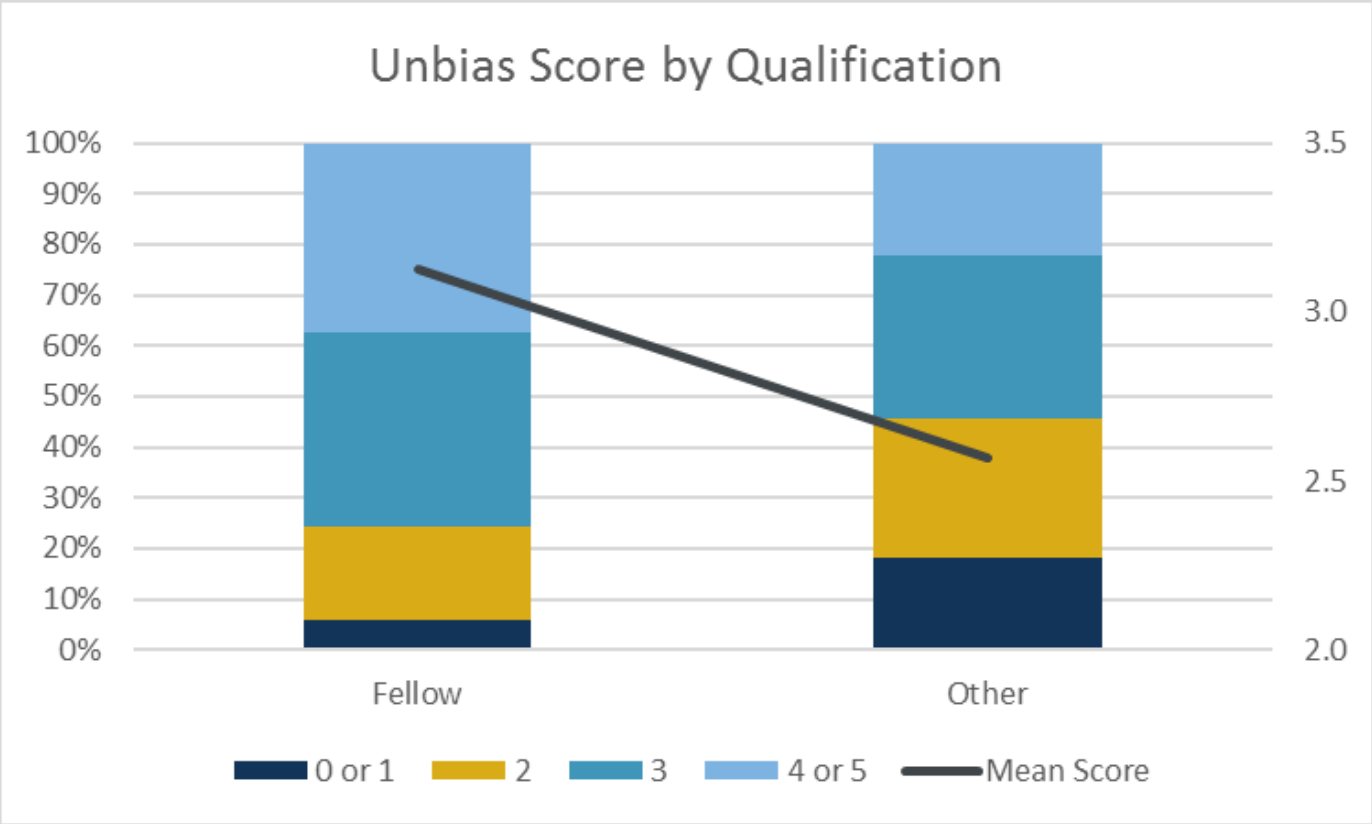
- Certainty Bias (Utility)
- Representativeness (Probability)
- Causes of death (Probability)
- Overconfidence (Fact)
- Present Bias (Utility)



Scores by Age



Scores by Qualification



Conclusions

- Actuaries do show the same biases as other people
- In some areas actuaries show less bias than other people
 - Probability and statistics
 - Overconfidence
- Age, education and experience appear to be key factors in reducing the impact of bias





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**Stephen Davidson,
Aon**



Behavioural Research



- How to improve Trustee group decision making
- How to help Trustees deliver more with the time they have available



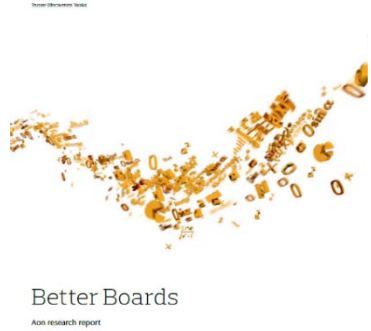
- Trustee focus group and online questionnaire



- Long term meant different things to different boards...
- Supportive chairs important factor
- Meeting agendas juggling both urgent and important business
- 2 devils advocates better than 1



Our Trustee Effectiveness tools

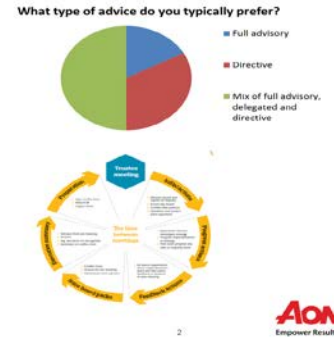


The Pensions Regulator welcomes the development of tools like this, which provide ways for trustees to assess their current levels of governance and set targets for improvement. As part of our work on 21st Century Trusteeship we would like to encourage trustees to regularly assess their board effectiveness and we welcome initiatives developed by industry to support TPR's drive to improve governance.

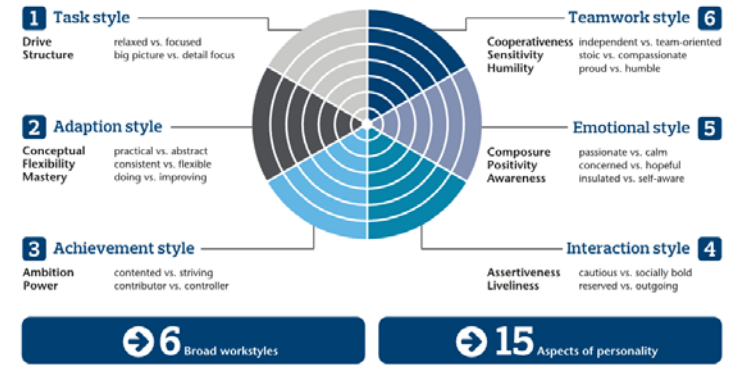
- **Lesley Titcomb, then Chief Executive at The Pensions Regulator**



Governance Viewpoints



ADEPT-15® Personality Model



Providing challenge and tools to improve governance



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Katherine Shipton, Ipsos MORI



Pension trustee decision-making: Ethnography and qualitative findings

Ipsos MORI

Objectives

- 1** Who are trustees and what motivates them
- 2** How pension trustees go about making investment decisions
- 3** To better understand organisational (as opposed to individual) decision-making
 - Their relationships with advisors
 - Their attitudes towards investment and risk

Methodology

- 1. Filmed ethnographic research**
3-4 hours with 6 trustees
- 2. In-depth interviews**
1 hour over the phone and face to face with 18 trustees



Who are trustees and what motivates them?

A homogenous group





**Though confident, some
feel the role is changing**

A photograph of a man and a woman sitting at a table in a cafe or restaurant. The man, on the left, has short white hair and is wearing a light-colored, short-sleeved button-down shirt. He is looking towards the woman with a slightly open mouth, as if speaking. The woman, on the right, has dark hair and is wearing a grey sweater. She is looking back at the man. On the table in front of them are several items: a white coffee cup on a saucer, a silver teapot, a silver sugar bowl, a silver creamer, another white coffee cup on a saucer, a glass of water with a lemon slice, and a pair of glasses. The background features a white brick wall and a framed picture on the wall to the left.

**And they share
similar traits too**

How are decisions made?

Before meetings they
diligently prepare





**Meetings usually result in a
decision through consensus**

However, the chair can dictate the tone in meetings





**Discussions continue
outside official meetings**

**The most important
decision for trustees is
choice of the default fund**





**They defer to advisors,
whilst being devil's
advocate**



**Trustees talk about the
'beauty parade' of advisors**

Influences and attitudes towards investment and risk

They tend to be risk averse






**Although there may be a
tendency in DC to show
growth in the short-term**

They rely on checks
and balances to avoid
undue risk



A man in a light blue shirt and grey jeans is crouching in a garden next to a brick wall. He is working with plants, possibly weeding or planting. The garden has various green plants and a concrete path. The brick wall is made of reddish-brown bricks.

**Some trustees are worried
that others aren't up to the job**



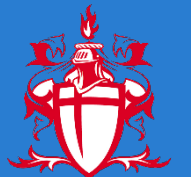
Thank you.



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Behavioural Finance Biases in Trustee Decision Making

Dr. Leonardo Cohen
City University of London
Leeds Business School



CITY UNIVERSITY
LONDON



UNIVERSITY OF LEEDS

Leeds University Business School

UEL
University of
East London



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Project introduction and background

18 June 2019

Project introduction

- Most of research in behavioural finance focused on individuals: limited research on institutional investors, almost none experimental
- We have been funded by the IFoA to investigate decision-making biases in pension fund trustees
- This is joint academic research by City, Leeds, and UEL, together with Ipsos and supported by Aon and Invesco



The setting in which pension trustees make decisions

- We have prepared a literature review of the existing applicable research
- Judge-Advisor Systems (JAS)
 - Trustees employ expert advice
- Surrogate decision-making
 - Trustees make decisions on behalf of others
- Group decision-making
 - Trustees make decisions in groups



Judge Adviser Systems

- Judges egocentrically discount advice received
- However advice can receive higher weights in certain situations – all below apply to trustees
 - When the decision is cued, and not independent
 - To diffuse responsibility (legal liability of trustees)
 - When the task is complex/important
 - When the adviser is confident and articulated
 - When advice is paid-for



Surrogate decisions

- Surrogates are poor at making decisions on behalf of others
- Surrogates project their own preferences, and adjust (insufficiently) from them
- Surrogates choose what others *should* do, instead of what they *would* do
- Choices are more regressive towards social norm / less extreme
 - Can lead to wrong levels of risk taking



Group decision biases

- Group decisions are not as efficient as commonly thought
 - Brainstorming does not work
- Information is not shared – decisions are based on common information
- There are process losses
 - Loafing
 - Free-riding
 - Self-censorship
- Choices become more extreme: shifted and polarized





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New empirical research

18 June 2019

Quantitative experiments

- We collected data on-line and in-person from 252 trustees
 - Trustees accessed via AON, Invesco, and AMNT
- We will report the findings from 5 experiments
- All experiments based on scenarios familiar to trustees (e.g., “We would like you to imagine that you are a trustee of a DC pension scheme. As part of your duties, you must help select the default investment funds.”)



Demographics: Total 252 trustees

- Three types of trustees:
 - Member-nominated
 - Employer-nominated
 - Professional
- Significant differences in expertise metrics
 - Professionals worked longer as trustee, have finance jobs, have investments – more experienced with financial markets
 - Member-nominated worked fewer years as trustees, have fewer financial qualifications, roles, or personal investments
 - Employer-nominated are between the other 2

Measurement	Member nominated	Employer nominated	Professional	Difference
Age	60	57	60	p=.16
Female	14%	20%	19%	p=.62
Trustee (yrs)	8.5	9.9	12.9	p=.002
Qualification	25%	48%	55%	p<.001
Finance job	21%	41%	66%	p<.001
Investments	70%	79%	91%	p=.01
Total YES	1.2	1.7	2.1	p<.001
Weighted	10.2	15.0	25.3	p<.001
Total Count	133	61	58	



Experiment 1: Naïve Diversification

Set-up

2 Funds - Balanced

Fund
FTSE All-Share companies
FTSE UK Conventional Gilts All

2 Funds – Unbalanced/Shares

Fund
FTSE All-Share companies
Balanced Fund (50% FTSE All-Share, 50% FTSE All Gilts)

There were 2 more conditions
unbalanced towards bonds

4 Funds - Balanced

Fund
FTSE All-Share companies
FTSE 100 companies
FTSE UK Conventional Gilts All
FTSE UK Conventional Gilts over 15 years

4 Funds – Unbalanced/Shares

Fund
FTSE All-Share companies
FTSE 350 companies
FTSE 100 companies
FTSE UK Conventional Gilts over 15 years



Experiment 1: Naïve Diversification Results

Condition	Bond % (95% CI)
Balanced	63% (56%~69%)
Bond-Heavy	70% (63%~76%)
Equity-Heavy	44% (37%~51%)

- The Mix of Funds influenced the proportion allocated to bonds ($p < .001$)
- All trustee types showed the same bias ($p = .13$)

Condition	Concentration (95% CI)	Funds Chosen
2 Funds	0.67 (0.63~0.71)	1.8 (1.6~2.0)
4 Funds	0.44 (0.39~0.49)	2.8 (2.6~3.0)

- The Number of Funds offered influenced the number of funds chosen and concentration between funds ($p < .001$)
- All trustee types showed the same bias ($p = .27$)



Experiment 2: Framing / Context effects

Set-up

Label 30%	Bonds	Stocks	Worst Case	Average Case	Best Case
	100%	0%	£11,000	£11,000	£11,000
	90%	10%	£10,750	£11,500	£12,250
	80%	20%	£10,500	£12,500	£14,500
	70%	30%	£10,000	£13,500	£17,000
	60%	40%	£9,500	£15,000	£20,500
Conservative	50%	50%	£9,000	£16,500	£24,000
	40%	60%	£8,900	£18,000	£28,000
Moderate	30%	70%	£7,000	£20,000	£33,000
	20%	80%	£6,000	£22,000	£35,000
Aggressive	10%	90%	£5,000	£24,000	£43,000
	0%	100%	£2,500	£26,000	£49,500

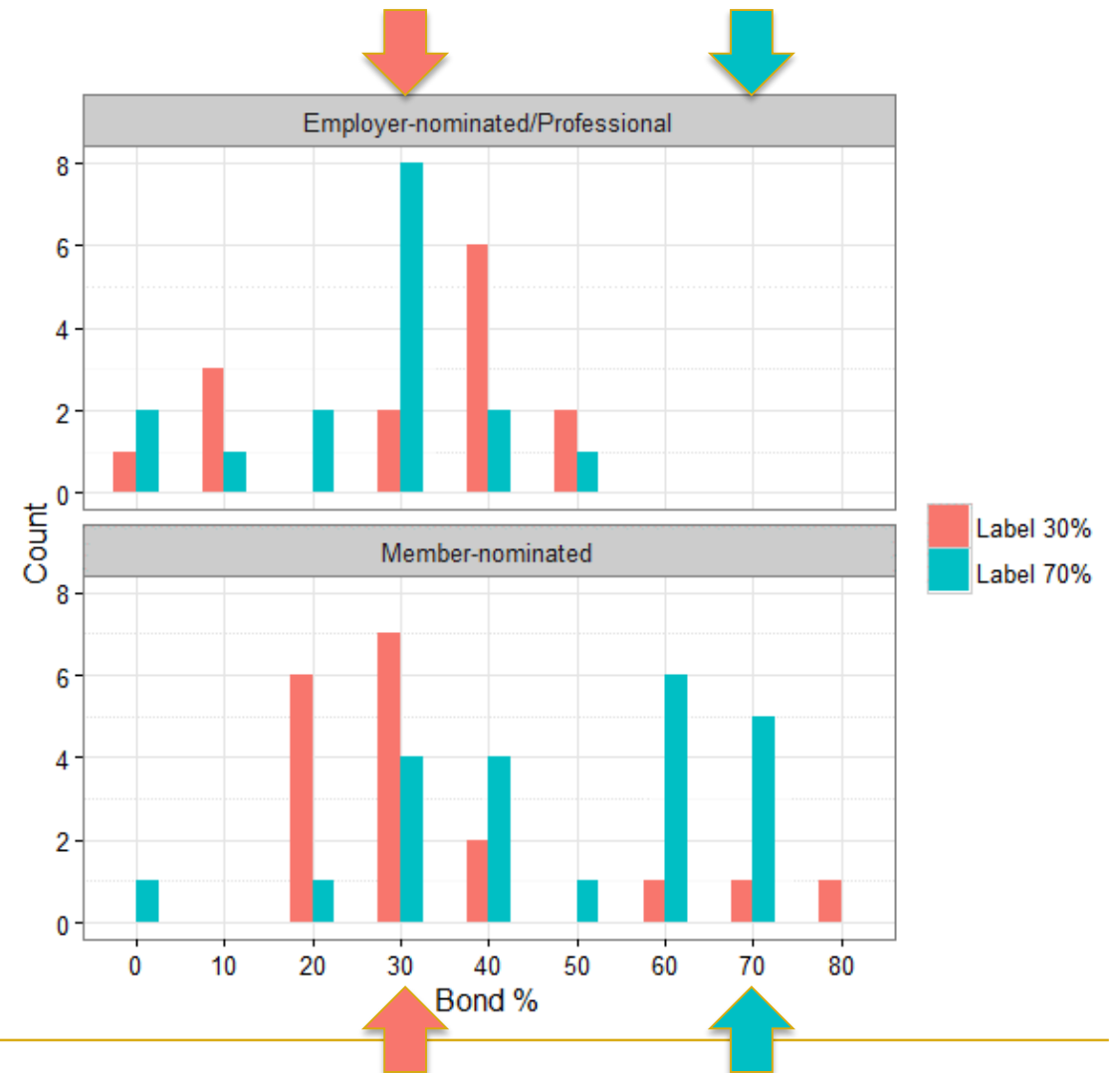
Label 70%	Bonds	Stocks	Worst Case	Average Case	Best Case
	100%	0%	£11,000	£11,000	£11,000
Conservative	90%	10%	£10,750	£11,500	£12,250
	80%	20%	£10,500	£12,500	£14,500
Moderate	70%	30%	£10,000	£13,500	£17,000
	60%	40%	£9,500	£15,000	£20,500
Aggressive	50%	50%	£9,000	£16,500	£24,000
	40%	60%	£8,900	£18,000	£28,000
	30%	70%	£7,000	£20,000	£33,000
	20%	80%	£6,000	£22,000	£35,000
	10%	90%	£5,000	£24,000	£43,000
	0%	100%	£2,500	£26,000	£49,500

Experiment 2: Framing / Context effects

Results

Trustee Type	Bonds %		p-value
	Label 30%	Label 70%	
Member nominated	34%	48%	.01
Employer nominated	25%	27%	.85
Professional	27%	26%	.85

- Member-nominated trustees were influenced by the extraneous labels, choosing the fund labelled “moderate” more often
- Employer-nominated and professional trustees not influenced by the labels



Experiment 3: Surrogate decision making

Set-up

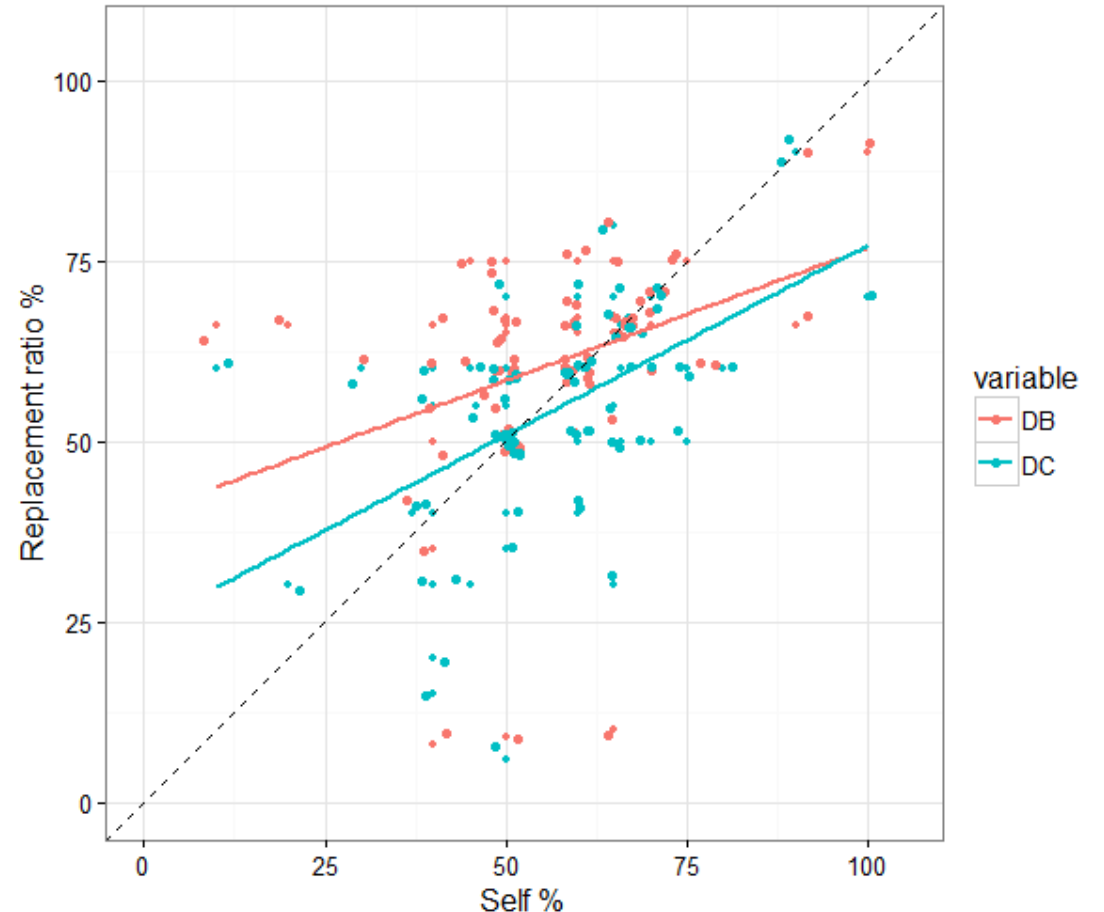
- Scenario: Assume a state pension of £7,200/year, retirement at 65, contributions for 45 years, final salary of £60,000
- Questions: What is an appropriate level of pension replacement income (excluding state pension or savings):
 - For an average DB pension scheme member?
 - For an average DC pension scheme member?
 - For you?



Experiment 3: Surrogate decision making

Results

- Trustee's own replacement ratio significantly influenced their answer ($b=0.42$, $p<.001$)
 - Surrogate projecting their own preferences
 - Relatively richer trustees' answers might not be applicable to general member population
- Higher answers to DB (59%) funds than DC (51%) funds ($p<.001$)
 - Legacy effects
- Target ratios should be independent of self preferences



Experiment 4: Influence of Advice

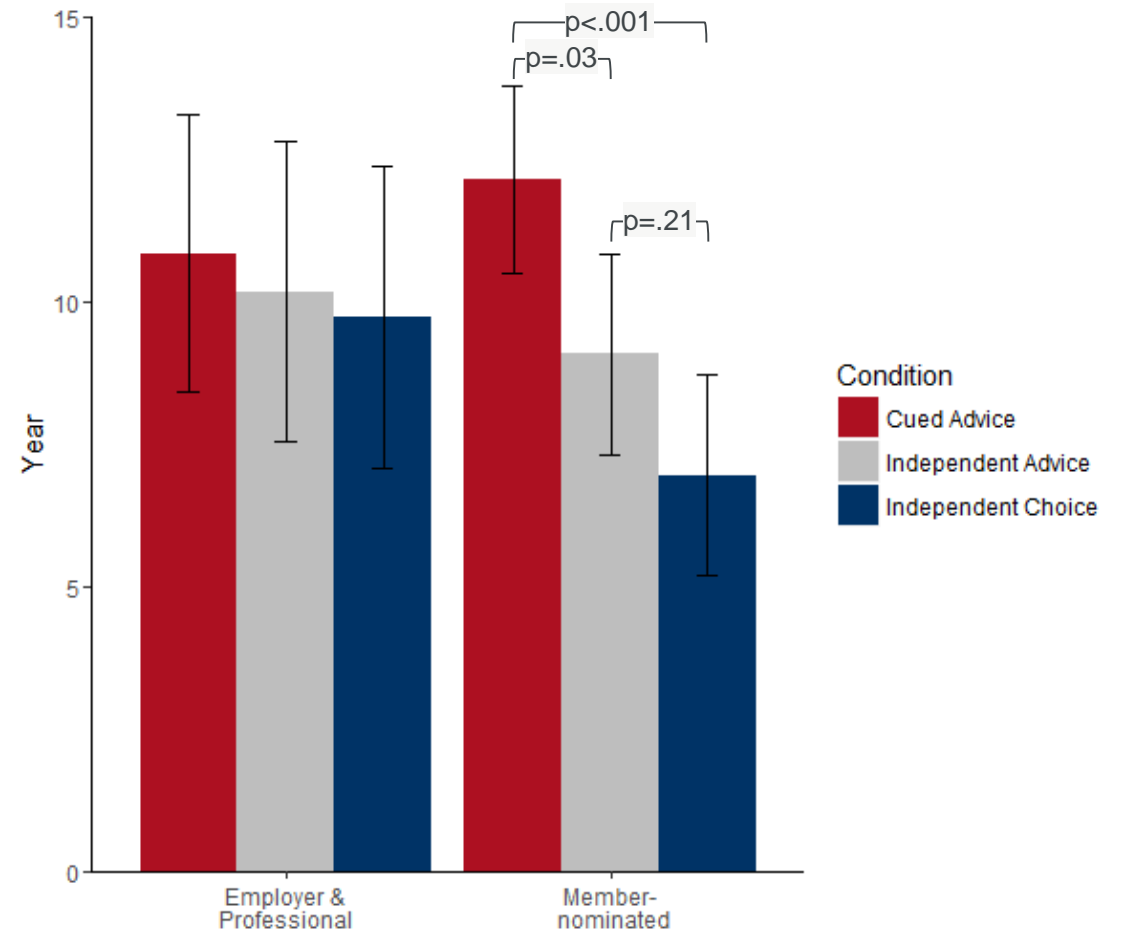
Set-up

- Scenario: Default DC funds need to choose a shape of the lifestyle strategy, de-risking as the members reach retirement age. Consider a DC scheme focusing on drawdowns.
- Questions:
 - When should life-style de-risking start?
 - What should be the target % in cash and bonds at retirement?
- (Poor) Advice: Investment consultants typically recommended starting the de-risking 20 years before retirement, and keeping 33% in cash and bonds at retirement.



Experiment 4: Influence of Advice Results

- Member-nominated trustees influenced by advice on the year to de-risk
- Cued advice (without prior independent choice) was most influential
- Advice provided after an opportunity for independent choice not significantly influential
- No influence to other types of trustees
- No influence to % of assets in cash



Experiment 5: Fund selection criteria

Set-up

- Participants were told that they had to select funds for the portfolio of a DC scheme, one for each type of asset classes (e.g., Global Equities, UK Government Bonds, 10 in total)
- The characteristics were initially hidden. We tracked the order and frequency that each data item was revealed.

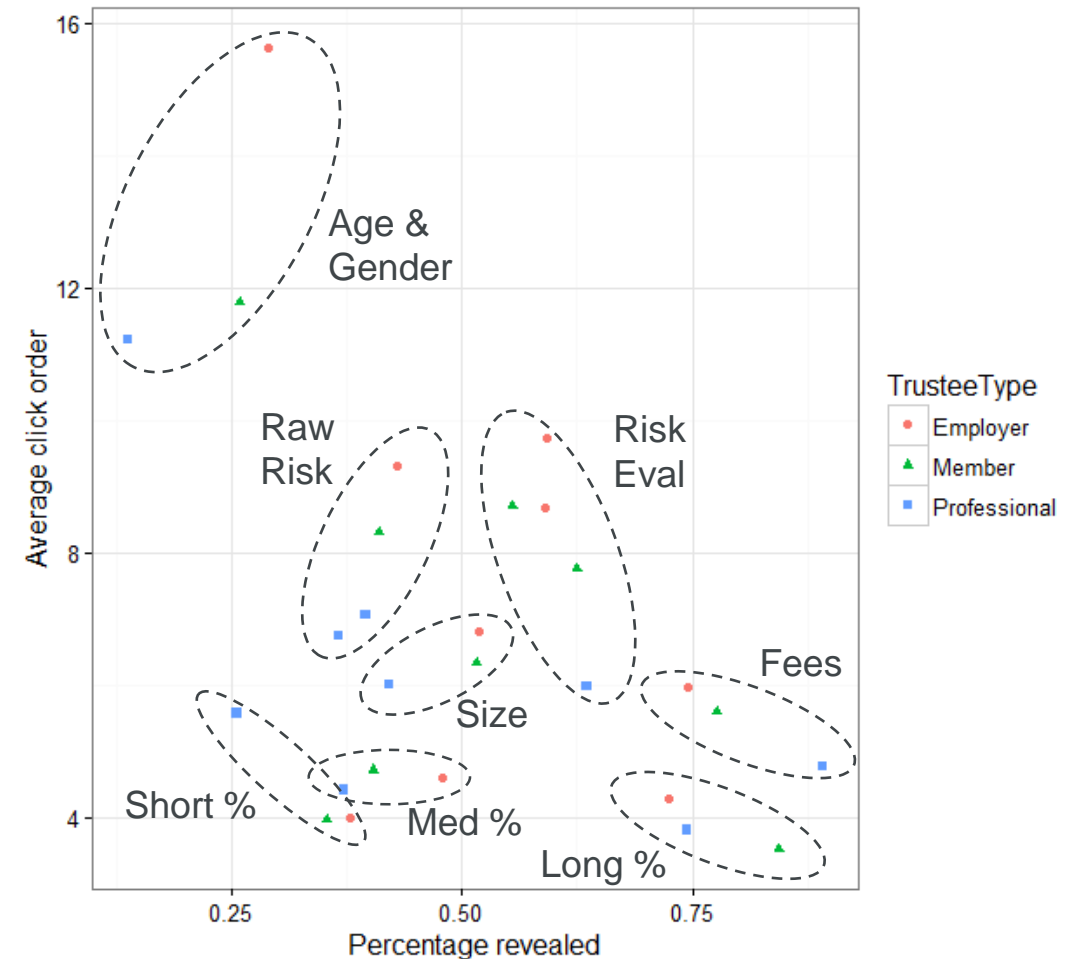
	Fund A	Fund B
1-year short term returns		
3-year medium term returns		
5-year long term returns		
Size of funds (net assets)		
Fees (TER – Total Expense Ratio)		
Raw Risk (one year Standard Deviation)		
Risk Evaluation (within its asset class)		
Sharpe Ratio (return per unit of risk)		
Fund manager's age and gender		



Experiment 5: Fund selection criteria

Results

- Trustees focused mostly on important metrics for pension investments: Fees and long-term returns
- Little attention paid to fund manager's age and short-term returns
- No large difference between groups in terms of items revealed





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Conclusions

Conclusion 1/2

- Trustee decisions are set in environments that differ from the majority of extant behavioural finance research:
 - Sophisticated investors making decisions in group, with advice, on behalf of others
- Trustees unlikely to be immune from decision-making biases
- Further investigation of these biases crucial for sustainability of future pensions and informing policy



Conclusion 2/2

- Trustees displayed behavioural finance biases, but to a lesser extent than unsophisticated investors
- Less experienced member-nominated trustees generally more susceptible to biases than more experienced professional trustees
- Trustees displayed naïve diversification, were influenced by extraneous information and poor advice, and projected their own preferences when deciding for the members



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Questions

Comments

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