



The Art and Science of Trustee Decision-Making



PLSA Yorkshire, June 2019

Background



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Actuarial Research Centre

Institute and Faculty
of Actuaries



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Leeds University Business School



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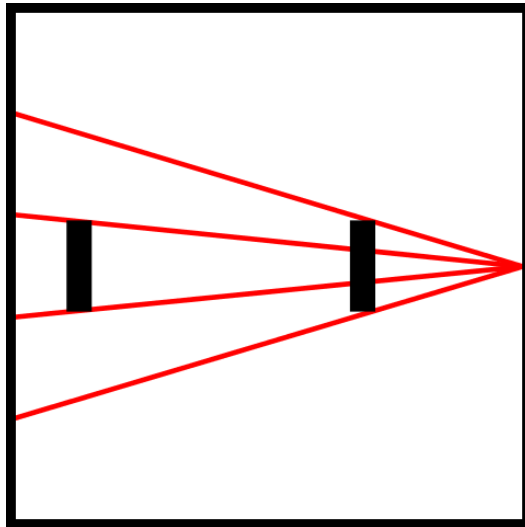


Cognitive biases

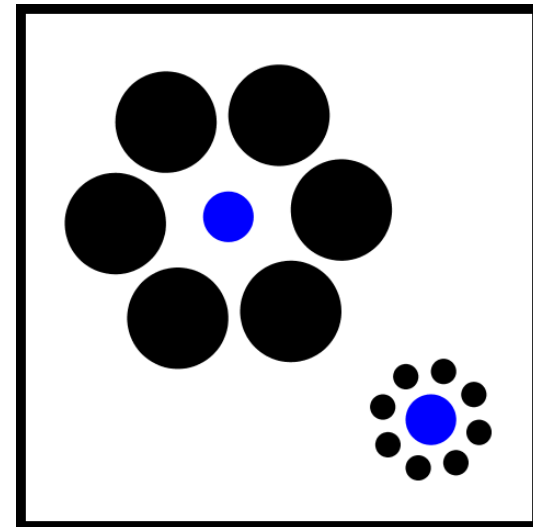


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Cognitive biases such as visual illusions do not imply that we cannot navigate the world successfully



Ponzo Illusion



Ebbinghaus Illusion

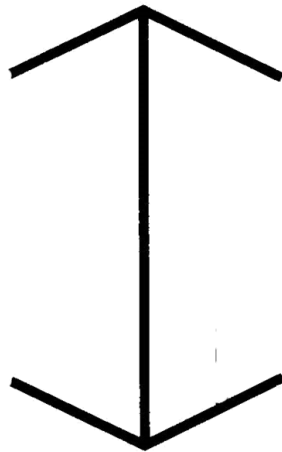
Cognitive biases



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Muller-Lyer illusion: Adaptation to a rectangular world?

A

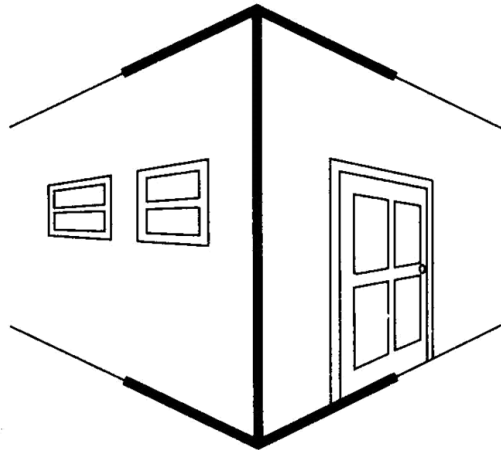


B

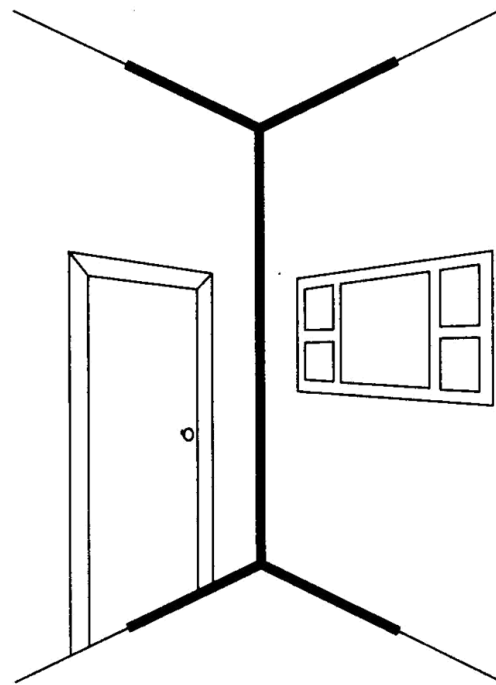


Muller-Lyer illusion: Adaptation to a rectangular world?

A



B



Judge-advisor systems



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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 decision-making



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Surrogates are really poor at making decisions for others

Surrogates project their own preferences, and adjust (insufficiently) from them

Choose what other *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

New empirical research



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- We collected data on-line and in person from 208 trustees
- Trustees accessed via AON, Invesco, and the AMNT
- We will report the findings from 3 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.”)

- 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



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2 Funds - Balanced

Fund
FTSE All-Share companies
FTSE UK Conventional Gilts All

4 Funds - Balanced

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

2 Funds – Unbalanced/Shares

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

4 Funds – Unbalanced/Shares

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

There were 2 more conditions unbalanced towards bonds

Experiment 1: Naïve diversification results



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

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



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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

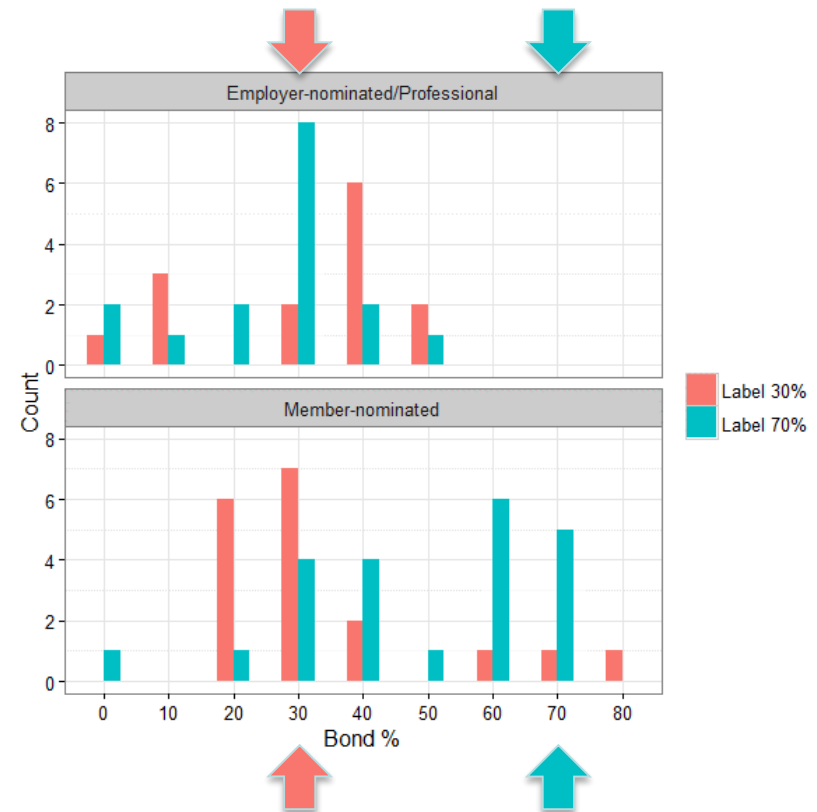
Experiment 2: Framing / context effects results



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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



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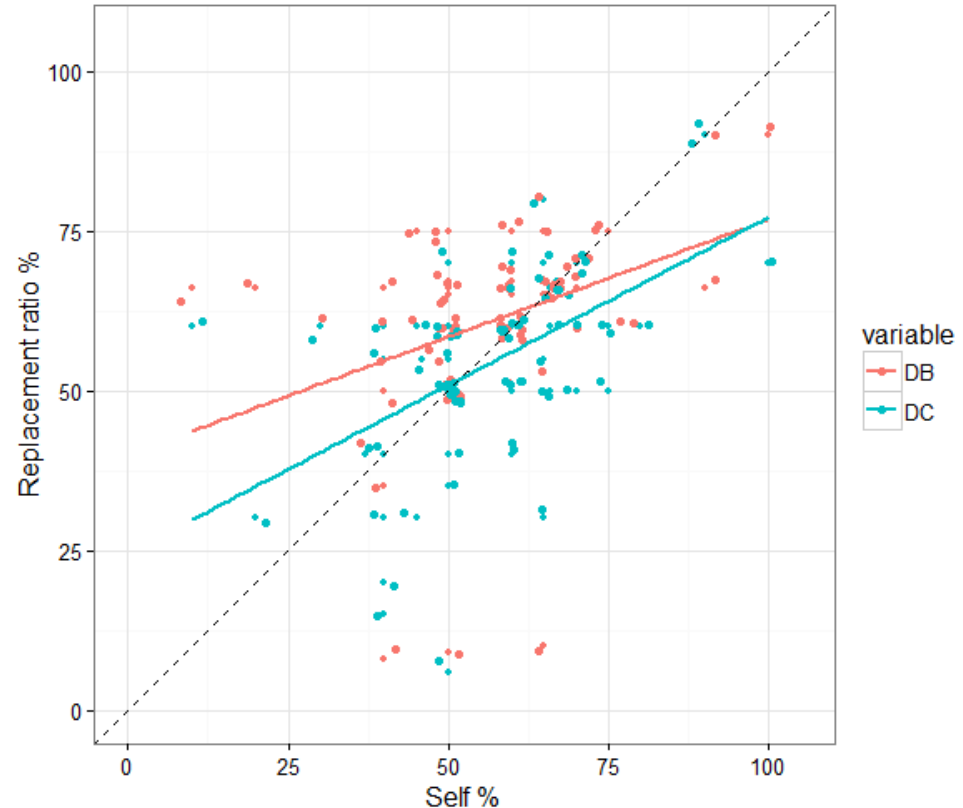
- **Scenario: Assume a state pension of £7200/year, retirement at 65, contributions for 45 years, final salary of £60,000**
- **Question: What is an appropriate level of pension replacement income (excluding state pension or savings):**
 - For an average DB pension scheme member?
 - For an average DC pension scheme member?
 - For you?

Experiment 3: Surrogate decision-making results



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- **Trustee's own replacement ratio significantly influenced their answer ($b=0.42$, $p<.001$)**
 - Surrogate decisions adjusting from 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**



Conclusions



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- 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 influencing policy

Conclusions



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- Trustees exhibit behavioural 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 projected their own preferences when deciding for members

Get involved – investment consultants



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Ipsos MORI



Ipsos MORI, an independent market research agency, has been commissioned by the Institute and Faculty of Actuaries, with support from Aon and Invesco, to conduct some research among financial advisers or investment consultants to help understand pension trustee decision making.

Please be assured that your responses will be completely anonymous and will be treated in confidence in accordance with the Market Research Society Code of Conduct. Your responses will not be used alone but reported only as part of the overall responses with no personal identifiers. The survey should take approximately 15 minutes to complete.

As a token of our appreciation, we are offering you £20 Amazon voucher to you or as a charity donation to Cancer Research.

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Questions