

The Future in Mind:
Aspirations and Forward-Looking
Behaviour in Rural Ethiopia



Department
for International
Development



From Biased Bureaucrats to Mindful Mandarins

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(based on joint work with Sheheryar Banuri and Varun Gauri)

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Findings and purpose

- Replication of well-known results on decision-making
- Purpose:
 - a chapter in WDR 2015
 - plus (for DFID) a starting point for conversation on behavioural science and the challenges it presents
 - Results don't mean that *organizations* are biased – but decision-making (e.g. use of evidence) is hard
- Attention on constraints for overcoming these, given bureaucrats' setting:
 - Human imperfection
 - Socio-political context – constructed identity, constructed norms and the presence of political narratives that need to be supported

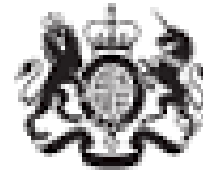
Our focus



WORLD BANK GROUP



Department
for International
Development



Civil Service

The World Bank





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Civil Service

CIVIL SERVICE
CODE



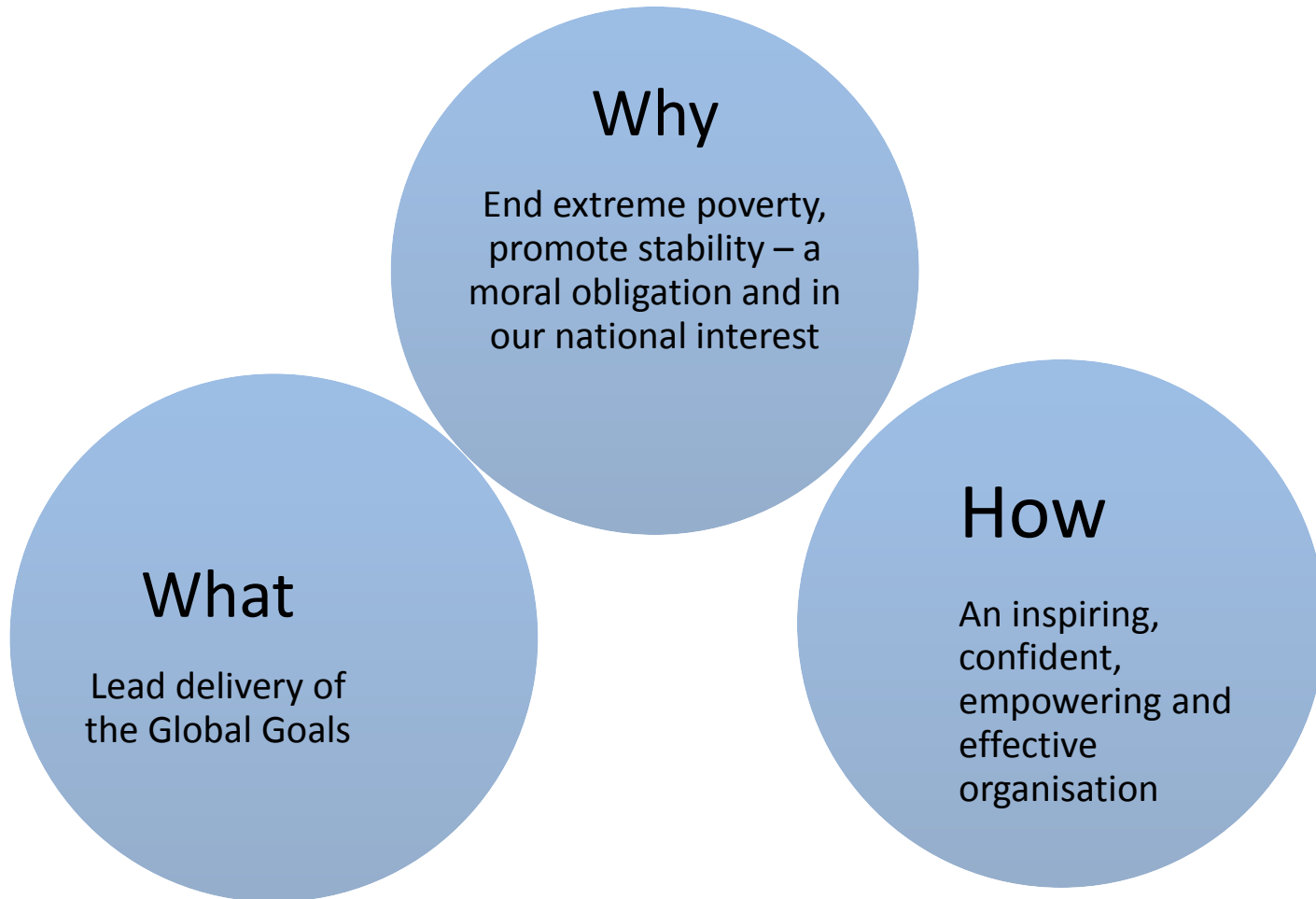
The Civil Service Code

- “As a civil servant, you ... are expected to carry out your role with dedication and a commitment to the Civil Service and its core values: integrity, honesty, objectivity and impartiality.”

The Civil Service Code (ctd.)

- The Civil Service ... supports the government of the day in developing and implementing **its** policies, and in delivering public services. **Civil servants are accountable to ministers, who in turn are accountable to Parliament.**
- But code also defines the civil service values as:
 - ‘**integrity**’ is putting the obligations of public service above your own personal interests
 - ‘**honesty**’ is being *truthful* and open
 - ‘**objectivity**’ is *basing your advice and decisions on rigorous analysis of the evidence*
 - ‘**impartiality**’ is *acting solely according to the merits of the case* and serving equally well governments of different political persuasions

Within an organizational narrative



Behind my talk:

- Decisions should be based on *rigorous analysis of the evidence and acting solely according to the merits of the case*
- Very tough for individuals
- Can organizational design overcome this?

1. Sources of ‘bias’ or ‘noise’ in bureaucratic mindsets

- The socio-political context (‘the authorizing environment’)
- The psychological context (‘human imperfection’)

2. How these contexts interact in individual and group decisions (more speculative)

BIASED SERVANTS

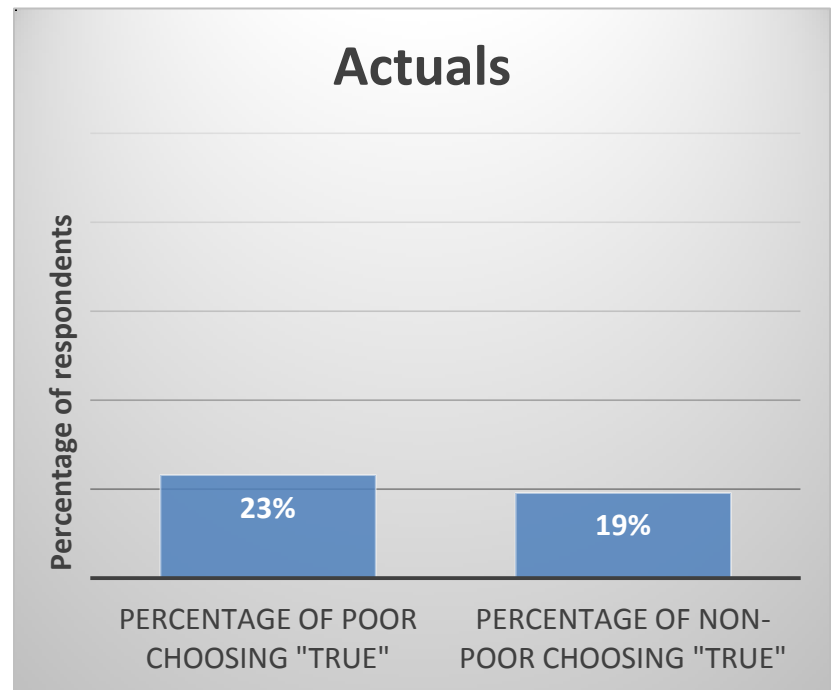
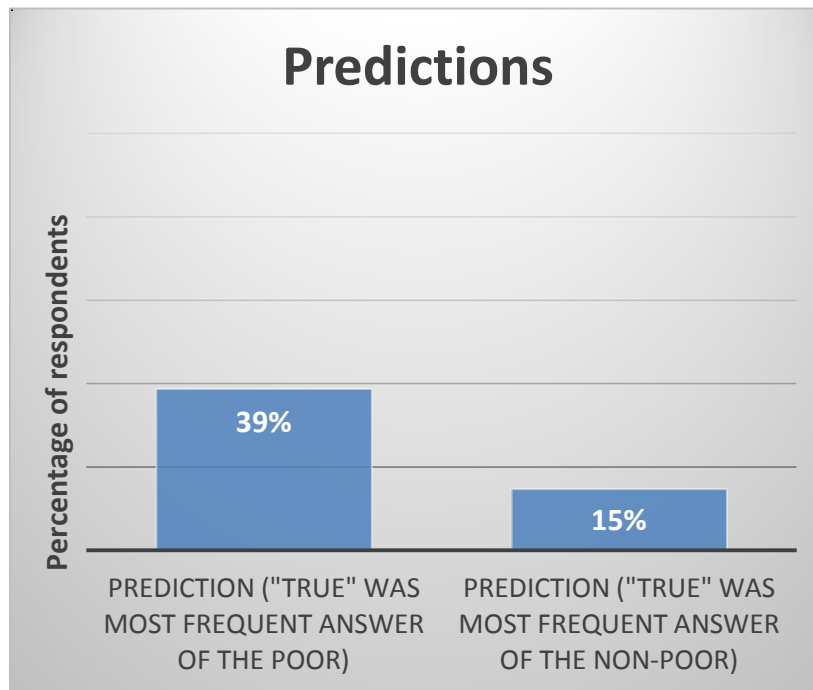
How did we do this

- Use surveys with built-in randomisation to get at patterns of attitudes and behaviour, including cognitive biases.
- Behavioural and Attitudes Survey (BAS), run in 2015, with a sample 1147 civil servants in DFID (73% response rate)
- Run in parallel with World Bank, who conducted same survey in November

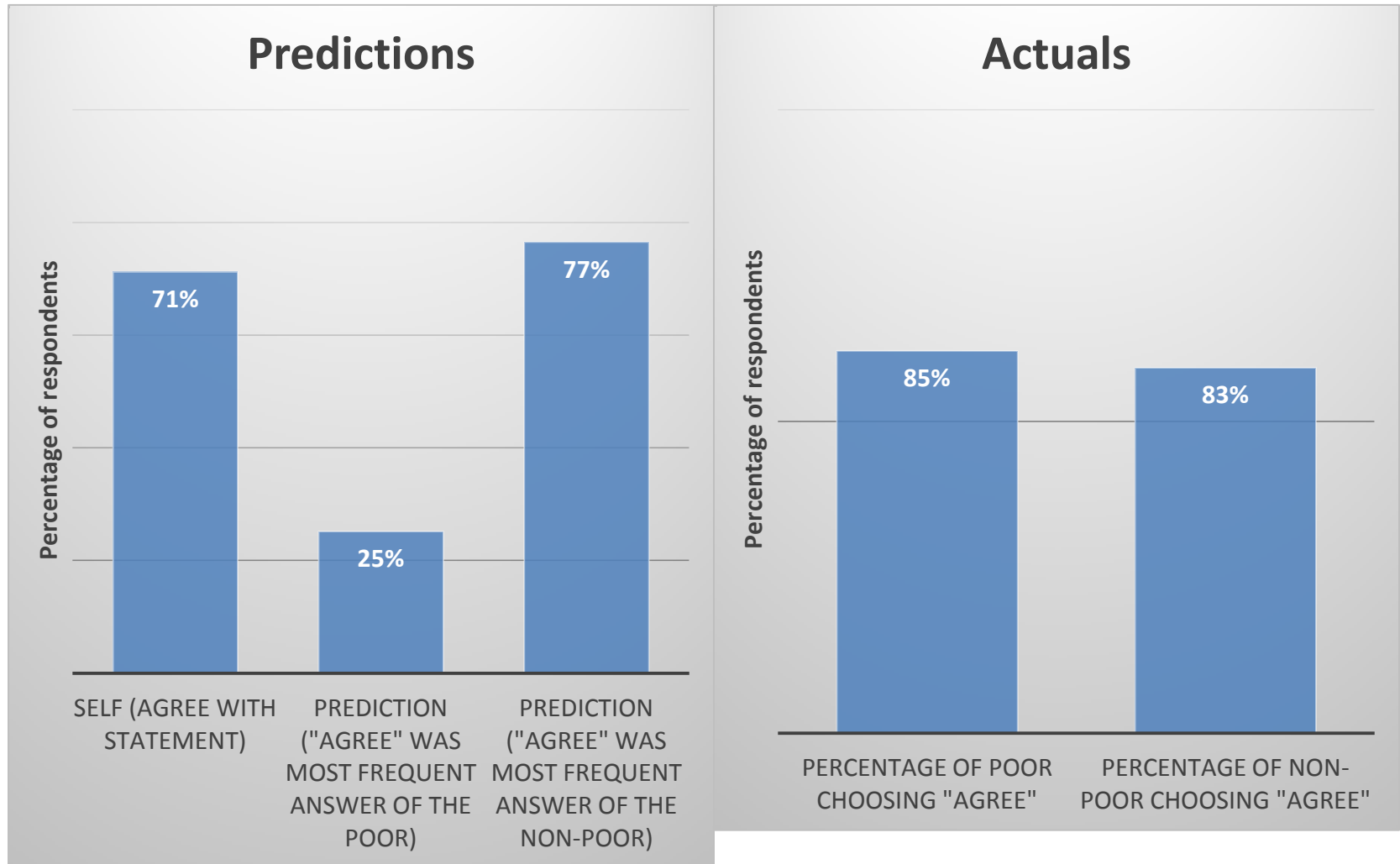
Survey implementation

- Survey response rates matter: regularly internally reports surveys with response rate of 40% or less...
- Testing of ‘messenger’ effects: prior survey
 - Randomisation of reminders:
 - One from staff member in charge of implementation of survey (1/3)
 - One from me – basic polite matter of fact (1/3)
 - One from me – same plus bribe (promise to enter into prize draw) (1/3)
 - We found that group C and A same response rate, B higher.
 - “hierarchy effect” but also ‘values’ matter
- repeated in BAS: randomisation of invitations and reminders
 - Permanent secretary: 73% response rate
 - Chief Economist: 69%
- Rest of survey: lots of randomisation, different (random) groups asked slightly different questions

"Vaccines are risky because they can cause sterilization"



Locus of control : "What happens to me in the future mostly depends on me"



Framing and loss aversion

Frame 1: Lives saved	Frame 2: Lives lost
A: 4000 people will be saved	C: 8000 people will die
B: 1/3 chance 12,000 people saved and 2/3 no-one will be saved	D: 1/3 chance no-one will die and 2/3 chance 12,000 will die

An epidemic threatens a population. Suppose your country is preparing for a new disease that is expected to infect 12,000 people.

Scientists have come up with treatment options. We have scientific evidence on the effectiveness of the treatments. What option would you advise to choose?

Framing and loss aversion

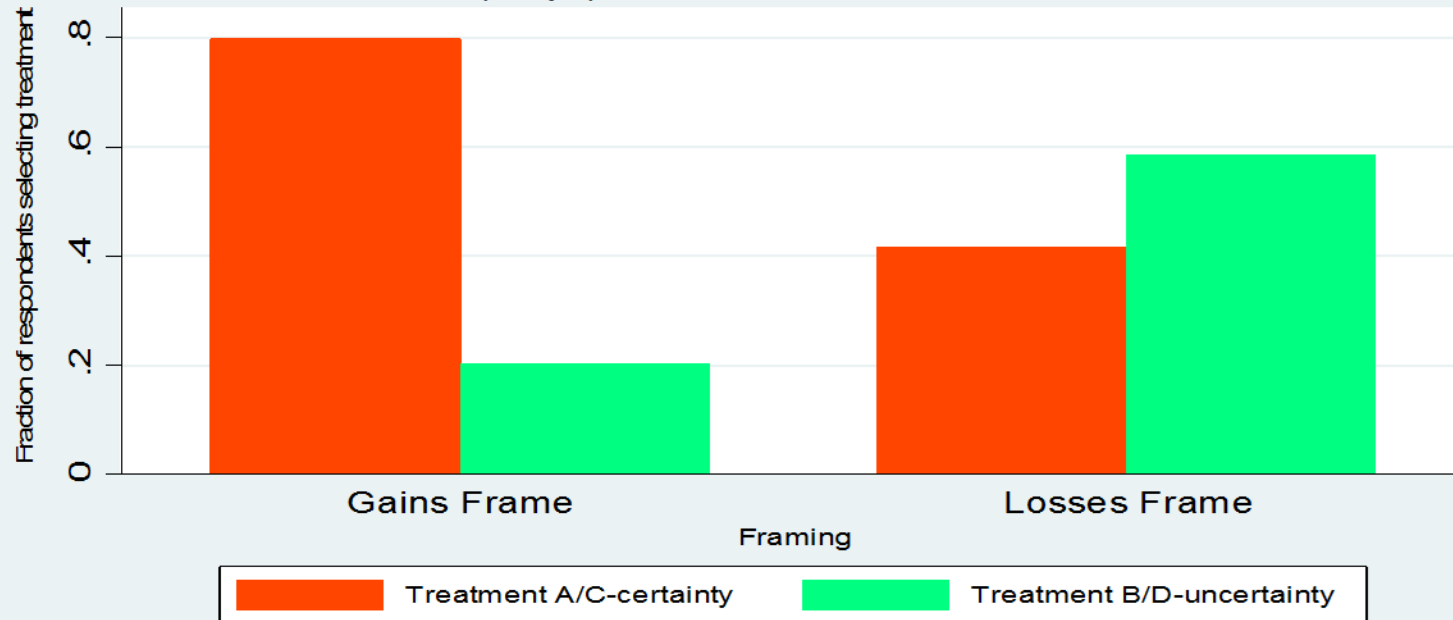
F
Liv

A: 40
will b

B: 1/3
12,00
save
and 2
will b

Figure 1: Development professionals are susceptible to 'framing effects'

How policy options are framed has an effect on behaviour

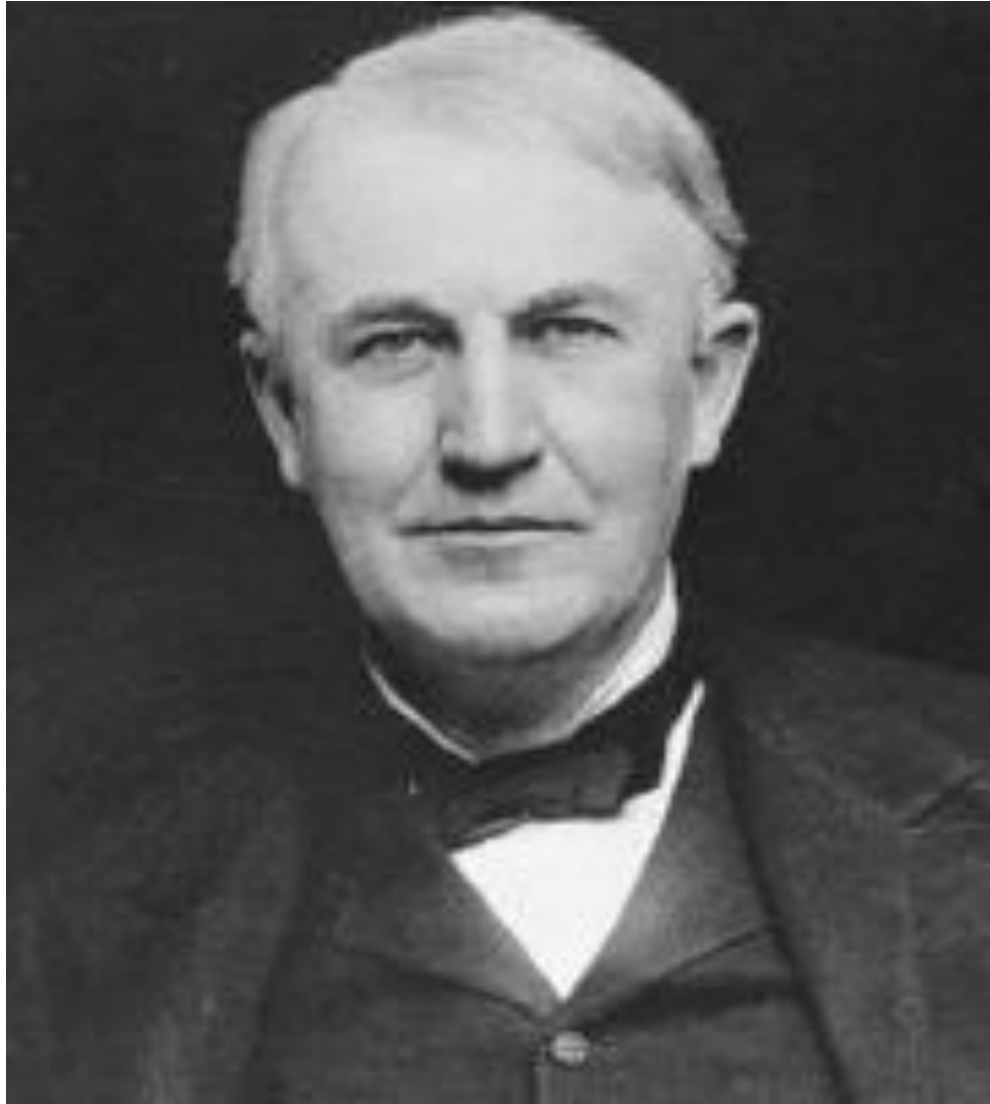


Source: DFID attitudes and behaviour survey

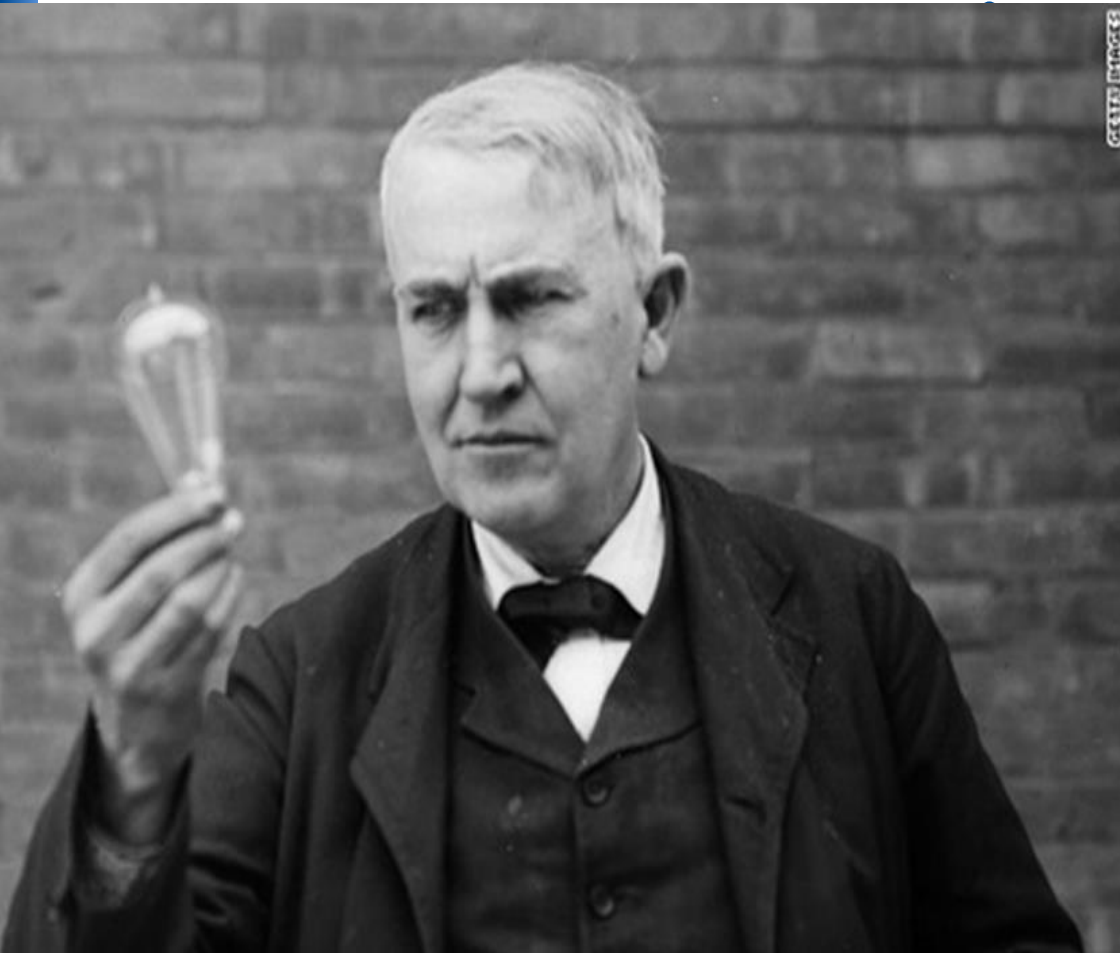
Note: See box 1 for details

LOYAL SERVANTS

An interesting man...



With an interesting interview technique...

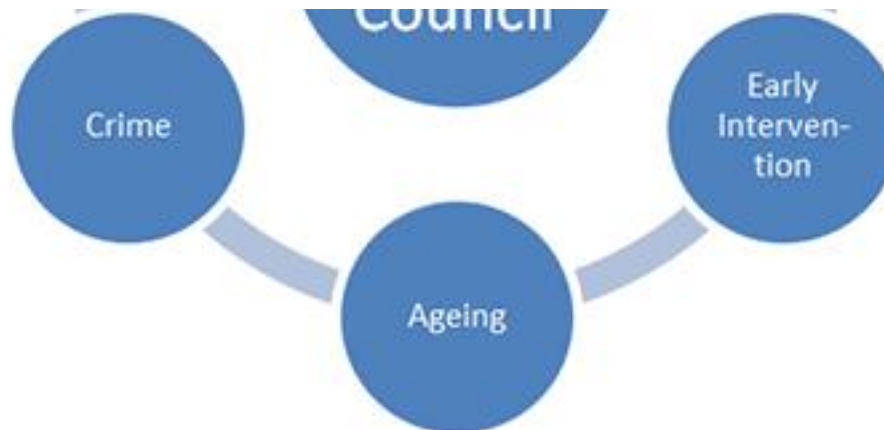


What Works Team

What Works Trial Advice Panel



Decisions should be based on *rigorous analysis of the evidence* and *acting solely according to the merits of the case*





The civil servant
as the servant of
the gut

The environment
the civil servant
works in



Bureaucrats are 'accountable' to ministers and parliament

- **Implementing** their 'narratives'. Their stories about how development will take place. Often in Party Manifesto.
- Examples:
 - It is right to spend much more of our resources in fragile states, on girls and women, on vaccines, ...
 - Or (WB): to fight poverty, best to spend directly on the poor, on smallholder agriculture, trust WB geographical footprint rules, etc.
 - (at the expense of other things)
- **Protecting** them and majority in parliament from 'harmful' stories (usually stories of 'failure')

THE RULING CLASS



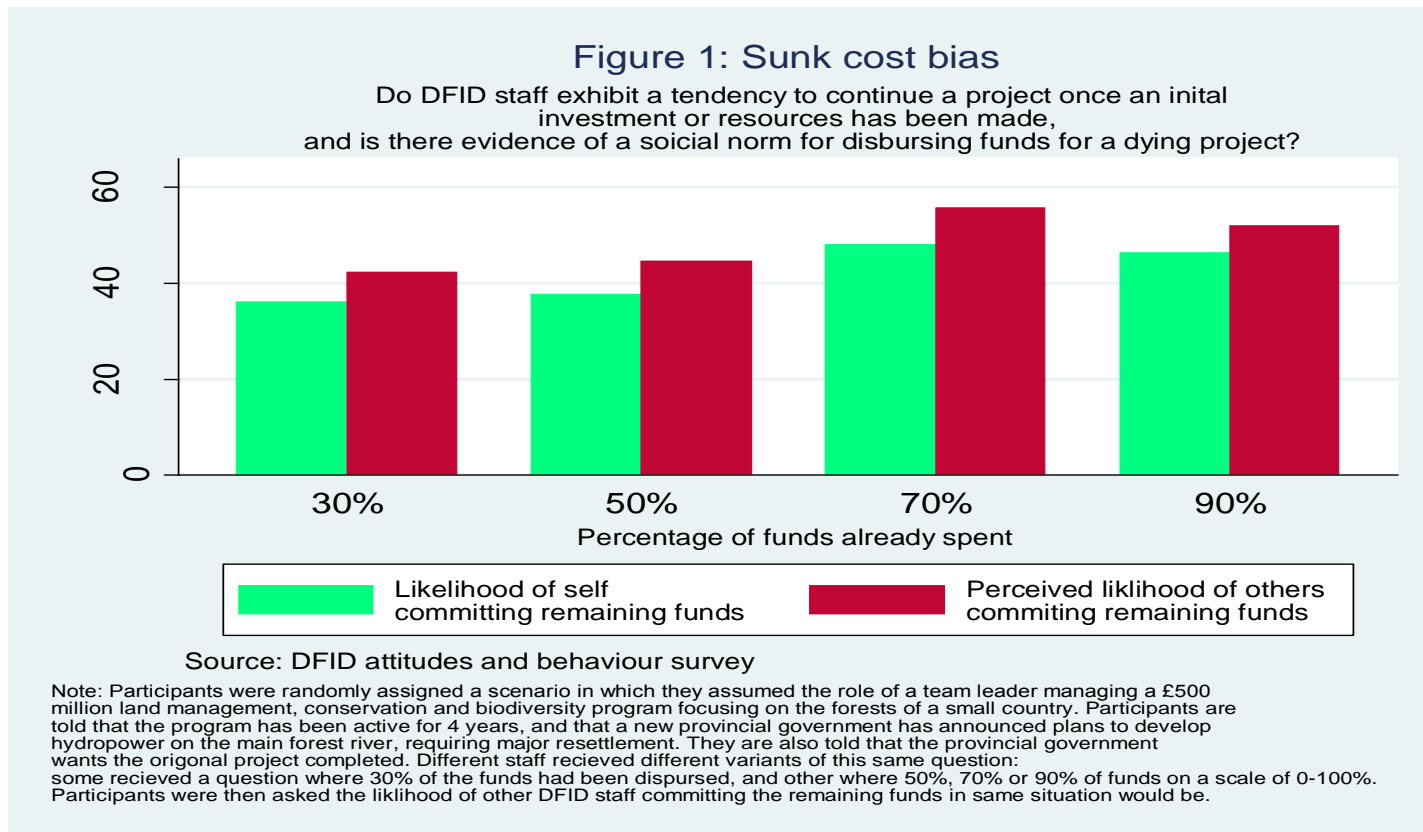


Not so Mindful Manderins?

Sunk cost fallacy

- A big environmental management project, a five-year, £500 million program.
- The program has been active for four years. A new government comes into office and essentially plans new big infrastructure in the region that will make rate of return to the project becomes more uncertain (may well go down).
- We offered scenarios (randomised). One group of staff in the BAS staff were told that only 30 percent (£150 million) of the funds had been spent, while another group of staff were told that 70 percent (£350 million) of the funds had been spent.
- Some in government still argues for completion – **how likely are you to advise it should be completed?**
- In this problem, there should be no difference in decision making on investing the remaining sum between those where a higher percentage had been spent already or not.

Sunk cost bias



But we find a relationship between sunk cost and decisions: the more already spent, the more willing to spend the remaining funds despite steep decline in returns. Note that we think our colleagues (in red) are more likely to spend the remaining money, compared to ourselves

Interpretation...

- we find a relationship between sunk cost and decisions: the more already spent, the more willing to spend the remaining funds.
- Note that they think their colleagues (in red) are more likely to spend the remaining money, compared to ourselves.
- ... often seems to happen in organizations:
- Difficult to understand sunk cost fallacy
- But also 'authorizing environment' encourages it, e.g. in infrastructure (reputational risk)

Confirmation Bias (based on Kahan et al)

Results from a careful trial,
pilot, impact evaluation...

- Randomly offered
different framing

Treatment 1: skin cream
and impact on skin

Treatment 2: minimum
wage and impact on
incomes of poor

	Number better	Number same
Programme	223	75
No programme	107	21

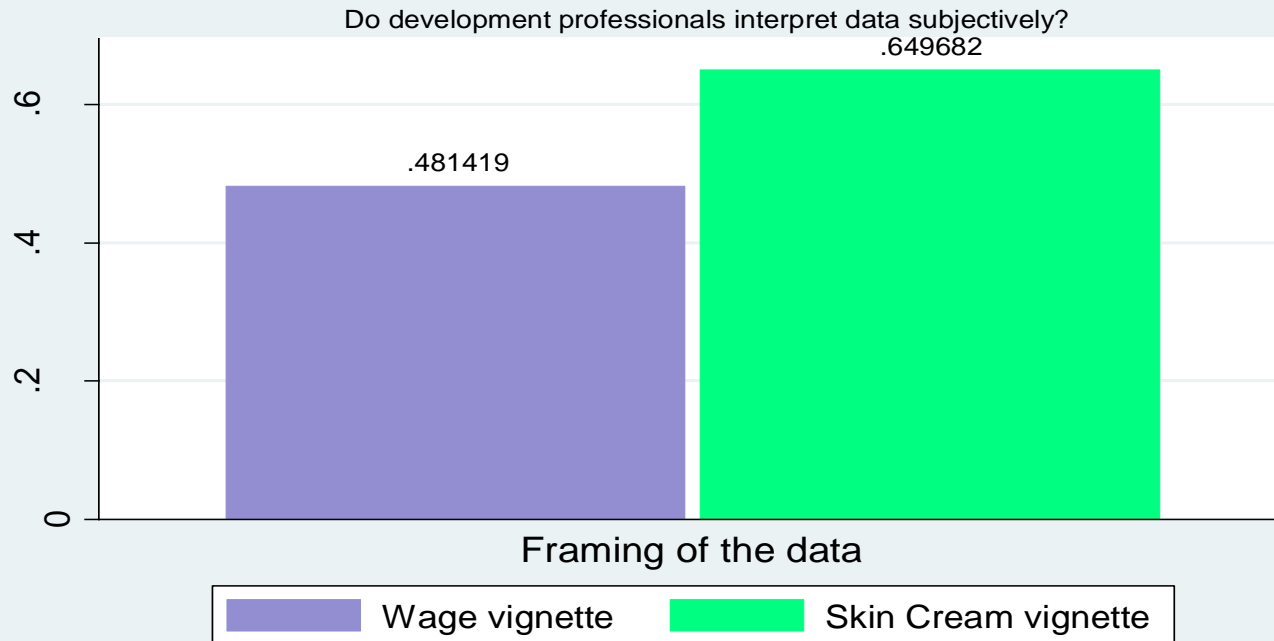
(and randomisation of all
labels of table and order
of numbers)

Confirmation Bias

Results from a careful trial,

- Randomised trial
- Different treatments
- Treatment and income
- Treatment wage income
- (and random labels of number

Figure 1: The effect of framing on data interpretation



Source: DFID attitudes and behaviour survey

Note: Participants were randomised into 4 groups, each of which received a different context, or 'frame'. Two groups received contexts on the effect of minimum wages on poverty, and two groups received contexts on the effectiveness of skin cream. All participants were presented with identical sets of data, and asked to interpret the data in the context they had received. Participants were given two statements to select from, one which was consistent with the data presented, and one which was not. Participants had to identify the statement consistent with the data they had seen.

number
same
75
21

Confirmation bias

- More 'errors' when framed in terms of minimum wage – both in WB and DFID
- Statements on income inequality and the role of the state are correlated with making more 'errors', in the direction of people's political views
- Evidence of confirmation bias: looking for or interpreting evidence in a way that suits one's priors.
- ... before filtering via political programmes, narratives etc.

Design to overcome or worsen?

- **Framing:**

- loss aversion example suggests the power of presentation of options – and dangers...
- Reframing options in various ways as part of decision making would be desired “looking at problems in variety of ways, not just one”
- Letting people take fresh look matters – we are stuck in frames

- **Sunk cost fallacy:**

- Organisational structures that don't punish 'unspent' or 'wasted' resources (so 'stopping programmes' is possible)
- But reputational risk is very hard to diversify – stopping early is also seen as failure (so delay the pain if at all)

Design to overcome or worsen?

- **Confirmation bias – against Civil Service Code**
 - Groups better than individuals
 - But groups with very similar people not – important to explore other views, either having diverse group, or use techniques like red teaming.
 - But incentives to do this in a highly politicised environment – despite civil service code?
- Other public organizations?
 - Map the constraints on decision making to understand the constraints on malleability of organizational mindsets (and the individuals within it)
- UK civil service is open to study....

Extra...

Risk attitudes

Choices	Low Payoff (£)	High Payoff (£)	Implied risk aversion r
Choice 1	30	30	$r > 3.70$
Choice 2	26	38	$1.24 < r \leq 3.70$
Choice 3	22	46	$0.75 < r \leq 1.24$
Choice 4	18	54	$0.53 < r \leq 0.75$
Choice 5	14	62	$0.40 < r \leq 0.53$
Choice 6	10	70	$r \leq 0.40$

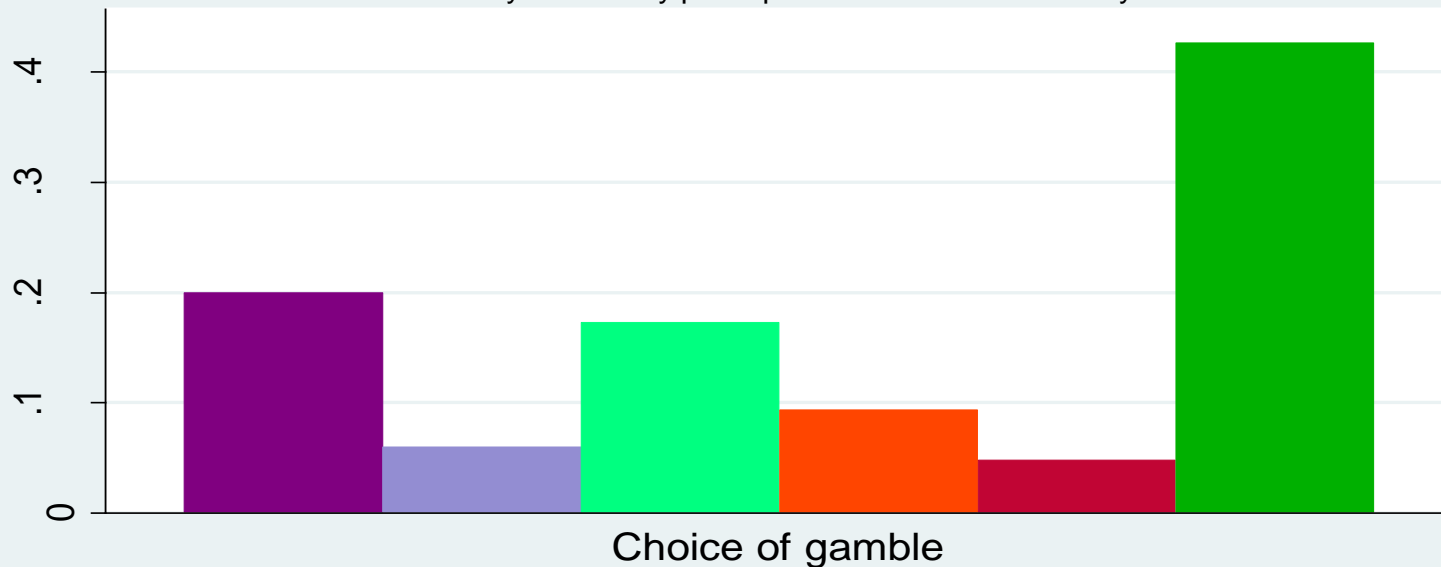
Box 1: Eliciting Risk Preferences: personal risk aversion

You are invited to play one of six games of chance. In each game a two sided coin is tossed. If it lands on heads, you receive the low payoff. If it lands on tails, you receive the high payoff. Which game would you play? You can only choose one.

Gambling with personal money

Figure 1: The risk aversion of DFID staff

Risky choices by participants with their own money



Source: DFID Behaviour and Attitudes Survey

Note: Choice as in box 1. Share of staff members picking particular choice.

Gambling with DFID money...

Box 2: Eliciting risk preferences at work

You are the Head of Office for a large country. You have a budget of £100m to spend on a vaccination programme and your team has presented you with five proposals on how to implement the programme. The expected number of beneficiaries reached is shown in the table below. The probability of the “things going wrong” scenario is 50% while probability of the “all goes well” scenario is also 50%. Therefore both scenarios have an equal chance of occurring. Which option would you recommend?

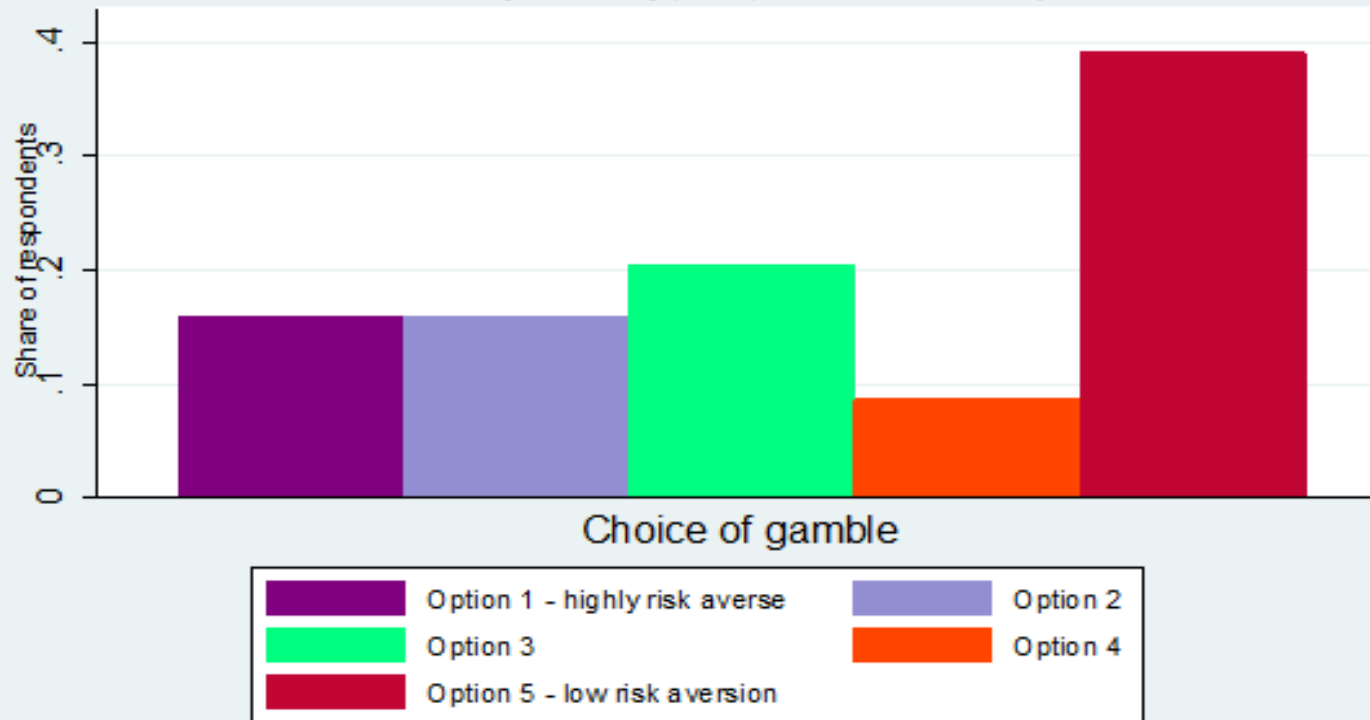
Expected number of beneficiaries by proposal and scenario (in millions)

Choices	Low Payoff (millions)	High Payoff (millions)
Option 1	26	38
Option 2	22	46
Option 3	18	54
Option 4	14	62
Option 5	10	70

Gambling with DFID money?

Figure 2: Risk Attitude of DFID staff in programme decisions

Risky choices by participants with DFID money



Source: DFID Behaviour and Attitudes Survey

Note: Choice as in box 1. Share of staff members picking particular choice.

On risk aversion

Findings:

- Staff are more risk-averse with DFID resources than with their own money
- SCS is more risk averse with DFID money than with their own money
- There is no correlation between risk aversion with DFID resources and personal characteristics like training and profession in civil service

So how to act?

1. More scientific humility and integrity
 - We can't all be right
 - We work in highly politicised environments trusting ideology and gut-feeling
2. Encourage rigorous synthesis work, rather than economics as a debating and point scoring science.
3. Empower economists across government across the world in navigating politics
 - Encourage them to use the power of economic thinking about incentives and trade-offs to understand their political masters too
4. Be aware that we are all flawed... but that we can do something about this too.

Create the Compelling Case....

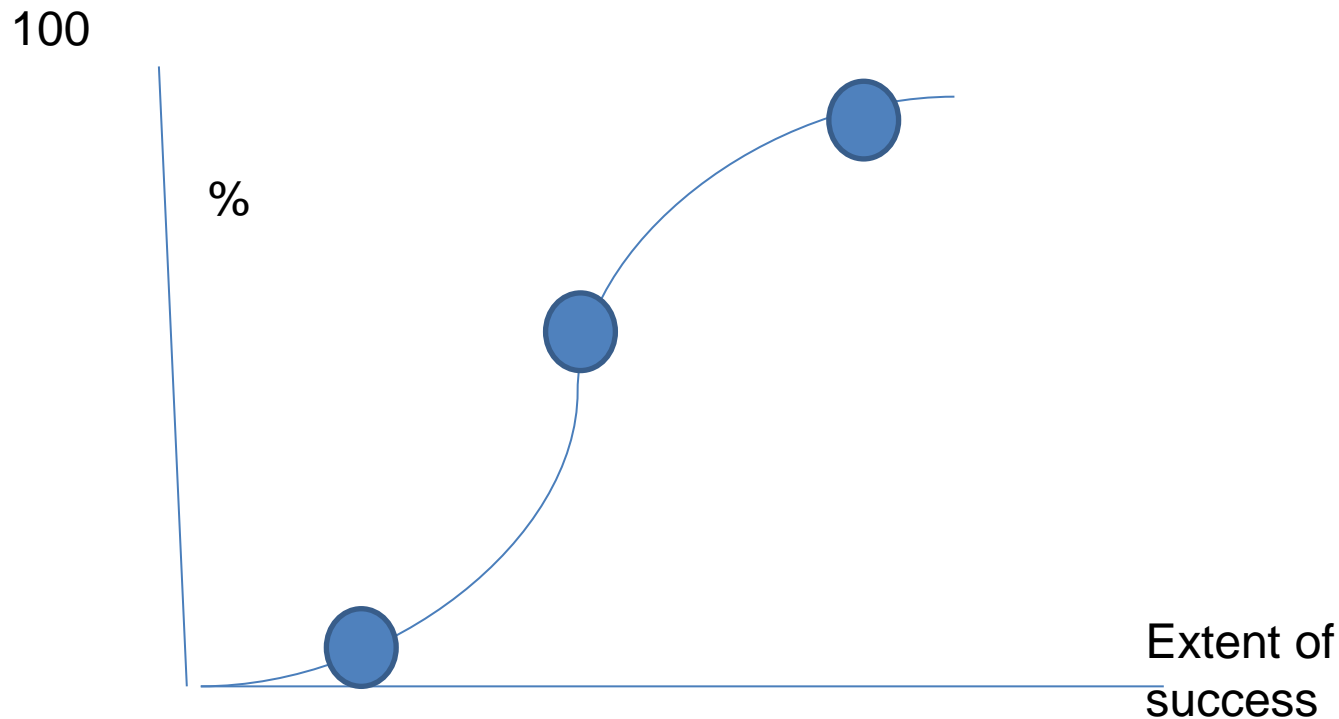
EVIDENCE

**POLICY-BASED
EVIDENCE MAKING**



The dangers of exemplification

Distribution of success and failure



Example

Cash [transfers] ... have a wider application, enabling women to meet basic household expenses and ultimately, to re-invest their savings.

I give you **the example** of Nihoza Angelique from Rwanda, a country my party knows well. She has less than a quarter of a hectare of farmland on which to support her family of three. However, thanks to development support, she has now been in employment for six months, earning 1,000 Rwandan francs per day (less than \$2), out of which she is saving some 400 francs (just under 70 cents) in her newly-opened savings account. With her first salary she bought school uniforms for her children.

(Andrew Mitchell, Secretary of State, Carnegie, Washington DC)

Example

“Idiosyncratic risks, which are specific to individuals or households, are no less important for people’s welfare [than covariate shocks....] Households in Ethiopia whose members experienced serious illness, **for example**, were forced to cut their consumption by almost 10 percent and continued to be negatively affected three to five years later.”

World Development Report, 2011, p.4.