Behavioural Economics

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What is Behavioural Economics

Behavioural economics (also referred to as experimental economics) is the use of experimental methods with monetary incentives to evaluate theoretical predictions of human behaviour. It uses controlled, scientifically-designed experiments to test human behaviour. Experimental economic research offers the advantage of an immediate observation of people's decisions. The incentivised research method leads to reliable prognoses of human behaviour.

How we can change Peoples' Behaviour

By conducting a series of experiments to measure participants' personal preferences, we can understand why and how people behave in situations/circumstances in their life. This then enables us to measure shifts towards desired behaviour when we change and design 'nudges' and use this information to shift people's behaviour. *An example:* How can we use nudges to persuade line managers to take it seriously? i.e. to do meaningful action planning, but also to be an engaging leader (talk to their people one to one, set challenging targets but don't bully etc.) and to give employees a voice, and ensure they understand the strategic narrative. That applies to individual line manager's but also, how do we persuade, through nudges, senior leaders to do more than pay lip service?

We are able to conduct a series of experiments to measure participants' personal preferences towards risk, trust, time, honesty, pro-social behaviour and equity. In addition, we can also investigate participants strategic behaviour including; coordination, fairness, cooperation, preferences, and beliefs when interacting with them. We can measure perceptions and misperceptions towards other groups and individuals, but also in-group preferences. We can measure perceptions and misperceptions towards other groups and individuals, but also in-group preferences. ***The behavioural toolbox allows us to tailor individual experiments to address questions, raised by companies, businesses and institutions.***

Focus

We are able to build tailored interventions to improve coordination, motivation, engagement and cooperation in organisations with employees from diverse backgrounds. As a Thought and Action Group, we can work with individual organisations or we can work into/across other TAGs The TAGs are part of the engage to success network development. Experiments (or simulations) can focus on key engagement issues. *For example*:

- How leadership styles improve engagement, cooperation and motivation?
- How employees can be more productive via nudges?
- What is the trust level towards employees and employers towards each other and towards the company and other companies/institutions, governments and how to increase trust?
- How much loyalty of customers and employees towards the company exist and how to increase loyalty?
- How to increase employees' happiness and how this translates to higher engagement and work motivation?

The experimental toolbox can be adjusted towards companies' and businesses' questions and strategies. The questions above can be seen as a starting point for future discussions.

Experimental Design (Primary Data)

We are able to measure almost all preferences using incentivised field and laboratory experiments. In addition to this new survey measures help us to calibrate our findings and correlate this with demographic, personality and a variety of other measures. We will address briefly, which experiments and measures we will conduct. Further experiments and measures are possible to collect given the requirements of the project:

- **Risk and Loss Preferences**
- **Time preference**
- **Equality Preferences**
- **Fairness Preferences**
- **Trust in the workplace**
- **Reciprocity in the workplace**
- **Beliefs about others (managers, team members, colleagues)**
- **Cooperation**
- **Escalation and de-escalation**
- **Coordination abilities**
- **Teambuilding and Team collaboration**
- **Honesty**
- **Engagement**
- **Work Motivation**
- **Personality treats:** cognitive abilities, openness, conscientiousness, agreeableness, extraversion, neuroticism, risk, ambiguity, loss-aversion, inequality aversion, narcissism, overconfidence, responsibility, motivation, work motivation, happiness, happiness at work…

A Possible Plan of Action

We are able to measure all the above mentioned (Experimental Design) and will build tailored interventions to improve coordination, motivation, engagement and cooperation in organisations with employees from diverse backgrounds. Possible research questions:

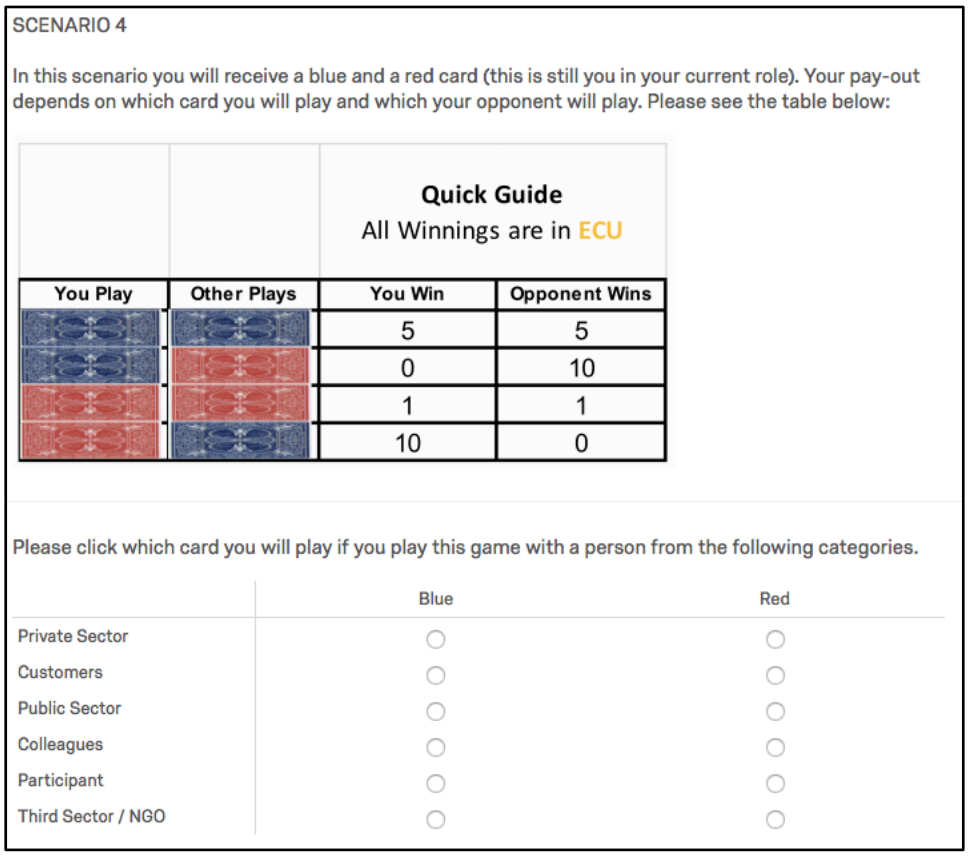
1. Do participants' economic preferences change depending on their job role and status towards participants of other roles, institutions, companies?
   a. Which members are more trusted and does this affect equality of reward?
   b. Which participants are perceived to be safe, trustworthy, have a strong work ethic, and what is the risk associated with returns on investments?
   c. Are participants from different hierarchy levels more likely to cooperate in team projects and in public goods provision?
   d. How leadership styles improve engagement, cooperation and motivation.
2. Does environmental setting and method of experimental interaction affect participants' economic preferences, and if so by how much?
3. Do participants' economic and non-economic preferences change over time, and if so by how much?
   a. What effect do shocks and incidents have on these preferences?
4. To what extent is the behaviour towards participants from other nations based on stereotypes or economic and/or sociological factors (GDP, salary, unemployment rate, geographic distance, culture, religion)?

How do we measure?

All data will be treated anonymously. We will provide ID numbers to match our collected data, but the data cannot be traced back to an individual. This increases the honesty of the decisions. We are able to measure participants' behaviour via web based and secure mobile applications. This means, we will give or send participants a link, which can be opened on a computer, tablet or mobile phone. Clicking on the link leads to the online platform and starts the scenarios and surveys. In addition to this, we can invite participants to our laboratories and ask for their decisions in a very controlled environment.

Example of Scenarios

Example 1: Measure of cooperation:



SCENARIO 4

In this scenario you will receive a blue and a red card (this is still you in your current role). Your pay-out depends on which card you will play and which your opponent will play. Please see the table below:

Quick Guide
All Winnings are in ECU

You Play	Other Plays	You Win	Opponent Wins
		5	5
		0	10
		1	1
		10	0

Please click which card you will play if you play this game with a person from the following categories.

	Blue	Red
Private Sector	○	○
Customers	○	○
Public Sector	○	○
Colleagues	○	○
Participant	○	○
Third Sector / NGO	○	○

Figure 1: Example of a cooperation game, used in our online platform.

Reasoning: In this scenario we measure cooperation. Theory, assuming everybody is rational, dictates that selfish players will always play the red card. This is based on two reasons:

1. if the red card is played in the mix, then the combined participants' payoff is higher (1+10) than if the blue card is played in the mix (0+5).
2. if the blue card is played by the participant, then the opponent can gain 10, while the participant receives 0.

If both players can trust each other, then they should play the blue card to gain each 5, which is the best outcome for both. To play the blue card, participants have to trust the opponent.

Example 2: Measure of Trust towards others:

SCENARIO 1
Here you are in the role of the SENDER (You in your current work role)

In this game you get given **10 ECU (Experimental Currency Units)**, you decide how much of this to send to the receiver (a person out of the categories below) which will be tripled by us (the program leaders).
- Of this tripled amount the receiver can send you back an amount if they wish
- e.g. you send **4 ECU**, it gets tripled by us to **12 ECU,** the receiver can then send back up to 12 ECU if they wish.

How much will you send to a person in the categories below?

	0	1	2	3	4	5	6	7	8	9	10
Private Sector	○	○	○	○	○	○	○	○	○	○	○
Customers	○	○	○	○	○	○	○	○	○	○	○
Public Sector	○	○	○	○	○	○	○	○	○	○	○
Colleagues	○	○	○	○	○	○	○	○	○	○	○
Participant	○	○	○	○	○	○	○	○	○	○	○
Third Sector / NGO	○	○	○	○	○	○	○	○	○	○	○

Figure 2: Example of a trust game, used in our online platform.

Reasoning: In this scenario we only see the sender's decision. The more the sender trusts the 'other player (opponent)' the more she will send, since she expects a higher return, based on her decision. If she sends more, she anticipates the opponent to be happy with this higher amount and therefore anticipates that the opponent will send back also higher amounts. The less she trusts the opponent, the less she will send and the less she expects. We also measure the expected amount from the opponents and changes over time.

Example 3: Measure of Fairness and Equality towards others:

SCENARIO 3

You are the Sender

You will receive an initial amount of **10 ECU** and you decide how much of this to send to a receiver. The receiver can only accept the amount you will send. The amount you will send will be the pay-out for the receiver. The amount you will keep will be your pay-out. Remember that the receiver is completely passive.

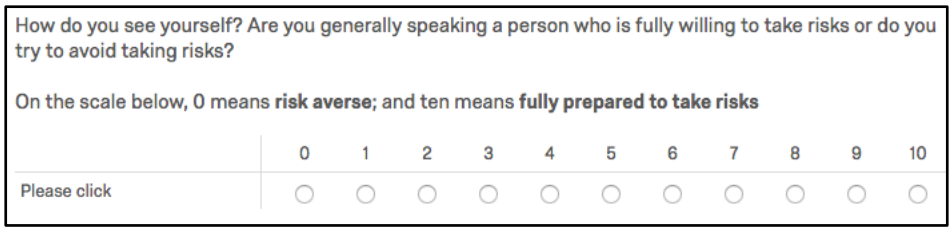
How much will you send to a person in the categories below?

	0	1	2	3	4	5	6	7	8	9	10
Private Sector	○	○	○	○	○	○	○	○	○	○	○
Customers	○	○	○	○	○	○	○	○	○	○	○
Public Sector	○	○	○	○	○	○	○	○	○	○	○
Colleagues	○	○	○	○	○	○	○	○	○	○	○
Participant	○	○	○	○	○	○	○	○	○	○	○
Third Sector / NGO	○	○	○	○	○	○	○	○	○	○	○

Figure 3: Example of an equality game, used in our online platform.

Reasoning: In this scenario the participant has all power. She can send an amount to other players, but does not have to. Usually participants send different amounts to different groups. Their decisions to send are based on equality and fairness considerations.

Example 4: Survey Question about risk:



How do you see yourself? Are you generally speaking a person who is fully willing to take risks or do you try to avoid taking risks?

On the scale below, 0 means **risk averse**; and ten means **fully prepared to take risks**

	0	1	2	3	4	5	6	7	8	9	10
Please click	○	○	○	○	○	○	○	○	○	○	○

Figure 4: Example of an equality game, used in our online platform.

<u>How do these games look like?</u>

If you like to play some of these games/scenarios, then please either: copy the link below in your browser.

https://nbsntu.eu.qualtrics.com/jfe/form/SV_1z6MM2yCS8ohPPD

Or use your mobile phone. If you use your mobile phone, please open the camera app and scan this code.