Policy Evaluation

3. Behavioural Economics

Using survey experiments for "Revealing the Invisible"

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What is a model?

A model is a simplified representation of the world

Most models are based on assumptions that are known to be only approximately true (and exactly false)

E.g., consider the most commonly used models of the earth: flat, spherical, ellipsoid, point mass. These models do not account for the bumps and grooves

A perfect replica of the earth would reproduce every contour, but such a representation would be impractical for most purposes

Think about metro maps

Properties of a good model (Gabaix and Laibson, 2008)

(1) Parsimony: is it simple?

(2) Tractability: is it easy to work with?

(3) Conceptual insightfulness: does it illuminate some important idea?

(4) Generalizability: can it be applied to many different settings?

(5) Falsifability: does it make predictions?

(6) Empirical consistency: is it consistent with known facts?

(7) Predictive precision: does it make sharp predictions?

Assumption of standard economics models

• What is 'Homo Economicus' like?

• Some typical assumptions of the standard model (Rabin, 2002):
– Well-defned and stable preferences
– Bayesian information processor (process information optimally)
– Maximize expected utility
– Apply exponential discounting weighting current and future well-being
– Self-interested (narrowly defined)
– Have preferences over final outcomes, not changes
– No "taste" for beliefs or information

The world is full of cognitive biases

In fact, (almost) no economist would argue that the assumptions of the standard model are exactly correct

The world is full of cognitive biases: `https://upload.wikimedia.org/wikipedia/commons/1/18/Cognitive_Bias_Codex_-_180%2B_biases%2C_designed_by_John_Manoogian_III_%28jm3%29.jpg`

List of the most relevant biases in behavioural economics: `https://thedecisionlab.com/biases`

An exhaustive analysis would require a full course on behavioural economics

A good behavioural economist is a good economist

- Key principle of 'mainstream' economics continue to apply
  - Decision-makers are highly sophisticated
  - Markets and incentives play a key role in shaping behaviour
  - Markets allocate resources well most of the time

- Key methodological principles still apply
  - Use observational and experimental data
  - Mathematical models useful for representing knowledge
  - Models should 'nest' the special case of perfect rationality

We will (briefly!) analyse some important behavioural econ concepts, but many others are important such as (in)attention, how we form beliefs, nudges, the importance of default options: we will get back to this in a few classes

Time preferences

Most non-trivial economic choices involve trade-offs between costs and benefits that occur at different points in time

(1) Short-run impatience vs. long-run patience
– "The Marshmallow Test" https://www.ignitermedia.com/products/7227-the-marshmallow-test?utm_source=youtube&utm_medium=description&utm_campaign=the-marshmallow-test and many incentivized experiments
– People are in fact quite patient in the long-run: save for retirement, study, ...

(2) Preference reversals (dynamic inconsistency)
– Read and van Leeuwen (1998): If you were deciding today, would you choose fruit or chocolate for next week? vs. If you

were deciding today, would you choose fruit or chocolate for today?

(3) Demand for commitment (are you naive or sophisticated?)
– As old as Ulysses and the Sirens
– Some people use self-control devices in their computers, mobile phones,...
– incentives for sobriety among Indian cycle-rickshaw drivers (Schilbach, 2019 AER)
– incentives to use fertilizer in Kenya by varying the timing of purchase decision (Dufo, Kremer, and Robinson, 2011)
– Pay for gym as monthly fee or pay per visit (DellaVigna and Malmendier 2006)

Risk preferences

Stylized fact 1: People are risk-averse in many contexts (e.g., buy insurance, social security,..)

Stylized fact 2: Risk reduction has its price, but people are willing to take on risks if the return is high enough

How do we measure this? Choices from gambles, insurance choices

Kahneman and Tversky (1979) Prospect Theory:
– large fraction of people appears to be simultaneously risk-averse (for gains) and risk-loving (for losses)
– changes rather than levels

Reference-dependent/ endowment effects: Kahneman et al. (1990); Camerer et al. (1997) on the labor supply of NY taxi drivers (hours are negatively related to wages)

Social preferences

Degree of how individuals care about others
Recall that most economic analysis assumes self-interest narrowly defined; caring only about one's own outcomes

It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard for their own interest. We address ourselves not to their humanity, but to their self-love, and never talk to them of our necessities, but of their advantage.
– Adam Smith (1776)

Some games to study if this is always true:

The Ultimatum Game

Two players, who typically remain anonymous: (1) The "proposer" (or sender): given divisible pie (usually money), offers a portion x of the pie to the "responder"

(2) The "responder" (or receiver): knows both the offer and the total amount of the pie and accepts or rejects the offer

Payoff if rejected, neither player receives anything

Prediction equilibrium offer: smallest possible positive amount

Typical results:
(1) Most offers are between 40% and 50% of the pie
(2) Such offers are mostly accepted (acceptance rate is increasing in the offer)
(2) Offers below 20% are mostly rejected

The Dictator Game

"Dictator" makes an allocational decision that affects herself and other subject(s), the "recipient(s)

And that's it!

Can be thought of as measuring 'raw' concern for others

Prediction equilibrium offer: offer zero

But people look fairly generous, even when game is (largely) private (of course, many papers testing many differences and contexts)

Can policies increase pro-sociality?

Allport (1954): Inter-personal contact reduces prejudice (under certain conditions)

Lowe (2019)
• Do cricket leagues in India increase cross-caste interaction and pro-sociality?
• Does the type of contact matter? Collaborative vs. adversarial interactions

Corno et al. (2018)
• Impact of random inter-racial interaction among college roommates on stereotypes, attitudes, and performance
• Living with a roommate of a different race reduces white students' stereotypes towards black students and increases inter-racial friendships
• Improved grades and lower dropout rates among black students

Social Economics Surveys and Experiments as a Key Research Tool

Large scale surveys that go in depth into people's minds and "listen to them."

Surveys have been used for a long time for statistics. Some variables are now better measured in high-quality admin data (like income, family situation, employment, etc.)

Yet, some things are invisible in data other than surveys (even great data!): perceptions, attitudes, knowledge, and views

In principle, one could specify complete structural model of these "invisible" factors, but requires many assumptions

You are creating the process that generates the data. You can create your own identifying variation

For the results to be reliable, it is critical that these surveys are well-designed, and deployed on appropriate samples

Stantcheva discusses how to recruit the sample, manage respondents' attention, and write these questions to mitigate biases in https://www.annualreviews.org/content/journals/10.1146/annurev-economics-091622-010157

Migration and redistribution

Alesina, Miano, and Stantcheva (2022 REStud)

Descriptive
How do people (mis)perceive immigration?
• Are perceptions of immigration, about the number, origin, religion, unemployment, education, poverty, correct amongst natives of the host countries?
• What are natives' views on immigration policies?
• Heterogeneity by political affiliation, work in high immigrant sector, income, education level...

Causal
What is the link between immigration and redistribution?
• Are perceptions of immigration and views about redistribution correlated?
• And do perceptions of immigrants "cause" preferences for redistribution?

Migration and redistribution

Large-scale surveys in 6 countries: France, Germany, Italy, Sweden, UK, and US, total of 22,500 respondents
Done through commercial survey companies in Nov 2017-Feb 2019.

Survey components:
Background info, perception of immigrants (number, origin, religion, hard work, economic conditions, support), policy preferences (redistribution + immigration)

Randomized treatments:
- Priming: "Order" treatment asks about immigration before redistributive policies
- Information (Facts) on 1) number, 2) origins of immigrants
- Anecdote on "hard-working" immigrant

Main Findings: Perceptions of Immigration Substantially and Systematically Wrong

Across countries and respondent characteristics:
- Stark overestimation of the number of immigrants
- Stark overestimation of share of Muslim
- Underestimation of immigrants education, employment, contribution to welfare state

People wrong about natives as well, but more so about immigrants

Larger misperceptions for respondents who are: i) in immigrant intensive, low-skill jobs, ii) without college, iii) female, and iv) right-wing

Perceived composition (not the number) of immigrants that differentiate natives' responses
- Left and right-wing equally misperceive % of immigrants, but right-wing believe immigrants have different characteristics

Main Findings: Effects of Priming

The group answering policy questions first has not been prompted to think about immigration at all. The other group has thought about immigration before answering policy questions

Finding: Just making people think about immigrants, before asking them questions on policies for redistribution ("order treatment"), makes them less likely to support redistribution

Paper available in `https://socialeconomicslab.org/research/publications/immigration-and-redistribution/`

Main Findings: Hard Facts vs. Narratives

Showing factual information on the share of immigrants and their origins has no effect, does not shift people's views on redistribution

Telling people a story about a "day in the life of a very hard-working immigrant" has positive impacts on support for redistribution. Why?
Because it counters the "free-rider" narrative which matters a lot for people's views

"Hard facts" do not work that well on the issue of immigration, "narratives" have a strong hold