Studying Deliberated Judgments

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Context and goal of this poster

Context

- Deliberation facing a decision problem
- Considering an individual i

Goal

- Introduce the notion of Deliberated Judgment
- Motivate studying it
- Sketch how

Deliberated judgment: a missing conception of "preference"

- Descriptive approach
  - Observe people's epistemic position / choice without interference
- Normative approach
  - How you ought to reason / choose
  - Can't be validated through observation of individuals
- *Deliberated* judgment (or preference)
  - i's position after having considered all arguments

Predicting deliberation issue

- Choose between L1 and L2 (Kahneman and Tversky, The Psychology of Preferences, Scientific American, January 1982, 246, 160-73.)

L1 — 200 € —(100%)— 50 € VS L2 — 200 € —(75%)— 0 €, —(25%)— 200 €

- Choose between L3 and L4

L3 — 400 € —(100%)— −150 € VS L4 — 400 € —(25%)— −0 €, —(75%)— −200 €

Disc

- First observation (Bernouilli): don't be content with maximizing (untransformed) expected revenue!
- Second observation: i could be intuitively attracted by L1 $\succ$ L2 and L3 $\succ$ L4 (Allais's problem)
- Including Savage
- And might change her mind when given a reasoning pro expected utility
- "There is, of course, an important sense in which preferences, being entirely subjective, cannot be in error"
- . . . "but in a different, more subtle sense they can be." (Savage, *The Foundations of Statistics*)

$\Rightarrow$ Systematic decision principles might help deliberate

Study deliberated judgment

The proposed research program aims at the following.

1. Define Deliberated Judgment (DJ) of i formally
   - Given a set of arguments

   $\Rightarrow$ The position that is stable facing counter-arguments
2. Define the concept of a model of i's DJ

   $\Rightarrow$ A model articulates claims concerning i's DJ and argues for its claim
3. Define validity of a model

   $\Rightarrow$ Correctly captures i's DJ
4. Study conditions for falsifying models using observable data only

   $\Rightarrow$ Let models debate, use i as a judge

We obtain a theorem of the following form.
If the decision situation $(T, S, \rightsquigarrow, \rhd_\exists, \not\rhd_\exists)$ *satisfies conditions 1 to 4: an operationally valid model exists; and any operationally valid model is valid.*

Example of a situation and a model of it

Notation	Here	Description
T	$\{t\}$	The topic, containing propositions about which $i$deliberates
S	$\{s, s_1, s_2, s_3\}$	The arguments
$\rightsquigarrow \subseteq S \times T$	$\{(s,t), (s_1,t)\}$	Support as considered by i
$\rhd_\exists \subseteq S \times S$	$\{(s_2, s_1)\}$	$s_2 \rhd_\exists s_1$ iff i sometimes considers that s_2 trumps s_1
$\rhd_\eta \subseteq S \times S$	$\{(s_3, s_2)\}$	Trump situations as considered by the model η

weather f. predicts so (s_1) $\rightsquigarrow$ rain tomorrow (t) $\rightsquigarrow$ complex arg. (s)

$\uparrow \rhd_\exists, \not\rhd_\exists$

weather forecast is often wrong (s_2)

$\uparrow \rhd_\exists, \rhd_\eta$

weather forecast is more often right (s_3)

Application: test axioms of decision theory

- Axioms considered appropriate normatively?
  - But some (Allais, Ellsberg) disagree
- Proposal: build models resting on those axioms
- Test models: their convincing power will give us indications about the reasonableness of the axioms for "normal" people (meaning, not scientists studying decision theory)

Application: test conceptions of justice

- Philosophers have proposed sophisticated conceptions of justice (Rawls, Nozick, . . .)
- Individual's shallow intuitions about justice are observed and used to confront Rawls or others (Experimental Social Choice)
- Proposal: study reactions of individuals to arguments of philosophers rather than just shallow intuitions
- Move towards Reflective equilibrium (Goodman, Rawls)

Olivier Cailloux and Yves Meinard. *A formal framework for deliberated judgment.* To appear in Theory and Decision.
`https://github.com/oliviercailloux/formal-framework-dj`.