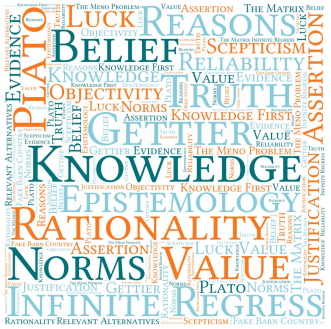

Knowledge, Individuals & Society

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Rational belief
& practical interests: Pascal I

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Two questions

- We have focused so far on *epistemic* justification for beliefs (e.g. a belief's being supported by some evidence)
- I also flagged out the possibility of *pragmatic* justification
- Is this indeed a genuine possibility?
- Two questions:
  (1) Is it rationally (and morally) *permissible* to hold beliefs that our evidence doesn't support?
  (Call 'Permissivism' the view that the answer is 'yes')
  (2) If so, might further (e.g. practical) considerations sometimes even *obligate* us to do so?

Practical reasons for belief

Three classic texts

- Up next, 3 famous texts that address these questions:
  - An excerpt from Pascal's *Pensées* (1688)
  - Clifford's 'The Ethics of Belief' (1879)
  - James' 'The Will to Believe' (1896)
- The second author rejects Permissivism; the other two endorse it
- Note that all 3 authors arguably agree on two things:
  - Evidence supports a belief just in case it guarantees that it is true (Infallibilism)
  - Though it's sometimes permissible to believe P when our evidence doesn't support P, it *isn't* permissible to do so when it supports $\neg P$
- Upshot: If it is at all permissible to believe P, then our evidence must not entail that $\Pr(\neg P) = 1$ (equiv.: $\Pr(P) = 0$)

Pascal

Introducing the Wager

- Pascal offers a purely practical justification to believe in cases in which '[r]eason can decide nothing' (here: whether or not to believe in God)
- Aware that one's beliefs are arguably not under one's direct control (doxastic involuntarism), Pascal notes that the argument would also provide justification for *taking steps to end up believing*
- He urges:

  > 'Learn of those who…know the way which you would follow, and who are cured of an ill of which you would be cured. Follow the way by which they began; by acting as if they believed, taking the holy water, having masses said, …'

- Pascal's 'wagering for' = 'believing in' / 'taking steps to believe in'

Introducing the Wager

- Pascal is not the first to offer this general kind of pragmatic argument (antecedents: Plato, Arnobius,…).
- His novelty:

  > use of the apparatus of decision theory, a framework for choosing between acts in circumstances in which the evidence can fail to determine all relevant facts

- Note: The original is hard to follow. I'll run with the standard reading (Hacking 1972), which finds 2 main argument variants

Decision theory

- A decision problem consists in:
  - a set of acts,
  - a set of states of nature (standardly chosen so as to be independent of the acts),
  - a set of values assigned to act/state pairs
- These are standardly presented in a decision table, e.g.:

	It rains (R)	It doesn't rain ($\neg R$)
Book city tour (C)	2	4
Book nature spot trip (N)	0	8

Risk vs uncertainty

- A standard distinction
  (1) decisions under risk: the probabilities of the states are known
  (e.g. playing with fair dice, visiting a destination for which we have meteorological data)
  (2) decisions under uncertainty: the probabilities of the states are not known
  (e.g. playing with dice with an unknown bias, visiting a destination for which we have no meteo. data)
- In the case of *risk*, the standard line is to chose one of the acts with the highest expected value

Risk vs uncertainty (ctd)

- In the case of *uncertainty*, things are much less clear. Two popular treatments:
  - Indifference: Treat uncertainty as the special case of risk in which the states are equiprobable
  - Maximin: Chose one of the acts with the best worst consequence
- Note: Of these two, Maximin best predicts some of the psychological data (Ellsberg-style experiments)
- On the first option, the recommendation is obviously, as before, to book the visit to the nature spot
- But on the second option, the recommendation is to book the city tour (worst outcome of 2, as opposed to 0)

Risk vs uncertainty (ctd)

- The expected value is given by
  The sum of the values of the different act/state pairs, weighted by the probabilities of the relevant states conditional on the acts (given independence: probabilities of the relevant states)
- Recall our example and assume our meteo. data entails $\Pr(R) = 0.5$:

	R	$\neg R$
C	2	4
N	0	8

$$\mathrm{EV}(C) = 2 \times 0.5 + 4 \times 0.5 = 3 \; < \mathrm{EV}(N) = 0 \times 0.5 + 8 \times 0.5 = 4$$