

DECISION MAKING UNDER INDETERMINACY

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THE PROJECT

When you know that p is indeterminate,

What attitude should you take to p ?

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- Is there a unique answer?
- ...is there one if we pin things down to one type of indeterminacy?
- if we have to change our model of rational belief, what are the knock on effects for functional connections to other states and activities? Emotions; Desire; Action; Supposition.

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THREE PHASES

- Additional truth status: generalized probabilism.
 - Generalized conditional probabilities, decision theory.
 - Variety generated by “truth values”---ideal aims for belief.
Williams “Generalized Probabilism” JPL (forthcoming)
- Indeterminacy induces Knightian uncertainty/credence
 - Sets of probabilities---one for each sharpening.
 - Connection to action a matter of controversy. Randomize.

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DEGREE SUPERVALUATIONS

- Classical semantics: one TV assignment is “intended”.
Truth = truth on intended interpretation.
- Supervaluational semantics: many “sharpenings”.
(Super)truth = truth on all co-intended sharpenings.
- Degree supervaluational semantics: degrees of intendedness (a measure over the assignments).
Degree of truth=measure of the truthy assignments.

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THE CABINET



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THE BROKER

- The Broker offers Alpha a policy costing 100 pounds.
- It pays Omega back ten thousand pounds.
- Would he, should he take the policy?

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UNCERTAINTY AND INCONSTANCY

- Cognitive role of indeterminacy: conflicting dispositions to judge p ; judge $\sim p$.
- The judgement is the father of the act.

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- Underlying sharp credence/value distribution across worlds
- Each sharpening induces a probability/utility distribution across sentences/thoughts.
- So we get a mushy mental state.

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- One strategy would be to take mushy decision “off the shelf”
- But which one? There’s so many!
- The final proposal (simple version): roll the dice to choose a sharpening to act on; odds are given by the “degrees of intendedness” in the degree-supervaluational measure.

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- The problems for liberalism come up in spades.
- Like Weatherson, rationality constrains sets of acts.
- I feel the pressure to say how this is a rule we can follow.
Hence: the dynamic permissibility (an instrument).

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- Put all the co-intended sharpenings in a bag.
- Act in a way that’s recommended by at least one thing in the bag.
- Take out those that don’t rationalize what you’ve done.

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- Put all the co-intended sharpenings in a bag **with a measure.**
- Act inconstantly: let the odds of you A-ing match the (current scorecard) measure of the sharpenings that recommend A-ing.
- Take out those that don't rationalize what you've done **and renormalize the measure.**

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SOME COMMENTS ON THE DIALECTIC

- I don't think of inconstancy as obviously correct. Direct intuitions on these matters are unclear/conflicted. I find this itself mysterious.
- The idea of judgement-inconstancy has advocates (e.g. Wright) and is nicely captured by Randomize.
- We need to look for more indirect evidence.

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FORCED MARCH SORITES

- Successive colour patches on the red-yellow continuum. Is it red? Yes/No.
- The successive chances of judging red are:
 - 1; 99/100; 98/99; 97/98;.... ; 3/4; 2/3; 1/2; 0.
- Even when you're far towards orange, the chances of you judging the next patch red **given you've reached this stage**, is very high.



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ABOMINABLE CONJUNCTION

- "This colour patch is red; but this perceptually indistinguishable colour patch is not red"
- Prediction: (on sensible measures over sharpenings)
 - the chances of judging this false tend to one, as the colours get closer.
 - the chance of judging all instances false is 0.

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