that community with my husband who's also going to be an assistant professor there.

CCM:Excellent, thank you very much for doing this interview. And keep the great reasoning work going!

JS:Thanks!

L&P-updating – All Bets Are Off

Philosophy of science is concerned with exploring relations between evidence and scientific hypotheses. One paradigmatic approach in the philosophy of science is Bayesian epistemology which governs an agent's degrees of belief given her evidence. One key component of Bayesian epistemology is the update of an agent's degrees of belief in light of new evidence via Jeffrey updating. Leitgeb & Pettigrew (2010: An Objective Justification of Bayesianism I & II, *Philosophy of Science*, 201-272) explored a different updating rule. Roughly speaking: Jeffrey updating leaves proportions invariant, the L&P-update leaves differences invariant.

Leitgeb & Pettigrew show that epistemic agents maximising the accuracy of their degrees of belief; in a technically precise sense; are Bayesian agents which use their updating rule rather than Jeffrey updating. They do not tell us of how thusly interpreted degrees of belief can be used for rational decision making. Next, I argue that the proposed updating rule is not compatible with the standard interpretation of degrees of belief as rational betting odds.

Consider a Bayesian agent with prior probabilities, P, on $\Omega = \{\omega_1, \omega_2, \omega_3\}$ such that $P(\omega_1) = 0.6, P(\omega_2) = 0.4, P(\omega_3) = 0$. Updating in light of the new evidence $P(\omega_1) = 0.5$ the agent may perform a) a Jeffrey update to obtain posterior probabilities $P_J(\omega_1) = 0.5, P_J(\omega_2) = 0.5, P_J(\omega_3) = 0$ or b) an L&P-update to obtain posterior probabilities $P_{L\&P}(\omega_1) = 0.5, P_{L\&P}(\omega_2) = 0.45, P_{L\&P}(\omega_3) = 0.05$. Leitgeb & Pettigrew point out themselves that their updating procedure can raise a zero prior probability to a strictly positive posterior one – and vice versa. It is a feature of the updates that the posterior probabilities agree on the conditioned upon proposition.

According to the standard use of degrees of belief for rational decision making, the agent initially offers odds of $1 : 1,000,000$ (and more!) that ω_3 does not obtain. After the L&P-update, the agent refuses to give greater odds than $1 : 20$ – for the exact same eventuality. The new evidence received is nothing to write home about, it is business as usual for Bayesian agents. Such ordinary evidence does not justify such an extreme change in the agent's betting behaviour, I claim. While updates change degrees of belief in a holistic way – and ought to change that way – an agent's betting behaviour ought to change moderately in light of moderately persuasive evidence. Note that no such problem arises via Jeffrey updating, the prior probability and the posterior probability of ω_3 are zero.

There seem to be only two solutions to this dilemma for a Bayesian agent, either i) give up on using degrees of belief as odds for rational decision making or ii) do not use L&P-updating. If one gives up the betting interpretation, then it is not clear (yet?) how exactly an agent ought to use her degrees of belief for rational decision making. The Leitgeb & Pettigrew proposal hence needs to be supplemented with a novel account of rational decision making, if it is to guide rational decision making.

Acknowledgements: Thanks to Hannes Leitgeb for helpful and controversial discussions and to the European Research Council (grant 639276) for funding this research.

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News

Responsible Life Science Policy between Private and Public Funding - Workshop Report

Life sciences receive funding from both the public and private sectors. These sectors variably emphasize commercially viable and socially responsible research. Given the COVID-19 pandemic and the fact that most medical research is privately-funded, the question of how to responsibly fund life science becomes even more urgent. For instance, decisions about how the vaccine will be distributed will likely favor richer countries and perhaps even deepen existing global economic inequalities. One argument to justify such inequality is that the countries or corporations who pay for the science should be the ones to reap the rewards. To what extent this is convincing depends on ethical questions about the status of intellectual property rights and a host of national and international laws, as well as more general issues about fairness and justice. In November 2020, researchers gathered to discuss responsible life science funding policies. The speakers came from different backgrounds including social studies of science (Sergio Sismondo), science funding sector (Matthew Wallace), medicine (Ivor Ralph Edwards), pharmacology (Rade Injac), and philosophy of science (Manuela Fernandez Pinto and Jacob Stegenga).

The workshop started with Sergio Sismondo's (Queen's University) talk, which provided an overview of canonical works in science and technology studies that may be useful for thinking about socially responsible funding policy more broadly. These include insights that research should go into technologies whose impacts are relatively easy to undo, research on civic epistemologies that tie questions of funding policy together with a host of national decision-making considerations, and contentions that we should not engage in research where there are no problems. He goes on to claim that all, or maybe most, pharmaceutical research is best understood as a form of marketing. Publication planning, ghost-writing articles, sponsoring conferences or keynotes, and regulatory approval are, according to Sismondo, steps towards mass prescriptions rather than the development of reliable medical knowledge, as contemporary drugs are often either clinically ineffective or are only slightly more effective than previous drugs.

In her talk, Manuela Fernandez Pinto (Universidad de los Andes) focused more specifically on the impact of commercialization of biomedical research. The impacts are, more or less, the same during the COVID-19 pandemic, as Pinto argues that very little has changed. Since the end of the Cold War private funding for R&D, especially in pharmaceuticals, has steadily