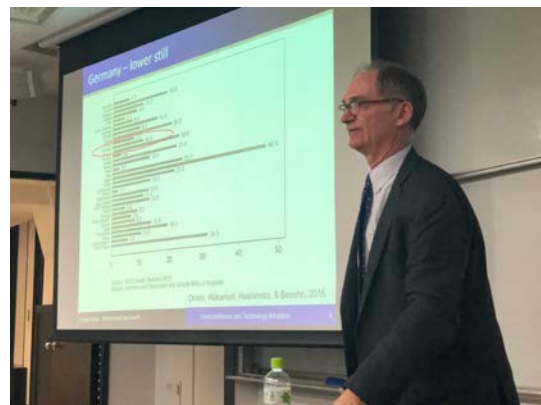


Organized seminar by Professor Jonathan Skinner (Dartmouth College) by Center for Positive/Empirical Analysis of Political Economy, Waseda University and the WINPEC Public Opinion Survey Methodology Research Group

16:30-18:00 Professor Jonathan Skinner (Dartmouth College)

“Overconfidence and the Adoption of Medical Technology” (with Diego Comin and Douglas Staiger)



【Abstract】

There are remarkably large differences in the timing of adoption and intensity of use of new technologies. What factors determine such differences? Is it because of higher returns to using the new technology, or systematic overconfidence about their expected returns? We address these questions using a unique registry dataset for a quarter-million patients with implantable cardiac defibrillators (ICDs), a medical device that reduces the risk of sudden cardiac arrest. We develop a structural model of Bayesian learning that allows for misperception of provider skill that can lead to overly optimistic or pessimistic behavior. Briefly, our estimates suggest that for ICDs, the most rapid adopters were overly optimistic, leading both to high utilization rates and for these early innovators, below-average returns to the technology. We find that overconfidence can explain half of hospital-level variation in risk-adjusted mortality and nearly three-quarters of the variation in adoption and use. In addition, the model predicts, correctly, that those hospitals exhibiting the greatest optimism about their own ability are the ones that scale back quickest. These results suggest an important role for misperception (both optimistic and pessimistic) in explaining the wide variation in adoption and use of new technologies, and suggests caution in equating rapid diffusion to productivity gains.