

Kate Martin

physics and empirical biophysics:

simple explanation preferred, efficient methodologies desired
use theory to translate the measurement of easily observable quantities into useful knowledge

economics and political science:

economics uses theory to make sense of empirical observation
BUT political science suggests the assumptions of the theories are overly simplistic

complex engineered systems:

tend to believe that there is something wrong with the simplest explanation
hesitant to rely on theory from only one discipline

⇒ -- laws of physics complicate economics (e.g. power systems)
-- or economics constrains technical development (e.g. fuel efficiency)

Are these my biases or the biases I want you to think that I have?

belief in the importance of the role of human influence on evolution of technical systems
-- I find myself always looking for how human agency complicates the simple answer