Social Theory – 2017 Fall - Fischer

Coverage Check List

I. Introduction: 3 sets of issues

(1) philosophy of science

(i) what are the demarcations of science (what is scientific)?

Karl Popper (and the **logical positivists**): scientific is

only what *in principle* is testable, falsifiable or confirmable

that which cannot in principle be tested (belief, opinion, creationism) can be *meaningful* in other ways, e.g. emotionally, spiritually, poetically, etc. is not science,

is metaphysical (or scientists often say its just a philosophical question, not a scientific one)

(ii) no epistemology without history [***Ludwik* Fleck**]

situated himself half-way between the Durkheimians and the logical positivists

stabilization of a theory by a clinical test (Wasserman test)

but historical legacies of earlier theories

warfare is a poor metaphor for immunology

thought collectives

social technologies: institutions, mentorship lineages;

material technologies: Wasserman test

literary technologies: textbook vs journal science; magical or slogan words -> friend/enemies

[Shapin & Shafer: Latour

social, literary, and material technologies

co-production of scientific & political authority]

(iii) ***paradigm shifts, scientific revolutions*** [**Thomas Kuhn**]

paradigms: grammar, ***Gestallt*** shifts

when anomalies build up, scientists tend to hold onto their theories, despite minor falsifications, or things that cannot be confirmed

only when a new theory is offered that can accommodate all the experimental or observational data more fully is the old theory abandoned (e.g. the phlogiston theory in the play *Oxygen*)

[do theories, instruments, and practices change in lock step or as separate fields? – Peter Galison, *Image and Logic*]

[***social revolutions***: when anomalies in relations of production build up and social contradictions increase, ideological paradigms begin to break, and new ones replace the old ones [e.g. the legal categories of feudalism are abolished in favor of the new democratic-politics and capitalist-economic relations of production in the French Revolution]

(2) **Comparative Methods** in Global World (e.g., Biosciences & Biotechnologies)
TCM (***traditional Chinese medicine***), alternative, complementary medicine
NIH programs (standardization? validity?)
China programs (TCM is scientific, modern)
homeopathy in the West (schools, traditions, clinical trials)
Aryavedic in India
Galenic (junani) in the Middle East
histories of classifications, of diagnosis, of therapies, of pharma and acclimatization gardens
da Orta, van Reede, and Linnaeus
Li Shizhen (1518-1593) – author of the *Bencao gangmu*
Kuriyama: ancient Greek vs Chinese medicine

variants in standards of care in biomedicine
do you tell the patient she has cancer? do you believe in brain death as a sufficient definition of death for organ transplanation? are living donor organ transplants ethical? who should decide if xenotransplanation is worth the risk?
histories of ethical codes in medicine and science
doctor-patient ethics, hospital level ethics, public policy ethics

identity, purity, hybridity, modernity
is TCM quintessentially Chinese? a hybrid of traditional and modern?
is standardized TCM an abandonment of personalized flexibility

holistic vs reductionist methods in biomedicine: systems biology, comparative genomics

(3) **credit, firsts, origins**
or **alternative structures of knowledge** (discourses, epistemes):
who discovered oxygen?
three different ways in which something might be said to be discovered
-can you be counted as a discoverer if you don't know what you discovered?