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Saturday, August 13, 2016

(Plenary)

11:50 - 12:15 Is Technology Destroying the Art of Medicine?

MONASH University

Medicine: Science / Art /Technology

Professor Leon Piterman AM

A Case Study

- Mrs B aged 94
- Widow, holocaust survivor , lives on her own. 2 married daughters. One overseas, independent.
- PH: CHF, Aortic valve replacement age 90 (TAVI), COPD, Osteoporosis, Depression.
- Medication: Digoxin, Frusemide, Enalapril, Ventolin, Seretide, Warfarin, Vit D, Calcium, Glucosamine, Sertraline, alendronate
- Admission to hospital with exacerbation of CHF. Fall in hospital # pelvis, 3 ribs, pneumonia. Discharged eventually to aged care facility.

Issues raised by this case?

- Population aging(demographics, cost)
- Were any of her problems preventable?
- If so at what stage? What are her wishes in these circumstances?
- Can she make rational decisions? Cognitive function?
- What investigations (technology) should be undertaken.
- She has private health insurance. Should that make a difference?
- Ethical and legal issues. Advanced care directives?

Science and Art

- Science helps us understand the disease and aspects of treatment.
- What does science and its offspring…technology… contribute to this case?
- Art helps us understand the person and their environment
- What does art contribute to our understanding of this person?

Medicine combines science and art. SO

How can the physician ensure that both science and art combine to optimize care for this patient?

Does the physician have responsibility to minimize the use of technology to save cost?

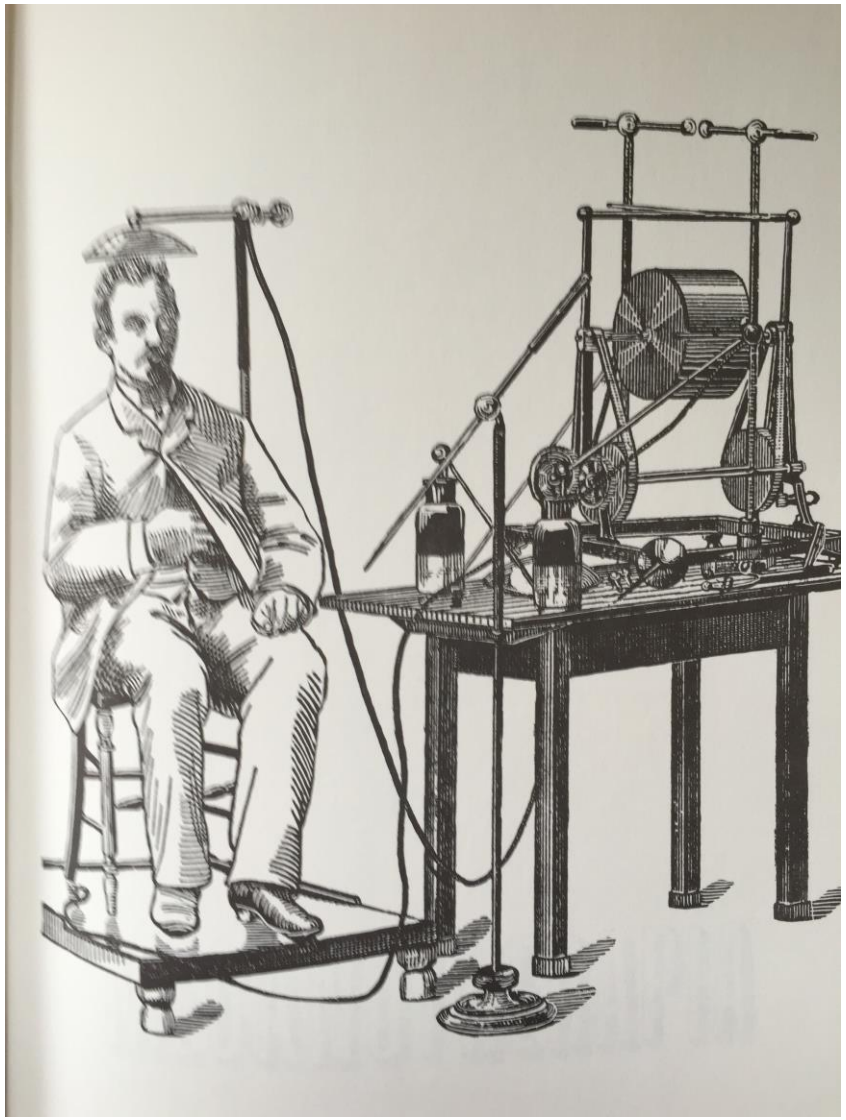
What is science?

- Systematic search for truth?
- What is truth? Is it absolute? Is yesterday's truth the same as today's truth and what about tomorrow?
- Philosophy of science explores these matters.
- Thomas Kuhn. Structure of Scientific Revolutions 2nd ed 1970
- Paradigm and Paradigm shift
- Theory>Observations don't fit theory>crisis>revolution>new theory.

Science vs pseudoscience

- Karl Popper. Logic of Scientific discovery 1934
- For a theory/discipline to be scientific it must be capable of being falsified.
- Burden of proof lies in refuting the “ Null hypothesis”
- The method used to undertake this process must be rigorous eg experimental or RCT.
- Hence Evidence based Medicine and levels of evidence.
- Psychoanalysis, astrology, iridology, homeopathy etc etc all pseudoscience

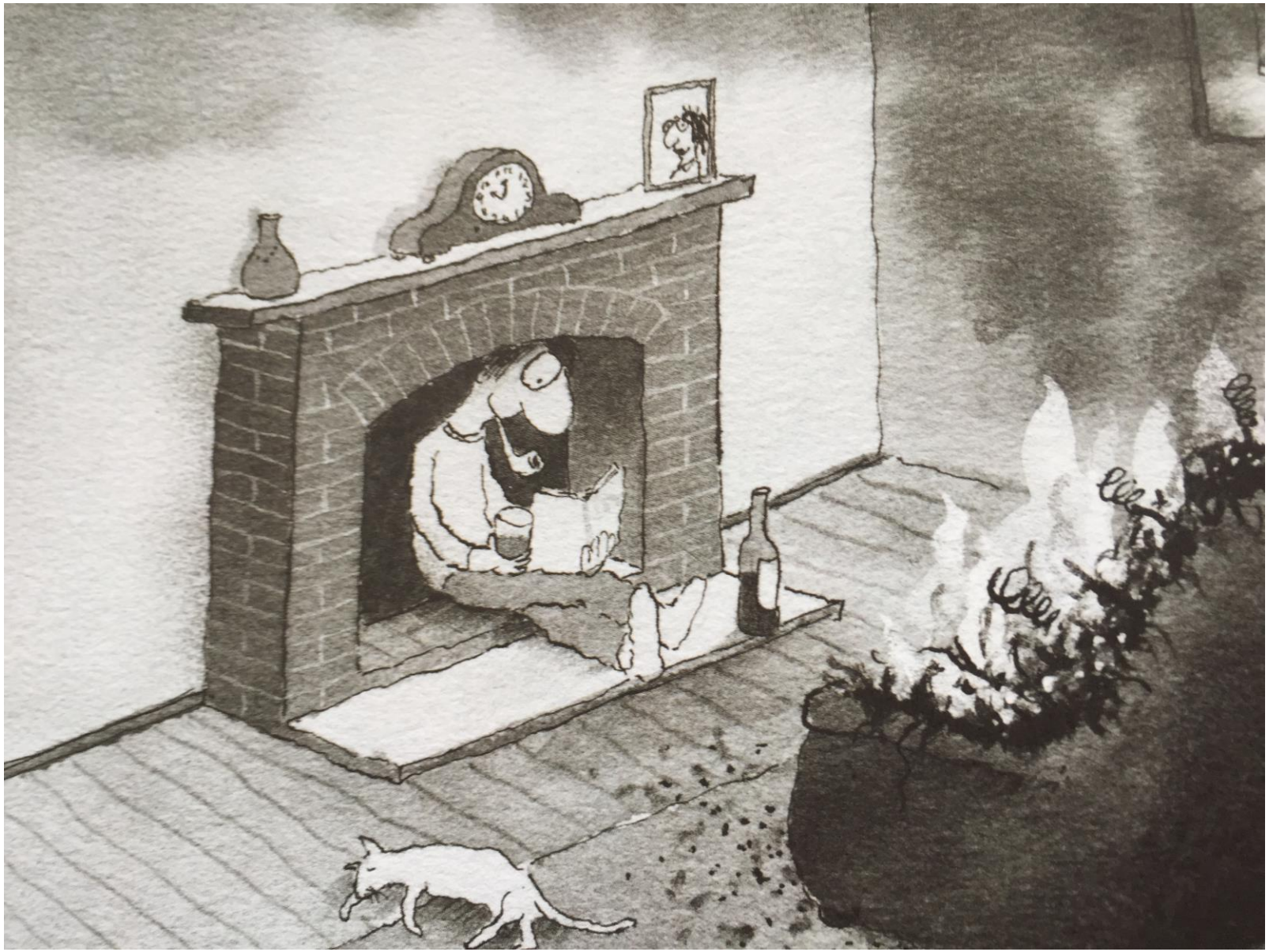
Franklinization (P Stein).??Extracranial EM stimulation



What is Art?

- The expression or application of human creative skill and imagination (Oxford Dictionary).
- Difficult to define in philosophical terms. Varied manifestations in visual arts. (Pile of bricks/blankets)
- Tacit knowledge. Relationship to craft.
- Individual perspectives (Art critics) . “ Eye of the beholder”

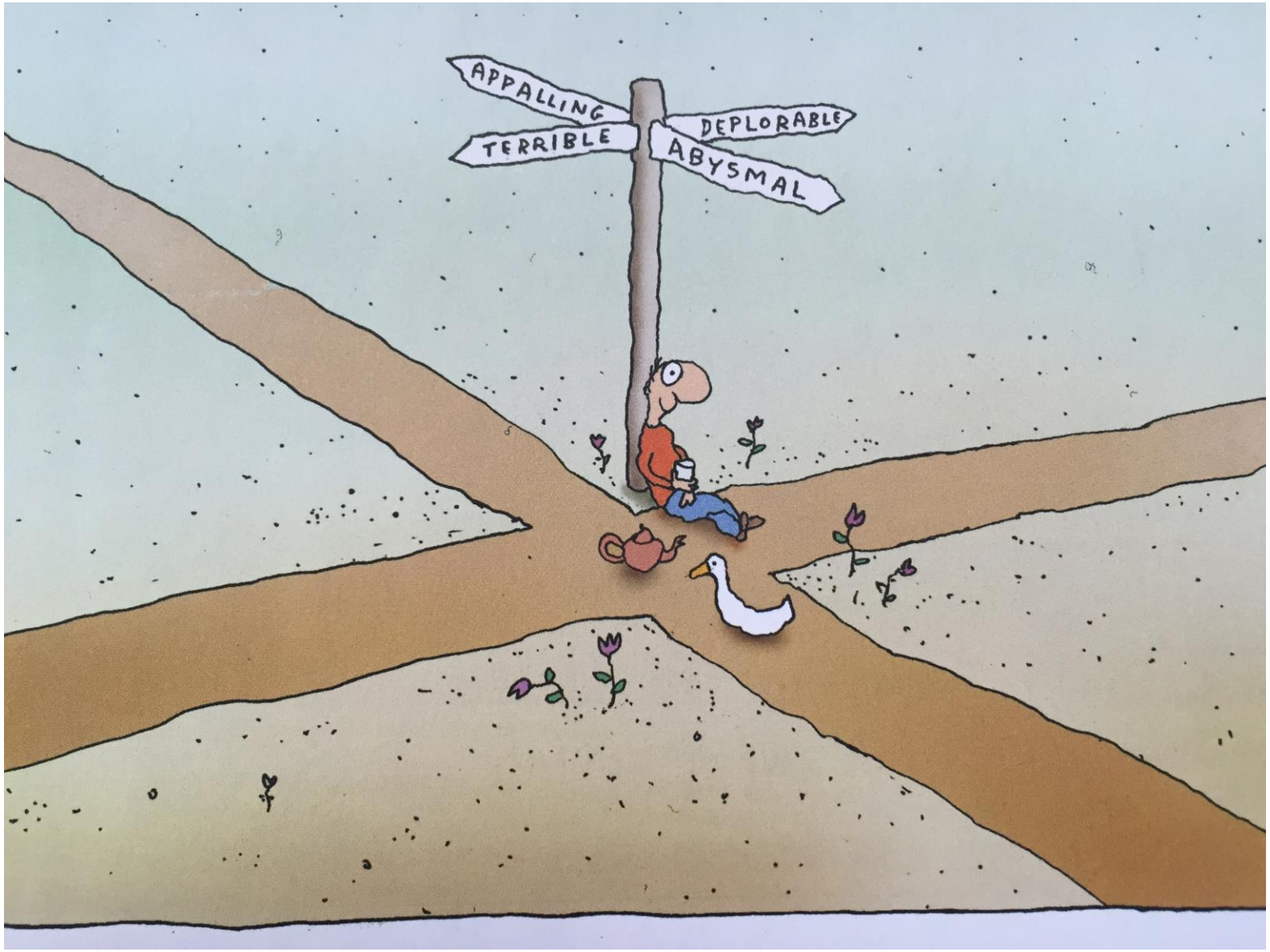
Perspectives and positions (M Leunig)



Art of Medicine.

- “ The practice of medicine is an art, not a trade, a calling not a business; a calling in which your heart will be exercised equally with your head. The practice of medicine is an art based on science” Sir William Osler
- Core knowledge
- Tacit knowledge.
- Experience.
- The person, the family, the community
- Doctor patient relationship.
- Sixth sense.
- Creative skill, craft skill.

Medicine at the crossroads? (M Leunig)



Existential challenges

- Combining science and art to meet societal needs in an affordable manner.
- Challenges
- Aging. Quantity vs quality
- Chronic and complex disease. Systems of care.
- Emerging infections and multi resistance
- Environmental: Climate change, natural disaster, famine war
- Costs
- Evidence based practice vs clinical decision making

Cost containment. Over investigation. Inappropriate treatment. Complications

- Disconnect between evidence and practice (Overkill . Atul Gwande Annals of Health Care May 2015)
- EEG, CT for headache, CT MRI for back pain, Arthroscopy for knee pain.
- Death of the art of clinical examination and rational decision making
- 25%-40% of USA Medicare patients received at least one of 26 useless tests and treatments.
- Waste accounted for $750 bill of health spending/year. More than the total of K-12 education budget.(USA Institute of Medicine 2010)
- What will personalized medicine bring? GP remains low cost solution? For how long

The clinical challenge. The societal and ethical challenge

- “ I want to die young at an old age” Sir Richard Doll
- “ I am not afraid of dying. So long as I am not there when it happens” Woody Allen.
- Evidence base for clinical or therapeutic interventions. Effective and cost effective.
- Cost to society. Productivity gap with aging community.
- Equity and access to treatments
- When enough is enough. Advanced care directive?

The future??? (M Leunig)