Out of Hours

Is general practice in the wrong PLACE?

In 1958 John Lykoudis, a dyspeptic small-town Greek doctor, cured himself with antibiotics. Convinced of infective cause he prescribed his multiple antibiotic formulation 'Elgaco' to 30 000 patients with ulcer.¹ Barry Marshall, credited with discovering the bacterial cause for ulcers, acknowledges Lykoudis.¹

The *JAMA* considered that the association between acid and ulcer was proof of causation and rejected publication of Lykoudis's bacterial hypothesis. In 1967 a licence application for 'Elgaco' and, latterly, a scientific trial were also rejected. Lykoudis reflected that, *'Their refusal to approve it is understandable, but their refusal to test it is not.'*

Commerce preferred ineffective but profitable licensed proprietary symptomatic remedies over off-patent antibiotic cure. Finally acknowledged by the academic community in 1968, a Greek professional committee, blinded by certainty, ironically fined Lykoudis 4000 drachmas, presumably for being a nuisance. Marshall falls short of thanking Greek academia for safeguarding his Nobel Prize.

Merton² used the acronym CUDOS to describe the ethos of science:

- Communalism — all scientists should have equal access to scientific goods (intellectual property), and there should be a sense of common ownership in order to promote collective collaboration, with secrecy the opposite of this norm;
- Universalism — all scientists can contribute to science regardless of race, nationality, culture, or sex;
- Disinterestedness — scientists are supposed to act for the benefit of a common scientific enterprise, rather than for personal gain; and
- Organised Scepticism — scepticism means that scientific claims must be exposed to critical scrutiny before being accepted.

Aside from curing his own peptic ulcer Lykoudis was driven by the communalism and universalism that CUDOS describes.

Ziman,³ a sociologist, used the acronym PLACE to describe what he felt displaced Mertonian norms:

- Proprietary, and therefore not necessarily communal;

- Local, with researchers concentrating on technical problems that may not contribute to general understanding;
- Authority vested in a managerial hierarchy, not in the individual researcher;
- Commissioned to solve specific problems, not as a contribution to knowledge as a whole; and
- Expert, with the scientist valued as an expert rather than a source of creativity.

EXPERT WITHOUT EVIDENCE

Focusing on data collection, a managerial hierarchy, and valuing the expert, PLACE ignores creativity and understanding. Running on commercial and political principles our NHS monopoly nourishes PLACE. Experts replace care and compassion with counting and commissioning. The Care Quality Commission does concede however that practices producing 'bad' data are often caring and compassionate. Data may not reflect performance, and associations (acid and peptic ulcer?) are regularly and uncritically misinterpreted as causal. Many guideline recommendations are based solely on 'expert' opinion so doctors become expert without evidence.⁴ Suggesting that good data collection alone can define personal excellence is hubris.

Mertonian principles identify the futility of thoughtlessly collecting data as data are only a means to an end. CUDOS accommodates good judgement, a holistic approach with understanding, and altruism. PLACE is about measuring and self but complexities of medicine, biological, and societal processes cannot be assessed by the repeated measurements of the same processes. PLACE, using simplistic parameters (lipids, glucose, glycosylated haemoglobin, hypertension), sidesteps a reflection of consequences while market forces encourage PLACE academics to avoid the awkward principles of CUDOS. CUDOS recognises that unmeasurable is not synonymous with unimportant and it underlines the need for better measurement, not avoiding the problem.

The patenting process was commercially imposed on Sir Alec Jeffreys, who discovered genetic fingerprinting. He observed that setting an outcome of inventing DNA identification systems would have failed. Commercial restrictions on disclosure conflicted uncomfortably with a

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scientific duty to share ideas, which he saw as central to the scientific process.⁵ PLACE and CUDOS explain his tensions and starkly reveal PLACE's potential for harm.

Was Lykoudis's practice in the 1960s less science based than now? Back then, after consultation a diagnostic hypothesis based on scepticism was considered, with uncertainty recognised and findings reviewed and altered in the light of emerging evidence. A shared agenda was agreed with a symptomatic and willing patient. Today, a diagnostic label precipitates a computer-prompted algorithm with treatment from national targets or guidelines, while reflection on individual preference about risk management and treatment options goes unmeasured.

Lykoudis's great discovery was the capability of unconstrained PLACE to blind us with (misplaced) certainty. Evaluation by rigidly applying fixed preconceptions of quality overlooks, even penalises, what makes a GP adequate, good, or even great.

We have a duty as doctors and members of a scientific profession to encourage Mertonian values.

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DOI: 10.3399/bjgp16X686329

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