Editor's Briefing

THINK TWICE

I trained to be a GP after a number of years as a hospital doctor. I had become comfortable with the laborious inductive methods used in internal medicine to arrive at a diagnosis. The diagnostic approaches used in general practice perplexed and intrigued me, and led me to the research of Amos Tversky and Daniel Kahneman, and their paper on making judgements in conditions of uncertainty.[1] What was happening in general practice? I conducted a study involving all 20 GPs in a Hampshire market town, to whom I presented a series of vignettes of patients with dyspepsia, and asked them to tell me, for each vignette, what further information they would need to make a diagnosis or management plan, and conclude the consultation.[2]

There were large differences between doctors in the number and nature of the pieces of information that they required and the time taken to complete these 'consultations'. In contrast with previous research there was no correlation between the professional experience of my subjects and the amount and nature of data they collected.

With hindsight, it was perfectly obvious that I was observing the interplay between Type 1 and Type 2 thinking, described in Kahneman's 2011 book *Thinking, Fast and Slow*.[3] I just couldn't see it. I went on to edit the *British Journal of General Practice*. Kahneman went on to win the Nobel Prize in economics for his work on prospect theory and the psychology of judgement and decision making. But is he happy?

Type 1 reasoning is rapid, intuitive, automatic and unconscious; it generates the diagnosis that forms in our mind when we see a patient's name on the surgery list, or observe her rising from the chair in the waiting room. Type 2 reasoning is slower, more logical, analytical, conscious and effortful. It includes the search for confirming and disconfirming evidence, obtaining and acting on the results of investigations, being willing to let go your earlier, cherished diagnosis, and recognising that relying on your personal heuristics — short cuts to diagnosis — may sometimes take you down a blind alley. Diagnostic safety-netting, if you like.

Diagnosis is the theme of this month's *BJGP*, with articles related to many aspects of diagnosis in general practice. There are the challenges of making an accurate diagnosis when no diagnostic test is available, as in IBS, and the likely impacts of genomics, point-of-care testing, and computerised decision support systems. In the future these may have the capacity to synthesise the content of the electronic medical record with the presenting complaint, the clinical signs, and diagnostic tests, including genetic testing, in ways that are now just about imaginable. Observations like those made by Chris Burton and colleagues on the interplay of abdominal pain and pelvic symptoms in the years leading up to a final diagnosis of endometriosis are likely to form the substrate of these diagnostic support systems. Gentle reminders about considering coeliac disease in the IBS scenario, and hyperaldosteronism in the hypertension case could transform the role of the third person in the consultation: the computer.

One of the most compelling examples of Types 1 and 2 thinking, or at least of the difference between the intuitive and the empirical, in medicine is tangentially linked to Chris Murphy's article about humility, in which the great Scottish philosopher David Hume plays a part. On his sick bed, Hume had gathered the wisest physicians of the day around him. They offered a range of diagnostic possibilities, which Hume considered fanciful, not least because no one had actually examined him. Fortunately he was visited by John Hunter, empiricism incarnate, who palpated Hume's abdomen to find the malignant liver; giving Hume an answer for which he was immensely grateful. Think twice — it's alright.

Roger Jones,
Editor

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