# Debrief

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## Averagarians and individuals

*The average individual.* Have you ever felt uncomfortable advising patients on the evidence for the best treatment decisions? The evidence is steeped in averages yet we are always sitting with a single person. We have to wrestle with the conflicting pressures of guidelines and the individual. It's an ever-present paradox, lurking in the shadows of the consultation. Peering at the evidence through the lens of the individual often leaves us with a blurry picture.

Much of this is down to the tyranny of the average. That started, according to Todd Rose in his book *The End of Average: How We Succeed in a World That Values Sameness*, with the studies of Adolphe Quetelet, a Belgian, born in 1796.[1] In one of the first examples of open-access data dredging, Quetelet analysed the measurements from 5738 Scottish soldiers that were originally published in 1817 in the *Edinburgh Medical and Surgical Journal*. From there he offered the measurements of the perfect 'true' soldier. He left us with the Quetelet Index, now better known as the body mass index, and an obsession with using the average to measure everything in society. Even then, many Victorians fretted about the fate of individuals in this averaging spree and the poet William Cyples coined the term 'averagarian' in 1864.

*Medical averagarianism.* The fundamental difficulty is that the average proclaims to understand people by ignoring their individuality. This is a critical flaw as it makes an assumption that all the individuals in the group are identical and will remain that way. You don't need me to tell you that people don't meet those criteria. Yet, when you start looking you'll see that we use averaging effects everywhere to practise medicine. It's at the very heart of evidence-based medicine. The average is a useful way to compare groups but it falls apart at person level. That's the disconnect we often feel when talking evidence to patients.

Boiling people down to single measures is the averagarian fallacy. When you apply averages to individuals in a group it has been repeatedly found that no one person is average. People are 'jagged', with variable measurements in multiple domains. Medical averagarianism is rife. I'm not advocating that we bin all uses of the average — but I do think we need to recognise that they do, when deployed unthinkingly, dehumanise. Not, perhaps, the ideal approach for doctors.

*Tilting the evidence to the individual.* None of this should be used as a basis to ditch evidence-based medicine. I often read about vague yearnings for 'holistic' care. It's tossed around to decry modern medicine but, on its own, it's a meaningless term. There are few doctors out there who don't want to practise for the patient in front of them. The alt-med lobby may be sensitive to the limitations of evidence-based medicine but that doesn't excuse hare-brained denialism that would make Trump blush. The challenge for the future is to tilt evidence-based medicine towards the individual. Technology will undoubtedly facilitate this: near-patient testing will finesse diagnoses and treatments; there is the promise of genetics; sophisticated AI and data-mining may be able to individualise as well as smush and aggregate data.

At present, and for years to come, the most important defence against averagarianism is the consultation. Simply allowing more time for doctors and patients to speak to each other will help. We still need to lean in and insist on evidence that can be translated to individuals. Averages are, as Claude Bernard, who pioneered the scientific method in clinical medicine, said in 1865, *'true in general and false in the particular'*.

Unthinking averagarians are an existential threat to the doctor–patient relationship. Who needs consultations when we can use algorithms? The 'particular' are, of course, people who need help to make good decisions about their treatment.

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**REFERENCE**

1. Rose T. *The end of average: how we succeed in a world that values sameness.* London: Penguin Books, 2017.