

EDITORIAL

Physician *understand thy self*: some comments on psychology relating to anaesthesiology

Medical disciplines, such as anaesthesia, train their practitioners in such a way as to get to grips with the biology of their patients. Busy doctors may rarely recognize or give importance to the psychology of those for whom they care. To expect the self-same practitioners to reflect upon or understand the psychological mechanisms that underpin their own practice and actions may not be just unlikely but seen as irrelevant. Yet, in his article *The Psychology of Human Error* published in this issue, Green has cogently underscored a range of psychological processes that can strongly influence practice with dramatic consequences for all those involved. The person as an information processing system is a model central to the discipline of psychology and many of the neurosciences and their attempts to understand human thought and behaviour. How information is filtered, encoded, stored, retrieved and acted upon is what our everyday life is all about. Strange then that much of the basis upon which the complex and sophisticated sets of behaviours involved in medical practice are constructed should be ignored. The comparison Green draws with piloting a plane is a good one. Here, we have an activity that requires a high level of skill acquired through lengthy training, a powerful sense of professional identity and organization among its practitioners and with the opportunity for human trauma and tragedy should things go wrong. But the comparison between medicine and aviation stops here, in that practitioners of the latter have not only learnt from errors in changing procedure but sought to understand the processes underlying human error. The knowledge base for this is clearly available. Much is known about the basis for human behaviour, how skilled actions are acquired and implemented and what aspects of the information processing system can be influenced, how easily and with what results. Green outlines in his article some of the ways that bias creeps in, incorrect expectations are formed, inappropriate decisions made and skills impaired. It is well known in psychology that information is filtered,

expectations can be primed, there is competition for processing capacity, attention is selective, interpretations can be arbitrary, inappropriate actions can be selected and initiated contrary to those clearly required and that environmental stimuli and context exert powerful influences on behaviour. Competent highly skilled professionals make mistakes because of these factors and not necessarily because they are negligent. The lessons for medical practice are there to see. The profession needs to change; recent events in Bristol make this clear. And like pilots, doctors can change for the benefit and safety of all, so that yesterday's threat to professional practice and the integrity of clinical judgement becomes today's established and essential routine. A recognition that the doctor is an information processing system, perhaps not an attractive description but an accurate one, would be a start. This would then allow proper and rigorous scientific investigation of how he or she goes about their business using an established methodology and knowledge base. Routines could be established to minimize errors and well-learned procedures to deal with emergencies automatically initiated. Now there will be many who say at this point that this is already done, and guidelines for practice are available. Green's article suggests that this is not the case. There is a difference between scientific psychology, based upon rigorous experimentation and its application, and lay psychology, the apparent common sense approach driven by the amateur psychologist in us all. Progress, and safety for patients, will be advanced by the systematic use of the former and not misplaced confidence in the latter. Psychology, as a scientific discipline, can make enormous contributions to health care both through a better understanding of the patient, such as in the complex phenomena of pain and its management, but also in the understanding of the doctor, who is after all human too!

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