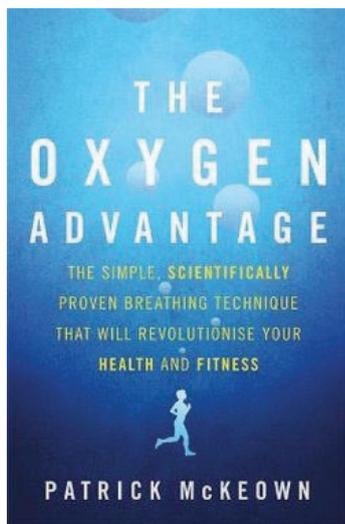




BOOK



*The Oxygen Advantage:  
The Simple, Scientifically  
Proven Breathing Technique  
That Will Revolutionise  
Your Health and Fitness*

Patrick McKeown (2015, Piatkus)

Surely, we cannot be doing something as natural as breathing, the wrong way.

According to Patrick McKeown in *The Oxygen Advantage*, at some point after we stopped living like hunter-gatherers our breathing habits went seriously off course. We started 'overbreathing' through our mouths. We have been breathing far too much and from the wrong orifice ever since. With drastic consequences.

Faces have narrowed, jaws slackened, airways have become constricted and a host of symptoms and maladies have followed such as sleep apnoea, rhinitis, poor concentration, chronic fatigue and exercise-induced asthma. A signature characteristic of habitual overbreathing is constant sighing. We have become unnecessarily stressed, and athletic performance has been hampered.

The author's central argument is that we can ameliorate if not eliminate those symptoms of poor breathing, as well as improve our overall health and fitness, by performing the techniques contained within the pages of this book, focusing on nasal breathing and reducing breathing volume.

Since this review is aimed at practitioners of an evidence orientated profession, its ambit is largely confined to the scientific arguments in favour of breath-holding and nasal breathing techniques, and less

on the techniques themselves. For those who find these arguments persuasive or are sufficiently intrigued to give the techniques a go, they are set out in ample detail and in easy-to-follow steps towards the later part of the book.

The author sets out to explain the scientific basis for the program he labels the 'Oxygen Advantage'. But first, we are introduced to Don, who held teenage ambitions to become a competitive cyclist. Chronic breathlessness negatively impacted his endurance, preventing him from keeping up with his elite cycling peers. After doing the 'Oxygen Advantage' program at fifty-eight years of age, Don is highly competitive in long-distance cycling events.

Now that we are sufficiently motivated by Don's example, we can plough through the boring science stuff. We learn that taking a big, deep breath at rest does not increase oxygenation of blood. The blood is almost always fully saturated, usually between 95-99%. The primary influence on breathing efficiency is carbon dioxide.

When receptors in the brain sense excess carbon dioxide levels, they simulate breathing to balance those levels. Chronic tiredness is a problem caused not by lack of oxygen in the blood but not enough oxygen being released from the blood to the tissues and organs, including the brain. The root cause is too much carbon dioxide being expelled due to habitual overbreathing. For the same reason, sleeping with the mouth open can cause chronic physical and mental lethargy.

Carbon dioxide plays a key role in respiratory physiology, specifically, delivery of oxygen from the blood to the muscles and organs. This is explained by a metabolic process known as the 'Bohr effect' elucidated by Professor of Physiology, Christian Bohr (father of physicist, Niels Bohr), from whom the author quotes:

'If one uses carbon dioxide in appropriate amounts, the oxygen that was taken up can be used more effectively throughout the body.'

Crucially, haemoglobin releases oxygen when in the presence of carbon dioxide. Overbreathing, such as taking big, deep breaths during hard exercise, expels excessive amounts of carbon dioxide and may lead to hypocapnia, where haemoglobin holds onto oxygen rather than releasing it into tissues and organs. In that state, muscles cannot work efficiently.

Overbreathing leads to constriction of blood vessels and reduces blood circulation, including to the brain, which may be experienced as dizziness. Also, for similar

reasons, mouth breathing during sleep can result in feeling lethargic and fatigued, with poor concentration, bad mood and reduced productivity during the first few hours after waking, irrespective of the amount of sleep.

For barristers, an important observation is that the exhaustion that overcomes one after a long day in the (virtual) courtroom may result not only from mental and physical exertion, but from excessive oxygen intake during extended periods of talking that disrupts the balance of oxygen and carbon dioxide in the blood and reduces blood flow.

For those with asthma, an excessive loss of carbon dioxide can trigger constriction of the airways, while conversely, an increase can assist in opening the airways and better oxygen transfer.

Carbon dioxide also plays a role in regulating pH. When blood becomes more alkaline, breathing volume reduces to allow carbon dioxide levels to rise and restore pH. Conversely, if blood is too acidic, breathing volume increases to expel carbon dioxide.

Readers are encouraged to measure their fitness using a test known as BOLT – the Body Oxygen Level Test. Your initial BOLT score is the baseline used for gauging subsequent improvements in your health and fitness after implementing the techniques in the 'Oxygen Advantage' program.

The BOLT test uses the length of a comfortable breath hold to measure breathing volume and predict how soon breathlessness will occur during exercise. That is, the length of time until the first definitive desire to inhale. Since it does not rely on will power or determination it is relatively more objective compared to using the maximum length of a breath hold as a measure. The length of your breath hold is determined by how well your body tolerates increased carbon dioxide levels. A common first BOLT score for a person who exercises regularly at moderate intensity is around twenty seconds. The lower the BOLT score, the lower the breathing volume, and the greater degree of breathlessness experienced during exercise. The author states every increase in the BOLT score of five seconds will noticeably reduce breathlessness experienced during sports, including exercise induced asthma. The objective of the Oxygen Advantage techniques is to reach a BOLT score of around forty seconds to bring about equilibrium between breathing volume and your metabolic requirements during sports.

The governing principle of the various breath holding techniques set out in this book is that lighter breathing improves

athletic performance by decreasing sensitivity to carbon dioxide, giving better delivery of oxygen to working muscles. The author claims that using these techniques can improve, sleep, concentration, energy levels, produce a calmer disposition, reduce breathlessness during physical exertion, and maximise athletic performance by raising VO2 max, or oxygen holding capacity.

There are three key areas that the McKeown focuses on to increase the BOLT score. First, stopping losses of carbon dioxide. In this regard barristers should note the following observation:

'...individuals who talk for a living need to be aware that their breathing should not be heard during talking. If you find that you can hear your breathing during talking, then it is better to slow down the speed of your talking, use shorter sentences and take a gentle breath through your nose between each sentence.'

Second, improving your tolerance of carbon dioxide by performing exercises that reduce breathing volume. Third, simulating high-altitude training by inducing strong air shortage during exercise.

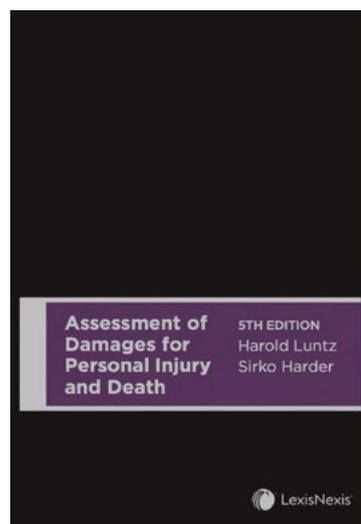
The author highlights the crucial function of the nose in breathing. To illustrate the point, he draws upon the observations of lawyer, writer, painter and traveler George Catlin, contained in his book, *Shut Your Mouth and Save Your Life* (1862). Catlin describes how North American Indigenous mothers pressed their children's lips together whenever they saw their mouths hanging open while sleeping. Catlin also claimed that nose breathing was widely practised by Indigenous people, with the consequence that they suffered comparatively less chronic disease than the European population – although this claim seems highly contestable in several respects. Catlin expressed the view that there is not a person in society, rich or poor, who would not find improvement in their health and enjoyment of life from keeping his or her mouth shut.

Judges have, from time to time, been overheard to make similar comments to counsel about the beneficial effect that keeping their mouth shut would have on their own client's case.

In sum, McKeown's advice is to breathe through the nose at all times, day and night, during training and while asleep, the only exception being a short period of mouth breathing during intense exercise. To loosely paraphrase Catlin's concluding comments in *Shut Your Mouth and Save Your Life* – without intending any offence – maybe try keeping your mouth shut more often.

Sean O'Brien

 BOOK



## *Assessment of Damages for Personal Injury and Death (5th edition)*

Harold Luntz and  
Sirko Harder (LexisNexis, 2021)

It is almost 20 years since the last edition of Prof Luntz's *Assessment of Damages for Personal Injury and Death* was published. That edition, published in 2002, preceded (just) the enactment throughout Australia of reform legislation that has had a profound effect on the law governing awards of damages for personal injury.

As a stop-gap measure in 2006, LexisNexis published a new book that followed the structure of Chapter 1 (then entitled General Principles, but now re-named Basic Principles), updating those general principles insofar as they were affected by those legislative reforms. Now, the task of updating the whole of the original work has been completed.

Prof Luntz frankly acknowledges this will be the last edition under his authorship, and as the first step in handing over the reins is joined by Dr Sirko Harder. In the Joint Preface the authors note that the book has been updated to 'at least' the end of 2018, although in some chapters reference has been made to caselaw and academic commentary from 2019 and 2020.

In general terms, the book follows the structure of previous editions, although a number of changes have been implemented to reflect some of the statutory reforms. Thus, the previous chapter known as 'Causation and Remoteness of Damage' has been renamed 'Factual Causation and Scope of Liability' and has internally been restructured to better reflect the statutory structure. There is an entirely new

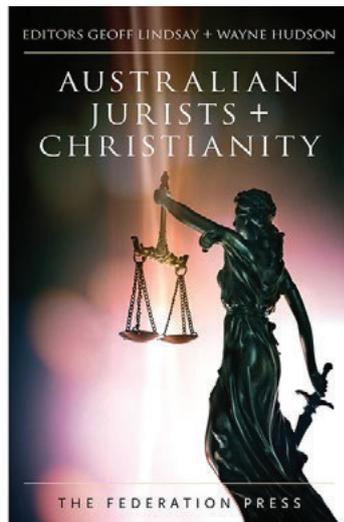
chapter dealing with damages in respect of Gratuitous Services; a new section on choice-of-law rules; and a new section on judicial review of administrative decision-making in the context of statutory motor accident and workplace compensation schemes.

The text is over 1,100 pages long. Prof Luntz explains in his Personal Preface that he was reluctant to cull the pre-legislative learning developed in previous editions because (a) it remains relevant to the understanding of the modern cases and legislation, and (b) because the work began as an academic study, and he wished to retain that aspect of the text. He notes that the question of whether his 'reluctance has gone too far is for others to judge'. Readers will perhaps be grateful that although in the drafting 'Dr Harder has even referred at times to decisions of District and County Court', Prof Luntz has 'cut most of these out as [he] believe[s] they have no authority at all, even if they do provide occasional illustrations'. Nonetheless, the book has grown by about two-thirds over the previous edition.

As with previous editions, this is much more than a collection of the relevant caselaw. It came into existence as a work of scholarship, and very much remains so in this edition. Despite this, it has long been an approachable and indispensable resource for the practitioner, and Prof Luntz and Dr Harder are to be thanked for compiling this updated work.

Dominic Villa SC

## BOOK



### *Australian Jurists and Christianity*

Geoff Lindsay and Wayne Hudson  
(Federation Press, 2021)

This excellent edited collection of essays examines 'the influence of Christianity on the development of Australian law and society' (p 1), through a series of biographical studies of living and historical Australian jurists' personal and intellectual engagement with Christianity. In doing so, the book defines its terms of reference broadly. Some of its subjects (like Sir James Stephen) lived all or most of their lives outside Australia; some of its subjects (like Lachlan Macquarie and Eddie Mabo) were not lawyers; and some of its subjects (like Gough Whitlam) were not 'Christian believer[s] in a conventional or doctrinaire sense' (p 191). All of these 'jurists', however, are 'persons of interest who have made a contribution, throughout Australia's colonial period and coming of age, to the development of the nation' (p 2) – and their views of each on law, governance and society were shaped by Christian traditions.

The collection's authors are similarly drawn from a diverse range of professional backgrounds and disciplines. Of the biographies of figures associated with colonial Australia: Dame Marie Bashir sketches her predecessor Lachlan Macquarie's formative experiences and reform agenda, while Stephen Tong and Robert Tong place civil servant James Stephen in the context of the Clapham Sect and nineteenth-century English

evangelism. Roy Williams provides a lively assessment of Richard Bourke; John Kennedy McLaughlin explains the career of John Hubert Plunkett by reference to his Irish origins; and Marion Maddox analyses the career and ideological underpinnings of George Higinbotham within the frame of 'nineteenth-century liberal Christianity' (p 83).

Of biographies of figures associated with Federation, Simon Chapple provides a nuanced assessment of Sir Samuel Griffith's legal career, reading his judgments by reference to his keen feeling for 'the human side of the law' and the practical social outcomes of his work (p 98). Richard Ely's chapter on Andrew Inglis Clark is an engaging account of the influences on his subject's ideological stance, while Stuart Macintyre's account of H. B. Higgins (a highlight of the collection) identifies Higgins' sense of moral purpose (expressed through his formulation of a living wage in the *Harvester* judgment) with his 'civil religion', and his sense of citizenship as a form of divine service (p 123). Stephen Free SC's chapter provides a fascinating account of Alfred Deakin's 'rich and eclectic' spiritual life (p 125), in which Deakin sought meaning and fulfilment through his embrace of spiritualism.

Beyond Federation, Tony Cunneen studies Edith Cowan in the context of her times, as a figure who 'bridged the

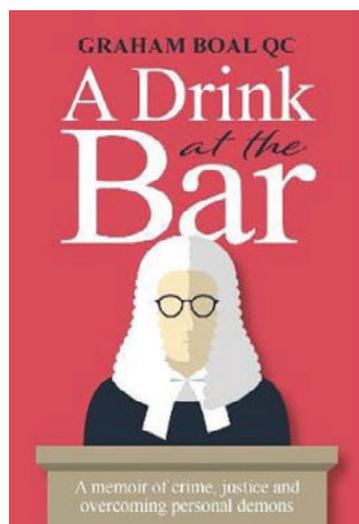
gap between colonial and post-colonial Australia' and drew upon nineteenth-century Christianity's 'imperative for social improvement' (p 144). Peter Applegarth explains the jurisprudence and the 'humane and progressive instincts' (p 155) of Lord Atkin by reference to his deep Christian convictions, while Anne Henderson's account of Robert Menzies seeks to elevate its subject's contributions as a jurist (often ignored in favour of his political successes). Carol Webster SC (on Victor Windeyer) and Susan Magarey (on Roma Mitchell) similarly seek to situate their subjects (perhaps better known for their historical significance) as jurists and practitioners.

James McComish's chapter on Whitlam, another highlight, discusses its subject's lifelong fascination with Christian belief, ritual and tradition (as a self-professed 'fellow traveller' with Christianity) (p 194). Mandy Tibbey (on Ronald Wilson) and Rowena Armstrong (on Robin Sharwood) analyse their subjects' parallel careers in law and as senior figures in their respective churches, while Esther Li Ean Khoo's study of Christopher Weeramantry (of the Supreme Court of Sri Lanka, the University of Melbourne and the International Court of Justice) is an exceptional assessment of an idiosyncratic scholar. Kevin Smith's chapter on Eddie Mabo is similarly an interesting and involving account of its subject, explained by reference to the history and customs of the Meriam people.

Of modern figures, Patrick Keyzer (on Gerard Brennan), Acting Justice Arthur Emmett (on William Deane) and Michael Pelly (on Murray Gleeson) closely examine their subjects' legal reasoning and contributions to the High Court; Nicolas Kirby's study of Michael Kirby is a remarkable and ultimately moving account; and Johnny Sorras provides an interesting and extensively-researched account of the political and legal life of Judge John Hatzistergos.

This book is a trove of historical and legal analysis, enriched by the wide-ranging experiences and perspectives of its authors. It is a welcome contribution to ongoing efforts to define both 'religion' and 'law' in the Australian context (p 313), and to explain the role of religion in Australian life more broadly. Its concluding list of topics for further inquiry (pp 315-318) will hopefully spur further projects in a similar vein.

Douglas McDonald-Norman



**A Drink at the Bar**  
*– A memoir of crime, justice and  
 overcoming personal demons*

Graham Boal QC

Ask a sample group of practising barristers how they do what they do, and I have no doubt that almost all will acknowledge that the intellectual stimulation of life at the Bar can sometimes be outweighed by the stress, pressure and sense of isolation that comes from being a sole practitioner.

This book is a fearless account of achieving and maintaining a successful career in the legal profession, while simultaneously battling inner conflicts. I recommend it to all who sometimes wonder how to keep going.

The author is a former colleague of mine from chambers in London, later a judge, now retired.

Graham Boal QC was a highly successful and well-known barrister specialising in crime. He was also my 'professional grandfather', being my pupil-master's pupil-master.

Graham was an outstanding barrister; literally a legend in his own lifetime – polished, urbane and a leader within the profession. As is clear from this memoir, he maintains strong views about the role of a barrister. He remains a staunch advocate of the cab rank rule. He is also a fearless supporter of the right to a fair trial, including the concept that in order for the

criminal justice system to operate fairly to both prosecution and defence, it must be adequately funded.

Graham was a model of that other great cornerstone of the Bar; collegiality. Despite being immensely busy, he was accessible to junior members of the profession. On a personal note, Graham was instrumental in supporting me on my own career path, encouraging me to follow in his footsteps and accept an appointment as Treasury Counsel. 'TC' is a very demanding role, prosecuting serious cases, often under the intense gaze of the media. The criminal bar in the UK in the late 1980s/early 90s was extremely busy. We were in court every single day, unless we could persuade our clerks to keep us out in order to have time to prepare for the next case. Needless to say, although TC cases were interesting, they were complex and difficult. The accompanying pressure and stress was immense. At that time there were not many women at the Bar, certainly not practising in crime. The Bar was still a predominantly male, private school and Oxbridge educated profession. A private income was often necessary to even make a start. I had none of those things and plenty of misgivings about trying to joining such an elite 'club'. When

I was under consideration for the role, there had only ever been two previous female appointments to TC. The prospect was exciting, flattering and terrifying in equal measures. Graham's mentoring through the process was invaluable and a great lesson in the importance of collegiality.

Despite our connection, I had no idea until I read this memoir of Graham's life at the Bar and on the Bench that he had suffered from alcoholism and depression. Both were very prevalent issues among barristers in those days and probably still are. It was common practice among those of us practising at the criminal Bar, if not a ritual, to decompress after a big day in court by going to the many pubs and bars around the Temple with fellow barristers to debrief over many, many drinks, often late into the night.

This is a very candid and revealing account of addiction and mental health issues which plague so many practitioners in this profession. Graham was the first person from whom I heard the expression 'imposter syndrome' in describing how he felt much of the time. This immediately struck a chord with me, but was also amazing to hear, as he was then at the height of his career and always appeared completely unfazed and master of his brief. From reading this book I think our discussion on imposter syndrome must have been around the time he had first come out of residential rehab, where no doubt he had been made aware for the first time his feelings were shared by others and had an actual label.

His legal anecdotes and pen portraits may not mean much to people outside of the London bar as it was in those days, but his account of struggling with inner demons may make barristers with similar issues realise they are not alone, and certainly not the first.

I hope I haven't made it sound too gloomy! It is very readable and much of it very amusing. Along the way he also makes some pointed comments about the parlous state of the criminal justice system in the UK nowadays, having been effectively dismantled by successive governments. I think those remarks will resonate with barristers everywhere.

**Jocelyn Sparks**