



Preface

We only think when we are confronted with a problem.

John Dewey

I have reached bedrock, and my spade is turned.
If I am now asked 'Why?' I can only say 'This is simply what I do.'

Ludwig Wittgenstein

A. The Tale of Tiahuanaco

A set of glyphs on a stone monument in the pre-Incan city of Tiahuanaco, located in the mountainous Andean region of western South America (just 45 km from La Paz, Bolivia), tells us the following story.

The sun rose in the east every day. It set in the west every night. For this regular occurrence, the people of Tiahuanaco thanked their primary deity, Viracocha. Viracocha had originally revealed himself to re-establish order after the destruction wrought by a great flood. The people of the northern Andes subsequently went about repopulating the planet. The glyphs then take us forward in time to another challenge particular to the people of Tiahuanaco. Viracocha, an aquatic god, warned the people of Tiahuanaco that they faced another challenge within the next generation: a scarcity of water. Viracocha was omniscient and omnipotent. Yet not unlike Milton's own lonely god, Viracocha had mixed feelings about doing all the heavy lifting. Wasn't it enough that he had endowed the people of Tiahuanaco with the capacity to carry out their plans in action, to reflect upon the success or the failure of their work, and to determine their vision of the good in terms of a moral sensibility that emphasized the benefits that flowed from sharing rather equally the fruits of their labour? The glyphs intimate that Viracocha neither demanded sacrifices nor endowed a representative on earth with divine powers. The people of Tiahuanaco, with a well-organized co-operative of terraced vegetable plots and herds of llamas that fed from the city's surrounding commons, got by on their wits and the rich aquifers that flowed down from the peaks of the Andes. Viracocha's omen was his final gift. The elders of Tiahuanaco would be left to their own devices in arriving at solutions to their theoretically imminent desolation. The people, being people, greeted the news with fear, speculation and ennui. The elders themselves could not agree on the best way forward. They understood that the iced peaks around them would recede. They knew that without the seasonal run-off their lovely terraces and commons would dry up. Rather than bicker, or treat diminishing resources as spoils to be secured after victory in an internecine war, they agreed instead to a competition. Members of the community would be allowed to work with each other on a solution. In return, the most ingenious, successful group – as judged by its ability to ensure a sustainable supply of water to all of Tiahuanaco – would be rewarded with houses built by fellow denizens of the city and a lifetime supply of vegetables, fruit, meat and itchy llama wool. The glyphs do not spell out exactly what transpired thereafter. They do note that one group of inspired Tiahuanacians built 'man-made rivers' that stretched out to a reliable water source – Lake Titicaca – that lay a considerable way from their city. For this virtuoso turn, they were rewarded as promised. We do not know what became of this once great civilization. However, we do know that water scarcity did not bring about its demise. We know this much because the canals and, more impressively, the aqueducts built by the people of Tiahuanaco lead away from the city and dot the landscape on the road to Lake Titicaca. These ruins not only staved off the destruction of Tiahuanaco, they actually led to a new, unexpected discovery: the ability to farm fish. That big fish story belongs to another set of glyphs and the burial mounds of fossilized bones that surround this once great metropolis.

Every book, much like every individual life, or even the story of a great civilization like that of the people of Tiahuanaco, begins in the middle of things (and ends there). So we begin

with the triumphant, and pedagogically rich, story of the people of Tiahuanaco. As with any archaeological find of its kind, it's a mix of myth, truth and conjecture. However, it frames the book that follows in a number of useful ways.

The people of Tiahuanaco were under no illusions that they controlled their destiny in the kind of autonomous, unshackled manner of those bewitched by the language of 'free will' and 'undetermined autonomous selves' that still exerts such control over our folk psychology, and thus our morality, politics and constitutional jurisprudence. The people of Tiahuanaco were content to abjure that set of pretences, and the hubris that underlies them. They understood quite well that their epistemic endowments, powers of reason and their ability to run, and learn from, experiments would serve them well enough. Modest, creative folk, the people of Tiahuanaco.

Their creativity is reflected in their response to the potential disaster that awaited them. They neither ignored the problem in the hopes that it would go away nor did they blithely assume that Viracocha would, at the eleventh hour, save them. Again, they turned to a modest form of collective self-reliance: the experimental method. Whatever means that they could divine to deliver water to their terraces and their commons would be a function of an array of trials, errors and successes. That one group of Tiahuanacians hit upon canals and aqueducts – as had others elsewhere at other moments in human history – is testament to their pluck and luck. Moreover, they did not reject the body of knowledge that had been bestowed upon them, nor did they disavow the obvious benefits of the social capital that grounded their society and allowed them to work together towards solving a collective concern.

Ingenuity and creativity would have only taken the Tiahuanacians so far. The elders of Tiahuanaco had long recognized that only a decidedly significant degree of common beliefs and common property – their 'commons' – would allow all to flourish. Recognition, and even reward, might flow to those Tiahuanacians ingenious enough to solve this crisis of water scarcity. The ultimate benefits would be shared by all.

The story of the Tiahuanacians is to some degree our story. We ignore its implications at our own peril.

This book is not, however, about the manifold failures of political will required to respond adequately to a global recession, climate change and nuclear proliferation. This book, and the lessons to be learned from the Tiahuanacians, services a much more modest and parochial affair: how best to comprehend and to develop the constitutional jurisprudence of South Africa. The family resemblance of our predicament in South Africa to that of my Tiahuanacian ancestors has already enabled me, indirectly, to introduce some of the core concepts and concerns that animate this work: free will, consciousness, selfhood, social capital, spontaneous orders, nudges, flourishing, experimentalism, capabilities, participatory bubbles, reflexivity and rolling best practices. Moreover, as with the story of my Tiahuanacian ancestors, this book emphasizes the contributions that all South Africans can tender as we attempt to resolve the profound crises that confront us. The rest of the book provides a partial, modest and exploratory answer as to how we ought to go about addressing some of these quandaries from within the limited framework of constitutional politics.

B. Waldron's Wager

After a faculty lunch and talk at Columbia Law School (circa 2000), I entered an elevator with Jeremy Waldron and a number of other faculty members. Apropos of the talk just given, and speaking to no one in particular, Professor Waldron broke the silence and said: 'You know the essence of every article can be captured in two sentences. [Pause.] No. Make that one.'

Of course, some arguments are more complicated than others. And yet, at the outset of any book, an author would do well to distil her thoughts in a pithy manner.

So here goes.

When we contemplate such matters as consciousness or constitutional democracy, we find that these domains are best described in terms of (a) trial and error and feedback mechanisms that give us fresh opportunities to reflect upon experience (reflection or memory that's immediately or substantially prior) and to imagine more or less optimal courses for action (pressganged and plodding) to realize the ends and the aspirations (b) that have largely, but not irrevocably, already made us who we are.

One sentence.

Studies of consciousness ultimately identify our neural structures as designed for trial and error. Individual corporeal selves are always experimenting, attempting to divine, through reflection (memory) and action (imagination), what 'works' best. Choice architects, those persons charged with constructing environments that create greater health, wealth and happiness for their communities, regularly run experiments that attempt to (1) eliminate biases, (2) draw on the (adaptive) preferences of a representative cohort of individuals, and ultimately, (3) deliver policies that nudge people away from negative defaults toward more optimal ends (as individuals understand them). A constitutional democracy, made up of millions of complex, heterogeneous selves (densely populated 'me's' comprised of multiple ways of being in the world), constantly strives, through policy, legislation, common law, customary law and ultimately the provisions of its basic law, to determine what works best for most of its many constituents. Because our Constitution states some (and only some) of the norms that govern our lives at an extremely high level of generality, it remains for citizens and their representatives to create doctrines and institutions that serve those capaciously framed ends best. This book suggests that experiments in living that fall within the accepted parameters of the shared constitutional norms found are likely, over time, to produce practices that can be replicated by other members of the polity. The truly interesting feature of the theory of constitutionalism on display here is that these rolling best practices – bounded by a basic law order committed to flourishing and, thus, to the development and the expansion of our individual capabilities – do not merely serve the preordained ends of South Africa's denizens. Our reflexive stance toward these rolling best practices will invariably cause us, over time, to alter the content of the fundamental norms that bind us.

One paragraph.

C. Deriving an Ought from an Is

Back in 2004, I gave a paper (upon which this book is based) for the Research Unit for Constitutional and Legal Interpretation (RULCI) Conference at the University of the Western

Cape. Professor Francis Olsen and Professor Andre van der Walt asked me roughly the same question. Are the factual claims to be found in my accounts of the self and the social necessary to support my normative claims regarding the constitutional? The *first* part of my answer to their question (a weak, rehashed version of GE Moore's indefatigable 'naturalistic fallacy'¹) was a 'no' and a 'yes'. 'No', in the sense that one can make all sorts of normative claims about how the world ought to be structured without any compelling truth propositions to support them. 'Yes', in the three-fold sense that (a) normative claims are far more compelling when supported by empirically grounded justifications; (b) true, justifiable empirical claims are normative claims because the scientific projects upon which they are based rely on normative commitments to rationality and to inference, and (c) my normative claims about an optimal constitutional regime tightly fit my factual claims about the self and the social. My *second* response was an example of how an 'ought' can easily be derived from an 'is'. I asked them: 'Is brushing one's teeth twice a day and regularly flossing between meals a relatively accepted form of dental hygiene?' The answer was 'yes'. I then asked 'Is it an accepted good to strive for excellent health and is proper dental hygiene part of a regime designed to realize well-being?' The answer was 'yes'. If so, I contended, then we can derive the 'ought' of pursuing good health from the 'is' of brushing and flossing our teeth.

Professor Olsen's and Professor Van Der Walt's error has a well-established and well-regarded philosophical pedigree. David Hume is often credited with the fact/value distinction, and the counsel that flows from it. However, as a naturalist, a materialist and an ethicist, Hume intended something far more subtle in arriving at his distinction between what is and what ought to be.² First, reason grounds morality. Second, when Hume writes that reason 'is and only ought to be the slave of the passions',³ he certainly meant 'passions' to embrace what he and his friends Adam Smith and Adam Ferguson meant by 'moral sentiments'. As Patricia Churchland notes, 'moral behaviour', according to the Scottish Enlightenment, while informed by 'reflection', was rooted in 'deep', 'widespread', 'enduring' and conventional understandings of human relations.⁴ What concerned Hume most was not the cleavage between is and ought, but 'simple sloppy inferences' that led exponents of a particular position about what *is* to a less than desirable position about what *ought* to be.⁵

Churchland then goes on to note that, *pace* rationalists such as Kant, Hume was correct to contend that most human thought does not turn on simple or even complex algorithms, but rather on constraint satisfaction processes. 'Brains' as Churchland writes, 'navigate the [natural] causal world by recognizing and categorizing events they need to care about.'⁶ The social world is much the same. Social navigation is but a subset of causal navigation. Whether we must choose between employment opportunities or universities to attend, we are quite adept at arriving at a reasonably optimal answer. From this reconceptualization of Hume's distinction between is and ought, one based upon rigour rather than rigid distinctions, Churchland draws several conclusions quite sympathetic to this book's project:

In sum, from the perspective of neuroscience and brain evolution, the routine rejection of scientific approaches to moral behaviour based upon Hume's [misunderstood] warning against deriving ought from is seems unfortunate.⁷ ... The truth seems to be that the nexus between social ends

and social facts is quite close. ... [V]alues rooted in the circuitry for caring – for well-being of self, offspring, mates, kin, and others – shape social issues about many issues: conflict resolution, keeping the peace, defense, trade, resource distribution, and many aspects of social life in all its vast richness. Not only do these values and their material basis constrain social problem solving, they are at the same time facts that give substance to the process of figuring out what to do.⁸

Our social values are ‘facts’ about what it means to be human. These facts shape our solutions to various collective conundrums and determine which solutions are to be preferred to others. To that extent, then, this book’s reliance on facts about how the self and the social operate are only different in degree, not kind, from the conclusions the book ultimately draws about how best to construct our constitutional politics.

My exasperation with the is/ought (fact/value) distinction is crisply captured by Kwame Anthony Appiah: ‘The universes inhabited by the sophisticated realist and anti-realist, the sophisticated cognitivist and non-cognitivist, are the same universe; and what most of those thinkers want to say about first order ethics is the same.’⁹ I can’t think of anything of genuine ethical, political or constitutional substance that divides Olson’s and Van Der Walt’s views from my own.¹⁰ As David Mamet writes: ‘There. Is. A. Real. World. Out. There.’ Or if you prefer Appiah: ‘There is one world.’ Forays into every subject traversed in this work are imbued with the same sentiment. We live in one world, and every day we learn something new about the antics of the objects that populate it, including ourselves, whether we call them facts or values.

D. A Tale Twice Told

This book contains the results of numerous experiments, qualitative case studies and true stories designed to elucidate its various theoretical components and to describe the lineaments of a South African constitutional jurisprudence based upon experimentalism and flourishing. However, not even a winning ‘Waldron Wager’ can accurately condense a book that draws together current findings and learning in neuroscience, cognitive psychology, consciousness studies, choice architecture, development theory, experimental philosophy, new governance jurisprudence, the capabilities approach and the manifold contributions of my fellow South African legal academics. Nor will it convince you to ‘lay on’.

Perhaps it was the good fortune of the elders of Tiahuanaco to lack a written language by which to be bewitched (about such matters as freedom or consciousness). We also know a fair bit more about ourselves than the Tiahuanacian people. This book brings that modern body of scholarship to bear on current constitutional theorizing in South Africa.

There is, however, a second story that may help the reader understand the book that follows. It’s history. That is, my lived experience. And everyone knows what experience is: it’s the hangover you wake up with in the morning. (Sometimes every morning.)

The experiences from which this book draws its power are decidedly personal. After returning from New York to Johannesburg in 2002 after a joyless convalescence, I picked up a book that I had read many years back – Daniel Dennett’s *Consciousness Explained*. Given the nature of my illness, it came as no surprise that I had absolutely no memory of its contents. So I began reading afresh. At about the same time, I struggled to get my head around a battery of South African

Constitutional Court decisions that seemed to me wrong. Wrong, partially in terms of reasons, and partially in terms of outcomes. Wrong *primarily* in terms of the metaphysical foundations upon which they rested. The point of contact between Dennett and the Constitutional Court turned upon opposing conceptions of the self and individual autonomy.

So: a problem to be solved. Through Dennett, I identified an entry point consistent with my own first-hand experience of the self and its construction, its disintegration, and its resurrection. Dennett's fully matured body of work, along with his canvassing of the extant literature in neuroscience, cognitive psychology and philosophy of mind seemed consistent with what I knew to be true from intuition, from experience and from experiments performed (quite literally) upon me.

At the time, the gap between metaphysics, cognitive psychology, analytic philosophy, neuroscience, social theory, on the one hand, and the extant jurisprudence of the Constitutional Court, on the other, possessed all the qualities of an unbridgeable chasm: the destination clear, but no obvious way to get there. Enter Li Yu. Li and I consumed many a meal trying to piece together something of an answer to the questions thrown up by Dennett and the Court. Li's most critical contribution was his introduction of experimental constitutionalism into our discussions. Experimental constitutionalism can – without fear of contradiction – be said to be largely a product and a project of several current and former professors at Columbia Law School: a friend (then vice dean) Michael Dorf (now of Cornell Law School), Barry Friedman, Charles Sabel, William Simon and Susan Sturm.

An immediate fit. Dennett's conception of consciousness turns primarily on its role as a complex set of feedback mechanisms, a capacity that allows human beings to engage in *trial and error* through *thought experiments* and *real experiments*. These experiments – and the feedback we receive – improve our chances at arriving at better answers over time to questions – factual and normative – that require a more or less immediate solution. For Dorf, Friedman, Sabel, Simon, Sturm and company, experimental constitutionalism reflects an attempt to ground the answers to constitutional (and mundane political) questions in empirical findings, in best practices arrived at through trial and error, a shared commitment to forward and lateral looking analysis of solutions that serve our ends best, and reflexivity with respect to those ends themselves. Instead of grand theories that predetermine outcomes, or an annoyingly South African scepticism that promises little more for our jurisprudence than discrete decisions shorn of any deep theoretical moorings, experimental constitutionalism splits the baby. On the one hand, Dorf, Friedman, Sabel, Simon, Sturm and company recognize the need for courts, legislatures, executives and an active citizenry to interpret constitutional provisions in terms of broadly shared understandings of the basic law's general norms. On the other hand, Dorf, Friedman, Sabel, Simon, Sturm and company, having tested their theories on specific areas of law (eg, education reform, drug treatment courts, child welfare systems, police interrogation), conclude that the norms ought to be set at a relatively high degree of abstraction. The space created by norms set at this high degree of abstraction enables co-ordinate branches of a central government, various agencies, different states or provinces, thousands of municipalities and innumerable private parties and stakeholders to undertake alternative approaches to the problems thrown up by constitutional litigation and more humdrum matters raised tens of thousands of times over in such venues as specialized

drug treatment tribunals, school systems and family courts. Over time, so the argument goes, we would be able to see which experiments undertaken by different constellations of stakeholders works best. These best practices could then be used to revisit our previous understanding of constitutional, statutory, common law and traditional norms so as to realize a better fit between means and ends. As importantly, the general normative commitments themselves (our ends) might change as we came to see, for example, that rehabilitation for drug users (however difficult) produced better results (for all concerned) than incarceration. The similarities between the notion of feedback mechanisms operating at the level of the self in Dennett's work and a constitutional democracy in Dorf's writings seemed too obvious to ignore. But still ... there lay a gap.

Li Yu and I continued to speak through 2003, and I began to write. Li Yu recognized that John Stuart Mill's notion of 'experiments in living' might provide a departure point for an experimentalist social theory. This first stage of bridge building mirrors the evolutionary epistemology of the economist Friedrich Hayek and the social scientist Donald Campbell. But the agnosticism, the political disengagement, and the classical liberalism of Mill and Hayek left us far short of the mark for a constitutional politics appropriate for contemporary South Africa (or anywhere else for that matter).¹¹ In time, two different bodies of social science literature provided the foundations for a more capacious and progressive experimentalist social theory. Novel notions of bonding networks and bridging networks found in the work of sociologists, political scientists and economists in the relatively new field of social capital theory offer a necessary explanation as to why we need to conserve extant stores of social capital so that we might leverage that capital in a manner that enables the majority of South Africa's denizens to flourish after years of depredation under apartheid and colonial rule.¹² A few years ago, Richard Thaler's and Cass Sunstein's *Nudge*, with its notions of choice architecture, confirmed my intuitions about the possibility of social experimentalism that could improve the lives of all at the same time that it recognized that our adaptive preferences (especially acute for the worst off) militated against dictating the exact contours of those improvements. The politics of flourishing – the Aristotelian ideal powerfully recast in recent work on development theory and the capabilities approach by Amartya Sen and Martha Nussbaum – and the concomitant commitment to that degree of material equality necessary to make flourishing meaningful had been part of my conceptual package from the outset. At this juncture, I felt confident that I could begin to connect theories of the self, the social, the political and the constitutional. What remained? Elbow grease: the chasing down of evidence that favoured my intuitions; a tightening of the line of reasoning. And, of course, unearthing the kind of examples and stories to keep a reader hooked.¹³

We arrive, for the purposes of this preface, at Wittgenstein's sword of Damocles: 'What can be said at all, can be said clearly: And whereof one cannot, thereof one must be silent.' The bar set for truth claims in the *Tractatus* remains the (unspoken) ambition of all serious scholars. Each argument must operate as an indisputable premise in an extended syllogism that proves the thesis of the book. However, as Amartya Sen has recently pointed out, good reasons may exist to question whether the younger, ascetic Wittgenstein really meant what he said. Sen notes that at the same time Wittgenstein was working on the *Tractatus*, he could write to a friend

and wistfully remark that he wished that he was 'better and smarter'. Yah. Me too. I do wish that I possessed the native intelligence and the years of training that would ensure that every sentence and every section of this book would march like soldiers, one after the other. I don't. Instead, I take some comfort from the later Wittgenstein's rueful remark at the beginning of his *Philosophical Investigations*. Though unsatisfied with what he had wrought, he had done the best that he could, and that would simply have to do. He had reached bedrock. This monograph is, as the older Wittgenstein lamented about his own work, a book of 'tips' that hang together not as a formal logical system, but as a way of seeing things that draws upon the insights of those wiser than myself.¹⁴ This book of 'tips' presses my contemporaries and betters in the South African legal academy, on the bench and in practice, to reassess their most basic assumptions about the self, the social and the political, and to reconsider their conclusions regarding how we should engage in the practice of South African constitutional law.

This book might well be called, in Kant's sense, a 'Prolegomenon'. Whether this text remains more than an introduction depends upon its ability to elicit constructive criticism. Some readers may conclude that I should have chosen to remain silent – and worked on a far smaller, comfortable scale, free of potential embarrassment. But where, after all, is the fun in that?

Stu Woolman
 April 2012
 Johannesburg, South Arica

Endnotes

1. GE Moore *Principia Ethica* (1903). Moore claimed that a naturalistic fallacy is committed whenever a philosopher attempts to prove an ethical or political claim through an appeal to a definition of the term 'good' that relies in turn on the presence of a natural property or a set of natural properties. The 'good', on Moore's intuitionist account, is a simple, non-natural, ineffable property. Moore (supra) at § 10 ¶ 1. 'Natural', by contrast, means something that can be studied within a scientific discipline. Prior places the following gloss on Moore's definition: 'The naturalistic fallacy [rests] on the [implicit but unwarranted] assumption that because some quality or combination of qualities invariably and necessarily accompanies the quality of goodness ... this quality or combination of qualities is identical with goodness. ... The naturalistic fallacy is the assumption that because the words 'good' and, say, 'pleasant' necessarily describe the same objects, they must attribute the same quality to them.' A Prior *Logic and the Basis of Ethics* (1949). No number of uncontested, experimentally verified, truth claims about the world can, on this account, prove an ethical (political or constitutional) claim that rests upon them.
2. S Blackburn *How to Read Hume* (2008).
3. D Hume *A Treatise of Human Nature: Being An Attempt to Introduce the Experimental Method of Reasoning in Moral Subjects* ((1739) (eds) DF Norton & MJ Norton, 2000) § 2.3.3.4.
4. P Churchland *Braintrust: What Neuroscience Tells Us about Morality* (2011) 6 citing A Baier *A Progress of Sentiments: Reflections on Hume's Treatise* (1991).
5. P Churchland *Braintrust* (supra) at 5.
6. Ibid.
7. Ibid at 8.

8. Ibid at 8–9. After eviscerating Moore’s muddled distinction, Churchland suggests that Moore would have been on far safer ground by merely contending that the relationship between facts and values is often quite complex. Ibid at 186–190.
9. KA Appiah *Experiments in Ethics* (2008) 183.
10. Neither Hume, nor Churchland, nor Appiah nor I endorse a naïve empiricism. For example, extremely good reasons exist to prefer the findings of evolutionary biology and physical anthropology to religiously inflected notions of intelligent design. At the same time, theories about the nature and the history of our world remain incomplete in both scientific disciplines. That incompleteness hardly counts as an argument against them. The fresh unearthing of an Australopithecus fossil in South Africa that predates findings in East Africa supplements the record – even as scientists argue over the meaning and the import of the discovery. See L Berger, D Ruiters, S Churchland, P Schmid, K Carlson, P Dirks & J Kibii ‘Australopithecus Sediba: A New Species of Homo-Like Australopithecus from South Africa’ (2010) 328 *Science* 195. That said, it is important to recognize that these disciplines, as William Rehg writes, ‘aim[] beyond the lab ... [E]xperimental practices are heavily oriented toward the production of public knowledge, and to reach that goal findings have to be presented in a convincing manner as ... acceptable arguments. Here public acceptability is not measured by publication alone but more pertinently by the usability of one’s findings and arguments for the research of other scientists’. W Rehg *The Cogent Science in Context* (2009) 21. Rehg’s two points are important for the work that follows. Contemporary neuroscientists and experimental philosophers – now working in conjunction with one another – have shown a myriad of ancient and contemporary philosophical arguments to be false. Their discoveries, still new, and in need of confirmation and extension, have turned some of the leading philosophers of just a generation ago (Colin McGinn, John Searle, David Chalmers) into a group of contrarians known as the ‘new mysterians’. See, eg, C McGinn *The Mysterious Flame: Conscious Minds in a Material World* (2002). In a recent article reviewing the work of neuroscientist VS Ramachandram (*The Tell-Tale Brain: A Neuroscientist’s Quest for What Makes Us Human* (2010)), McGinn whines (with some justification) that such scientists should be philosophically trained in order to avoid elementary logical and terminological errors. C McGinn ‘VS Ramachandram’s *The Tell-Tale Brain*’ (2011) 58 (5) *New York Review of Books* 8; C McGinn ‘The Tell-Tale Brain: An Exchange’ (2011) 58 (11) *New York Review of Books* 68. (McGinn’s ontological kvetching seems completely at odds with the apparent third-party truth status that he accords his own phenomenological account regarding the source of the emotion of disgust: it flows, he contends, from a universal awareness of the inevitable desuetude of consciousness that presages death. See C McGinn *The Meaning of Disgust* (2011).) The charges laid by the new mysterians ostensibly immunize ‘hard questions’ in philosophy from scrutiny by scientists working in other domains. When the work of teams of experimental philosophers, cognitive psychologists and neuroscientists are arranged next to arguments of conventionally trained philosophers who claim that little meaningful work can be done, the conclusions to be drawn are three-fold. First, when scientists can place chips in the brain that allow individuals to issue commands and have objects (say prosthetics) in the world perform various functions, it seems implausible to deny that the scientists in question have identified genuine neural correlates of consciousness. See S Musaliam, B Corniel, B Gregor H Shermberger & R Anderson ‘Cognitive Control Signals for Neural Prosthetics’ (2004) 305 *Science* 258; L Hochberg, M Serruya, G Friehs, J Mukland, M Saleh, A Caplan, A Branner, D Chen, R Penn & JP Donoghue ‘Neuronal Ensemble Control of Prosthetic Devices by a Human with Tetraplegia’ (2006) 442 *Nature* 164 (Brain Computer Implants (BCIs) restore damaged capacity because the cortical plasticity of the brain eventually treats implants as natural sensors or effector channels.) Second, while philosophers have long denied the capacity for third party knowledge of an individual’s percepts (‘qualia’), scientists have begun to break the code and show visual images that match an individual’s (internal) perceptions and thoughts. See N Shinji, A Vu, T Naseralis, Yuval, B Yu & J Gallant ‘Reconstructing Visual Experiences from Brain Activity Evoked by Natural Movies’ (2011) 10 *Current Biology* 1016; Y Miyawaki, H Uchida, O Sato, Y Morito, H Tanabe, N Sadato & Y Kamitani ‘Decoding the Mind’s

Eye – Visual Image Reconstruction from Human Brain Activity Using a Combination of Multiscale Image Decoders' (2008) 60 *Neuron* 915. Third, while some of McGinn's charges are correct – points that Ramachandram gracefully acknowledges – McGinn's appropriate response ought not to be to rule out such new findings tout court, but to participate in the design and the replication of the experiments themselves. Such co-operation advances knowledge within and across disciplines. As Rehg contends, collaboration makes the arguments propounded more cogent across the academy and within the public domain. Constructive, competitive collaboration marks the recent work of two teams of physicists – each over a thousand strong – which, independently and contemporaneously, produced compelling and cogent evidence for the existence of the Higgs boson.

11. This project is, at some remove, an attempt to flesh out the politics that underlay a much earlier article. S Woolman & D Davis 'The Last Laugh: *Du Plessis v De Klerk*, Classical Liberalism, Creole Liberalism and the Application of Fundamental Rights under the Interim and the Final Constitutions' (1996) 12 *South African Journal on Human Rights* 361, 363 (As Judge Davis and I wrote some 16 years ago: '[T]he state has an essential role to play in determining the contours of those "private" relationships which so fundamentally shape individual identity and in making possible a variety of life choices through support for those associations and organizations which make up society at large. Creole liberalism envisages a state which does not exhaust the possibilities of individual lives. Its *raison d'être* is to make real those possibilities through the provision of roughly equal material means for individual and group flourishing. At the same time, creole liberalism requires that the state occupy a crucial, if not always central, place in the debate about and construction of values at the same time as it supports (and rules out) a variety of different ways of being in the world.' Needless to say, while Judge Davis and I may still share quite similar political points of view, how we go about spinning out the foundations for a particularly South African constitutional jurisprudence differs. See, eg, D Davis *Democracy and Deliberation* (2000).
12. The existence of social capital seemed so obvious that I had previously employed the term without any exposure to the literature. See S Woolman 'Freedom of Association' in S Woolman & M Bishop (eds) *Constitutional Law of South Africa* (2nd Edition, OS, December 2003).
13. A parallel story of intellectual indebtedness must be told. After my conversations with Li Yu ended, South Africa's National Research Foundation (NRF) provided the next little prod forward. In the beginning of 2004, the NRF called for multi-disciplinary projects that spanned the natural sciences, the social sciences, the humanities and the law. At about the same time, the Research Unit for Legal and Constitutional Interpretation (a joint venture between the University of the Western Cape and the University of Stellenbosch) issued a call for papers for a conference to be held in September of 2004. I answered both calls with a paper and a presentation. Constructive criticism from the RULCI participants convinced me that while I might be on the right track, I had quite a lot of work to do in order to convince them (and others) that what might be compelling findings in an array of other seemingly far flung disciplines had a meaningful bearing on the (rather parochial) normative concerns of South African constitutional lawyers. A fifty-page conference paper may have remained just that, had not my colleague, Professor Karin van Marle, convinced me to take up the challenge of writing a work that might convince my justifiably sceptical initial audience. And so, over the next few years, between other more pressing projects, I pieced together what might be called the first draft of this book. Other projects again took precedence. However, the gut level sense that I had something novel to say did not go away. Further readings across experimental philosophy, cognitive psychology, neuroscience, social theory, and South African case law and commentary started to fill in the remaining gaps. (Developments in all of these domains seem to have caught up with many of my early intuitions.) An invitation, in December 2006, to speak at Columbia Law School – and helpful suggestions from the Columbia experimental constitutionalism cabal – kept the fire alive. A big positive push from Professor Steve Ellmann at New York Law School in 2010 forced me to produce rough drafts of the first and last chapter of this book and a detailed outline of the rest of its contents. Additional interventions by professors Andre Van Der Walt, Marius Pieterse, Henk Botha and

Dennis Davis provided welcome assistance; as have extended collaborations with professors Courtenay Sprague, Brahm Fleisch, Theunis Roux, Frank Michelman, David Bilchitz and Drucilla Cornell. Finally, Michael Bishop, friend, fellow editor, frequent collaborator, offered trenchant substantive critiques and identified gaps in theory, case law and the book's overarching argument. To his credit, and my benefit, Michael often filled in those gaps.

14. See L Wittgenstein *Philosophical Investigations* (1953) Book II, xi: 'Is there such a thing as "expert judgment" ... [T]here are those whose judgment is "better" and those whose judgment is "worse". Correcter prognoses will generally issue from the judgments of those with better knowledge of mankind. Can one learn this knowledge? Yes; some can. Not, however, by taking a course in it, but through experience. Can someone else be a man's teacher in this? Certainly. From time to time, he gives him the right *tip*.'