Chapter Three

A Theory of the Social: Constraint, Friction and Change

Do I contradict myself? Very well.
I am large. I contain multitudes.

Walt Whitman
A. Introduction

In Chapter 2, we saw that the way the vast majority of us think about the self, consciousness and free will is incorrect – dramatically out of step with what the majority of neuroscientists, cognitive psychologists, social theorists, economists and analytic philosophers have to say about those subjects. One consequence of these erroneous views is that the manner in which the majority of us understand ‘freedom’ – as a metaphysical term and as a political concept – is sharply at odds with how things actually are. In this chapter, we’ll see how we replicate similar kinds of errors when we think about how various forms of human association are constructed and how change actually occurs within such associations. Once again, epistemological fallacies with regard to social theory have the consequence of leading us to attribute far greater ‘freedom’ to groups, and members of groups, than they actually possess. This second form of over-valorising freedom results in institutional political arrangements and constitutional doctrines at odds with what we know about the human condition. Again, I’ll press the idea that we should be more concerned with creating the material and non-material conditions for individual and collective flourishing – across the many publics that make up the republic – than on formal notions of freedom predicated upon the absence of external constraint.

Chapter 3 is divided into three parts.

The first section explains the nature of the constraints the social places upon us. This realm’s rules, responsibilities and regulations make us who we are: and are the source of most of life’s meaning. In attempting to come to grip with these strictures, the chapter surveys Walzer’s notion of ‘unchosen conditions of being’: a term of art that bears a strong family resemblance to both Wittgenstein’s ‘forms of life’ and Heidegger’s ‘ways of being in the world.’ This same descriptive section explains how the networks of individuals that sustain our most cherished forms of life operate and why it is essential that these associations are constitutionally protected.

Having established the nature and the necessity of the constraints that are placed upon the social, the second section moves on to describe two theories of social change: spontaneous orders and evolutionary epistemology. These descriptions are valuable, but partial. They do not provide an account of the construction of all social phenomena and, more importantly, they do not accommodate the possibility of revolutionary change. Remember, revolutionary change, within the constraints allotted us, is one of the objectives that drives this work. Markets, for example, constitute spontaneous orders that work on the basis of trial and error and feedback mechanisms. They give us fresh opportunities to reflect upon experience (immediate and long term) and plot more or less optimal courses for action (immediate and long term). But, in terms of allowing for the vast majority of us to fit our round pegs into round holes, they often come up woefully short. Markets are wonderful (but only when extremely well regulated!!) at creating efficiencies and producing fortunes for those who have access to reasonably large stores of capital. The real benefit of markets, as Hayek argues, is not the making of money. It is the co-ordination of knowledge, information and goods – in an intelligent manner – without the direction of any one person or groups of persons. Put slightly differently, while such spontaneous orders provide important feedback (especially
about their own limitations, they are not especially well geared toward providing the kind of feedback that tells us what lives are worth valuing and how we should best order our society so that a majority of our fellow citizens may pursue them.

The third section looks at three theories of the social that we can leverage in order to realize the kind of the revolutionary change that might allow a majority of our fellow citizens to pursue lives worth valuing: (1) choice architecture and its commitment (a) to experiments that reveal what people actually need and (b) to organizational design that allows such needs to be met; (2) social capital theory and its understanding of how both bonding networks and bridging networks can realize significant change in a manner that fits the needs and the aspirations of various members of our society; and (3) a theory about the radical heterogeneity of the self and the social which demonstrates that the very friction between the selves that make up individuals and the sub-publics that populate a society can – under the appropriate conditions – create the necessary space for individuals and groups to invent new lives, sub-publics and ways of being that better fit their existing or newfound preferences.

What links these various lines of thought to our previous re-conceptualization of freedom? The modest, naturalized account of freedom offered thus far takes cognisance of the limits of individual agency. These limits led me to recast freedom-talk in terms of the less metaphysically problematic concept of flourishing. Having supplanted freedom-talk with flourishing, I then use social capital theory, the notion of spontaneous orders and evolutionary epistemology to explain, in part, how individual flourishing and group flourishing occur without central planning or hierarchical structures. More importantly, these theoretical constructs explain how individuals and groups so thoroughly conditioned and determined by the world can alter the ends they pursue – as well as the means for pursuing them – through different kinds of feedback mechanisms. Choice architecture and bridging networks press persons exercising responsibility for particular spheres of life to run experiments that generate the kind of feedback that will allow us to identify and to create social structures that better align with the preferences and the needs of individuals in various communities.

1. Uncosen Conditions of Being and Constitutive Attachments

It is trite to note that outside society, and without language, individual flourishing is a meaningless notion. It is only in light of the various practices, forms of life, or language games that social groups provide that we become anything that remotely approximates what we understand to be human. At the same time, these social practices and forms of life from which we derive meaning in our lives also constrain our actions and often limit our ability to behave in a manner that we believe will promote our own well-being, in particular, and human flourishing, generally. How can we recognize the value of the radical givenness of social life and still attempt to alter social structures in a manner that changes things for the better?

The answer lies somewhere in the following account of constraint, friction and disruption.

The constitutive nature or ‘radical givenness’ of our attachments and practices forces us to attend to an often overlooked feature of social life. We often speak of the social practices, endowments and associations that make up our lives as if we were largely free to choose
them or make them up as we go along. I have suggested why such a notion of choice is not true of us as individuals. It is also largely not true of social life generally. When Michael Walzer argues that there is a ‘radical givenness’ to our social world and the practices that make it up, what he means is that most of the practices that make up our social life are involuntary. We don’t choose our family. We (generally) don’t choose our race or language or ethnicity or nationality or class or religion. Moreover, even when we appear to have the space to exercise choice, we rarely create the practices available to us. The vast majority of our practices and forms of life are already there, culturally determined entities that predate our existence. Finally, even when we overcome inertia and do create some new practice, the very structure and style of the practice is almost invariably based upon an existing rubric. Corporations, marriages, co-edited and co-authored publications are modelled upon existing associational forms. Gay marriages may be of recent vintage. But marriage itself is a publicly recognized and sanctioned institution for carrying on intimate relationships that dates back well over three millennia. Even in times of radical transformation, mimicry of existing social practices is the norm.

Perhaps Walzer’s most interesting challenge flows from his invitation to think of what it might mean for individuals to lack involuntary associational ties, to be ‘unbound, utterly free’. One image, he suggests, might be that of wild horses. But this very image is the antithesis of what makes us human. We are human, and not feral, because of the involuntary practices into which we are born and which have been sustained and developed over time. Even schools designed to enable us to make the most of our freedom do not let us do whatever we so wish. Quite the opposite. We have to learn to be free. Flourishing – freedom rightly understood – remains predicated upon practices that are involuntary in all important respects.

Stop for a moment before you resist this account. To play the piano well requires years and years of practice in a practice that is centuries old – and mastery of this wonderful instrument is not something that the individual determines. You may play the piano well or poorly: you and everyone else can hear the difference. Or take advanced mathematics – a practice several millennia old. Difference, creativity occur at the very margins of this form of life: to master the techniques of various species of mathematics is to already be in agreement, to judge things in the same manner as other mathematicians. Most participants in these practices do not think less of another participant in the practice simply because they lack the genius to do something radically new within the practice’s confines. Mastery offers more than enough fulfilment to qualify as part of an individual’s flourishing.

This account of the involuntariness of social life is not meant to undermine the importance of equity or revolutionary change for individual flourishing in any truly complex, radically heterogeneous, democratic society. Issues of access, of coercion, of choice, of voice, of exit in various communities of which we are a part must be constantly negotiated: just as we must recognize that the radical heterogeneity of each self must be constantly negotiated. (Isn’t that why we, in South Africa, are so very tired after a long day? The moral salience of every exchange in everyday life with another radically, heterogeneous self in our highly stratified society is highly charged and depletes (as often as it replenishes) our reserves.) The emphasis on involuntariness in social life is, however, meant to bracket the standard account of freedom. By the standard
account, any impediment to free association is a denial of that which is most fundamentally human. By my account, however, those so-called impediments are the preconditions for freedom, for flourishing. A reasonably equal and democratic society must, it would seem, mediate the givenness of our social life and the aspirations all of us have to discriminate between those social forms of life which still fit and those which do not. It is often the case that not choosing to leave an association, but to stay, is what we truly cherish as freedom. And again: this conditioned outcome explains why little or no explanatory power is lost when we substitute ‘flourishing’ for ‘freedom’. As Walzer suggests, we ought to call such decisions to reaffirm our conditioned commitments ‘freedom simply, without qualification’. It is, for the most part, he concludes, ‘the only “freedom” that free men and women can ever have’.

Again: these constraints on our ways of being in the world does not mean that genuine change within small associations or large social formations is impossible or undesirable. (Far from it, as my Walzerian-inflected account of remedial equilibration, and its underlying distinctions between differentiation and domination, monopoly and tyranny, will demonstrate.) It does mean, however, that we must take some care in offering an account of how change occurs and even greater circumspection before we proffer prescriptions for the mechanisms that would facilitate optimal forms of change.

2. Social Capital: How Associations and Networks Function

As Shaun Knobe’s thought experiments in Chapter 2 reveal, experimentation as a way of engaging the world is revolutionary. Not only do experiments and the people who carry them out seek to better understand the world, but, as often as not, people who undertake experiments seek to overturn preconceived and – in their minds – incorrect ways of viewing various phenomena. Some hypotheses turn out to be incorrect. The large majority do. But from those that succeed, we are all the beneficiaries.

At the same time, the experimentation advocated in these pages has a built-in break. A conservative streak if you must. Not every norm or institution can be subject to constant review and reformation. (Much as Quine suggested, one never holds up an entire web of beliefs for scrutiny; we only assess, from time to time, individual strands within that web.) I will suggest several reasons, later on, for placing brakes on how we engage and experiment upon social phenomena. The first turns on the manner in which meaning makes us (through natural gifts, inherited endowments and spontaneous orders). The second turns on the dangers of grand theorizing that leads to dangerous, deadly and inhumane social projects. (The 20th century social experiments of Stalinist Russia or Maoist China – alone responsible for more than fifty million deaths over less than half a century – provide evidence enough to support that proposition: whereas no social democracy has ever gone to war with another social democracy or imperilled and destroyed the lives of so many of its citizens.) In many respects, our experimental philosophers – of Chapter 2 – have similar aims and operate under similar limits. In a variety of different ways, we saw that such philosophers test our intuitions – metaphysical, epistemological, moral and political – so that we might come to better comprehend the socially constructed myths under which we operate as well as the cognitive errors for which we appear to be hard-wired.
That leads us, finally, to another way of understanding individuals, social formations and political institutions: social capital theory. As I shall describe it, social capital theory looks upon society as a set of phenomena that contain the seeds for (a) experimentation and new institution building; (b) at the same time that such institutions and phenomena place a break on the manner in which state and non-state actors can undermine existing social networks that provide (i) the setting for all meaningful action, (ii) the real and figurative capital that enables individuals and societies and groups to build new institutions or improve on those organization and association that already exist, and (iii) the stores of trust, stability and mutual understanding that enable us to take collective risks on building something new, something different, and even something revolutionary. (We shall return later to the revolutionary possibilities of social capital made possible through the prism of Walzerian-inflected egalitarian pluralism and the legal doctrine of remedial equilibration. In this section my concerns are largely descriptive.)

As I have previously noted, social capital is – and is a function of – our collective effort to build and to fortify the things that matter. It is our collective grit and elbow grease, our relationships and their constantly re-affirmed vows. Social capital emphasizes the extent to which our capacity to do anything is contingent upon the creation and maintenance of forms of association which provide both the tools and the setting for meaningful action. Social capital is often treated as ephemera. That makes sense. It is so hard to see. In fact, it is this elusive quality that makes social capital so fragile. It is made up, after all, not of bricks and mortar, but of relationships and commitments, and the trust, respect and loyalty upon which they are dependent.

My take on social capital has several competitors. For example, Pierre Bourdieu defines social capital as

made up of social obligations or connections … [and the aggregation of] actual or potential resources which are linked to possession of a durable network of institutionalized relationships of mutual acquaintance and recognition.11

At a certain level of abstraction that sounds something like what I have described above. But one must read everything that Bourdieu writes. For only several pages later, he states that ‘economic capital is at the root of all the other types of capital’ and that ‘every type of capital is reducible in the last analysis to economic capital’.12 As my varied list of associations in Chapters 1 and 2 suggest, I do not adhere to such a reductive (quasi-Marxist) definition of social capital.

On the other side of the political/disciplinary spectrum, in Bowling Alone, Robert Putnam defines social capital as follows:

Whereas physical capital refers to physical objects and human capital to the properties of individuals, social capital refers to social networks and the norms of reciprocity and trustworthiness that arise from them. In that sense, social capital is closely related to what some have called ‘civic virtue’. The difference is that social capital calls attention to the fact that civic virtue is most powerful when embedded in a sense network of social relations. A society of many virtuous but isolated individuals is not necessarily rich in social capital.13
Two more recent characterizations of social capital better accord with the theses articulated in these pages. Nan Lin writes:

[S]ocial capital may be defined operationally as the resources embedded in social networks accessed and used by actors for actions. Thus, the concept has two important components: (1) it represents resources embedded in social relations rather than individuals, and (2) access and use of such resources reside with actors. The first characterization, socially embedded resources, allows a parallel analysis between social capital and other forms of capital … For example, human capital, as envisioned by economists, represents investment on the part of individuals to acquire certain skills … that are useful in certain markets … The second component of social capital … must reflect that [the] ego is cognitively aware of the presence of such resources in her or his relations and networks and makes a choice in invoking the particular resources.14

In somewhat simpler prose, designed to reach a broader audience in the academy as well as government officials, policy makers and practitioner of the law, David Halpern offers the following gloss:

So what is social capital comprised of? Most forms … consist of a network; a cluster of norms, values and expectancies that are shared by group members; and sanctions – punishments and rewards – that help to maintain the norms and the networks. … The first component is the social network … in some cases the small rural village. The network can be further characterized by its density … and its closure. … The second component is the social norms. These are the rules, values and expectancies that characterize the community of network members … Many of these rules are unwritten. The third component is sanctions. Sanctions are not just formal – such as punishments for breaking the law. Most are very informal, but are nonetheless effective in maintaining social norms. … The sanction may be through someone being told directly. … More commonly, however, the sanction is indirect and subtle, such as though gossip and reputation.15

The efforts of Halpern, Lin and Putnam have led the avatar of capitalism, the World Bank, to acknowledge the centrality of social capital:

Social capital refers to the institutions, relationships, and norms that shape the quality … of a society’s … interactions. Increasing evidence shows that social cohesion is critical for societies to prosper and for development to be sustainable. Social capital is not just the sums of the institutions that underpin a society – it is the glue that holds them together.16

In light of Putnam, Lin and Halpern’s definitions, social capital can be understood to connect flourishing to experimentation in the social realm as follows.

As I have already noted in Chapter 1, social capital keeps our intimate, economic, political, cultural, traditional, reformist and religious associations going. Social capital recognizes that we store the better part of our meaning in fundamentally involuntary associations: the constituitive. Squander that social capital, and nothing that matters will continue to exist. Social capital recognizes both the real and the figurative sense of ownership that animates particular forms of (social) life. If anyone and everyone can claim ownership of and membership in an association, then no one owns it. Social capital takes seriously the threat of various kinds of compelled association. Trust, mutual respect, reciprocal dignity
and loyalty have no meaning where the association is coerced. These several virtues can be earned, but never commanded. No trust, respect or loyalty: no social capital. No social capital: none but the most debased forms of (social) life, and no room for the kind of meaningful social and political experimentation that makes genuine flourishing (within a modern heterogeneous society) possible.

However, not all social capital formations are fungible. For South African life in particular, two forms are of particular import: bonding and bridging. Putnam puts the difference between these two distinct forms of social capital networks as follows:

Some forms of capital are, by choice or necessity, inward looking and tend to reinforce exclusive identities and homogeneous groups. Examples of bonding social capital include ethnic fraternal organizations, church-based women’s reading groups, and fashionable country clubs. Other networks are outward looking and encompass people across diverse social cleavages. Examples of bridging social capital include the civil rights movement, many youth service groups, and ecumenical religious organizations … Bonding social capital provides a kind of sociological superglue whereas bridging social capital provides a sociological WD-40.

It’s essential to gain a slightly better grasp of these distinctions.

One way to distinguish the two networks would be to contrast the strong bonds of reciprocity and care that are found inside families and small communities (what we might call normative bonding networks) with the [at least initial] self-interested norms that tend to predominate between relative strangers … and through which relative strangers can cooperate successfully (what we might call normative bridging networks). But that’s just a start. High-bonding communities tend to feature well-established, historically entrenched belief sets, shared assets and rather rigid rules regarding membership, voice and exit (as well as mechanisms for the use of those rules). As the rigidity of membership and voice should suggest, these bonding networks have their dark side: discrimination, exclusion and suppression of alternative views. In a state committed to overcoming centuries of oppression, bonding communities must ensure that they exercise their associational and community rights in a manner that does not offend the dignity and equality concerns of members and non-members alike. Traditional and conservative religious and cultural associations often straddle quite a fine constitutional line. Bridging networks, often mediated by the state or arms-length relationships in the market, are often extra-communal and bring together rather diverse groups of individuals in the pursuit of singular, generally self-interested ends. Membership, voice and exit tend to be both more flexible and more formal in bridging networks.

However distinct these two kinds of social capital may appear on the surface, the success of a developmental state such as South Africa depends upon: (a) respect for the significant public goods created by private bonding networks (schools, hospitals, charities); (b) leveraging, as much as possible, admission into bonding networks for persons (and groups of persons) who would otherwise not have access to the goods made available within those networks; and (c) the use of state resources to build linking or bridging networks that, over time, produce social capital comparable in nature and in quality to that social capital produced in bonding networks. The potential for social and political revolution is radical if we understand how
bonding and bridging networks actually function.25 (We shall return to that radical capacity later. I shall also acknowledge (in other chapters and the coda) the chastened expectations that we can have for building and bonding networks in what the World Bank has recently described as an ‘unsustainable’ South Africa.26)

B. Descriptions of Several Social Feedback Systems

This section attempts to answer two distinct, but related questions. First, how does the aforementioned account of the relationship between the individual and the social fit this book’s more general account of flourishing and feedback mechanisms? Second, how does one best describe the possibilities for change against a background of involuntary constraint?

Feedback mechanisms come in all shapes and sizes. So while ‘feedback’ was initially associated with electrical engineering, not long after this neologism was coined in the physical sciences it was adopted in the social sciences.27 Consciousness, as we saw, is one kind of feedback mechanism. The conscious report constitutes a record of our response, and perhaps the nature of our error. A record of such errors enables us to respond differently – assuming we survive the errors – the next time we are faced with the appropriate set of circumstances.

The same holds true for social formations. Social practices, endowments, language games and associations provide a variety of tools for being in the world. Our social practices provide stores of collective wisdom about what works and what doesn’t work. They also constitute large playing fields against which ‘experiments in life’ can be played out. Given their vastly increased scale, they offer systems of feedback far superior to those available to the lone individual.

For now, I will place particular emphasis on particular kinds of social formations that simultaneously provide individuals with information about their world at the same time as they extract information from them and circulate that information throughout the system. Such social formations enable all participating individuals to make more informed and better decisions about how to respond to their environment.

Of course, no guarantee exists that a society will advance flourishing by providing the individual with a sufficiently heterogeneous array of social practices and feedback mechanisms. Large societies, as well as small, can stifle the individual and the group experimentation required to advance flourishing. Because individual flourishing is parasitic upon the continued existence of social practices, and social life is often repressive, the individual often faces great difficulty in changing the means and the ends of life. Social practices create experiential bottlenecks. They restrict both the ends to be pursued and the means of achieving them. Mill and other theorists who rely heavily on individual experiments in living to drive social change often fail to appreciate the extent to which social forces are often arrayed against even minor modifications. That is why, in Chapters 4 and 7, I argue at greater length that a politics committed to both flourishing and experimentalism is necessary to liberate the self and the social from the ‘tyranny of custom’.28

The capacity for critique of our practices that is imminent in our practices – and which may expand the possibilities of existence – may well exist in a notoriously small number
of communities. In some rather closed and insular societies, the capacity for critique may well be a function solely of the manner in which different selves (roles, dispositional states, identities or ideals) create friction between one another and thus force conflicts that must be resolved in favour of one way of being rather than another. Although such choice may seem rather impoverished, it remains choice nevertheless. More importantly, it is choice or conflict from which we can learn, and it is choice and conflict whose lessons can be applied, profitably, to similar decisions in the future. The ultimate point is that there are always social practices – in science, in religion, in law – that expand our individual and collective capacity for critical engagement with our actions and our ends.

For the experimentalist, the grander the exercise in experimentation – the larger and more varied our critical community – the more varied our individual lives are likely to be. The more varied our individual lives, the experimentalist believes, the more likely we are to find successful models. The more successful models of being in the world there are, on the experimentalist account, the more likely it is that a member of a community will be able to identify at least one of a range of possible existences that will enable her to flourish.

That said, in contemporary South Africa, only the intervention of the state (and cooperation from powerful non-state actors such as businesses and traditional communities) will enable many historically disadvantaged individuals to possess the enhanced material conditions necessary for living out those possibilities. Our state, to be successful, has an obligation to undertake a greater range of social policy experiments designed to provide its citizens with the means and the goods required to flourish.

1. **Spontaneous Orders**

Spontaneous orders possess two notable features. They do not rely upon a centralized form of command and control to achieve optimal outcomes. They provide, in the form of abstract rules, constraints on individual behaviour that by their very abstraction enable individuals to respond constructively – singularly and collectively – to changes in the environment. The archetypal example of a spontaneous order is the market. The real purpose of markets, as Hayek argues, is not the making of money. It is the co-ordination of knowledge, information and goods – in an intelligent manner – without the direction of any one person or groups of persons. Hayek demonstrates that markets – by drawing down on the tacit knowledge and the local intelligence of individuals and groups – generally outperform the best informed central planner. More importantly, markets provide individuals with information about their world (at the same time as they extract information from them) that enables individuals to make better and better decisions about how to respond to the environment within which they live.

Hayek’s theory of spontaneous orders is not limited to markets. It applies with equal force to all other cultural institutions that are ‘the result of human action, but not of human design’. Spontaneous orders embrace cultural institutions as diverse as language, the common law, and open-code software that ‘serve the common welfare without a common will aiming at their creation’.

156
Before moving on to a discussion of other examples of spontaneous orders – such as language, open-code software and the common law – it is, perhaps, worth pausing for a moment to consider how such cultural structures form, and how they evolve over time. As Hayek points out:

Culture is neither natural nor artificial, neither genetically transmitted nor rationally designed. It is a tradition of learnt rules of conduct which have never been ‘invented’ and whose function individuals usually do not understand. … It is here that the … Cartesian approach has made thinkers accept as good for a long time only what were either innate or deliberately chosen rules, and to regard all merely grown formations as mere products of accident or caprice. Indeed, ‘merely cultural’ has now to many the connotation of changeable at will, arbitrary, superficial or dispensable. Actually, however, civilization has largely been made possible by subjugating the innate animal instincts to the non-rational customs which made possible the formation of larger orderly groups of gradually increasing size. … That cultural evolution is not the result of human reason consciously building institutions, but of a process in which culture and reason developed concurrently is … beginning to be more widely understood. It is probably no more justified to claim that thinking man has created his culture than that culture created his reason. … The structures formed by traditional human practices are neither natural in the sense of being genetically determined nor artificial in the sense of being the product of intelligent design, but the result of a process of winnowing or sifting, directed by the differential advantages gained by groups from practices adopted for some unknown and perhaps purely accidental reasons. … The evolution of society and of language and the evolution of the mind raise in this respect the same difficulty: the most important part of cultural history, the taming of the savage, was completed long before recorded history begins. It is this cultural revolution which man alone has undergone that distinguishes him from other animals. … To understand this development we must completely discard the conception that man was able to develop culture because he was endowed with reason. What apparently distinguished him was the capacity to imitate and to pass on what he had learned. And much if not most of what he learnt about what to do he probably learnt by learning the meaning of words. Rules for his conduct which made him adapt what he did to his environment were certainly more important to him than knowledge about how other things behaved.

So, hard-wired as we might be for language, languages themselves are social systems that are the result of collective action, but not collective design. Put another way, complex social systems, such as language, persist not because of unilateral, or mono-directional, commands, but by virtue of a complex interaction of patterns that Donald Campbell calls ‘downward causation’. As Henry Plotkin writes, ‘[d]ownward causation refers to the dynamic nature of control hierarchies, where information and causal power flow in all directions’. Languages are archetypal examples of systems that reflect downward causation. No modern language has its rules set by a single authority and no modern language possesses a central authority that determines the competency of its individual users. Instead, each competent user of a language employs a system of signs that millions if not billions of individuals have made use of and contributed to over time in order to convey billions of ideas, desires or demands. In using a language, individuals further contribute to language’s growth through novel applications of the word to a new set of phenomena. Of course, other institutions exist that mediate the use of the language and reinforce, or alter, the denotation of particular words. Schools, parents,
books, newspapers, television, the internet, dictionaries and movies all play important roles in information flow within the linguistic community. But once again, the causal flow is inordinately complex. Each conversation constitutes a new piece of information that subtly alters the linguistic landscape, and each conversation lies beyond the control of any single authority.

To understand the power of Hayek and Campbell’s description of social formations as the result of the twin forces of spontaneous ordering and evolution, one need only look at the brief and ignominious history of a modern language that was entirely the result of collective human design: Esperanto. The linguists who created Esperanto offered us a logical and coherent system that was easy to learn and universal in application. However, for the language to work, it required static and immutable rules to which all speakers were required to adhere. The failure of Esperanto stems, as least in part, from the failure of its creators to appreciate that languages work not (primarily) because their users have command of ostensive definitions or grammatical rules, but because the languages meet the ever-changing needs, purposes and ends of those users who have already mastered an array of linguistic techniques. Esperanto left no room for the inevitable evolution of language that occurs with neologisms or simple, novel iterations of a word or phrase. Esperanto failed because it left no room for the large-scale changes that flow, inexorably, from smaller, ever so subtle changes to the meaning of its constituent parts. Esperanto flopped because its creators failed to recognize that language is ‘the product of slow evolution in the course of which more knowledge and experience has been precipitated in it than any one person can know’.36

A good counter-example of a modern language that works is Linux. The success of this free operating software code lies in its ability to accommodate novel contributions from users without any single authority determining the benefits or the costs of any novel contribution. The users of Linux themselves determine the success of any novel development.37 (Not all programmers agree. Jaron Lanier argues that Linux, like most software programmes, creates a form of lock-in that prevents innovation.38)

The common law shares many of these same features of languages, open-code software and markets. The general norms of the common law provide abstract rules that guide – and delimit – the behaviour of an entire society of individuals without specifying the actions that those individuals undertake. At the same time, the rules themselves are altered, sometimes subtlety, sometimes significantly, each time they are invoked in novel disputes between individuals, or by a court asked to dispose of a novel dispute based upon an extant common-law rule. In mediating the conflicts between the expectations of the litigating parties as to the actual extension of the rule, the judge is obliged to decide which set of expectations ‘is to be treated as legitimate’ and ‘in so doing … provides the basis for future expectations’.39 Although one party will have had his trial and have been deemed to have erred, the result of the judgment is that all parties to the case – and all members of society – become aware of a shift – however small – in the standard by which their future actions will, very likely, be assessed. Without pressing the point too much further, the common law, like language and like markets, relies upon individual judges and individual litigants operating within a larger system of law (and meaning) and the ability of judges and litigants to understand the system of signals being sent throughout the system by other judges and litigants. A general commitment on the part
of judges, lawyers and litigants to a coherent system of law allows the common-law system to evolve in response to individual cases without any person or group of persons dictating the content of the entire system of rules. Indeed, as Richard Adelstein notes, ‘the dynamic which energizes the entire [common law] process of structural adaptation is the postulated search for mutually beneficial exchange’. It requires no Leviathan and no legislator for the system of rules to work and to change as individuals go about their lives and seek out Adelstein’s postulated mutually beneficial exchange. All this system requires is mastery by practitioners, and the ability of various members of the polity to engage, as necessary, in critical assessments of those common law norms that enable individuals and groups in a society to flourish. (Again: the ostensible flexibility of the common law is often contested. Frank Michelman has recently suggested that the South African judiciary’s commitment to the common-law has acted as a brake on the Constitution’s promise of dramatic and often radical changes to our law.)

The theory of spontaneous orders offers a way in which to understand how we – as fully conditioned (and constrained) as we are – are capable of making decisions that alter both ourselves and the world around us. Spontaneous orders also offer us another window onto the theory of consciousness developed in Chapters 1 and 2. As we have already seen, consciousness is not the product of a central planner, or a homunculus, who audits data and then issues commands. Consciousness is, rather, the product of mostly unconscious, multiple, parallel, distributed neural networks. These networks often compete with one another – for both attention and for the ability to determine action. The tacit knowledge or dispersed knowledge of individuals upon which markets, languages and the common law rely is not unlike the unconscious, multiple, parallel, distributed neural networks upon which the brain relies.

However, while the theory of spontaneous orders might provide a useful heuristic device for demonstrating striking similarities in consciousness, language, markets, software and law as feedback mechanisms, it does not follow that this descriptive account entails a particular set of political commitments. Indeed, it should be clear that the political quietism and the commitment to classical liberal principles closely associated with Hayek’s theory of spontaneous orders is fundamentally incompatible with the politics of human flourishing and experimental constitutionalism adumbrated above in Chapter 1 and below in Chapters 4, 5, 6, 7 and 8. Donald Campbell puts his critique of classical liberalism, from the perspective of the ‘experimenting society’, thus:

Within western democratic capitalism, there are a number of favourable features. These include the legal tradition, the successful achievement of changes in government through elections, and the genuine pluralism of decision making units. The so-called ‘market mechanisms’ of capitalist economic theory can be regarded in ideal form as self-regulatory cybernetic feedback systems implementing the collective aspects of the preferences of individual decision-makers. But the ideological justification and effective practice of the accumulation of great inequalities in individual and corporate wealth, and the role of wealth in providing uneven weightings of some persons’ preferences over those of others, provide great obstacles that … [will often] effectively sabotage … decision making genuinely [designed to realize] the public good.

In sum, while primarily market-driven economies and polities offer some capacity for human flourishing and for feedback on ‘best practices’ over a wide range of social institutions, the
benefits flow to far too small a portion of the overall population to contribute, meaningfully, to individual flourishing and to effective social experimentation. (A mere 400 Americans possess approximately the same degree of wealth as 150 million of their brethren – and 1% possess 25% of the nation’s wealth. It’s impossible to contend that every American has an equally meaningful opportunity to flourish. Similarly, a far less wealthy South Africa still possesses one of the highest Gini coefficients in the world. It’s impossible to contend that our society – with up to 35% unemployment, high levels of starvation and malnutrition and horrific primary and secondary schooling – offers a truly meaningful opportunity to flourish for the majority of its denizens.)

The next section looks at John Stuart Mill’s commitment to flourishing and to experimentation. As we shall see, Mill’s theoretical commitment to flourishing and experimentation is undermined by his refusal, like Hayek, to accord a sufficiently important role to the polity to ensure desirable outcomes at both the level of the individual and the collective.

2. Mill’s Experiments in Living

John Stuart Mill’s notion of ‘experiments in living’ unearths the potential of experimentation within private ordering. Instead of assuming that leaving people to their own devices will only maintain the status quo, Mill believed that people, once freed from the yoke of rigid legal constraints, would undertake ‘experiments in living’. These ‘experiments’ should, according to Mill, enable individuals to explore their ideals in a manner that produces practices that better fit their identities. As a good utilitarian, the promise of such voyages of self-discovery for Mill lay not just with individual changes in behaviour. He quite naturally believed that individual change, in the aggregate, would produce a more progressive polity.

The potential for experimentation and social dynamism that Mill identified provides an intuitively plausible, if incomplete, method for reconciling the conflicting demands of progressive social transformation and liberal private ordering. Mill’s commitment to negative liberty, and its concomitant guarantee of some individual and group independence from state coercion with respect to value formation and re-inscription, is certainly a necessary condition for human flourishing and social dynamism. It is simply not sufficient. Once we recognize the significant natural (and social) limitations on our capacity for reflection and autonomy, we come to understand that fostering novel forms of private ordering requires sustained structural, public intervention aimed at creating social institutions that promote collective experimentation and error correction.

a. Mill and the Limits of Private Ordering

While *On Liberty* is typically identified with Mill’s advocacy of individual rights, what often goes unnoticed is his powerful account of ethical empiricism. Drawing on his own experience of personal crisis, enervating depression, a nervous breakdown, internal exploration and physical recovery, Mill’s second line of argument ties the grounds for protecting individual freedom to more general ‘experiments in living’.

For Mill, his personal experience of crisis, depression and adjustment marked a prototype for the process of ‘experiments in living’. He believed that this process could be replicated
throughout a society with the appropriate political arrangements, namely, maximum individual liberty. Such experiments, according to Mill, promote human flourishing because they help us to narrow the distance between our ideals, our characters and our circumstances.\textsuperscript{50}

However, Mill did not believe that this potential for change based on reflection, self-critique and adjustment was limited to individuals. A similar potential for dynamism – based on reflection, critique and adjustment – also existed within social formations. Allowing individuals greater freedom for experimentation was, for Mill, a way of overthrowing the bondage of irrational customs and social conformity. Although Mill did not indicate clearly the link between individual experimentation and progressive social change, the details can be gleaned from his writings. The process would take the shape of the following ever-expanding virtuous cycle. Personal crises prompt individuals to reflect upon their ideals and circumstances. Personal reflection produces shifts in personal ethical ideals. Upsurges of new personal ethical ideals challenge and transform existing customs. Regular transformation of customs and norms encourages the process of personal experimentation and reflection.

A crucial part of Mill’s belief in the possibility of progressive social change was his theory of ethical empiricism. This theory provides a bridge between individual experimentation and the transformation of social norms. Despite his commitment to the existence of a hierarchy of values and the intrinsically greater worth of some existing social norms over others, Mill nonetheless held that such norms must be evaluated in light of their capacity for promoting individual flourishing under reasonably hospitable conditions. Accordingly, Mill deemed all ethical ideals and social norms open to assessment, critique and adjustment on the basis of our lived experience. Two questionable assumptions about individual potential lie beneath his ethical empiricism. First, his version of ethical empiricism requires that we be creatures with the capacity for sustained, rational reflection upon our beliefs and experiences. Second, it requires the ability to change our beliefs and practices on the basis of our reflection.\textsuperscript{51}

Given my earlier reversal of the traditional relationship between consciousness, freedom and action, it must be said that Mill dramatically overestimated the extent of our capacity for rational reflection on our experience.\textsuperscript{52} In times of crisis that are supposed to trigger personal reflection, we are more than likely to fall back on strategies that attempt to soften the pain of the problem at hand rather than put ourselves in a position to experience epiphanies that might reveal more fundamental flaws in our self-understanding.\textsuperscript{53} Moreover, as I have repeatedly observed, each life is often a composite of many, often competing, narratives over which we have little control as authors. A person’s ethical orientation is inevitably dictated by such pre-determined roles. Given the radical givenness of our radically heterogeneous determined selves, we can never take the synoptic view of our own lives. The promise of self-analysis, through psychoanalysis with an adept, properly trained second party, may well initiate positive change. That very few individuals actually embark on such a course of radical reconstruction points up the significant limits of reflection as an engine for change.\textsuperscript{54} We are constrained by forms of external regulation – social mores and legal norms – and our own personal entropy.\textsuperscript{55} Even those of us who have successfully re-evaluated our beliefs through reflection may find our capacity for self-initiated changes in behaviour or beliefs limited by natural or social constraints.\textsuperscript{56} Like Ulysses, who could not refuse the sirens’ calls, we...
cannot simply will ourselves into adopting a belief that runs counter to deeply ingrained dispositions. The cost associated with trying to alter fundamentally, upon reflection, one’s beliefs is much greater than the discomfort of lashing oneself to the mast for a day. Why? It often involves severing entire aspects of one’s identity.

Mill also failed to appreciate fully the tenacity of social norms in resisting conscious change due to the extent to which social norms, legal rules and individual identities are linked in contemporary societies. The connection between norms and individual identities invariably entrenches social authority in a manner that dampens effective individual reflection and adjustment. The presence of entrenched private power undermines Mill’s political vision because such obstacles to experimentation do not depend on direct government sanctions.

Entrenched private power creates a two-fold barrier to experimentalism. First, it aligns existing custom and practices with one’s individual identity. It thereby makes critical self-reflection difficult and redefinition painful. It thwarts attempts at reflection and adjustment by increasing its costs. That is, entrenched private power forces individuals to choose between preserving their membership in a community by muting their demands or alienation if they choose to speak up. Second, it enables individuals or institutional practices supported by entrenched authority to suppress new ideas and alternative points of views on the basis of authority instead of merit. Entrenched private power creates a ‘bottleneck’ and prevents individual experimentation from leading to corresponding changes in social norms. Mill’s insistence on the private order as the engine for social transformation fails to account for this inevitable brake on change.

Accordingly, one should refine Mill’s political theory in several respects while retaining the essential spirit of his experimentalist vision. Chapter 2 and Chapter 3’s initial recognition of the natural constraints and social limits on the individual capacity for reflection and adjustment calls for the creation of an alternative set of political mechanisms designed to realize Mill’s vision of a dynamic, virtuous cycle of progressive change. To this end, we should add the following corollary to Mill’s vision: experimentalism requires public intervention, not government abstention. Such public intervention entails (a) historical redress for marginalized communities; and (b) both public and private institutions that promote reflexivity and increase our individual and collective capacity to challenge the tyranny of custom. Chapters 4, 5, 6, 7 and 8 identify an array of institutional arrangements and judicial doctrines that distinguish a polity committed to experimentalism and flourishing from those jurisdictions that over-valorise either private ordering or central planning.

b. From Private Ordering to Experimentalism

Private ordering, conceived as permitting individual interaction with minimal official intrusion, can never truly be free from public ordering. Rules of contract, of delict, and of property – that often determine private ordering – can only be enforced with the backing of state authority. The distinction, then, between different levels of public intervention is a matter of degree, rather than kind.

Given that private ordering inevitably entails the use of state power, questions of (conservation and) transformation of existing social formations ultimately reduce to issues
of political institutional design and judicial doctrines. Generally, public intervention can either be imposed from above, via direct state action, or originate from below, through the initiative of individual stakeholders. Direct state action offers the virtue of speed. It suffers, however, from two important drawbacks: information deficiency and lack of participation. First, reconfiguring social institutions requires a certain amount of inside information. If trained anthropologists find understanding the cultures they study exceedingly difficult, how much greater is the challenge, and less likely a solution, for a largely untrained, unsupported and poorly remunerated South African bureaucracy who are often asked to solve pressing polycentric social problems. Second, by relying on a bureaucratic process, a top-down approach faces the peril of excluding the participation of the people most directly affected. Not only does such exclusion fuel the information deficit already discussed, it can also undermine an essential part of the political project of transformation — to change the mind-set of those who govern. Finally, the silence of those affected undermines the legitimacy of the decisions taken.

As I shall argue in more detail in Chapters 4, 5 and 7, one way of increasing participation, information generation and legitimation is through what Robert Mangabeira Unger describes as ‘destabilization rights’. Destabilization rights — in their thinnest form — provide remedies for stakeholders who seek accountability from either a government agency that influences private ordering or a social institution that exercises significant public power. Such destabilization rights offer two distinct forms of relief to the stakeholders. First, they require those persons in power to account for their decisions on the basis of evidence and reasonable arguments. Second, they bestow upon stakeholders rights of participation in the processes meant to address the problems that concern them. As we shall see in Chapter 4, destabilization rights are novel but not untested. Successful constitutional challenges to existing government policy in both South Africa and the United States demonstrate their potential.

Another mechanism for altering discriminatory and well-entrenched private ordering — whether it occurs in traditional communities or religious associations — is what has been described by myself, Michael Bishop and others as a remedial equilibrium. Unger’s rotating capital fund and my Walzerian-inflected take on remedial equilibrium could be called ‘super-liberal’. In truth, these positions are best characterized as ‘egalitarian pluralist’. Under an egalitarian pluralist constitution such as South Africa’s basic law, we enjoy a well-developed body of South African jurisprudence that distinguishes the public from the private, and understand why all comparable constitutions are invariably committed to some degree of private ordering. As Walzer himself must have understood, we can ‘seek justice elsewhere’ — my locution — as a response to domination and tyranny. Seeking justice elsewhere may take the form of peregrinations around the globe or exiting one sub-public and entering or constructing another more felicitous community within one’s birth-state. With respect to the latter form of exit, I shall later contend that the community responsible for the expulsion and the impairment of an individual’s dignity should, along with the state, bear some form of material obligation in order to make the creation of a more commodious sub-public a reality. Walzer’s Spheres of Justice enables us to make critical distinctions between differentiation and domination, as well as between legitimate distributions of social goods and tyrannical abuses of economic, social and
political power that invariably lead to the kind of stratified society that we inhabit in South Africa. Walzer’s felicitous description of the difference between differentiation and domination, and monopoly power and tyranny, also intimates how a commitment to a judicial doctrine such as remedial equilibration can assist us in developing a sliding scale of ‘interdependent and interrelated’ rights and remedies by which the rules that govern various non-state publics, communities or associations might be assessed when charges of discrimination are laid. A court order based upon remedial equilibration possesses a number of distinct virtues. Where differentiation rises to the level of unfair discrimination, remedial equilibration allows a court: (a) to acknowledge the constitutional infirmity of the conduct, (b) to appropriately remonstrate the association responsible for such conduct without necessarily eviscerating the power of the association to continue to determine its rules for membership, voice and exit, (c) to require the association, and where appropriate the state, to bear the pecuniary costs of the dismissal or expulsion, and (d) to assist the person harmed to secure employment or some other good (e.g. marriage) in a more congenial environment and thereby ‘seek justice elsewhere’. Seeking justice elsewhere and remedial equilibrium, as we shall see in Chapters 4, 5 and 7, are remedies that enable individuals, groups and states to find round holes for round souls, and square apertures for square characters. At the same time, remedial equilibrium enables individuals and groups to experiment with new forms of life, even as they look over their shoulders at what they have left behind. The more sub-publics we possess, the greater chance that individuals will be able to engage in ‘experiments in living’ that may enable them to flourish.

3. **Evolutionary Epistemology**

Chapter 2’s theory of the self contends that trial and error offers a profitable way of understanding individual behaviour, conscious and unconscious. From simple to complex actions, individuals use their cognitive modalities to sample or to test their environment, and to come up with the best possible solutions to the problem with which they are confronted. Because much of what we do as individuals is not conscious (that is, behaviour of which we are largely unaware), Donald Campbell insists that ‘a blind-variation and selective-retention process is fundamental to all inductive achievements, to all genuine increases in fit of system to environment.’ Blind-variation and selective-retention (BVSR) processes turn, in Karl Popper’s nomenclature, on ‘the process of proposing conjectures (blind variation) followed by the refutation (selective elimination) of those conjectures that are empirically false’. Campbell ultimately claims that BVSR explains all systems of knowledge – not merely scientific domains. More dramatically, BVSR is said to underlie all creative endeavours.

This account of how trial and error in both cognitive and non-cognitive processes leads to greater adaptive fit may sound a great deal like a form of evolutionary epistemology. It is. The attraction of this account is that it simultaneously explains the importance (ineluctability) of constraint and the mechanisms required for change. By attending to the mechanisms of change in blind-variation and selective-retention processes, we can then suggest how ‘experiments’ (trials) ought to take place in the formation of social policy by
political actors. (That prescriptive endeavour will be reflected in my account of experimental constitutionalism in Chapter 4.)

Blind-variation and selective-retention processes – or universal selection theory – fits my previous account of the constitutive nature of the self and the social, because it does not require – indeed it eschews – undetermined (or overtly ‘free’) accounts of how change occurs both at the level of the individual and the social. Universal selection theory – which places blind-variation and selective-retention processes at the core of human development – consists of four basic claims.

First, a blind-variation and selective-retention process is fundamental to all inductive achievements, to all general increases in knowledge, to all increases of fit of system to environment. Second, any BVSR system possesses three essential elements: mechanisms for introducing variation; consistent selection processes; and mechanisms for preserving and/or propagating the selected variations. Note that, in general, the preservation mechanisms and the variation generation mechanisms are inherently at odds, and each must be compromised. Third, the many processes which short-cut a fuller blind-variation and selective-retention process are themselves inductive achievements, containing wisdom about the environment achieved originally by blind variation and selective retention. Fourth, in addition, such short-cut processes contain in their own operation a BSVR process that substitutes for overt loco-motor exploration or the life and death winnowing of organic evolution.

Were these four claims about BVSR processes limited to the discoveries in biology of the mechanisms which explain the emergence and the evolution of species and their adaptive characteristics, then we might have reason to be sceptical about their application to individual cognitive processes, social processes and political processes. But this explanation fits what we know from immunology about the production of effective antibodies, from neuroscience about how the brain ‘selects’ some neuronal-synaptic connections over others, and from psychology about how creative persons are able to produce novel, diverse and often more fruitful ideas.

One common critique of evolutionary epistemology or ‘invisible hand’ explanations of knowledge processes in the natural sciences is that they ostensibly treat each actor – in this case, the scientist – as if she is a wholly autonomous individual without the need, the desire or the experience of relationships with other scientists. Mirowski rejects that contention and states the obvious: scientists operate in communities that reflect varying degrees of integration and co-operation. As Hull points out, all that is necessary for ‘invisible hand’ explanations of knowledge processes (in the natural sciences) to work is that sometimes these individuals act in relative autonomy from each other with respect to the general good at issue and that within the groups that they form, an important concern is looking out for themselves. They do not require that self-interest be the only motivation, nor that all the mechanisms by which the knowledge system produces truth or useful conclusions be ‘invisible’ to the participants. While there is little sense in comparing, on aggregate, the virtue of scientists, with the virtue of politicians, priests or philosophers, it seems worth noting that scientists are, by and large, motivated by a desire to produce knowledge for knowledge’s sake. This motivation is a necessary feature of a system in which the truth – the
product of scientific experiments – is contingent upon the recognition and the acceptance of the truths established by a whole community of scholars. They are contingent in two distinct ways. First, the truth of the hypothesis is dependent upon a body of knowledge that the scientist did not create. Second, the truth of the hypothesis – its value in the broader scientific community and beyond – is dependent upon the willingness of the scientist to rely upon the findings of others (and thus give them the credit they deserve), with the expectation that they will return that respect if the scientist’s own experimental result turns out to be true.

Having at once established the relative virtue of scientists, I have also drawn attention to the manner in which natural science knowledge processes fits the general model of ‘invisible hand’ or ‘spontaneous order’ explanations. First, the scientists are still motivated by the desire to produce valuable work for which they receive express – or at least implicit – credit. This motivation underlies the many races – and consequent disputes – about who really arrived at the truth first – Darwin or Wallace, with respect to natural selection, Gallo or Montagnier, with respect to the virus that causes AIDS. Second, although scientists rarely bother to replicate the experiments of others in order to prove the actual findings of others – no glory there – they do attempt to discover error in the work of others and do receive credit for demonstrating that previous work contains falsehoods of one sort or another. Thus, with respect to error, science operates ‘as a self-policing system of mutual exploitation, or, if you prefer, co-operation’. But like all invisible hand processes, no one person determines the validity or the invalidity of truth statements, and no one person organizes a regime that determines which hypotheses are tested and how. Because the commitment to truth, and the rewards and the punishments that attach to genuine discoveries and to the failure to produce reliable results, constitute the core values of the scientific community, no central authority is required for policing its individual members.

How then does this epistemology of blind variation and selective retention in knowledge processes fit with my previous account of the involuntariness of social associations and the constraints that they impose on individual and group identity? First, our social practices – including the blind-variation and selective-retention knowledge processes in science – provide stores of collective wisdom about what works and what doesn’t work. Second, individuals and groups – individual scientists and their teams – do not need to ‘know’ all there is to ‘know’ about how a particular social practice functions in order to make use of it and in order to undertake experiments within it. Third, the capacity for critique of our practices is imminent within all our practices. The space for critique in our social practices – large in science, somewhat smaller in religion – expands our individual and collective capacity for critical engagement with our beliefs. Fourth, the stronger our collective commitment to experimentation is – that is, the larger and more varied our critical community is – the more varied our individual lives are likely to be. Blind variation and selective retention in knowledge processes such as science provide a good example of how experimentation creates more and more successful models of the world.
4. Limits of Evolutionary Epistemology and Spontaneous Orders

In Campbell’s view, social scientists who press for an ‘experimenting society’ ought not to be misread as proposing that social scientists set the political agenda. Social experimentalism accepts that ‘preponderantly unscientific political processes’ will determine ‘ameliorative program initiatives’. The role of the social scientist in a social experimentalist program is to help decision makers and citizens alike assess the success of an initiative in achieving its goals and in avoiding deleterious consequences.

It is not, at all, ironic that advocates of social experimentalism tend to be rather modest about the contributions that social science can offer politics. Where non-experimentalists tend to fall into the over-advocacy trap – offering advice, but little subsequent analysis – experimentalists generally tend to eschew advocacy. This reserve flows from the recognition that many areas of social policy construction are notoriously resistant to experimental assessment.

Given their relative agnosticism as to what the best practices in a given area of social policy ought to be, how do proponents of social experimentalism expect to advance the goals of an experimental society? At least two general answers are offered.

First, the assessment of the experiments themselves ought to be undertaken by as large a number of independent social scientists as possible. As David Hull and Donald Campbell both note, science works best under conditions of ‘competitive cross-validation’. Roger Merton shows how the ‘organized scepticism’ of a scientific community – in which a systemic level of distrust is married to personal ambition – leads scientists, individually and as members of research teams, to monitor one another for theoretical advances that actually improve the ability to carry out their own programs. Genuine theoretical advances need not be replicated – and indeed rarely are. They need only prove useful to others. Should the alleged theoretical advance prove unreliable – and ultimately erroneous – the scientist or the scientists responsible will be subject to communal opprobrium. The ‘organized distrust’ that produces ‘trustworthy reports’ is enhanced when our independent social scientists bring their respective critical skills to bear on a data set that is apt to be analyzed by other evaluators.

Second, social experimentalists tend to advocate funding numerous local programs to address chronic problems. Only once a local program announces success would it be subject to scientific evaluation. As Campbell notes:

Evaluation research is clearly something done by, or at least tolerated by, a government in power. It presumes a stable social system generating social indicators that remain relatively constant in meaning so that they can be used to measure the program’s impact. The programs that are implemented must be small enough not to seriously disturb the encompassing social measurement system. Thus the technology I have been discussing is not available to measure the social impact of a revolution.

Though individual improvements may only incrementally alter an experimentalist society, the cumulative effect of myriad experiments can be fundamental and revolutionary. That claim is a central feature of this work. We shall see it at work again below when discussing choice architecture and further on when assessing the merits of experimental constitutionalism.
now, it is enough to note that the political agnosticism of advocates of spontaneous orders and evolutionary epistemology raise flags for constitutional scholars committed to significant normative change.

C. Better Descriptions and Prescriptions for the Social: Experimentalism in State Policy

1. Choice Architecture

a. Cognitive Biases in Deliberative Practices

A far more powerful empirical engine for social change – and a theory with prescriptive charge – has come out of recent work by legal theorist and political scientist Cass Sunstein and economist and behavioural scientist Richard Thaler. For years, Sunstein appeared so consumed by doubt about grand theorizing that it led him to something akin to pyrrhonian scepticism with regard to constitutional theory. But Sunstein’s scepticism ultimately gave way to empirical analysis. In Infotopia, Sunstein developed a critique of deliberative politics as a constructive form of information aggregation and decision making that identified four basic forms of information aggregation and two deleterious influences on the manner in which we arrive at collective decisions. Sunstein’s four basic forms of contemporary information pooling are: (1) statistical averages; (2) deliberation; (3) price or market systems; (4) Internet wikis. Pace being the dominant pre-disposition of constitutional scholars, Sunstein’s writings suggest that deliberation may well be the least useful of the four. He writes:

Most of the time, both private and public institutions prefer to make decisions through some form of deliberation. … Does deliberation actually lead to better decisions? Often it does not.87

To explain the failures of deliberation and the promise of other methods of aggregating information in the pursuit of better decision making, Sunstein explores the consequences of two forces:

The first consists of informational influences, which cause group members to fail to disclose what they know out of respect for the information publicly pronounced by others. … The second force involves social pressures, which lead people to silence themselves to avoid the disapproval of peers or supervisors. Even if you believe that group members are blundering, you might not want to say a word because you do not want to risk their disapproval.88

Eliot Fishman, Michael Fisher and I have identified similar kinds of failures in deliberation when it comes to patent thickets or anti-commons effects in complex biopharmaceutical technologies. A patent thicket is ‘a dense web of overlapping intellectual property rights that a company must hack its way through in order to actually commercialize new technology.’ Hypothetically, multiple parties would always negotiate in their own best interest and expect a royalty no greater (or less) than their proportional contribution to the commercialized product. Indeed, some authors have offered algorithmic guidance with regard to the appropriate attribution of equities in respect to sequential inventions that require cross-licencing in order to create a marketable good. Yet, negotiations often break down. In coining the neologism ‘patent thickets’, Heller and Eisenberg submit that several
reasons exist for the failure of perfectly ‘rational’ actors – the patent holders – to fail to deliver well-designed novel, commercially viable products to downstream markets: (1) high transaction costs, (2) the heterogeneous interests of rights holders, (3) cognitive biases of licence holders, and (4) attributive biases of the participants.92 Not surprisingly, ordinary owners of upstream biomedical or pharmaceutical research patents tend, like human beings generally, to overvalue their own contributions and property.93

But let’s look at another extremely well-known case of heterogeneous interests, attributive bias and cognitive bias. In 2003, the US Central Intelligence Agency (CIA) provided the White House with a memorandum regarding the alleged presence of Weapons of Mass Destruction (WMDs) in Iraq. The memo concluded – wrongly as we now know – that such WMDs (or the immediate makings thereof) already existed. A popular line of thought – propagated by Sunstein himself at the time (oops!) – is that a CIA guilty of groupthink ‘caused it to fail to explore alternative possibilities and to obtain and use the information that its employees held’.94 The US Senate Select Committee on Intelligence on Weapons of Mass Destruction in Iraq arrived at the same erroneous conclusion.95 In point of fact, a different deliberation/information aggregation gremlin was responsible: ‘the big dog in the room’. As Fulton Armstrong indisputably shows, the CIA possessed a significant number of dissenting analyses regarding WMDs in Iraq. The responsible analysts made their scepticism known.96 However, after some eight visits to the CIA by then US Vice-President Cheney, and constant combat with the Department of Defence – both of whom actively sought information that would support the administration’s desire to initiate a war with Iraq – the CIA gave in to the pressure and delivered the desired cover for the invasion. The doubts within the CIA and within the State Department were relegated to a single footnote. (Actually, that’s only one version of the problem. As Ron Suskind writes, the CIA handed George W Bush a memorandum entitled ‘Bin Laden Determined to Strike in US’ a month before the successful attacks on the World Trade Centre on 11 September 2001. Bush’s reply to his well-informed briefer: ‘All right. You’ve covered your ass now.’97 That’s one big stupid dog. However, it’s consistent with what we do know about the attention span and modus operandi of that US president.)

b. Overcoming Cognitive Biases

Such empirical findings (even those that contradicted Sunstein’s initial assessment) led Sunstein to delve deeper into problems with deliberative political mechanisms and into everyday social biases, aversion, blunders, (false) assumptions, inertia, herd following and temptations that lead all of us to make everyday mistakes. Having identified good and bad social choice mechanisms in Infotopia, Sunstein produced a work in ‘choice architecture’: Nudge.98 Although still committed to rooting out biases that lead to suboptimal outcomes, Thaler and Sunstein show us how to devise environments – for cafeterias, school choice systems, organ donation, prescription drug programmes and airport urinals – that lead to better outcomes. By better outcomes, Thaler and Sunstein mean environments that enable individuals to change their deleterious choice defaults into more positive choice defaults without forcing or coercing individual actions.
Thaler and Sunstein first introduce the notion of a ‘choice architect’. A choice architect ‘has the responsibility for organizing the context in which people make their decisions’. Fathers, lecturers, doctors, politicians, bureaucrats, CEOs, owners of spaza shops, computer programmers, traditional leaders, internet portal designers, ballot devisers, are all choice architects. Virtually any occupation with responsibility turns the responsible individual into a choice architect.

Two examples of choice architects are worth considering at the outset.

Thaler and Sunstein’s first ‘choice architect’ – Carolyn – is a cafeteria supervisor for an extremely large school system (say over fifty schools). The question: how should she design cafeterias in a manner that optimizes learner choices – and makes them ‘healthier’. Of course, she could also design the cafeterias in a manner that maximizes efficiency or increases a school’s profit (for profit’s sake alone). But such normative choices are not on the table for a school superintendent. Assuming she does not know, in advance, everything about cafeteria architecture, her best bet would be to arrange the exact same food groups and other specific items in different places within the fifty different school cafeterias. Over time, each school would reveal patterns of selection based in significant part on where the foods were placed. (Research demonstrates that students do not have genuinely ‘true preferences’, but often have their preferences determined by access and availability.) The choice architect would, after a few months, be able to discern where to place certain foods so as to ‘nudge’ students into making healthier choices – ‘as judged by themselves’. The supervisor isn’t taking food off the shelves and the racks. She is merely placing those foods in places that either maximize or diminish the likelihood of their selection. Thaler and Sunstein describe Carolyn’s ingenious experiment as follows:

Without changing any menus, [she] would run experiments in her schools to determine whether the way the food is displayed and arranged might influence the choices kids make. Carolyn gave the directors of dozens of school cafeterias instructions on how to display the food choices. In some schools the desserts were placed first, in others last, in still others a separate line. In some schools, the French fries, but in others the carrot sticks, were at eye level. … Simply by rearranging the cafeteria, Carolyn was able to increase or decrease the consumption of food items by as much as 25 percent. Carolyn learned a big lesson: school children, like adults, can be greatly influenced by small changes in context.

Carolyn, as a choice architect, has the ability to craft an environment that enables people to make more optimal choices, for themselves, without overt coercion.

A second, less seemly, instance of choice architecture was undertaken by the management of Schiphol Airport in Amsterdam. After undertaking a number of experiments designed to increase hygiene in the men’s bathroom, the management found that placing a picture of a large black fly on a urinal increased accurate ‘aim’ by 80%. Men, it would appear, like having a target. The target nudges them in the direction of good hygiene: an outcome that was of benefit to all bathroom users. (These flies have become ubiquitous in public toilets – and they work for me. Hit the fly!)

Notice that in both instances that the choice architects were able to coax ‘free’ agents to make choices that were better ‘as judged by themselves’ and better as judged by the choice architects in terms of the overall welfare of the community that they served. (The last clause

...
reminds us that one must always have a normative departure point in any decision making setting.)

These two improvements – better for the individual and better for the social group as a whole – are what lead Thaler and Sunstein to call their political theory 'libertarian paternalism'. They define their cheekily named theory as follows:

The libertarian aspect of our strategies lies in the straightforward insistence that people, in general, should be free to do what they like – and to opt out of undesirable arrangements if they want to do so. … When we use the term libertarian to modify paternalism, we simply mean liberty preserving.103

'The paternalistic aspect lies in the claim that it is legitimate for choice architects to try to influence people's behaviour in order to make their lives longer, healthier and better. In other words, we argue for self-conscious efforts, by institutions in the private sector and also by government, to steer people's choices in directions that will improve their lives. In our understanding, a policy is paternalistic if it tries to influence choices in a way that will make choosers better off, as judged by themselves. Drawing on some well-established findings in social science, we show that in many cases, individuals make pretty bad decisions – decisions they would not have made if they had paid full attention and possessed complete information, unlimited cognitive abilities and complete self-control.'104

In the next section and at the end of this chapter, I demonstrate – with examples drawn from environmental protection to corporate strategy – how nudges work (as experiments) across a broad range of human practices.

Although I shall devote a significant amount of space in Chapters 4 through 8 to demonstrating how constitutional doctrines and political institutions can be better understood in terms of experimental constitutionalism and how a commitment to experimental governance better serves human flourishing, it is worth noting here that there is a large and varied literature in the social sciences devoted to the promotion of experimentation in statecraft. The epistemic and political foundations of this literature are very much of a piece with the core epistemic and political foundations of experimental constitutionalism. In short, both bodies of work recognize the constraints that ‘the social’ places on change and both bodies of work concur that the state – as things currently stand – is in the best position to break the bottlenecks in the social that prevent individuals and groups from undertaking genuine experiments in living. Both bodies of work endorse the proposition that the state – if properly organized – is in the best position both to support and to monitor these experiments in living and, ultimately, to ratify, even if it is in only the most provisional way, the best practices that arise out of these various experiments in living. Again: though individual improvements may only incrementally alter an experimentalist society, the cumulative effect of myriad experiments can be fundamental and revolutionary.

It's worth noting, here, the broad array of experiments that have been performed to 'nudge' participants toward more ‘optimal’ forms of behaviour (as judged at the time of the experiment). Thaler and Sunstein identify how everything from charitable giving,105 automatic tax returns,106 the wearing of motorcycle helmets,107 the tying of insurance rates to health club usage,108 and civility check programmes on emails,109 can increase the health, the wealth, the happiness and the well-being of persons who subject themselves to even
the gentlest of nudges. These nudges may appear trivial, but they demonstrate the larger point that significant change is possible without broad top-down, centrally planned social engineering. Consistent with the theory of self, outlined in Chapter 2, we can alter ‘the social’ without making grand and unjustified claims about our conscious capacity to overcome deeply engrained default positions.

2. **The Virtues (and Vices) of Social Capital: Using Bonding Networks and Bridging Networks to Foster Change**

Recall Putnam’s distinction between the two primary forms of social capital or networks:

Some forms of capital are, by choice or necessity, inward looking and tend to reinforce exclusive identities and homogeneous groups. Examples of bonding social capital include ethnic fraternal organizations, church-based women’s reading groups, and fashionable country clubs. Other networks are outward looking and encompass people across diverse social cleavages. Examples of bridging social capital include the civil rights movement, many youth service groups, and ecumenical religious organizations … Bonding social capital provides a kind of sociological superglue whereas bridging social capital provides a sociological WD-40.110

Now consider some actual policy choices undertaken by our own national Department of Education. (These policy choices will be discussed in further detail in Chapter 6.) For example, our unintended, but clearly recognized, system of school choice enables learners to move from school to school in search of an educational environment that best fits their needs and economic status. (Learner movement in South Africa – driven by parents – across provinces and within provinces is quite significant: and the drive by parents is to find better schools for their children.) School fees, on the other hand, are governed by a scheme of exemptions that ensures that some degree of cross-subsidization and desegregation will occur in urban and peri-urban schools. (Children of live-in domestic servants have rights of equal access to local primary schools. Children of individuals who work within a given district also possess rights of access to these same primary schools.) In both instances, engagement across race and class holds out the promise of the creation of bridging networks over time. Bridging networks can, in turn, become bonding networks that create broader access to the rich stores of social capital that they contain. The powers granted School Governing Bodies recognize both the importance of grass roots democracy and the bonding networks that enable schools to maintain their ability to deliver an adequate education to learners (including those learners who cross the bridge from other communities).111

3. **Radically Heterogeneous Selves and Societies as Engines for Change**

In Chapter 2, we discussed change that occurs through the friction created by the various selves that ‘populate’ a single corporeal radically heterogeneous determined ‘me’. We saw that the multiple roles that we as individuals have been conditioned to play make different demands upon us and often pull us in dramatically different directions. In this chapter, I want to begin to tease out the lineaments of a related thesis: that a radically heterogeneous society (such as that of South Africa) populated by a radically heterogeneous population of individuals can be an engine for revolutionary change.
But let’s back up. How does this particular theory of the self and the social bring about change? Recall that the radical heterogeneity of the self shows us how change occurs without the attribution of ‘free will’. Each dispositional state or role reflects its own set of responses to the surrounding environment. I find myself regularly challenged by my each of my roles as son, partner, director, golfer, disabled person, English speaker, editor, author, friend, committee member, supervisor, employer, citizen, dancer, moviegoer, constitutional and public lawyer, consultant, Jew, New Yorker, Jo’burger, Caucasian, poet, cook, driver, professor with an endowed chair in ethics and sustainable development, American, South African, atheist, utilitarian, egalitarian, care-giver, 48 year old, sexually active heterosexual (without fetishes), union member, feminist, golf club member, owner of a closed corporation, homeowner and gardener – just to name a few. Not only does the discharge of the responsibilities of each role or dispositional state itself pose a challenge (they call work ‘work’ for a reason), the attempt to reconcile all these roles without conflict is simply impossible. Change often comes – is forced upon us – when we must choose the good or the end to which we must give priority in a given set of circumstances. The complexity – and the friction between roles – does not end with our own corporeal selves.

As part of our social life in non-totalitarian societies, we are confronted daily with other equally complex, radically heterogeneous selves with whom we must carry out innumerable transactions and who carry out their own roles in ways that invariably pose challenges to our current preferred ways of being. We are confronted with an environment – neither of our making or choosing – that constantly demands that we alter, sometimes ever so slightly, sometimes dramatically, who we are and what roles we play. Disruption and confrontation are part of life, however much we try to hold such challenges at bay.

We have, within our own body of South African constitutional law jurisprudence, intimations as to how selves and groups can dramatically change without top-down social engineering. Such hints can be found in the opinions of Justice Emeritus Albie Sachs. Sachs is certainly not interested in formal forms of liberalism that preserve the status quo, nor does he confine his legal imagination to the protection of all sorts of discrete and insular minorities. Sachs writes, early on in his judicial career, ‘that the emancipatory elimination of institutionalised prejudice against gays and lesbians will encourage amongst the heterosexual population a greater sensitivity to the variability of the human kind’. Sachs places sexual difference and sexual desire – and its radical heterogeneity of form – at the heart of what it means to be human. He challenges the majority of South Africans to acknowledge the acceptance of their own inevitably idiosyncratic sexuality (and we are all idiosyncratic in and outside the bedroom) in the hope that it will connect them more powerfully to the idiosyncratic sexuality of others and thereby forge a democratic solidarity through the recognition that we are each entitled to ‘equal space’ to be ourselves and to explore – with the support of others – that which makes each of us unique.

Again and again, Sachs returns, in dissenting and concurring judgments, to various forms of difference and the potential they hold out for radical change. In *Daniels v Campbell NO*, he places customary Muslim marriages on an equal footing with their legally sanctioned civil counterparts. In *Volks*, Sachs rejects the majority’s finding that the appellant, ‘having chosen cohabitation rather than marriage … must bear the consequences’ and thus could not avail
herself of the benefits of the Maintenance of Surviving Spouses Act. In *Prince* – a case not about sex, but about the equally challenging practice of drug use in religious rituals – Justice Sachs articulates his notion of a ‘right to be different’. In demanding that his colleagues, the state and his fellow citizens ‘walk the extra mile’ when it comes to marginal publics such as the 10,000 Rastafarians that inhabit South Africa, Sachs writes:

> Intolerance may come in many forms. At its most spectacular and destructive it involves the use of power to crush beliefs and practices considered alien and threatening. At its more benign it may operate through a set of rigid mainstream norms which do not permit the possibility of alternative forms of conduct.

He then comes close to accusing those who view dagga use as dangerous of being in the grip of a blinkered hypocrisy. (They hold no such prejudices about alcohol.) He writes:

> In *Christian Education* this Court held that a number of provisions in the Constitution affirmed ‘the right of people to be who they [were] without being forced to subordinate themselves to the cultural and religious norms of others, and highlight the importance of individuals and communities being able to enjoy what has been called the ‘right to be different’. In each case, space [had] been found for members of communities [in our democracy] to depart from a general norm.

Democracy in a society of radically heterogeneous selves and radically heterogeneous communities, Sachs seems to be saying, presupposes the capability of marginalised and vulnerable minorities to challenge the normative closure into which political communities tend to lapse. A society can only remain free if it values plurality and difference, and allows out-groups to disturb and to challenge deeply held majoritarian beliefs and practices. For this reason, the critical challenge for our constitutional ‘democracy’ consists ‘not in accepting what is familiar and easily accommodated, but in giving reasonable space to what is “unusual, bizarre or even threatening”’.

> ‘Unusual, bizarre or even threatening’ – such a vision of the social order ties the ability of individuals to re-imagine their own identities to the capacity of society for change, or quiet, piecemeal revolution. Of the relationship between the ‘romantic-liberal’ view of society and the struggle of out-groups for recognition, Frank Michelman writes:

> A chief aim of the romantic-liberal constitution must be to free ‘the life-chances of the individual from the tyranny of social categories’ of ‘classes, sexes, and nations’. The benefit accrues not only to the emancipated: it is structural and systemic, and accrues to everyone. Everyone, in the romantic view, has reason to welcome confrontation and challenge of his or her accustomed or habitual ways and values, from all quarters known and unknown. Democracy accordingly becomes not just a procedural but a substantive ideal.

But what is the content of that radically heterogeneous ideal? In *Minister of Home Affairs v Fourie* (*Doctors for Life International, Amici Curiae*); *Lesbian and Gay Equality Project v Minister of Home Affairs*, Sachs (writing for a Constitutional Court finally on the Sachs J bandwagon) argues that:

> [O]ur Constitution represents a radical rupture with a past based on intolerance and exclusion, and the movement forward to the acceptance of the need to develop a society based on equality and
A Theory of the Social: Constraint, Friction and Change

respect by all for all. Small gestures in favour of equality, however meaningful, are not enough. … The Constitution thus acknowledges the variability of human beings (genetic and socio-cultural), affirms the right to be different, and celebrates the diversity of the nation. Accordingly, what is at stake is not simply a question of removing an injustice experienced by a particular section of the community. At issue is a need to affirm the very character of our society as one based on tolerance and mutual respect. The test of tolerance is not how one finds space for people with whom, and practices with which, one feels comfortable, but how one accommodates the expression of what is discomfiting.120

What stands out in these various judgments is that the society Sachs has in mind takes us beyond the franchise, beyond formal equality, beyond tolerance for each group doing its own thing. In his radically heterogeneous democracy, only the actual recognition and material support for difference across individuals, groups and the country as a whole is sufficient. But it does more than require an appreciation for difference. It views, as Frank Michelman suggests, difference as an engine for change. How so? As both Sachs and Michelman write, it occurs through the regular confrontation with ways of being in the world that are not reflected in our own subpublics’ default positions. A truly democratic society made up of radically heterogeneous selves constantly forces us to acknowledge that there are other, perhaps better, ways of doing things with respect to many of the various roles we undertake and all the forms of life in which we participate. Constant friction forces constant experimentation with alternative ways of being. Such constant friction at the level of ‘the social’ constitutes a potent engine for constructive change. (As I noted above: it is also true that a self’s expression through action of multiple roles correlates closely with greater happiness. Where one role fails, another role steps in, as it were, to give life meaning. So consider multiple roles in a heterogeneous society as a recipe for both change and happiness.121)

D. Shared Consciousness and Feedback Mechanisms

In this final section, I offer several accounts of social feedback mechanisms in action. They take us out of the confines of theory and place us back in the real world where we belong.

1. Psychotherapy

One initiates therapy because one believes that the manner in which one engages the world is flawed and leads to less-than-optimal outcomes. One might even borrow the language of our initial encounter with a video game: our life might appear to us as a miasma of moving objects, whose actions, including our own, appear unpredictable, their purpose opaque. The goals of therapy then are three-fold: to enable us to see, more clearly, what we do; to understand why we do it; and, where necessary, to change our orientation towards the world. We could engage in this reflective process by ourselves. Quite often, for many matters, we can engage in the kind of sustained self-reflection and critique that would otherwise count as therapy. But even if it were possible for us to engage in that sort of endeavour, there are benefits to therapy that outstrip self-reflection.

The therapist provides two goods that the individual alone cannot provide. First, she presents a relationship – a safe, containing space – in which the patient can act out deeply
ingrained patterns of behaviour in the world, patterns often rooted in early experience. Second, her observant but critical voice sets out the individual’s maladaptive behaviour in sharp relief. While there is no substitute for the internalisation of this critical voice, we must be able to see the errors first before we can respond constructively to them.

Again, the parallels to playing a video game jump out. Over time and with greater experience of the therapeutic process, the patient begins to note certain regularities in her behaviour and how she and the world respond to her various modes of engagement. As time goes on in therapy, certain kinds of responses to the world should become understood (if not unlearned, so deep do they run) and preferred ways of being should become ‘second nature’ and the default position. In therapy, and over significant stretches of time, we replace existing maladaptive dispositional states with beneficial dispositional states in such a manner that – if all goes to plan – we ultimately require no conscious awareness of those states. We don’t (can’t) undo the extant networks, because, as I have noted in Chapter 2, our brain is a democracy with extant neural networks regularly competing for dominance. What we can do is lay down parallel neural tracks that compete with existing tracks – and try to remember to pull the right switch.

2. Legal Practice and Legal Theory

Therapy is simply one of many conscious critical practices that enable us to focus on aspects of our environment – and hold them up for scrutiny – in order to form better behavioural responses to the environment. Legal academic life is another such practice.

This book, as I noted in the preface, is a product of such a practice. It relies to a significant degree on the legal, philosophical and scientific contributions of others. (Indeed, the originality of the book lies primarily in the application and the synthesis of these other contributions to constitutional law in South Africa.) More importantly for the argument in this section, legal academia functions as a social feedback mechanism. In 2004, I offered the first draft of the paper upon which this book is based at the Research Unit in Legal and Constitutional Interpretation Conference at the University of the Western Cape. The academic discussion there pointed up concerns about the necessity of foregrounding normative arguments regarding constitutional doctrine with a descriptive account of consciousness. The same process was repeated at the Columbia Law School Experimentalism Workshop in 2006. Concerns were raised regarding the extent to which South Africa provided a desirable environment within which to establish experimental governmental structures. A talk at the University of London, in 2008, led to a cordial, but bracing set of exchanges. Over the last few years, colleagues from the University of Pretoria, the University of the Witwatersrand and the University of Stellenbosch have all offered useful appraisals of the arguments in these pages. A visit to New York Law School in 2010 to present two new chapters provided further feedback – and the impetus to complete this book. I have managed, as a result of these various trials and interventions, to correct some of the limitations in both the individual arguments and the overall structure of the book. In my experience, sharp-elbowed legal academic settings offer feedback mechanisms for error correction and truth propagation. At a minimum, the system points up logical or empirical flaws. At its best, this knowledge system initiates individual
and collective efforts designed to forge new and better ways of understanding the world. Whether this particularly novel contribution leads to improved legal arrangements, or just convinces some of its audience of its truth, is another matter entirely.125

3. Golf Instruction

I have a magic Uncle Harry. Four years ago, he made a little white ball disappear. Standing on the 15th tee at the Riverside Golf Course, approximately 140 metres from the green, Harry hit a solid five iron that covered the flag. It bounced once, twice, and rolled straight into the cup. His playing buddies, Irwin and Jake, shouted: ‘It went in!!!! It went in!!!’ My uncle, the master of prestidigitation, had seen nothing. His failing eyesight made it impossible for him to watch his ‘lucky dunk’. But the ball never lies in golf – and when Harry, Irwin and Jake reached the 15th green, Harry’s ball reappeared – nestled snugly at the bottom of the hole. He has the plaque on his wall at home to prove it.

Harry is, was, a natural. A schoolyard legend in Brooklyn. When I picked up the game a few years ago – after a hiatus of 25 years – I did not have my uncle’s untutored, unstudied magic upon which to draw. I struggled. I wish that I could say that all that my coach Costanza Trussoni and I had to do was fix what was broken. But that would assume that we really had something with which to work. As it turns out, there is nothing natural or magical about the golf swing.

Costanza’s first attempt at helping me to create a repeatable, effective swing failed. My body had a default position – developed from years of playing baseball, tennis and football – that ran counter to the requirements of a repeatable golf swing. So we started again.

First, we began with my address. We kept my feet planted and still – throughout the swing. Second, we further refined my address. Now I stood straight and bent slightly at the hips, ‘eyes over the ball’, ass out. Only the slightest flex of the knees was allowed. For the untrained body, this exercise was hard: for all the tension (work) lay in my lower back, glutes, hamstrings and quadriceps. Third, we allowed my hands to hang down, relaxed, before I initiated my takeaway with my left shoulder. Fourth, we began to work on undoing the flatness of my swing. Here’s a truth about the body: it will lie to you. It could never lie to Stansi. So while it seemed to me (on the course) that my backswing was vertical, Stansi could see – on the range – what I could not. My shoulders, arms and hands were not where they were supposed to be. So we worked on my takeaway – a solid feature of my swing. Now, however, my arms and hands came up and away from my sternum, and my wrists cocked at the top. It felt – and looked – from my perspective on the range – entirely wrong. The videotape does not lie. They were where they were supposed to be. We worked still more on my finish: hips and chest turned toward the target, arms relaxed behind my head, weight posted firmly on my left side. (I had learned to rotate my body around a single axis. What makes the golf swing so difficult is that a truly good swing requires rotation around three discrete axes.)

Solution. Success. No so fast. After many, many months, we had reprogrammed my body and my brain so as to create a repeatable swing. But after a year of hard academic work and almost no golf, my defaults returned with a vengeance. And so we started again – keeping what was still good: remembering to stay rooted and quiet in my lower body, turning along
the same axis back and through the ball to a proper finish. Costanza, my teacher, could apply her keen eye and understanding of golf theory to the movement of my body. But it remained up to me to make the practice and the theory meaningful. The ball never lied. If it flew on an errant course, however, I knew enough to ask several questions: where did I finish? Were my feet rooted? Did I cock my wrists prior to reaching the top of the swing? Was the tempo of my swing (roughly) the same going forward as going back? (Recall Dennett’s advice.) Did I keep my head down and steady? Did I finish with my weight on a straight left leg, arms relaxed, with club and hands behind my head and back? Instant empirical feedback and an opportunity to put a little theory back into practice.126

The First Moral of the Story: We can all use a good coach – in golf and in virtually all of our endeavours. We need feedback supplied by coaches and critics who can see what we cannot – just as we saw in our analysis of legal theory – where we are going, and where we are going wrong. We need exercises designed so as to train ourselves not to constantly fall back into our unhelpful default positions. What’s true in golf is true in law.127

The Second Moral of the Story: Watch yourself swing a golf club on film. Then bring the insights and collective wisdom of millions of golfers – and your professional golf coach Stansi – to bear on what you are doing right and what you are doing wrong. Go out and repeat the drills designed to bring it all together. Suddenly you are part of a social practice in which centuries of trial and error put you in a position to correct mistakes – at the individual level. Go down to the pro shop and look at the new range of clubs designed to improve play. All of a sudden you are part of a social practice in which centuries of trial and error have put manufacturers of equipment in a position to make improvements to ball and club design – at the collective level. Golf, so understood, reveals itself to be a social practice in which the downward causation of multiple participants enables all boats to rise – at least a little – without any one person or any one authority responsible for such a rise.128

Therapy, legal theory and golf – forms of shared consciousness – are just three examples of social feedback mechanisms. In our highly differentiated, extraordinarily heterogeneous society, innumerable other individual and collective efforts will allow us to reflect more effectively upon our actions and, where necessary, to come up with better solutions to the way in which we engage the world. One not so surprising source of experimentation and successful innovation is corporations. They are forced, when markets work efficiently and are regulated properly, to find better, cheaper ways of producing products than their competitors. Or, they are forced to produce new products that perform better than extant products on the market. As I shall suggest below, the benefits of such innovation often flow to the larger communities within which they operate – and not only to shareholders.

4. Corporations and Climate Change

We have already seen how markets enable actors to behave in a rational, self-interested fashion that does not require a central planner to solve social problems. But, as we all know, markets fail and corporations neither attempt, by and large, to provide a whole array of what we have come to know as public goods – education, roads, law enforcement, national defence, social security and a clean environment – nor do they consider it their responsibility to ensure that
communities in which they operate possess a minimum core of the basic necessities for life – water, food, health, housing. This chapter’s exploration of social experimentation (and the varied uses of nudging) suggests a third way: (a) that the public sector along with a broad array of other actors – industrial partners, NGOs, academics and, of course, consumers – should take an active role in shaping the space within which corporations and companies operate and nudge them towards the realization of pressing public goods that neither the public sector nor the private sector appear to be able to realize on their own (eg, new energy generation technology that addresses climate change); (b) that incentives for co-operative incentivized arrangements can drive the private sector itself as firms recognize that their long-term survival is contingent upon (i) the existence of sufficient energy sources, (ii) the creation of technologies that enable reuse of scarce natural resources such as water, (iii) a clean environment within which their employees can flourish, and (iv) stable, skilled local communities that provide the firm with on-going social licences to operate. General Electric stands out amongst multinationals as a firm that has ostensibly shifted its strategy to align with the ‘third’ way described above.129

GE’s Ecomagination Report reflects co-operative efforts designed to achieve triple bottom line goals of environmental protection, economic development and enhanced community participation at the same time as it fattens the single bottom line that matters most to shareholders. GE already has over half a dozen Environmental Protection Agency Energy Star endorsed products in its stable of goods.130 It also readily acknowledges the value of other US government incentives and partnerships – such as the US Recovery and Reinvestment Act of 2009.131 But GE – a behemoth amongst multinationals – has not been content to work with government agencies within US borders. The China Mainline Evolution Locomotive, the Kazakhstan Evolution ES44ACi Locomotive and the Russian-Built Locomotive Modernization Skids are but three co-operative green tech efforts undertaken with other governments. In 2011, South Africa purchased ten new GE high energy-efficient trains, because it knows that Eskom cannot supply current short-term needs and might not be able to supply reliable long term energy requirements. The agreement with GE also calls for ninety more trains to be built in South Africa (with the parts supplied by GE) – thus creating direct economic benefits to the community within which GE conducts its business. Co-operative efforts sponsored by other states interested in green technologies and green savings often take the form of what GE calls an ‘Energy Treasure Hunt’.132 These co-operative endeavours not only serve environmentally friendly ends and GE’s bottom line: the company shares its proprietary IT with partners who will, invariably, generate new green technologies.

I want to continue to emphasize for the moment the importance of collaborative efforts between the public sector and the private sector because only such ‘choice architecture’ is likely to lead to optimal environmental outcomes. International collective action – that rewards both hard choices and innovation – is required to solve problems associated with climate change. States alone have failed dismally to demonstrate the requisite commitment to achieving meaningful rollbacks of greenhouse-causing carbon emissions. Durban 2011 proved no better than Copenhagen on making good the promise of Kyoto. In the current economic environment (with a long-term recessionary forecast), curbing consumption patterns in China, India or the United States is unlikely to secure political traction. While Cassandra’s cries may fall on deaf
ears, proper regulatory regimes might be able to harness private initiatives geared toward making humanity's global footprint more and more carbon neutral.

Take GE's wind-powered efforts in Europe. The EU is committed to a 20% reduction in gashouse emissions by 2020: wind turbines supply one answer. GE ScanWind turbines currently operating in Hundhammerfjellet will soon be able to meet a sizeable amount of Norway’s electricity demands. (And Norway is already an oil-rich country.) In co-operation with the largest utility in Central Europe, GE recently supplied 139 giant 2.5xl wind turbines. In the next phase, GE Energy will supply 101 more. When complete, this site will produce enough wind-generated electricity to meet the needs of more than 400,000 EU homes. Finally, two projects in Romania will generate more than 600 megawatts of wind power by 2011. GE itself notes that

A key reason for the new wind farm’s location is Romania’s new pro-renewables legislation. The Romanian government has created legislation that is favourable to the development of renewable energy resources, granting significant incentives for wind farms and other renewable energy projects through 2015. [These incentives] have encouraged investors and developers to pursue projects in the country.\footnote{133}

Once again, co-operation between the public sector and the private sector has driven innovation, and served both the public good and the bottom line. The takeaway: when governments overcome problems of collective action and create regulatory and legislative structures attractive to corporations and companies, private initiatives often rush in to fill the gap. Choice architecture can be the mother of invention.\footnote{134}

At the same time, GE recognizes that all the new green technology in the world will be of little use unless governments create adequate incentives for their use by the public:

Water reuse technologies can help public and private sector decision-makers in water-scarce regions throughout the world successfully tackle the growing problem of water scarcity. However, these technologies cannot be deployed in sufficient quantities as long as withdrawing water from a river or a well is less expensive than conserving or reusing it. So the next big challenge lies in identifying and implementing institutional, legal and regulatory reforms that boost the price and marketability of water supplies while providing adequate social and environmental safeguards.\footnote{135}

Here again is the space that ‘choice architects’ in the public sector and the private sector need to fill – with the kinds of incentives that nudge producers and users of scarce resources in substantially more optimal directions. GE has heard the music and sees the future. That future will remain bleak without the right kinds of public–private partnerships.\footnote{136} I will hedge my bets here and note that until greater international collective political action occurs to address such ‘wicked problems’ (as they are now known in the sustainable development literature) such as climate control, environmental benefits are likely to be segmented and insufficient to bring the world’s ecology back into balance. Collective action on the scale required must take us far beyond what Thaler and Sunstein’s smaller scale ‘nudges’ can accomplish.\footnote{137}

\section*{Endnotes}

1. But they are often not well regulated. Take, for example, the use of coal as an energy source. Most regulatory schemes prod electricity generators that use coal toward environmentally friendly results through subsidies. Such subsidies serve primarily as tax havens. If the externalities of (extremely
A Theory of the Social: Constraint, Friction and Change

dirty) coal-driven electricity production – pollution, health care and greenhouse gas climate change – were made a part of the cost of coal-fired electricity through taxation, South Africa could probably eliminate all its debts and fund its natural health insurance scheme. (Of course, that thesis assumes that corporations and individual rate payers could afford the increase without driving down demand for and production of other goods.) In the United States, coal generated electricity, if appropriately taxed just to account for the costs associated with pollution, would rise from 9.0 cents to 15.2 cents per kilowatt hour. According to the National Health Council’s Committee on Health, Environmental and Other External Costs and Benefits of Energy Production and Consumption, a tax that captured all the social costs of pollution would make a substantial dent in the US federal debt (paying it off in roughly a decade), lower consumption and prompt the creation of greener, competitive technologies. Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use (2011). But that route is profoundly political – and few countries, South Africa or the United States, possess politicians with the stomach for such hard choices. See, eg, W Nordhaus Warming the World: Economic Models of Global Warming (2003); W Nordhaus Managing the Global Commons: The Economic Models of Climate Change (1994). For the possibility of a commons in such goods in South Africa, see D Roithmayr ‘Lessons from Mazibuko: Persistent Inequality and the Commons’ (2010) 3 Constitutional Court Review 347.

4. The Chinese cultural revolution looked to the Jacobin period of the French Revolution (once its Athenian moment had been displaced). The Khmer Rouge Cambodian revolution looked to its Chinese Marxist predecessors and to traditional forms of agrarian organization.
5. Walzer ‘On Involuntary Association’ (supra) at 70.
6. The forms of ‘bewitchment’ found in our accounts of free will or voluntary social practices is grounded in the mistaken belief that we first form theories about the world and then test these theories against experience. Not so, says Wittgenstein. It is essential that we get our order of priority straight. Once a practice is established (through trial and error), we might wish, upon reflection, to test its assumptions through experiments that do or do not confirm aspects of the practice’s usefulness. But that is not how those academics who reify theory and deliberative discord operate. Wittgenstein writes: ‘If language is to be a means of communication there must be agreement not only in definitions but also (queer as this may sound) in judgments (§250).’ L Wittgenstein Philosophical Investigations (1953).
7. We commit and recommit to marriages, friendships, religions, countries, employers. We stay with people or institutions out of loyalty: because this is just who we are. Sometimes we fight for our country. At other times, we resist injustice, generally peaceably, within our own country.
8. Walzer ‘On Involuntary Association’ (supra) at 73.
9. Ibid at 73. See also M Oakeshott ‘Political Education’ Inaugural Lecture at the London School of Economics (1961)(’Our determination to improve our conduct does not prevent us from recognizing that the greater part of what we have is not an incubus to be thrown off, but an inheritance to be enjoyed. And a degree of shabbiness is joined with every real convenience.’) Hume, like Walzer and Oakeshott, argued that freedom – properly understood – only becomes meaningful as a descriptive and a prescriptive term when we appreciate fully that it is contingent on tradition and custom. Hume writes: ‘Custom is the great guide of human life. It is the principle alone which renders our experience useful to us, and makes us expect for the future a similar train of events with those that have appeared in the past. Without the influence of custom, we should be entirely ignorant of every matter of fact … We should never know how to adjust means to ends or to employ natural powers in the production of any effect. There would be an end at once of all action, as well as the chief part of speculation.’ D Hume An Enquiry Concerning Human Understanding (1739) 29. It is interesting to note that radical social democrats such as Walzer and political conservatives such as Oakeshott share, along with Hume, a commitment to the premise that our beliefs, generally, ‘are neither natural in the sense of innate … nor a deliberate invention of human reason, but an artifact, … a product of cultural evolution’. FA Hayek ‘The Legal and Political
The Selfless Constitution

Philosophy of David Hume’ Studies in Philosophy, Politics and Economics (1967) 111. I actually assume that some – and only some – belief sets are partial functions of our natural endowments.


13. R Putnam Bowling Alone: The Collapse and Revival of American Community (2000) 19. See also R Putnam Making Democracy Work: Civic Traditions in Modern Italy (1993). Putnam does offer a better definition of social capital elsewhere – one more congenial to the purposes of this book: ‘Features of social life – networks, norms and trust – that enable participants to act more effectively together to pursue shared objectives … Social capital, in short, refers to social connections and the attendant norms and trust.’ R Putnam ‘Tuning In, Tuning Out: The Strange Disappearance of Social Capital in America’ (1995) 28 Political Science and Politics 1, 20. There is a signal difference between Putnam’s account of social capital and the one developed in these pages. First, in this book, social capital is not assumed to be desirable primarily because of its instrumental link to civic virtue and the well-ordered society (though it may operate in such a manner). Social capital is simply both a cause and an effect of all stable associational frameworks. It is a predicate good for most other social goods. Second, because associational life is the necessary setting for most meaningful action, it makes little sense to speak, as Putnam does, of virtuous individuals in isolation. Virtue is a feature of human life that can exist only in the context of a densely woven fabric of social practices that define the good. Third, our deployment of our social capital is how we get various things done. In the absence of significant stores of social capital, the only tool for collective action is coercion.


19. As de Tocqueville was first to note, medium to large scale democracies only flourish in an environment with a rich associational life. A de Tocqueville Democracy in America (1835). Social theorists have come to recognise that there is a direct correlation between (a) the availability (or the lack of availability) of social capital, (b) the presence (or absence) of bonding networks and bridging networks, and (c) the virility (or the sterility) of political life. This syllogism is not the product of armchair philosophers. As David Halpern and colleagues have demonstrated, Nordic countries – such as Sweden, Norway and Denmark – often possess social capital or mutual trust ratios of over 65 per cent. That means, in short, that two-thirds of the citizens of these countries tend to ‘trust’ – and thus be able to work effectively with – fellow citizens. Even the US, the land of the free, autonomous (allegedly fragmented and isolated) individual, boasts social capital or mutual trust ratios of over fifty per cent. South Africa posts a dismal 15 per cent. Brazil – with an equally long history of social strife and economic stratification – is one of the few democracies to advertise a lower mark: two per cent. The other danger to social capital in any open society is capture. Concerns about what I call ‘capture’ lie, like constitutive attachments, at the very heart of associational life. Indeed, concerns about capture are, essentially, a function of – one might even say a necessary and logical consequence of – the very structure of associational life. In short, ‘capture’ refers to and justifies the ability of associations to control their association through selective membership policies, the manner in which they order their internal affairs and the discharge of members or users. Without the capacity to police their membership policies, as well as their internal affairs, associations would face two related threats. First, an association would be at risk of having its aims substantially altered. To the extent the original
or the current raison d’être of the association matters to the extant members of the association, the association must possess the ability to regulate the entrance, voice and exit of members. Without built-in limitations on the process of determining the ends of the association, new members, existing members and even outside parties could easily distort the purpose, the character and the function of the association. Second, an association’s very existence could be at risk. Individuals, other groups or a state inimical to the beliefs and practices of a given association could use ease of entrance into and the exercise of voice in an association to put that same association out of business. In sum, by ‘capture’, I mean that in order for most associations to function as associations, they must possess a substantial degree of control over who belongs to the association and some degree of control over the ends the association pursues. So long as the association, and its members, as currently constituted possesses a figurative and/or real sense of ownership, so long as there is real social capital at stake, a court (and the state) must cede associations a significant level of control over entrance, voice and exit. For more on this discussion of ‘internal’ capture, see S Woolman ‘On the Fragility of Associational Life: A Constitutive Liberal’s Response to Patrick Lenta’ (2009) 25 South African Journal on Human Rights 280; S Woolman ‘Freedom of Association’ in S Woolman & M Bishop (eds) Constitutional Law of South Africa (2nd Edition, RS5, 2012) Chapter 44. According to constitutive liberals, or egalitarian pluralists (with its Walzerian ring), it is easy to conclude that golf clubs that have been the bastion of white male Christian privilege must open their doors to persons of all colours, all sexes and all religions. But what of religious secondary schools that discriminate on the basis of an applicant’s willingness to accept a prescribed religious curriculum and, at the same time, offer a better education than that generally available in our public schools? It would be foolish to dismantle such institutions solely on the grounds that either some form of exclusion takes place or that some re-inscription of privilege occurs. Almost all meaningful human labour occurs within the context of self-perpetuating social networks of various kinds. Taking a sledgehammer to social institutions that create and maintain large stores of real and figurative capital is a recipe for a very impoverished polity. More delicate forms of intervention – remedial equilibrium – are available to courts in order to leverage change within associations that engage in unfair discrimination and to enable individuals to exit often conservative communities in order to join or to form new, more egalitarian sub-publics.

23. Lists of nouns and adjectives also provide a handy way to distinguish one kind of network from the other. Bonding networks are often said to embrace parents, siblings, love, care, neighbourhoods, workplaces, shared customs, religion, ethic group affiliation, patriotism, loyalty, honour and trust (as well as ex-communication). Bridging networks are often said to capture acquaintances, colleagues, shame, reputation, links, generosity, mutual respect, diplomacy and negotiation.
24. Chipkin and Ngqulunga have argued that social cohesion is essential for long term economic stability in South Africa. See I Chipkin & B Ngqulunga ‘Friends and Family: Social Cohesion in South Africa’ (2007) 34(1) Journal of Southern African Studies 310. Building on recent debates about the importance of various kinds of social capital (especially bridging networks), Chipkin contends that state institutions – especially in a developing democracy such as South Africa – have an essential role to play in building social capital and promoting social cohesion: ‘There are several ways in which such linking is achieved. It may be that churches and other religious organisations, working on the basis of charity, are the key linking mechanisms between poor and resource rich(er) communities. Various civil-society bodies, including non-governmental organisations, may play similar roles. Yet the most important institution, in this regard, is the state. This is true for several reasons. In the first place, democratic state institutions, like local governments, are able to realise benefits, not simply for members of ascriptive groups, but for communities of citizens – irrespective of religious affiliation or culture or ethnicity. What matters is the degree to which their operations are inclusive and participatory and the degree to which they are able to invest in and/or leverage resources for poor communities … In the second place, the democratic State builds networks and creates linkages on the basis of democratic values. In other words, they encourage a culture of democratic citizenship in the country. In this regard, other kinds of ‘linking’ mechanisms, like the church, for example, may have important developmental effects, but they do not necessarily deepen the democratic culture.’ I Chipkin ‘Social Cohesion as a Factor in Development’ Symposium for the Office of the President (11–12 June 2007) 3 (paper on file with author). In sum, the state has a critical role to play in ensuring that the associational life of our extremely heterogeneous society buttresses the egalitarian goals, the utilitarian interests and the democratic ends of our polity. It can do so through economic policies – micro-financing or black economic empowerment (BEE). It can do so through school policies and school governing bodies. It can do so by ensuring that citizens are given a meaningful opportunity to participate in the decision making processes that have a direct impact on their lives. See, eg, Doctors for Life International v Speaker of the National Assembly 2006 (6) SA 416 (CC), 2006 (12) BCLR 1399 (CC); Matatiele Municipality & Others v President of South Africa & Others 2007 (6) SA 477 (CC), 2007 (1) BCLR 47 (CC).

25. Understanding social capital or associational life as generic terms is insufficient for the radical aims of this project. Bridges must be built between associations that wield enormous amounts of power and associations that do not. See M Edwards Civil Society (2004) 47 (‘Large differentials in the power of associations to make their voices heard, advance their own agendas and consolidate their own interpretation of shared norms in the public sphere are the enemy of the good society, and of democracy. That is why reducing inequality is a crucial part of any solution to the civil society puzzle.’) See also J Alexander The Civil Sphere (2006) 186 (‘The ideal and material hierarchies that sustain non-civil domains project themselves across the boundary of the civil society, and anti-civil domination becomes justified by ascriptions of competence and incompetence within the civil sphere itself. In this manner, the discourse of civil society [and social capital] justifies the pragmatics of domination without compromising the law’s semantic integrity.’)

26. The World Bank Group ‘Economic Update on South Africa: Focus on Inequality of Opportunity’ (2012) 3 Africa Region – Poverty Reduction & Economic Management viii: ‘The State of Human Opportunity in South Africa. While GDP growth – if modest by global comparisons – has averaged a credible 3.2 per cent a year since 1995 (1.6 per cent per capita), it has proven insufficient to absorb the wave of new entrants into the labor market from dismantling apartheid’s barriers. The potential for growth has been held back by industrial concentration, skill shortages, labor market rigidities, and chronically low savings and investment rates – the latter, despite the fairly high and improving rates of return to capital. Growth has also been highly uneven in its distribution, perpetuating inequality and exclusion. With an income Gini of around 0.70 in 2008 and a consumption Gini of 0.63 in 2009, South Africa stands as one of the most unequal countries in the world. The top decile of the population accounts for 58 per cent of the country’s income, while the bottom decile
accounts for 0.5 per cent and the bottom half less than 8 per cent. In large part, this is an enduring legacy of the apartheid system, which denied the non-whites (especially Africans) the chance to accumulate capital in any form—land, finance, skills, education, or social networks. At the heart of high inequality lies the inability to create employment opportunities on a large enough scale. Unemployment stands at 25.2 per cent (33.0 per cent, including “discouraged” workers), among the world’s highest. No surprise then that despite an almost 30 per cent increase in per capita GDP since the late 1990s, reductions in poverty have been modest at best. This [increase] would have been untenable without the growing social assistance grants. Non-contributory and means-tested (except for foster care) financial transfers from the budget account for more than 70 per cent of the income of the bottom quintile (up from 15 per cent in 1993 and 29 per cent in 2000). With the social grants, the entire spectrum of population ranked by income percentiles saw income growth between 1995 and 2005. But without the grants as part of income, those below the 40th percentile saw a significant decline in their income. In other words, without the grants, two-fifths of the population would have seen its income decline in the first decade after apartheid. Even after accounting for the equalizing role of social assistance, income inequality remains extraordinarily high. To reduce it to more reasonable levels over the long run, social assistance is clearly not enough and needs to be complemented by other initiatives. These [programs] would include a special focus on human capital development, particularly among children and youths.’

27. See A Rosenblueth, N Wiener & J Bigelow ‘Behavior, Purpose and Teleology’ (1943) 10 Philosophy of Science 18 (Behaviour controlled by negative feedback, whether in animal, human or machine, is a determinative, directive principle in nature and human creations.)


30. A virtually unchallengeable thesis in the domain of clinical psychology is that the more roles a person plays, the greater the likelihood of her consistent experience of happiness or wellbeing. The reason, simply put, is that if we fail in one role, then we still have other roles from which we can draw meaning and fulfillment. See R Biswas-Diener, E Diener & M Tayar ‘The Psychology of Subjective Well-Being’ (2004) 133 Daedelus 18. M Seligman ‘Can Happiness be Taught? (2004) 133 Daedelus 87; The Sustainable Scale Project Understanding Human Happiness and Well-Being (2003), available at www.sustainable.scale.org/attractive solutions, accessed 1 November 2011. This understanding of happiness closely approximates the Greek notion of eudaimonia that grounds this book’s commitment to flourishing.


32. FA Hayek Counter-Revolution in Science (1952) 49.


37. One might contend that all computer operating systems work in a similar way. Windows, as designed by Microsoft, is constantly improved based on feedback from users. Microsoft releases updates that fix problems in the program. The primary difference is that Linux users are the code-writers and they do not operate in a top-down hierarchical manner. (Although as Jaron Lanier argues, Linux also suffers from ‘lock-in’ because of its widespread success.) Microsoft may make use of non-hierarchical informational systems – but its ultimate goal must be to return profits to its shareholders. (Frankly,
Microsoft’s market dominance (through anti-competitive behaviour) has made Windows an ongoing nightmare. As Apple and the iPad gain market share, watch for both product lines to improve immensely – prodded further by the entrance of Google and Android, as well as Samsung, into the market. Moreover, telephones – brought out by Apple and Samsung – with their innumerable applications are already posing a threat to conventional desktops and laptops.)

38. See J Lanier You are Not a Gadget (2010).
42. Hayek develops the connection between consciousness and spontaneous orders in an early work. FA Hayek The Sensory Order (1952). Hayek’s theory of mind relies upon the twin concepts of classification and evolution. Classification consists of the innate, as well as the nurtured, propensity of a mind to impose regularities upon the world that enable us to act with some expectation that other entities in the world will respond in accordance with our predictions. Hayek’s concept of classification largely coheres with the view that neural networks are created, reinforced and distinguished by our experiences of action in the world. Indeed, Hayek’s view that synaptic connections between neurons, and larger sets of neuronal networks, are not ‘invariable features of the nervous system but are subject to modification in the course of the system’s operation’ has been borne out by the findings of contemporary scientific studies of consciousness. Ibid at 57. Our conceptual framework evolves, on Hayek’s understanding, through a process of evolution: new inputs or new experiences challenge our existing belief set. Neural networks and belief sets that continue to ‘work’ are reinforced. Neural networks and belief sets that fail to offer adequate responses to the world are supplanted by neural networks and belief sets that possess a higher degree of success. The change in neural networks that occurs within the individual and the change in belief sets that occurs within the individual and the broader society are both ‘explained’ by reference to the kinds of selection theory associated with evolutionary epistemology. See, eg, D Campbell ‘Blind Variation and Selection Retention in Creative Thought as in Other Knowledge Processes’ (1960) 67 Psychological Review 380.
44. While spontaneous order theories make much of the unintended collective benefits that flow from the actions of individual agents pursuing their own interests, these theories often ignore unintended negative consequences that flow from individual agents pursuing their own interests without regard for the collective outcome. As both Hull and Hardin have pointed out, ‘the tragedy of the commons’ is that ‘although none of the farmers using the commons intend to destroy it, that is what they do’. DL Hull Science and Selection: Essays on Biological Evolution and the Philosophy of Science (2001) 140. See also G Hardin The Limits of Altruism: An Ecologist’s View of Survival (1977).
45. See JS Mill On Liberty (1860) 57 (‘[A]s it is useful that while mankind are imperfect there should be different opinions, so it is that there should be different experiments of living; that free scope should be given to varieties of character, short of injury to others; and that the worth of different modes of life should be proved practically, when anyone thinks fit to try them.’)
46. Ibid at 70 (‘Despotism of custom is everywhere the standing hindrance of human advancement, being in unceasing antagonism to that disposition to aim at something better than customary, which is called … the spirit of liberty, or … progress or improvement.’)
47. The notion that democratic theories should emphasize detailed analysis of extant social processes rather than dictating substantive outcomes born of pure theory flows from a variety of thinkers in the American pragmatist tradition. See, eg, J Dewey Reconstruction in Philosophy (1926); R Rorty Consequences of Pragmatism (1981); B Fay Contemporary Philosophy of Social Science (1997). Brian Fay draws heavily on Dewey’s insights to argue that the philosophy of social inquiry should refrain from relying on categories and focus on processes. Fay (supra) at 223–242. I, in turn, rely heavily on pragmatic
principles of institutional design articulated, most compellingly, in Michael Dorf’s oeuvre. See, eg, M Dorf ‘Legal Indeterminism and Institutional Design’ (2004) 78 New York University Law Review 875. American pragmatists invariably emphasize the extent to which progress flows from a better understanding of the relationship between means and ends and the extent to which evolutionary improvements in means often have a reciprocal effect on the ends that individuals, groups and the state seek to realize.

48. Mill undertook a personal journey from being a young man living under the intellectual shadow of his father to becoming an independent, self-possessed thinker. This journey had both a theoretical and a practical dimension. Theoretically, Mill accepted a form of ethical incompatibilism. He recognized the existence of higher and lower pleasures, ie, a diversity of goods. See C Taylor ‘The Diversity of Goods’ Philosophical Papers II: Philosophy and the Human Sciences (1985) 230. Mill rejected the strict ethical reductionism of his father, James Mill. See E Anderson ‘John Stuart Mill and Experiments in Living’ 102 (1) Ethics (1991) 4. Consistent with the change in his theoretical views, Mill also undertook a practical process of personal exploration and experimentation. Ibid at 17–19.

49. Mill borrowed a metaphor from Sydney Smith to illustrate his vision of experimentation and greater fit. If we represent lives ‘by holes upon a table, of different shapes – some circular, some triangular, some square, some oblong,’ and persons represented ‘by [pegs] of similar shapes’, Smith thought that ‘we shall generally find that the triangular person has got into the square hole, the oblong into the triangular … [T]he officer and the office, the doer and the deeds, seldom fit so exactly that we can say that they were almost made for each other’. Anderson (supra) at 19. Mill’s ideas present us with a dynamic, rather than static, vision of private ordering and individual preferences.

50. See Mill (supra) at 60 (‘[H]uman nature is not a machine to be built after a model, and set to do exactly the work prescribed for it, but a tree, which requires to grow and develop itself on all sides, according to the tendency of the inward forces which make it a living thing.’)


52. See Anderson (supra) at 25–26 (Points out that Mill’s theory poses daunting requirements for our capacity for self-transparency and for holding systematic views as to our vision of the good.) See also Fay (supra) at 166–174 (Argues that the dynamic relationship between our present and our past experiences precludes absolute transparency in our self-interpretations.)

53. See Dennett Consciousness Explained (supra) at 85–87 (Deliberation may have long term benefits: we focus first on immediate concerns.)

54. Significant positive change has required twice-a-week psychotherapy for the past decade. The duration of treatment reflects both the limitations of a well-entrenched character and the difficulty of laying down new neuronal tracks and dispositional states even with the best of analysts. However, all the king’s horses and all the king’s men have managed to put some of Humpty Dumpty back together again.

55. Put another way, we are emotional beings enmeshed in dense lattice-works of narratives, traditions, identities and social mores, and corporeal beings constrained by our physical dispositions.


57. See Fay (supra) at 146–164, 191–197 (Illustrates the limits of a purely cognitivist model of human behaviour in light of our embodiment and embeddedness in social relationships.)

58. Imagine, for example, that your reflections on the cruelty perpetrated on people of colour by discriminatory laws have led you to subscribe to principles of racial equality. Yet, adopting those beliefs, even if secretly, would clash with your previous identity as a member of a racial community that accepts its privileged position as a deserved entitlement. Accepting the new belief requires you not only to give up previously held racist notions, but also to reject a host of other intertwined beliefs and relationships. The difficulty of changing one’s beliefs is compounded when one seeks to change one’s behaviour on account of a change in beliefs. Social psychology scholarship generally holds that because our modes of behaviour in relating to others are mediated through subconscious stereotypes, simply changing our conscious, overt beliefs about racism or class-based discrimination is often
insufficient to eliminate patterns of behaviour that result in racially or class-based discriminatory outcomes, such as avoiding areas with a large number of poor residents. See, generally, S Plous (ed) Understanding Prejudice and Discrimination (2003). To successfully combat the effects of existing patterns of discrimination requires both individual reflection, changes in belief, and gradual alterations in the patterns of social practices.

For instance, the leader of a religious fellowship or congregation often wields a great deal of implicit authority over her or his congregants, both over core religious issues as well as over questions less central to religious doctrines, such as questions of social policy. Here, the congregants may view the act of submitting to the spiritual and political authority of their religious leader as constitutive of their identities as members of that faith. Such disparities have, it seems plain, the potential to diminish demands for change.

Let’s extend the example in the previous footnote and assume that several members of the fellowship in question have been working on a public health campaign with a group of volunteers from a gay community organization. Based on those interactions, the members of the fellowship re-examine their beliefs about the sinfulness of homosexuality. They come to view those beliefs as a political position propounded by the leadership of the fellowship, but without any actual basis in the faith’s core religious teachings. Accordingly, they raise objections to the principles within the fellowship. In the absence of entrenched authority, this conflict would not have occurred. The inevitable presence of entrenched authority within most institutions often permits the preservation of existing norms without justification.


Neither program operates in absolute terms. To contrast them as top-down vs bottom-up merely illustrates key differences. In reality, a top-down approach requires a measure of individual participation, just as a bottom-up approach demands political oversight.


See D Campbell ‘Blind Variation and Selective Retention in Creative Thought as in Other Knowledge Processes’ (1960) 67 Psychological Review 380.


75. DL Hull Science and Selection: Essays on Biological Evolution and the Philosophy of Science (2001) 141. See also E Ullmann-Margalit ‘Invisible-Hand Explanations’ (1978) 39 Synthese 263, 267–268 (Contends that the explanatory value of spontaneous order explanations for social phenomena depend upon the ‘the process, or mechanism, that aggregates the dispersed individual actions into the patterned outcome: it is the degree to which the mechanism is explicit, complex and sophisticated – and, indeed, in a sense unexpected – that determines the success and interest of the invisible-hand explanation.’)


78. Hull (supra) at 144.

79. David Hull points out that scientists need not be saints to do what they do well: ‘Scientists may well be as motivated to produce knowledge for its own sake as they say they are, and perhaps these admirable motivations are sufficient to bring about the production of reliable knowledge, but the really near thing about the reward system in science is that it is so organized that, by and large, more self-serving motivations tend to have the same effect as more altruistic motivations. Virtue and benefit go hand in hand … To the extent that scientists are motivated by the high opinion of others as evidenced by the use of each other’s work, they will be pressured to behave themselves.’ Hull (supra) at 146.

80. The history of science itself is evidence for this claim. For almost 2, 000 years of western history, science and philosophy were largely synonymous – or, at the very least, the same thinkers did both and did not differentiate between the two. However, the last 300 years have witnessed a steady winnowing of subject matter in philosophy. Three hundred and fifty years ago, philosophers from Descartes to Locke to Leibniz all retained a hand in, and made contributions to, physics, mathematics, chemistry, and biology. But as the scientific revolution increased in speed, and as thinkers within the scientific community began to specialize, domain of knowledge after domain of knowledge left its original home in philosophy. Physics, mathematics, chemistry, biology, psychology, sociology, political science, computer science, artificial intelligence, critical theory, jurisprudence all got their start in philosophy. Today, philosophy’s success can be measured by how little of its original content remains distinctly philosophical.


83. Ibid at 26.

84. Ibid at 43–44.

85. Remember too that the experimentalist – social and constitutional – is primarily concerned with the conditions and the processes under which experiments take place. Experimentalists can be – and often are – egalitarian in their orientation and quite progressive in their politics if for no other
reason than that inegalitarian arrangements often skew experimental results in favour of those persons who possess greater power or wealth (because their preferences are given undue weight). The experimentalist is, by orientation, committed to the proposition that better political arrangements in the world are possible for the same reason that better scientific explanations of the world are possible. The scientific method has demonstrated that better and better explanations of the world are possible. Of course, with respect to political arrangements, the questions ‘for what?’ and ‘for whom?’ a particular arrangement will be better invariably arise. Experimentalists need not be wedded to any given final outcome – and almost by nature must view any positive outcome as provisionally desirable. But the notion of ‘better’ must, in this age, mean ‘better for all to a meaningful degree’. Otherwise, we would be entitled to ask why bother with the experimentation process at all?

87. Sunstein Infotopia (supra) at 11.
88. Ibid at 14.
89. S Woolman, E Fishman & M Fischer ‘Evidence of Patent Thickets in Complex Biopharmaceutical Technologies’ (2013) 53 IDEA: The International Journal of Intellectual Property Law Review 1. (Shows that the thicket effect appears when a seller must acquire a licence from two or more patent owners in order to create a downstream commercially viable product, and that where four or more other patent owners exist, negotiations for the necessary licences makes production of a commercially viable product impossible.)
94. Sunstein Infotopia (supra) at 12.
96. F Armstrong ‘The CIA and WMDs: The Damning Evidence’ (2010) 57 (13) The New York Review of Books 53. Armstrong writes: ‘When we . . . finally got a full read of the National Intelligence Estimate on WMDs, a couple of us expressed grave reservations about the fatally weak evidence and the obsessively one-sided interpretation of what shreds of information it contained. (We were not told that [the informant] Curveball was a solitary source of obviously questionable credibility nor that contradictory evidence was actually suppressed from the intelligence collection and dissemination process.) One colleague said it was clearly a paper written to provide a rationale for a predetermined decision to go to war. When I challenged the lack of evidence and the lack of alternative explanations, including forcing the questions raised by [the State Department] into a lowly footnote, one of the WMD promoting [intelligence officers] leaned forward and bellowed “Who are you to question this paper? Even The Washington Post and The New York Times agree with us.” The irony was complete: previously respected reporters, spoon-fed by Bush administration officials, were now being used to provide cover for the [National Intelligence Officers and CIA’s] similar compromise in accepting the administration’s view.’
99. Ibid at 3.
100. Ibid at 5.
101. Ibid at 11.
102. Thaler and Sunstein (supra) at 1–3.
103. Ibid at 5. Thaler and Sunstein do not have classic libertarianism – a thorough-going, conservative strain of fringe politics – in mind. Well, it was on the fringe until the Tea Party Movement arrived, and Ron Paul ran a strong, explicitly libertarian campaign for the Republican nomination in 2012. Thaler and Sunstein choose the term both to attract attention and to mean nothing more than enabling people – within meaningful and desirable constraints – ‘to go their own way’. Ibid.
104. Ibid at 5.
105. Thaler & Sunstein (supra) at 229.
106. Ibid at 230.
107. Ibid at 232.
108. Ibid at 233.
109. Ibid at 235.
111. It would be ludicrous to deny that eighteen years after liberation, we are on the verge of a second lost generation in our primary and secondary schools. Standardized test-based statistics of third grade students and sixth grade student demonstrate that South Africa ranks in the bottom tier of countries on this continent with respect to the delivery of an adequate education. As matters currently stand, little more than one out of three students who begin grade 1 actually complete Grade 12. Moreover, a real wealth map of apartheid South Africa superimposed on a similar wealth map of post-apartheid South Africa demonstrates that little has changed with respect to the distribution of economic and educational goods. South Africa, for all its efforts, seems ‘locked in’ to past patterns of disadvantage based upon race and class. See B Fleisch Primary Education in Crisis (2009)(While Fleisch does not make the argument for lock-in, and addresses himself to solutions, his analysis of the test score statistics could be used to support the lock-in thesis.)
113. Daniels v Campbell NO 2004 (5) SA 331 (CC), 2004 (7) BCLR 735 (CC).
114. Volks v Robinson 2005 (5) BCLR 466 (CC).

116. Ibid at para 145.

117. Ibid at paras 170–172. The *Prince* majority’s suppression of cultural and religious differences harms not only the individuals and the communities concerned, but society as a whole. Sachs J continues: ‘[F]aith and public interest overlap and intertwine in the need to protect tolerance as a constitutional virtue and respect for diversity and openness as a constitutional principle. Religious tolerance is accordingly not only important to those individuals who are saved from having to make excruciating choices between their beliefs and the law. It is deeply meaningful to all of us because religion and belief matter, and because living in an open society matters.’ Ibid at para 170.


119. Michelman *Brennan and Democracy* (supra) at 71.

120. *Fourie* (supra) at para 60 (emphasis added).

121. See *Pillay* (supra) at para 107: ‘[I]f there are other learners who hitherto were afraid to express their religions or cultures and who will now be encouraged to do so, that is something to be celebrated, not feared. As a general rule, the more learners feel free to express their religions and cultures in school, the closer we will come to the society envisaged in the Constitution. The display of religion and culture in public is not a “parade of horribles” but a pageant of diversity which will enrich our schools and in turn our country.’


123. F Leichsenring & S Rabung ‘Effectiveness of Long-Term Psychodynamic Psychotherapy (LTPP): A Meta-Analysis’ (2008) 500 (13) *Journal of the American Medical Association* 1551 (According to comparative analyses of controlled trials, LTPP showed significantly higher outcomes in overall effectiveness, target problems, and personality functioning than shorter forms of psychotherapy … Psychodynamic psychotherapies operate on an interpretive-supportive continuum. An emphasis is placed on more interpretive or supportive interventions depending on the patient’s needs … Gunderson and Gabbard define LTPP as ‘a therapy that involves careful attention to the therapist-patient interaction, with thoughtfully timed interpretation of transference and resistance embedded in a sophisticated appreciation of the therapist’s contribution to the two-person field.’ … In this meta-analysis, we included studies that examined psychodynamic psychotherapy lasting for at least a year, or 50 sessions. … A considerable proportion of patients with chronic mental disorders or personality disorders do not benefit sufficiently from short-term psychotherapy. … In this meta-analysis, LTPP was significantly superior to shorter-term methods of psychotherapy with regard to overall outcome, target problems, and personality functioning.) But see B Thombs ‘Analyzing Effectiveness of Long-Term Psychodynamic Psychotherapy’ (2009) 301 (9) *Journal of the American Medical Association* 930 (Letter questions study methodology) and F Leichsenring and S Rabung ‘Analyzing Effectiveness of Long-Term Psychodynamic Psychotherapy: A Reply’ (2009) 301 (9) *Journal of the American Medical Association* 932 (Explains, and defends, study methodology.)

124. J Rae-Dupree ‘Can You Become a Creature of New Habits?’ *The New York Times* (4 May 2008) (‘So [while] it seems antithetical to talk about habits in the same context as creativity and innovation … brain researchers have discovered that when we consciously develop new habits, we create parallel synaptic paths, and even entirely new brain cells, that can jump our trains of thought onto new, innovative tracks. Rather than dismissing ourselves as unchangeable creatures of habit, we can instead direct our own change by consciously developing new habits. In fact, the more new things we try, the more we step outside our comfort zone – the more inherently creative we become, both in the workplace and in our personal lives. But don’t bother trying to kill off old habits; once those ruts of procedure are worn into the hippocampus, they’re there to stay. Instead, the new habits we
deliberately ingrain into ourselves create parallel pathways that can bypass those old roads.) See also

125. Many legal philosophers get the relationship between legal theory and legal practice wrong. In one
of his many tiffs with Ronald Dworkin on the relationship between legal theory and legal practice,
Stanley Fish found himself caught up in a side-bar about the relationship between theory and practice
in baseball. See S Fish ‘The Jurisprudence of Richard Posner, Richard Roxy and Ronald Dworkin’ in
There’s No Such Thing as Free Speech. And It’s a Good Thing Too! (1994) 200, 225–230, responding to R
Dworkin ‘Pragmatism, Right Answers and True Banality’ in M Brant & W Weaver (eds) Pragmatism
in Law and Society (1991) 359, 368. As I explain at great length elsewhere, both get the relationship
between theory and practice in baseball terribly wrong. S Woolman ‘On the Common Saying “What’s
True in Golf is True in Law”: Theory and Practice across Forms of Life’ in S Woolman & D Bilchitz (eds)
Is This Seat Taken? Conversations at the Bar, the Bench and the Academy about the South African Constitution
(2012) 341. Dworkin reifies theory in a manner that cannot be sustained by what we know about the
limits of consciousness and awareness. Fish so abhors ‘ground’ theory that he fails to recognize the quite
sophisticated form that it takes in baseball. On my account, conscious theorizing is actually a product
of a neurological system and social endowments that have a three-fold purpose: (a) ‘durable and explicit
information maintenance’ (b) ‘novel combinations of operations’ and (c) ‘intentional behaviour’. In short:
(1) memory, (2) thought experiments based upon prior experience, and (3) actions designed (subsequent
to thought experiments or theoretical analysis) to realize optimal outcomes (both descriptive and
prescriptive). As Daniel Dennett argues, our conscious beliefs, about law or baseball, function as
‘idealized fictions’ that enable us to engage – in advance – in sophisticated ‘action-predicting, action-
explaining calculus’. That does not mean that theory and practice operate in an identical manner in all
social practices. My aim is quite modest: it is to press practitioners and judges to take greater cognizance
of ‘theory’ – and academic musings – in their work by demonstrating just how much work constant
theorizing does in sports. If you had seen a pained New York Yankees manager Joe Girardi walk out of
the stadium in October 2010 holding two thick binders full of statistics – having just made an errant
set of decisions (based on the books) that cost the Yankees the American League Championship – then
you might better understand the degree to which theory plays a major role in what many wrongly view
as non-cognitive practices. (The next season, Tony LaRussa, who lived and died by the numbers, ‘the
probabilities’, often extremely counterintuitive to a fan, won the World Series for the second time.)
Don’t like baseball, think sports are boring? Go see Moneyball (2011) – starring Brad Pitt – for a true
tale about one role theory plays in baseball. Solid movie: a true story about how stats changed the way
most general managers in baseball now go about their craft in putting together winning teams.

126. Don’t believe me? Listen to Hank Haney – Tiger Woods’ previous coach – explaining what most
amateurs don’t do: they fail to deconstruct and reconstruct their swing when the flight of the ball
tells them that something must be wrong. Here’s the question asked Haney (Thursday, 8 October
2009) by Connel Barrett: ‘What’s the biggest mistake we mortals make in the swing?’ Haney replies:
‘The average golfer doesn’t correctly diagnose the problem in his swing … What you should do …
is ask, ‘What’s my golf ball doing? What’s my ball flight?’ … You have to be a detective, and work
backwards from impact.’ For incontrovertible evidence of the fruits of theoretical deconstruction and
reconstruction of a golf swing, married to talent and practice, please note that Tiger Woods won four
of the first seven events that he entered in the beginning of 2013.

127. Several interlocutors contend that the practice of golf is only concerned with putting the ball in
the hole, and that theory only relates to improving a score. See D Bilchitz & J Tuovinen ‘Theory,
Practice and the Legal Enterprise’ in S Woolman & D Bilchitz (eds) Is This Seat Taken? Conversations
at the Bar, the Bench and the Academy about the South African Constitution (2012) 367. Kant knew that
proposition to be fundamentally false. See I Kant ‘On the Common Saying: While It is True in Theory,
It is Not Necessarily True in Practice’ in A Wood (ed) Basic Short Writings of Immanuel Kant
(1793). Golf happens to be one of the most norm-governed, norm-creating and ethically engaged social
practices within which individuals participate. See Royal and Ancient Golf Association of St Andrews
Rules of Golf (2010). Its history of elitism and exclusion is another – not insignificant – matter. Only this year – 2012 – did Augusta National (home of the Masters) finally admit female members. A commitment to fairness by an institution in one domain does not necessarily entail fairness in another. But it can help us arrive there eventually. Despite problems with unfairness, economic inequality and corruption around the globe, see Transparency International Country Enforcement of the OECD Anti-Bribery Convention, Progress Report for 2012 (2012), the march toward greater democratic solidarity seems inexorable. While recent events such as the post-2008 global recession, related increases in anti-immigrant sentiment, and counter-intuitive and economically destructive austerity programmes may suggest otherwise, global movements around climate change and economic inequality, as well as the Maghreb Spring, suggest that the commitment to equality at the heart of democracy may be the greatest change in human relations of the last half century.

128. See D Campbell & J Russo Social Experimentation (1999); D Campbell ‘Evolutionary Epistemology’ in P Schipp (ed) The Philosophy of Karl Popper (1974). Golf is a practice that dates back several hundred years. Scientific studies of the swing tell us exactly how the body’s movements can be orchestrated in a manner that produces the most consistent amount of accuracy, power and control.

129. Industrial innovation alone – driven by managers who may have only a 3 to 5 year interest in a firm’s success (before moving on) or senior executives who may have no more than a 10 year interest before cashing out – generally does not provide for a sufficiently long enough time cycle for lasting solutions to triple bottom line problems.

130. You would expect as much when, in the first five years, GE invested $5 billion in clean green technology research and development, and generated a whopping $70 billion in revenues from the green products created.

131. At the same time, GE claims that its private sector efforts are producing ‘an unprecedented wave of energy technology innovation and entrepreneurial activity’ that far outstrips the innovative technologies on offer from the public sector. GE Ecomagination Report (2010) 5. The US EPA-approved items form a small segment of GE’s stable of over fifty green tech products.

132. In July 2009, representatives of SEMARNAT (the Mexico Environmental Agency) in Saltillo, Mexico, participated in an Energy Treasure Hunt at the GE office building in Monterrey, Mexico. GE Energy also conducted a similar hunt in Hangzhou China and was asked to share its findings with over 300 Chinese companies that attended the Xiaoshan Development Zone Annual Safety, Environment Protection and Energy Saving Meeting.

133. GE Ecomagination Report (supra) at 50.

134. Water scarcity is one of the most vital threats to the South African, as well as the global, environment. GE is currently working with governments in water scarce regions in the US to expand water reuse efforts. Tempe, Arizona’s reuse project will result in the reuse of over 2.5 billion gallons of water a year for commercial and industrial applications. Cogentrix Energy’s 120-megawatt power plant in Battleboro, North Carolina implemented a GE technology solution to conserve an estimated three million gallons of water annually – the equivalent to approximately 22 per cent of its current water usage. In Oakwood, Virginia, GE is providing advanced filtration membranes and thermal water treatment technology to CONSOL Energy to treat mine water in one of the nation’s largest coal mines, enabling about 99 per cent of the water to be reused in part at the company’s preparation plant facility. Coal may be a dirty fuel – but it need not absorb precious water reserves in the process. GE is also implementing water reuse technologies in water-intensive industries. Perhaps the most exciting projects are taking place in China. GE writes: ‘Imagine a wastewater treatment process that reuses virtually 100 per cent of your wastewater stream and leaves not a single drop to discharge. The technology exists today, but its high capital costs and high energy usage are preventing widespread market adoption. However, scientists and engineers at GE Global Research in Shanghai, along with the teams from GE Water and Process Technologies, China [and GE’s China Technology Center’s Electrochemical Processes Lab, Technology Center’s Electrochemical Processes Lab, are developing
new technology to address these challenges and make Zero Liquid Discharge (ZLD) available to thousands of businesses.” Ibid.


136. These kinds of partnerships are not the only way to meet the triple bottom line. Take General Electric’s recent commitment to purchase 12,000 electric cars from General Motors in 2011, to deploy 25,000 electric vehicles in its fleet and to fleet customers by 2015 and to ensure that half of its global fleet of vehicles has gone ‘electric’ by 2015. General Electric ‘GE Announces Largest Single Electric Vehicle Commitment, Commits to Convert Half of Global Fleet by 2015’ (New York Stock Exchange, Press Release, November 11, 2010.) GE’s motivation can be measured in terms of the bottom line. Its ‘Ecomagination Unit’ – made up of green product lines – achieved sales of $18 billion in 2009 – a six per cent increase in a year marked by severe global economic downturns. In terms of its own operations, GE reduced its own environmental footprint – in terms of greenhouse gas emissions – by 22 percent between 2004 and 2009. As GE recently noted: ‘By every metric, by every stretch goal we set, ecomagination has delivered. We have created more efficient and economic solutions for our customers, and a more competitive position and earnings for our shareholders.’ General Electric Ecomagination Report (2010). Look again at the electric car purchase. GE has not simply gone green because ‘green is good’. GE, through its purchase of so many electric cars, has literally jump-started the electric car industry in the United States. In so doing, GE created a new market for a broad array of GE products that will service the electric car industry. GE, through its car purchase and fleet management, is priming the pump for the creation of an even larger market share for itself with respect to the electric car grid. As GE Chairman and CEO Jeff Immelt notes: ‘By electrifying our own fleet, we will accelerate the adoption curve, drive scale, and move electric vehicles from anticipation to action. We make technology that touches every point of the electric vehicle infrastructure and are leading the transformation to a smarter electrical grid … This transformation will be good for our businesses and for our shareowners. Wide-scale adoption of electric vehicles will also drive clean energy innovation, strengthen energy security and deliver economic value.’ General Electric Press Release (2010). The private-private-private partnerships driven by General Electric itself demonstrate that nudging our way toward meeting triple bottom line goals can, to a limited extent, occur through private, non-state driven innovation (or conscious capitalism). See also J Montgomery ‘Here Comes Conscious Capitalism: Part IV’ (August 13, 2010), available at http://www.pehub.com/76857/here-comes-conscious-capitalism.

137. ‘Wicked problems’ may be defined as extremely difficult, seemingly intractable, social problems that prove resistant to solution because of their complexity, changing requirements for their resolution and, most importantly, the need to enlist the support from and the collective action of numerous actors who do not necessarily share the same set of interests.