

Chapter 1 Why are uncertainty, ambiguity and paradox important for managers?

In today's organizations leaders and managers are dealing with a great deal of uncertainty and ambiguity and must straddle a number of paradoxes. They are obliged to exercise a degree of control, and yet they must encourage their staff to be creative and independent thinkers. On the one hand, they may be very experienced, but on the other their experience may blind them to novel opportunities which emerge in complex environments. Senior teams are often encouraged to change and to innovate, and at the same time they are expected stand firm for the traditional values, and the 'brand' which their organization represents. Paradoxically they are enjoined to change in order to stay the same: in other words they have to innovate to sustain organizational continuity.

And yet, despite the uncertain environment and contradictory injunctions, a lot of talk in organizations, and in management literature, is highly purposeful and deals in certainties. For example the ideal for senior teams is that managers and leaders choose the future for their organizations, they set the 'right' conditions for their staff to be productive, and they can even change the culture. By implication senior managers and leaders get to their exalted place in their organizations from knowing what they are doing, and acting 'appropriately', decisively and authoritatively. Of course this is no different from the dominant assumptions in a whole variety of different professions, where there is an equivalence drawn between being a professional and certainty. In this context uncertainty, ambiguity and paradox, profoundly disturbing and potentially paralysing contradictions, might seem like very abstruse subjects to write about in a book about management and organizing. It might seem counterintuitive and unhelpful to deal in the ambiguous when I might instead be offering prescriptions to managers about how to act, which is the conventional tack to take in a book on organizing.

However, I do so because of my conviction that ultimately it is more helpful, and more realistic, to try to find ways of understanding organisational life in all its complexity, its blooming, buzzing confusion as William James once referred to experience, rather than relying on the thin simplifications which constitute the recommendations of much management literature. They are thin simplifications, a phrase I borrow from the political scientist James C Scott (1999), because they are abstractions from the rich and complex reality from which they are abstracted: in being general they are only generally useful. In my view it is just as important to treat what is, no matter how complex and messy, than what we think should be if it means that we have to reduce our ideas beyond recognition. It is my contention that managers both understand and don't understand what's going on in their organisation at the same time, and this is a phenomenon worth thinking about and exploring.

First, though, I should deal with the terms I am using to explain briefly what I mean by them. As the book proceeds we will look at some of these terms and how they manifest in organisational life in more depth but at this stage of the proceedings I understand uncertainty as arising from the interweaving of everyone's intentions. We may start out by forming intentions which are permeated by our world view which we formalise in plans, but this is also what everyone else is doing at the same time. So uncertainty arises in social life because we act into a web of other people's actions and intentions: we can no more predict how we will respond when we encounter other people's actions than we can always anticipate what their actions will be, although we may have strong hunches. We often experience a lot of ambiguity, that is to say, where we are alert to a variety of different meanings of what is going on, without there necessarily being a relationship between the

meanings. Meanwhile, contradictions, for example the injunction to stay the same/innovate, may form part of this ambiguity and produce a relationship of negation between two different interpretations. Finally, paradox is a particular form of contradiction where to think one thing is automatically to call out its polar opposite, both at the same time. Paradox is a particular property of thinking which I explore as the book unfolds.

When contradictions present themselves in organisational life there is usually no obvious way to proceed, or perhaps there are a variety of ways which all have their upsides and downsides (or perhaps all choices are equally bad). Nonetheless and in my experience most managers and leaders are already coping relatively well with their own environment of uncertainty. They are able to sustain managing and not managing in their various contexts reasonably well. However, I experience a lack of facility in being able to talk about precisely what they are doing when managers are coping with uncertainty: although they know that organizational life is unpredictable if you ask them directly, managers seem to have precious few opportunities to explore this consciously and publically. So what I intend to do in this book is to focus a bit more on being in control and not in control, on those interstices in organizations when it is not always clear what to do, and when there are contradictory pressures on managers. If we could dwell with the contradictions for a while and think about what might be going on this might be just as helpful as producing a generalised piece of advice which bears no relation to the contexts in which managers are obliged to operate.

The central premise of this book, then, is that exploration of ambiguous, contradictory and paradoxical experience, where sometimes mutually informing but contradictory ideas arise at the same time and potentially confound us may help us understand how to act into the unknown. This will involve enquiring into how we make our way with contradictions, and what we need to pay attention to and reflect upon as we do so. It requires paying attention to how we act when we are not sure what to do and a different way of thinking than using logic alone, or disaggregating parts/whole thinking.

Perhaps it would be best to illustrate why I think this area of inquiry is important by means of an incident that happened between a colleague and me when I served on a board of trustees. Using this as practical example I can then go on to explore some of the themes at the heart of the matter for me.

Having values about not having values

A couple of years ago I was on the board of a not-for-profit organization along with another academic with whom I had some quite large intellectual differences. For the most part we could co-operate fairly easily since the job of a board of trustees is essentially to act as a critical friend to the director and her senior management team. In general it is not hard to develop a way of working together, within the board and between the board and the senior management team.

One day my academic colleague and I were both asked to talk to staff about our different views of social science to help them with the job they had of carrying out research to evaluate the work they were doing. My colleague was director of a unit which specialized in running randomized control trials (RCTs) of social development projects. RCTs are at the heart of contemporary medical research, and turn on the idea of measuring differences of response between groups of randomly selected patients to a particular medical intervention. Who receives the treatment is not known to the patients or to the researchers administering the trial, and therefore the intention is to remove researcher (and patient) prejudice as completely as possible from the experiment. The idea is that it does not matter

what a particular expert, or patient, might believe will be effective: what counts is whether the experiment shows that it is. In medical research a randomized control trial produces the highest form of evidence and is taken to be the 'gold standard' against which all other forms of evidence are measured.

So in what is known as a double blind randomized trial there would be a large group of patients chosen at random and with a particular medical condition who receive a trial drug or intervention, a similarly large randomly chosen group of patients with the same condition who receive a placebo, i.e. some kind of pill or intervention which is known to have no effect, and a randomly chosen group of patients with the same condition who receive nothing at all. After a given period measurements are taken to find out if there are any statistically significant improvements between the group which actually received the treatment and the two which did not. Other statistical tests are run to control for other possible confounding variables, such as age or social background, which might be affecting the results. The experiment would be written up in a systematic way so that it could be copied by any other group of researchers who would then run the experiment again and get the same results. If they could, and yet more experiments showed the same outcomes, then the results would over time be deemed to be robust. The experiment needs a statistically significant number of respondents involved in the study so that variable responses are averaged out.

When he took his turn to talk to members of staff about social research, my colleague on the board extolled the virtues of randomized control trials in social projects arguing that they are the only method which produces scientific evidence. He claimed, rightly in the opinion of many natural scientists, they are equally applicable in a social setting; for example in projects which are designed to discourage underage young people living in the country in developing countries to migrate to the cities where they are easily exploited, the kind of project that this particular not-for-profit was designing and managing and was concerned to find out if they were effective.

My colleague was setting out the case for what is known as methods-driven research which has a number of theoretical assumptions: in other words, a step-wise, logical, linear, controlled experimental approach, keeping the researcher as much out of the experiment as possible, is the only scientific way to design social research. This method treats a group of individuals as separate, discrete units, and looks to find out if a large enough number is affected to a large enough degree by a carefully defined social intervention: the central causal relationship is between the intervention, broken down to a number of variables, and the individual. No account is taken of how individuals may interact with each other in response to the intervention. It produces results which count as evidence and which are assumed to be replicable in other settings because it expects the average human responses to be similar between groups. Once a researcher finds out 'what works', a specific intervention has a measurable effect on a significant number of individuals in a group, then a researcher can apply this knowledge to 'scale up' the intervention or do the same thing elsewhere. Scaling up, choosing a much larger group to receive the intervention, will be similarly successful because it is merely the same thing on a bigger scale. Implicitly he was also making a case that any other form of research, i.e. any argument I was about to make, might be interesting, but would be inferior to what he had just said, because it would be less scientific.

There are a variety of experimental methods used in research in the natural sciences, and many of them have migrated over to researching social phenomena as well, including in

organizational research. RCTs are just the purest example of a broader phenomenon. The overwhelming majority of research papers published in academic journals is of an experimental nature along the lines discussed above where the researchers keep their 'objects' of research as much at a distance as possible in the quest for evidence. They put forward a hypothesis about the application of a particular and definable approach to management, and then they measure the results as to whether this proved effective or not.

However, and from my perspective, in social settings RCTs in particular have severe limitations and also lead to what I consider to be some very distorting behaviour which call into question their usefulness. For example, it makes sense in a medical trial to standardize the dose of whatever treatment you are administering to patients. In social settings this attempt to standardize leads to the development of manuals and scripts so that social workers, say, are encouraged to behave in exactly the same way and deliver as similar a social work intervention as possible so that there are not too many confounding variables in the project. In other words, and in my view, social development workers are encouraged to behave like robots so that they don't get in the way of the experiment. It seems to me that in social development it is precisely the improvisational activities of development workers, negotiating a slightly different response with the people they are working with in every case, which can make the difference to success or otherwise, because of the uncertainty and ambiguity in any given situation, which I started out by defining at the beginning of this chapter. It seems to me that methods-driven approaches are trying to exclude the very factors which will cause the intervention to succeed. This is beside the point as to whether one adopts a theory of causation that it is the 'variables' which make a social project work, rather than how the people in the project are co-operating together to make it work. There are a number of other critiques that one could make about the use of RCTs in social development, for example the tendency to measure quite trivial and observable things and to have no views on broader phenomena such as culture, history and power relations, and whether a larger group is simply an aggregate of smaller group, which I don't have the space to expand upon here.

When it came to my turn to speak I made an alternative case for what is known as problem-driven research, as opposed to methods-driven, where the first question arises from a particular practice context and focuses on what it is we are trying to find out, which then informs the question about which research method is most appropriate. In doing so I was pointing out what I saw as the weaknesses in my colleague's case, based on some of what I have set out above. Inevitably when my colleague responded by reiterating his claim that his was the only scientific approach, the discussion became heated. This was particularly at the point when my colleague informed the staff that he operates according to three principles when designing an RCT: that he involves the client group he works with in the design, but only if they could offer suggestions which were logically consistent, and whatever they said had to be backed up with evidence (i.e. the sort which is provable by RCT), and that everyone, including him, left their values at the door. As well as engaging with his argument more broadly, noting how he was silencing people who did not conform to his world view (just as I felt he was trying to silence me) I also pointed out to him that he had just demonstrated, paradoxically, that he had strong values about not having values and that logic alone was insufficient for stating or resolving practical problems. His stated values were of universalism and disinterestedness as a higher order of social engagement, but he was unaware of how he might be silencing people. Despite claiming that his position was logical and scientific, I told him I thought his argument also rested on rhetoric, paradox and power relations, as well as questions of method.

Engaging with uncertainty, contradiction and paradox as a way into ethics

Looking back on this incident now I am wondering what possessed us both to get so caught up with each other in front of staff whom we were supposed to be helping. I wonder what they thought of this back and forth between two academics who were members of their board, and who mostly were able to co-operate together to support their work, but here were clearly unable to do so on this occasion. And I suppose the short answer is that we could not help ourselves because what we were talking about mattered to us. This wasn't just a difference of opinion over technical considerations but a struggle over power and influence which called into question who we were and what we thought was important: it raised questions of power, politics and ethics. Despite the fact that we were both experienced academics, neither of us could resist making our different cases as strongly as possible and to present our arguments to the good.

Although I want to explore further some of the different intellectual assumptions involved in our two positions, it's worth dwelling on this point, that my colleague and I were caught up in the moment despite ourselves, because I think it goes to the heart of my motivation to write this book. It might have been a memorable incident, perhaps for the two protagonists, and I suspect also for everyone present exposed to the warmth of the encounter, but in many ways it was also quite an ordinary, every day experience in organizations. We found ourselves engaged in a conflict involving contradictory ways of understanding human interaction, which, rather than bringing about greater certainty, might have created greater uncertainty amongst those who were present. If they were looking for advice about how to proceed with their evaluation, they may well have left the meeting confused. The encounter also centred around different conceptions of the good, the role and function of the evaluation, as well as questions of method: there is no separating them. It was both an argument about the best method to use in a particular evaluation, but it was also a moral argument and a discussion about how we think and resolve our problems.

One of the central contentions of this book is that daily life in organizations is far from ideal, and involves many such encounters where people try to persuade each other, more or less politely, more or less forcefully, of the strength of their position. They co-operate and compete to get things done together, they cajole and try to sway each other, frame their arguments using rhetoric, become impassioned about what they think is the right thing to do, and are generally caught up in the game of organizational life. This is a political and an ethical game which involves many conceptions of the good in any particular situation and the constant unfolding of paradox. Players of the game are involved together in the task at hand while trying to make sense of overall objectives, they try to control while in turn they are controlled, they strive to innovate while at the same time struggle to preserve the best of what makes their particular organization unique and successful. Sometimes they are lucid about how they are getting carried away with the task at hand as they find themselves responding to unpredictable contingencies which disrupt their projects and plans. These are the contradictions and paradoxes, the situations which seem to confound 'common sense', that most interest me about working alongside other people in organisations which create the environment of uncertainty in organizations. I accept that, to a degree, organizational life has speeded up and is more complex because of technological innovation and globalisation, but mostly my preoccupation is with the 'ordinary' complexity of getting things done with other people, which in my view has a lot more to do with being human than any special phase we may be going through. In every period of history people have thought of themselves as undergoing unprecedented change.

Of course, if organizational life was not so predictably unpredictable it would probably not be so absorbing, but you would be hard pressed to find this hurly-burly reflected in much of the management literature¹. Instead, as my colleague above was describing, it aspires to being rational, scientific and to leave its values at the door. Contradiction, ambiguity and value judgements are assumed to get in the way of the work, and therefore must be eliminated or ignored. I'm sure that my colleague on the board just thought I was being difficult by drawing attention to the paradox in his thinking, that he had strong values about not having values. In most management theory leaders and managers are described as being detached, rational observers of the organizations in which they are working who choose the futures for them using reason and logic, shape the culture and even select the kinds of values that the staff working for them should have. This is assumed to be possible using rationality which renders experience a matter of choices between different technical options. Equally in apparently more mystifying and contradictory areas of human experience, such as paradox, more of which below, leaders and managers are again assumed to be able to harness contradictions for the good of the organization and to generate creativity, harmony and sustainability. There is also a substantial minority literature on contradiction and paradox which I treat in the next chapter which does accept ambiguity as a given. In chapter two I will set out the similarities and differences between scholars trying to work with uncertainty and my own position.

The evidence-based management movement and what it excludes

My colleague on the board was arguing in favour of what is generally accepted as the highest scientific methods for evaluating social development, RCTs. There is a similar school of thought in management and organization studies, the evidence-based management movement, which sets out the case for using more evidence in management decision-making as well as in the classroom in business schools. The intentions of those supporting evidence-based management are honourable in the sense that they seek to place the practice of management on a secure and scientific footing, but their arguments also have unintended consequences and exclude aspects of experience from consideration, such as judgements of value (unless they also consider value judgements to be subject to rational discussion). There are also questions as to the extent which general theories of the social apply in particular cases, an argument I pursue further in chapter 5.

For example, in an inaugural address, the then president of the Academy of Management, Denise Rousseau set out the case for evidence-based management based on medical science almost exactly in the same way that my colleague on the board did (Rousseau, 2006). This movement is still very strong, but equally has run into a number of difficulties similar to the argument which developed in the organisation where I was on the board. Firstly, despite the call for practising management and teaching management on the basis of evidence, actually there is not very much evidence, particularly not of the most valued kind, from RCTs, as Reay et al (2009) discovered in their article entitled "what's the evidence on evidence-based management?" Secondly, it provoked a response from those scholars writing in a different social science tradition (Learmonth, 2006; Learmonth and Harding, 2006, Stacey, 2012) of which this book is an example, that what counts as evidence in the social is contested, and therefore is likely to produce a paradox: the more evidence is collected, the more contestation, so rather than creating greater certainty, the search for evidence may only create greater uncertainty and ambiguity, ie multiple meanings with no necessary connection between them. Learmonth's second critique is to point to a second paradox, that the claim to being scientific rests on a number of exclusions which are taken as self-evident

¹ There are of course some notable exceptions, some of which I explore in this book.

and are removed from scientific scrutiny: evidence-based management scholarship often takes its assumptions for granted, for example that it is a good thing to aspire to being a 'great manager in a great company' and that we all know and agree what that means. Stacey also points out that 'evidence' is used in a way which reinforces the dominant ideology of managerialism, that contemporary managers and management theory is an uncontested good. In other words, what we take to be the good, questions of ethics and how we might live our lives, are considered secondary, if they are considered at all.

Learmonth and Stacey proceed to point out the contradictions in the President of the AoM's argument, and the evidence-based management movement in general, much as I did with my colleague on the board. Orthodox management research is often incapable of returning to itself and questioning its own assumptions and exclusions. And I am guessing that the president of the AoM might have found having this pointed out just as infuriating as did my colleague. I might argue, then, that much conventional management theory is incapable of paradoxical, reflexive thought, or bending back on itself and questioning its own assumptions, thus rendering questions of power, politics and ethics less visible.

It is still the case that scholarship which seeks to enlarge the evidence base for particular domains of management still proceed from a taken-for-granted assumption that there is no problem with what we are seeking evidence about, or how we collect it, merely whether it is implemented or taken up in the classroom. For example, a study by Charlier et al. (2011) tries to find out how much evidence-based management is taught on required MBA syllabi without setting out any of the arguments exploring what the term might mean, even in passing. However and at the same time, it is clear that the argument which has developed about what we mean by evidence and how we might gather it has also shifted the ground of the debate. For example, Briner and Rousseau (2011) now define evidence as: "making decisions through conscientious, explicit, and judicious use of four sources of information: practitioner expertise and judgment, evidence from the local context, a critical evaluation of the best available research evidence, and the perspective of people who might be affected by the decision". If this is now taken to be measure of good evidence, asking people what they think, taking account of the context, asking the people who will be affected and reading a bit, then it is hard to know what the evidence-based management movement is offering that is beyond what most managers and educators would probably be doing anyway.

Later on, in chapter 5 on change and innovation in organizational life, I will extend the argument about some of the difficulties of making predictions in social life by drawing on the moral philosopher Alisdair MacIntyre (1981). What is interesting in MacIntyre's position is that he was always trying to reintroduce the notion of virtue and conceptions of the good, drawing on Aristotle, into our understanding of social practices. This is a philosophical rendering of some of the insights from the complexity sciences which I explore later on in this chapter. I am not making a claim that statistical approaches, logic and rationality are irrelevant to managing: they can afford helpful insights into large-scale phenomena and generate helpful ideas to pursue further. I am suggesting they are necessary but insufficient to understand the detail of how people make work work, and am pointing to the idea that they may not tell us all we need to know better to organize together. As Bourdieu observed (1990), the logic of logic is not the logic of practice.

Paradox and other forms of dualism

As an alternative to looking for evidence of 'what works', this book seeks to take uncertainty seriously to note how it produces uncertain, contradictory and paradoxical conditions for managers. By exploring uncertainty and the political and ethical questions which it raises,

the book tries to uncover insights about management and leadership to see how possible it is to generalise from them, but not in the sense of recommending 'best practice' or coming to a final view. Contradictions arise partly as a result of exploring one point of view, and then another, a process of dialectic which I will explain further below, but which I hope has been demonstrated both with my narrative at the beginning of the chapter and with the controversy surrounding what we might take evidence-based management to mean. One point of view calls out an alternative, perhaps opposite point of view, which in turn calls out a modified version of the first. There is a back and forth dialectic which demonstrates a movement in thinking and generates more than one perspective: there is never just one best way. The kind of generalizability that I am looking for is not necessarily one which can be proved one way or another, but which triggers recognition in the reader, and perhaps rich resonances with their own experience, and opens up other lines of inquiry and richer perspectives. Of course, this approach is not scientific in the strict sense of the word, but that does not prevent my approach from being systematic and from testing arguments as rigorously as possible. It is a way of arguing which seeks to establish whether an intellectual position is warranted, in John Dewey's terms (1941), and draws on a long Socratic tradition of arguing in public. But there is no requirement to come to a final resting place, with an agreement about what truth is.

But first, I will set out more clearly what I understand paradox, a particular kind of contradiction, to be, since it figures so prominently in the writing of many of the writers I bring into this book. It is simply our ability to think the opposite of what we are currently thinking, for the mind to overreach itself in thinking, which produces an absurdity, something which is *para doxa*, or against common sense. There are two, mutually exclusive, self-referencing ideas which help define each other but negate each other both at the same time. To give an example, one of the earliest and most famous examples of semantic paradox is the so-called Cretan, or Liar's paradox attributed to the Cretan poet Epimenides, who claimed that 'all Cretans are liars', a true/false paradox. Whichever conclusion we come to about this statement leaves us with a problem. If the statement is true, then Epimenides, a Cretan, is lying and the statement is false. If the statement is false, that not all Cretans are liars, then Epimenides must be lying, which makes the statement true. The statement is unresolvable because one conclusion immediately leads you to its opposite. Each solution immediately produces a contradictory response which is against common sense. This can be maddening, and it can also be helpful. In its maddening form it can produce thinking or behaviour, which loops back on itself and becomes stuck, endlessly repeating between the two poles: this is known as a vicious paradox, like this first example. Or it might be generative, allowing the exploration of a particular area of human experience in more than one dimension, and it is the second of these which I hope to further in this book.

Dualistic tension manifests itself in a variety of different forms in human thought. First of all there is the simple dilemma between two choices which present themselves, both of which have criteria for and against. Dilemmas appear quite a lot in organizational theory and are sometimes represented, unhelpfully in my view, as paradoxes. The most prominent example of this, which is repeated again and again in organizational literature, is March's distinction (1991) between the options for companies to explore further developments, or to exploit the developments they have already made, the so-called explore-exploit paradox. These two options are not mutually referential, nor do they necessarily negate each other: they simply describe an opportunity dilemma for managers.

Next, a double bind has many of the characteristics of a vicious paradox, and creates a negative spiral. As an example, take the U2 song, '(I can't live) with or without you', or the famous joke about an overbearing mother who gives her son two ties and when he puts one on to show her, she asks him what is wrong with the other one. Here the tension produces two negative mutually exclusive alternatives, a rock and a hard place. Bateson (1970), who did a lot of work on double binds in his exploration of schizophrenia, argues that there is a third negative condition of a double bind, which produces distress and anxiety in those experiencing it. There is no escape from it: a person is forced to choose between one negative alternative and another, neither of which resolves the situation (as in the U2 song) and the injunction to choose one or the other takes away all sense of freedom. Bateson was heavily influenced by cybernetic systems theory and made reference to Russell's Theory of Logical Types (1908) to explain his idea of double bind. For him it was a confusion between logical levels of abstraction and a binding injunction to the person experiencing the double bind not to adopt a meta-position, to abstract further from their experience to yet a different level of logic.

In this book I am not assuming that paradox is a property of a system, or that it occurs at different levels of logic, although I will briefly explore the ideas of some scholars (Luhmann, 1995) who think it is in the next chapter. However, I am confident that many people working in organizations will have experienced double binds. These might arise in organizations undergoing 'culture change' programmes for example where staff are invited to believe in the organizational vision and align with company values on the one hand (and sometimes the extent to which they are following the company values will be measured), and on the other hand they will be invited to be their authentic selves, to speak out and be honest. So, first there is an injunction to staff to believe in a set of value statements and be judged whether they are conforming or not and thus give up their freedom; and at the same time they are told to be themselves and be authentic (but if they do they may contradict the company values). Staff are obliged to choose, but neither of the choices are good ones.

Additionally in terms of dualistic thought, there is irony, for which the English are supposed to be famed. This arises as a result of the confounding of expectations, either verbally, or in a particular situation. For example dramatic irony occurs where a theatre audience is given greater insight into the unfolding of a plot than the central characters. In *Romeo and Juliet* the poignancy of the plot is that we can see how their plans will cost their lives although they are unaware of this. And in rhetoric there is chiasm, which is an arresting figure of speech such as President Kennedy's 'ask not what your country can do for you, but what you can do for your country', where the meaning is inverted in parallel clauses.

I hope to be relatively disciplined when talking about paradox in the strict sense in this book, differentiating it from double bind, dilemma, irony, chiasm and simple contradiction, although I do not intend to be pedantic. Cleaving to some sense of what a paradox is and why it is important may present opportunities for thinking about the complexity of organizational life. And when other scholars use the term it will afford the opportunity to think about what they mean by it, and therefore to make some distinctions bearing in mind the pragmatic dictum that differences make a difference.

Paradox in logic, literature and philosophy

Paradox has a rich history and has been explored over the centuries in the domains of logic, literature and philosophy. As I mentioned above, for natural scientists contradiction in logic is something to be avoided since it is evidence of weak thinking: so in Aristotle's *Metaphysics* (1998) he claimed that it is impossible for two opposing propositions to be true

at the same time: "The most certain of all basic principles is that contradictory propositions are not true simultaneously" (1011b13-14). However, this is far from saying that he was uninterested in oppositions, such as the one and the many, infinity and finitude, which pervades the *Metaphysics* and which he inherited from Plato via Parmenides. In natural science and mathematics practitioners have clung to this basic standpoint, as did my colleague on the board of the not-for-profit, with spectacular results in predicting and controlling the natural world. However, mathematical logic has never quite done away with paradox as I will show in the penultimate chapter of this book, but demonstrably so following the work of the Austrian mathematician Gödel at the beginning of the 20th century, who was intrigued by the attempt of Bertrand Russell and Alfred North Whitehead to develop a mathematical system which was devoid of contradiction in number theory. In order to prove this Russell and Whitehead's system would need to be both consistent and complete. With a series of elaborate proofs, and similar to the Liar's Paradox, Gödel produced two incompleteness theorems, demonstrating that no mathematical system could be either complete or consistent by reference to itself. Gödel's theorems are extensively explored in Douglas Hofstadter's work (1979, 2008), where he argues that consciousness is an automatic property of sufficiently complex systems, which produce mechanical, recursive self-reference, the 'strange loop' in the title of his most recent book. In other words, he makes few distinctions between consciousness, mind and self, which I will unpick further below drawing on Mead (1934), and is satisfied instead with a material and mechanical explanation of consciousness, a reverberating loopiness of the brain as complex system.

Paradox abounds in literature, too, and Linda Colie (1966) has written extensively about how paradox flourished in the Renaissance, particularly in the work of Shakespeare. Shakespeare brings together contradictions to confound expectations, just as his characters pretend to be other than they are and women leads play men, characters presumed dead are in fact alive, and nothing is quite what it seems. What this makes possible is a variety of surprising perspectives on love, truth, gender and power. However, in literature paradoxes are deployed to provoke, to complexify and to add aesthetic appeal but in no sense are they intended to develop an argument, as they are in philosophy, where they are deployed to explore an idea from different perspectives.

In this book I write about paradoxes in the natural sciences and mathematics in chapter 7 and in the sciences of complexity below in this chapter, but for the most part I am concerned neither with logical nor literary paradoxes but with philosophical paradoxes. I will be sticking closely to what Kainz (1988: 43-44) argues are the properties of a philosophical paradox, which are four. First, we take paradox seriously, the unity-in-distinction which ordinary speech and logic would not allow. Second we consider the paradoxes as far as possible which are non-vicious, unlike the double binds explained above or the semantic paradoxes like the Liar's paradox, as a way of coming to understand a phenomenon in a richer and more dynamic way than just treating it as a case of static polar opposites. The third characteristic is that the setting in motion of opposites creates the potential for intellectual transcendence, the movement of thinking which parallels the dynamic of paradox. I discuss the paradox of consciousness below, and in chapter 3, when exploring reflection and reflexivity which, I argue, is the root of the movement of thought. And lastly, a paradox needs to be able to sustain an argument and be demonstrated: that is to say that it is not dependent on belief or aesthetic intuition.

The link I am making to organizational research and management is that instead of excluding what might be of most use and perhaps greatest interest to practicing managers and leaders, the often ambiguous, contradictory and paradoxical tensions in human and

organizational life which call out political and ethical questions, this book will try to explore them more fully as a means of bringing about some kind of complex order. This exploration comes with a caveat though: I have no intention of moving towards any kind of final resolution of the contradictions I will be investigating because I am assuming that there is no meta-position to adopt in relation to them (although the process may fulfil Kainz's third criterion, that of provoking the reader into a dynamic movement of thinking), nor is there any final resting place. However, I will try to sum up what I think some of the important observations are for managers and leaders. But this is a different method from that adopted by the majority literature on organization and management and I anticipate that it may be frustrating to some readers of this book more used to being given prescriptions for what to do. There will be no attempt at 'deparadoxification' in Luhmann's terms (1995), or to 'harness paradox' for greater organizational effectiveness, or to 'unleash' the creative forces of paradox, or even to take up paradox as a 'lens' if what is meant by this that human beings can somehow choose to 'leverage' paradox as perspective. I am much less interested in tightly formulating 'what works' since from my perspective, what works depends on who is involved, the context, the history and the relationships of power.

Just as Kainz recommends, I will set out an argument and it will proceed dialectically, which is to say exploring a position, then a counter position, then as a direct result of this, exploring the first position further. Whatever insight we gain from this way of theorising is in the back and forth between one position and another, much as my board colleague and I engaged with each other in the narrative above. Setting out an argument brings out a counter argument, which in turn elicits another, which also points to different ethical claims. As Kainz (1988) explains, dialectical argument dates back to ancient Greek philosophy, and has itself developed and evolved from what he considers the original form of dialectic in Socrates, which takes place in living conversation in ordinary language, through Platonic and Aristotelian dialectic. The method in this book bears close resemblance to the last of these, where there is an attempt to sift the arguments for and against some contentious topic, or my aim would be to make it more contentious than it currently is, as a way of investigating the theme more in the round and more systematically. The intention is not to resolve the topic, but to make it more complex: there is, then, something of a trade-off between trying to explore a theme in the round and consistent, conventionally logical argument leading to a conclusion. The other influence on my argument in this book is Hegel, who most consistently developed the idea of both dialectic and paradox which I will explore in the next chapter, but first I want to explore paradox in the sciences of complexity and make a link between these and the social sciences as I develop my argument.

The link between the complexity sciences and paradox

For more than 20 years a group of academics at the University of Hertfordshire has been developing ideas derived from the complexity sciences (Stacey, Griffin and Shaw, 2000; Stacey, 2010; Mowles, 2011; Stacey, 2011; Stacey, 2012) using them as a source domain for thinking about life in organizations. From a perspective they call complex responsive processes of relating the Complexity and Management Group at Hertfordshire takes an interest in flux and change in organisational life, how it can demonstrate both stability and instability both at the same time. In doing so colleagues put people and what they are doing at work at the heart of their enquiry: how they talk to one another, how they are bound by relationships of power, how they make value judgements which express ideology. This perspective derives insights from the complexity sciences and makes arguments by analogy, linking them with similar ideas from the social sciences. It takes a particular interest in uncertainty, contradiction and paradox, for the reasons I will now explain.

Why turn to the complexity sciences for theories about organizational life? The complexity sciences have manifestations in biology, meteorology, neurology, zoology and computer science, usually in the form of computer-based mathematical models, to simulate, say, ant colonies, or the working of the human brain. These models are useful for looking at phenomena which are in constant flux and change and where there are complex interdependencies between different entities or actors. One of the things my colleagues at Hertfordshire have found interesting about complexity models is that they operate using non-linear equations which have no solution, but rather are useful for showing emerging patterns and calculating probability. Meteorologists, for example, will run a model of an evolving weather pattern, which has variables such as barometric pressure, wind speed, humidity, many thousands of times to calculate the probability of a particular weather pattern emerging. That is to say, and in contrast to the way my colleague on the board was arguing in our heated discussion, in a non-linear model there is no necessary proportionality between a cause and an effect, nor is it possible amongst the interdependent variables which cause had which effect. A specified input may not bring about a predicted change in the way that is assumed in an RCT experiment, for example. A small intervention may bring about a big effect (popularly understood as the butterfly effect) and a large intervention may bring about no change at all. And in the large number of complex interrelationships it is not possible to isolate and identify exactly which cause led to which effect. So in an evolving weather pattern a slight change in wind speed or the Jet Stream may increase the likelihood of rain falling. An additional characteristic of non-linear mathematical models is that they do not move towards an equilibrium state, a solution in mathematical terms. Instead the output from one iteration of an equation is entered as an input to the next. The models show qualitative changes in patterning over time, iterating then reiterating.

Here are two examples where non-linear mathematical models demonstrate paradoxical properties. In models of mathematical chaos, and at certain parameters, a graphed output will show a pattern of regular irregularity: that is to say, it is neither completely chaotic with no pattern at all, nor does it fluctuate in a predictable way between one point and another. A pattern emerges which is neither completely stable, nor completely unstable, but stable and unstable both at the same time. Those readers of a particular age may remember computer screen savers, in the days when there were such things, which were based on fractals, or Mandelbrot sets. The screensaver patterns, named after the mathematician Benoit Mandelbrot, would develop of a highly complex kind, both regular and irregular at the same time and repeating similarly at any degree of scale. This is a phenomenon which can be observed very clearly in nature, in, say, the patterning of coastlines, or ferns, or every tree, which is symmetrically unsymmetrical.

As second example of a paradoxical property in the non-linear sciences of complexity can be found in complex adaptive systems models. The models are intended to simulate how order and disorder arise within a population of, say, ants or termites, or the synapses in a human brain; in each of these examples there is no obvious control centre, and the coherence of the whole population arises from the micro-activity of each of the individual agents interacting locally with other, similar agents. The analytical sociologist Peter Hedström (2005) has used complex adaptive systems models to simulate patterns of work-seeking and peer influence in unemployed young people in Stockholm. So complex adaptive systems models contain populations of interacting agents, bit strings of code, which interact with neighbouring agents according to rules set by the programmer. If the interacting agents are the same, then a regularly irregular pattern will emerge such as flocking behaviour (Reynolds, 1987), exactly like the roosting behaviour of flocks of starlings, for example. If the agents are diverse, then diverse and changing patterns can emerge across the whole

population of agents which are surprising and novel. The model demonstrates evolutionary development precisely and only because of the activity of the interacting agents. One paradox is that the local interaction of the agents produces the population-wide pattern, but at the same time the population-wide pattern imposes constraints on exactly how the agents can interact. Stacey (2012) has a much more extensive account of how these evolutionary models demonstrate the paradox of local agents forming a global pattern, yet being formed by it both at the same time.

Just to reiterate, then, to emphasize why the sciences of complexity might be of interest to anyone wanting to understand the complexity of organizational life: computer models developed by scientists working with non-linear equations and with multi-agent models are unpredictable over the long term and demonstrate paradoxical properties. They are paradoxically stable and unstable both at the same time (neither completely chaotic, nor completely symmetrically patterned), and are therefore predictably unpredictable. Complex adaptive systems models evolve through the local interactions of the population of agents to produce changing patterns, but at the same time it those evolving patterns which constrain exactly how the local agents will interact with each other: the agents form the pattern and are formed by it both at the same time.

Complexity in the social

My colleagues at the university of Hertfordshire turn to the social sciences to try to understand what these insights from the non-linear sciences might mean in social terms. After all, it would be very reductive to think of ourselves as agents in a computer model, or as operating according to algorithms written by someone else. My colleagues feel that the sciences of complexity might have something very useful to say about what is known in sociology as the structure/agency debate, and about action, and stability and change in society. In other words, how we might account for the fact that social life appears to be ordered and structured, very much constraining how we can act and think, and yet at the same time we can act relatively autonomously, have aspirations, make decisions, dream dreams. A number of social psychologists and sociologists have taken a view on what links the apparent 'structure' of society with individual activity, including George Herbert Mead (1934) (and other philosophers in the pragmatic tradition), who argued that society arises in the activity of highly social selves; Pierre Bourdieu (1977, 1982, 1990), who pointed to the *habitus*, an inherited bodily disposition to act in a particular way because the body is in the social world, but the social world is also in the body; and Norbert Elias (1978, 1991, 1939/2000) who argued that the individual and the social are two sides of the same coin – there is no I without we. We become a self only because there are other selves. The I in the we always provokes all kinds of ethical dilemmas.

With these three scholars in particular one of the things to notice is the way they deploy paradox, mostly without drawing attention to the fact, to convey the complex recursivity of our thinking about complex experience and the stable instability of social life and its moral complexity. For these in particular, and for other philosophers sociologists and organization scholars I adduce in the book, there is no one way of describing the complex flux of social interaction. It is best understood from a perspective which does as much justice as possible to the complexity of the phenomenon it is trying to describe. Where might we begin in our enquiry about social complexity?

The paradox of consciousness: reconciling dualisms.

Perhaps the most complex question of all is how we become conscious and come to know the world, and the discussion has a long history in philosophy. During the Enlightenment

there was an enormous flourishing of optimism that human beings could come to know themselves and the world through the use of reason and the development of the scientific method. The rational, calculating, objectifying methods of scientific enquiry involved producing a dualism between the thinking subject and the object of thought. The starkest expression of this split is Descartes' idea that the only thing we can be confident about is that we think: Descartes even doubted that he had a body. His assumption was that the thinking mind gives human beings their freest form as self-defining subjects. Nature, then, is to be doubted, and is no more than a mechanical apparatus to be dissected and studied at a distance by the thinking self. While dissatisfied with Descartes' and Newton's mechanical universe, discoverable from universal laws, Kant nonetheless perpetuated the same dualism, which he termed an antimony, by arguing that we can come to know phenomena, appearances, but we can never get to know 'things in themselves'. The search for truth is to try to get closer and closer to 'things in themselves', but which will always elude us. Reality was counterposed against the knowing subject: two poles of an antimony but which can never be reconciled.

Taylor (1979) notes how the rise of the Enlightenment also provoked a counter movement of thought in Romanticism, which was a reaction against the perceived instrumentalization and objectification of Nature. The rise of the Enlightenment was perceived to have stripped human kind of their spiritual home in Nature. Taylor points out that Hegel felt impelled to work with these two counter movements of his age, to cleave to the promise of reason on the one hand, but to maintain human beings' place in an organic and purposive Nature on the other. He developed an enormous body of work, which he referred to as a philosophical system, trying to work with dualisms which he considered unnecessarily separated out in Enlightenment thinking, such as for example, the split between the knowing subject and what can be known; the thinking mind and the body; the finite nature of Man and an infinite God. To do so Hegel deployed paradox extensively in an attempt to delineate and maintain countervailing forces.

In the *Phenomenology of Spirit* Hegel developed the insight from the work of Fichte that consciousness arises from our ability to be both the subject and object of our own thinking. We might think of this as the primary paradox from which all other paradoxes flow:

I distinguish myself from myself, and in doing so I am directly aware that what is distinguished from myself is not different [from me]. I, the selfsame being, repel myself from myself; but what is posited as distinct from me, or as unlike me, is immediately, in being so distinguished, not a distinction for me. It is true that consciousness of an 'other', of an object in general, is itself necessarily *self-consciousness*, a reflectedness-into-self, consciousness of itself in its otherness. Hegel (1807/1977, Para 164: 102)

We can both think, and think about ourselves thinking, that is, we can be both reflective and reflexive. Instead of separating the thinking self from what is thought about, Hegel includes the thinking self in the movement of thought, in the back and forth between subject and object. From this base of the paradox of consciousness Hegel's project was an attempt systematically to engage with the dualisms which develop in human thinking and to keep them in motion, in paradoxical relation, through dialectic. Who knows and what is known are part of the same movement of thought as we learn to reconcile the contradictions which are constantly presenting themselves in our thought. But Hegel argued that the reconciliation occurs not through a cancelling out, but through the preservation of the contradiction in a higher order, a higher unity, which in turn provokes another contradiction.

Hegel's term for this is *Aufhebung*, the unity in difference, and in my understanding this is an evolutionary theory which Hegel applies to all things including the development of human society. The constant contradiction, reconciliation which preserves the contradiction, then a new contradiction develops higher and higher forms. I will explore these ideas again in a bit more depth in the next chapter, but it is exactly this back and forth of thought which I make the basis of this book and my explorations of organizational life.

It might be tempting to conclude that the theorising of dead white philosophers has little to do with what managers have to do in the day to day. But Hegel's philosophy has been enormously influential on many of the thinkers brought into this book, such as Mead, Dewey, Elias and Bourdieu and more generally on Marx and his inheritors. Both Elias and Marx, for example, draw heavily on Hegel's insight that societies progress from lower to higher orders of complexity through struggle, opposition and inner contradiction, although Marx mostly confined his analysis to struggle in the economic sphere. And to a large extent the argument Hegel is working through, what the relationship is between knower and known, is still relevant today and shows up in the dispute between my colleague on the board and me. My colleague is convinced that the highest form of knowledge is to choose one pole of the dualism between the researcher and the object of research, even to the extent of denying, after Descartes, that he has a human presence apart from his thinking. What is in question is the extent to which human relations can be objectified, what gets lost in the objectification process, and what alternative ways of knowing might be.

It is impossible to form theories about what happens in organizational life without coming down somewhere in the debate about how we can know what is going on there, and how we might form theories about it. In this book I am trying to work with a dialectical understanding of organizational life which puts paradox at the heart of the enquiry, and keeps the researcher and the researched together. I am trying to bring together theory and practice, certainty and uncertainty, stability and change.

The paradoxes of mind, self and society

Mead developed Hegel's insight about consciousness in psycho-anthropological terms. In Mead's work what distinguishes us from other animals is our ability to take the attitudes of other people, what he termed the 'generalized other', to ourselves. In other words, because we are capable of seeing ourselves as others see us, a peculiar property of our central nervous system, we are able to take ourselves as objects to ourselves. This is what Mead termed the I/me dialectic: the mutually constitutive, mutually negating dynamic of individual and social. We might think of this as a double paradox: we are subjects to other people, who are our objects, but we are also objects to ourselves because we can take their perspective on us. Rooted in Hegel's insights, Mead argues that we become selves intersubjectively. I think what Hegel and Mead are pointing to here is the constant movement of the mind as social phenomenon, where we can hold onto ourselves as not-ourselves in relation to other minds, which turns on paradox. Indeed, we can go further as the German sociologist Axel Honneth does (1995) to say that we wouldn't become ourselves without the struggle of recognition with and through others: we recognise ourselves through the recognition of others. Consciousness is a social phenomenon which requires other conscious beings and involves a struggle over negation, and negation of that negation to establish evolving social norms.

If we were to draw on psychoanalytic theory, however, we would understand the subject/object split not as something that we are born with, however, but as something

which develops over the first few months of our lives². As infants we experience no separation between our mothers and us. But without the growing realisation of separateness, that the mother is a distinct being, and that she who provides food and comfort can also withhold it, we would not be able to go on to make the other distinctions we do. The growing ability to make distinctions between what is us and not-us develops in the developing infant but has also evolved through the ages, according to both Norbert Elias (2000) and the Canadian philosopher Charles Taylor (1992) and experienced a full and conscious flourishing during the Enlightenment. In previous centuries we made much less of a distinction between natural phenomena and our feelings about them: our growing ability to separate ourselves from the phenomena we wanted to understand has led to a much greater degree of control. If we could not tell the difference between us and not-us, then science, which relies on this demand for separateness from the objects of study, would not be possible. But perhaps there is an argument that the evolution of, and aspiration for, objectivity about social phenomena has a tendency to exclude the very phenomena which may be illuminating for us about ourselves. This was Hegel's project, along with the pragmatist school of philosophy (Peirce, James, Mead, Dewey, Bernstein, Rorty). This book, by focusing on reflection and reflexivity, is a small attempt to bring managers and what they are thinking and feeling back into to the discussion about what happens in organizational life with an assumption that our understanding is enriched as a consequence.

The means of keeping subject and object in relation is the back and forth exchange of what Mead terms significant symbols. A symbol is significant if it has a similar meaning for someone communicating with it, as for the person being communicated with. When we converse with others, we gesture towards them with significant symbols which call out in ourselves the response we anticipate calling out in them: the paradox of gesturing to ourselves as an object, of recognising the self in the recognition of others, enables mind, a sense of self and thus a society of conscious selves to arise. The gesture calls out a dual and mutual anticipation between ourselves and others. Mead argues that social life would be impossible without this mutually anticipatory gesture and response, which allows us constantly to adjust to each other in the contexts we find ourselves, and the particular people we are dealing with. So from the primary paradox of consciousness a number of other paradoxes arise, for example that the process of individualization is a social process. We become a self because there are other selves. Equally, thinking is the internalization of a social process of gesture and response directed by the body towards itself. The clear demarcation between what happens 'inside' and 'outside' ourselves as human beings breaks down because we are social even in our private thought processes.

The mutual and paradoxical formation of the individual and society was also a core theme for Elias (1991), who put forward the idea that changes in our psychological make-up are reflected in structural changes in society and vice-versa. The one brings out the other:

One finds then – in adopting a wider, dynamic viewpoint instead of a static one – that the vision of an irreducible wall between one human being and all others, between inner and outer worlds, evaporates to be replaced by a vision of an incessant and irreducible intertwining of individual beings, in which everything that gives their animal substance the quality of a human being, primarily their psychical self-control, their individual character, takes on specific shape in and through relationships to others. (1991: 32)

² For example, Melanie Klein (1975) drew on Freud to argue that the infant learns to cope with the world by 'splitting' good and bad objects.

Previously I mentioned the complexity sciences where interacting agents in a complex adaptive system form and are formed by the population of which they are part: Elias offers us the sociological equivalent. We form, and are formed by, the social. The paradoxes of individual and social, inclusion in groups and exclusion from them are generated by our interdependencies with others, the fluctuating relationships of power, which enable and constrain how we behave. As I mentioned earlier, Elias never explicitly mentioned his use of paradox, but his writing is infused with them. I explore Elias' ideas more thoroughly in the rest of the book.

Summing up

Paradox arises from a contradictory tension of thinking and I have been arguing in this introductory chapter that organizational life is filled with such tensions which break out all the time, sometimes provoking conflict over different ideas of the good. I gave an example from my own experience. As human beings we have been aware of the contradictions in the way we think about the world for a very long time. But I have made the case that many contemporary researchers try to design them away when they study social phenomena, based on assumptions derived from the natural sciences that a contradiction, a flaw in logic, impedes good research, and that scientific methods have little to say about what we take to be the good. Instead, they may argue that there are indeed contradictions in organisational life, but the controlling leader or manager can choose one pole of the contradiction over the other. I have been making an alternative case, drawing on the complexity sciences and sociologists and philosophers interested in complex, contradictory phenomena, that there are good reasons for exploring them, which I intend to do in the rest of this book. This will involve looking at what I have termed the primary paradox of consciousness and self-consciousness and everything that seems to me to flow from this, in terms of the social process of how our actions and intentions form our societies, which in turn form us both at the same time.

Organizational uncertainty, ambiguity and paradox – outline of this book

In chapter 2 I return to Hegel, whom I mentioned in the first chapter, to explain briefly how his philosophical system is a radical rendering of contradiction and paradox. I explain further how his insights have been developed by pragmatic philosophy in particular to justify the position that I take up in this book that there is no 'god's eye view' to take up on paradox: it can only be understood from within the paradox itself. I give a brief overview of two other perspectives on paradox, functionalist sociology and psychology and psychoanalysis. Both have a tendency to render paradox in abstract and systemic terms and to imply that it is possible to take a meta-level view.

I then look briefly at the way that other writers on organizations take up paradoxes and work with them. In general I conclude that most organizational researchers adopt the position that managers and leaders can harness paradox for the good of the organization or can somehow instrumentalize it. The reason for taking issue with their position is that it puts managers and leaders back in control and assumes uncertainty away. I argue that staying with the unsettling nature of uncertainty offers no guarantee of success, but may be more realistic than traditions of research which claim to be realist.

Chapter 3 explores the paradox of consciousness and self-consciousness which I described earlier on as being the primary paradox. I do this by way of reflecting on our ability to take the perspective of the airman and the swimmer, Norbert Elias' phrase from his book *The Society of Individuals*. Managers are obliged to think about longer term trends but are also

caught up in the moment of every day contingencies: they are caught in the paradox of involvement and detachment. The chapter considers in detail some of the arguments developed in one thread of the leadership literature: so-called 'entrepreneurial leadership'. I discuss whether the term has any merit and try to locate it within the broader discourse about leadership.

The chapter then turns to a discussion of reflection and reflexivity and their importance for leading and managing, although concludes that reflexivity is no panacea. Reflection and reflexivity are not tools or techniques to be taught, but can be cultivated and managers made more skilful in their use. Thinking about what is going on, and thinking about how we are thinking about what is going on are not recipes for success, however, and it involves exercising our moral judgement. For Hannah Arendt, whom I quote in this chapter, it is our moral judgements that most make us human.

Chapter 4 The next step in my argument is to explore the idea of culture, which emerges through the interaction of conscious and self-conscious human beings, those social processes which we form, but which form us at the same time. In particular I write about organizational culture, if such a thing could be thought to exist separate from both particular and broader social processes. I raise the question about how much leaders and managers can manipulate culture in the way claimed by more orthodox management texts, and what it means for our freedom if they can. Control of culture is a big prize in organizational discourse, but what does it really mean for the practice of management and how possible is it to change how people think and feel, rather than just how they behave?

I discuss the perspectives of some prominent organizational theorists on culture, and then compare and contrast these with the work of process sociologist Norbert Elias, who argues that culture arises in shared collective and symbolic identification. I then go on to discuss culture from the perspective of practice, as habituated and context-specific action informed by tradition, drawing on Alasdair MacIntyre, Gadamer and contemporary Aristotelian philosopher Eikeland. All three philosophers are interested in the immanence of ethics in everyday conversational life.

Finally there is an extended discussion of the National Health Service in the UK which has been an organization at the heart of contestation and struggle over the perceived need to change culture to see what it can tell us about the practice of management and what we consider to be the good.

Chapter 5 develops the idea of organisational culture and argues that organisations are both stable and unstable at the same time and investigates what this might mean for the ubiquitous contemporary narrative about innovation. To what extent can we plan to be innovative? I discuss some of the difficulties of the innovation agenda. Firstly, the idea that we can plan to be innovative contains an irony, and secondly the majority discourse contains a false binary, promoting the idea that innovation is always good and stability is inhibiting. Even cursory reflection on, say, the development of complex financial instruments at the start of the 21st C will demonstrate that innovations can be both creative and terribly destructive. I go on to argue in this chapter that organizations are always sites of paradox where both stability and change arise at the same time.

I discuss why social science is unlikely ever to have the predictive power of the natural sciences by drawing again on the moral philosopher Alasdair MacIntyre. Generalizations in

the social sciences, like management, will always be phrased as holding 'in general, and for the most part'.

The chapter concludes by drawing on some organizational literature in the process school, which still leans towards suggesting that managers can design innovation processes.

Chapter 6 is a further exploration of what we might think of as culture and turns on an investigation into the paradox of conflict and co-operation and argues that they are two sides of the same coin. Despite much contemporary management literature assuming that conflict can be managed for the good, I explore whether this is really possible, and what the paradox of conflict and co-operation might mean for the emergence of the novel. There are clear links to the chapter on innovation, because the argument I set out here is the innovation is occurring everyday in both small and large ways, and that this arises from the exploration of difference through conflict, large or small.

The chapter discusses the way that conflict is explored in organizational literature, then puts forward alternatives from sociological and psychoanalytic literature. The chapter concludes that there is no way of avoiding conflict in organizations and nowhere for managers to stand which is a neutral position. Managers can only engage with the necessary contestation

Chapter 7 is a brief review of the way that paradox, ambiguity and contradiction are still vital to the methods employed in the natural sciences. In the introductory chapter I have mentioned that a more naïve view of the exact sciences is that they exclude contradiction. Here I try to demonstrate that even the natural sciences thrive on ambiguity and sometimes even on paradox. Examples are taken from the domains of mathematics, physics and neuroscience.

The point of the chapter is the social sciences, including management, do not need to suffer from physics-envy, since even natural scientists develop their work drawing on the mind's ability to veer round to its opposite.

Chapter 8 is a concluding chapter and tries to bring some of the threads of the book together setting out the implications for the management of organizations. These are that ambiguity, contradiction and paradox, are pervasive in organizational life and cannot be wished or managed away. This is not to imply that there is nothing for managers to do, however. The chapter dwells on the importance of reflection, reflexivity and practical judgement, and the agonistic engagement with colleagues. It recommends that managers take everyday experience seriously and notice more carefully their own participation in the game of organizational life. To do so may make organizations richer and more complex, and perhaps even more human.

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