

Doctorate of Philosophy (PhD)

Rethinking Government Capacities to Tackle Wicked Problems: Mind, Emotion, Bias and Decision-Making. An Experimental Trial using Mindfulness and Behavioural Economics.

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Submitted: 24th March 2020

“Humans do not always think rationally. This is not necessarily problematic. What is problematic is to neglect it and base politics on the assumptions that they do.”

(Understanding Our Political Nature, Mair D et al, 2019)

Acknowledgements and thanks

PhD's are not easy. The systems, processes and rituals that make up Universities and the whole PhD experience are as, if not more, subject to the institutional and individual biases and lack of understandings of mind, cognition and emotion explored by this thesis. Mental health issues in PhD students are known to be high, I have come to see this as a similar issue to the one presented here, that it is the way they are organised that is the problem not because students need more resilience or well-being activities to help them cope. This research focusses on the Civil Service and government, but the knowledge and learning I present here is relevant to most public sector institutions and, in academia, to the research process itself that suffers from archaic understandings of how knowledge might best be produced, this has, at times been extremely challenging and frustrating.

That said, I am very grateful to Aberystwyth University and the AberDoc Scholarship which supported me to do the research, develop new skills, gaining insight and at the same time creating positive impact and value in the world. I would like to thank my supervisors, Mark Whitehead and Rhys Jones. Without Mark's interest, belief and enthusiasm for this work it quite simply wouldn't have happened, meanwhile Rhys offered insightful comments, particularly during the final stages, which whilst occasionally painful, always succeeded in improving the shape of the thesis.

I am also grateful to colleagues and friends who have been willing to read and comment on scripts at various stages, particularly Kristina Eichel and Ivan Courtier, but also Mitch Rose and Deirdre Raffan. Thanks go to the many people in Welsh Government who championed and supported the work, I really could not have done this without them, Diana Reynolds, Kenn Palmer, Andrew Jeffreys, Simon Dean and Phil Elkin, amongst others. To the wonderful network of people in the Mindfulness and Social Change Network for their insights, inspiration, integrity and support: Cathy Mae Kerala, Steven Stanley, Meg-John Barker, Paula Haddock, Luke Wreford, Alison Armstrong, Zach Walsh, Thomas Bruhn, David Forbes, Ron Purser, Esther Hall to name but a few. To my husband and children, Ivan, Teilo and Maeve, who have been beyond amazing throughout this time, this research would have been impossible without them behind me all the way. Finally, to my mum, who

knows it hasn't been easy, and is very, very proud of her daughter for completing the first PhD Research in the family, for you mum.

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Part 1 – Analysis and Methods

Chapter 1 - The policy mind in a climate emergency

1.1 An emergency

As I write, climate change scientists are predicting that, unless we take immediate and radical action, this century will end in catastrophic climate change. My daughter is 19, she has already lived through the 18 hottest years, since records began (Nasa, 2020). The IPCC reports she will, in her lifetime, see dramatic changes to the climate that are likely to severely impact food growing and supplies, endanger species' and wildlife and lead to large scale human migration, with the likely potential of small and large scale conflicts in the face of scarcity of resources.

On this theme, BBC Radio 4 ushered in the third decade of the 21st century by bringing together wildlife presenter David Attenborough and teenage climate change activist Greta Thunberg to share their perspectives on the climate emergency. During the broadcast these two generations, representing the two extremes of a lifespan, shared their frustrations at a lack of adequate government action. In the same programme Greta's father, Svante, gave an interview, something which happens rarely given his daughters fame. During the discussion he admitted, despite travelling the globe supporting his daughter's campaign, he does not himself identify as a climate activist. Indeed he says he has only ever wanted to support Greta, not to save a planet, but so that she, and her sister, are happy. Prior to Greta becoming an activist she had suffered from depression which had included her going on hunger strike for three months, a difficult thing for a parent to watch. Once she started the school climate strikes her depression lifted and, as Svante pointed out to the interviewer, wouldn't any parent be happy if their child started being happy and eating again?

Svante Thunberg's comments offer a good starting point for the topic and interest of my research; in the face of overwhelming (and frightening) evidence of global warming he does not become a climate activist, instead he

sees himself as just a devoted father, motivated to support his daughter to flourish and be happy. Svante is like most of us who, in the face of significant evidence of long term threats (alcohol consumption, obesity, lack of a pension, climate catastrophe) fail to respond in the most rational way. Rather, we do what we think will work best in the short term, based not on evidence, but on how we feel, and what we see people around us are doing. We do things to support our friends and family, and in response to the demands of our many and changing contexts of home and work. My research, rooted in a career working on environmental behaviour change and social inequality, explores how emotions and perception influence our reasoning, and in turn how this affects the quality of the decisions we make, and the actions we take particularly in policy making organisations, situated in the wider context of climate and social change.

In response to the climate crisis, in the last year, numerous governments have declared a climate emergency. Wales, where I live and where my daughter was born, was the first national government to make the declaration. In 2015 The Welsh National Assembly passed a sustainability act named the Well Being and Future Generations Act (Welsh Government, 2015) to support their intention with legislation. According to the climate change declaration website, in the last few years, 1,261 jurisdictions and local governments covering 798 million citizens have declared a climate emergency, including the UK government. An emergency requires action and scientists believe we need to reduce our CO₂ emissions to zero by 2025 at the earliest and 2050 at the latest. But despite this emergency call and the science being clear (Kemp, 2010) there is no sign of the kind of radical government interventions that would seem rational given the scale and potential impact of the crisis. Even in Wales, with there is obvious commitment, and binding legislation, there is only cautious optimism they will meet their later deadline of zero carbon by 2050. Despite the science on carbon reduction being available (Ibid) and the will

being there, translating rational science into action does not seem straightforward.

At the same time, there have been a series of debates about the need to change how governments work. Chief Advisor to the UK Prime Minister, Dominic Cummings, has said the Civil Service is not fit for purpose and has asked for 'misfits' and 'weirdos' to apply to become government advisors, calling for new ways of working and thinking. In a personal blog Cummings has stated: *"There are also some profound problems at the core of how the British state makes decisions."* Quoting a conversation with Physicist Michael Nielsen: *"Much of our intellectual elite who think they have "the solutions" have actually cut themselves off from understanding the basis for much of the what is most important in human progress."* (Cummings, 2020). My research suggests one of the areas they have failed to keep up with is in understanding and applying the latest science on decision making, behaviour change, cognition and emotion, particularly in relation to the personal and organisational capacities needed to deal with wicked and complex problems such as climate mitigation (see Box 1). The rise of the use of behavioural insights in policy making (Ly, 2013)(Whitehead, 2014) in general and sustainability and social equality specifically (Mondiale, 2014) indicates current ways of understanding our rationality, decision making and behaviours are outdated. Climate scientists are also seeking help from social sciences to better understand the role emotions and perception play in communicating, understanding and acting on climate science (Rapley, 2014).

My own work, instigating social and environmental change, has changed dramatically over my career, turning in recent years more towards research and evidence from the social sciences. At the beginning, in the late 80's, campaigning and social change were grounded mainly in an information deficit model: once everyone understood and were grounded in the facts then the 'right' behaviours and decisions would automatically follow. Some 20

years later, in the face of only small incremental changes and large scale failure, also following prompts from the Welsh Government, I set about exploring the rise in the use of behavioural and social sciences in policy to support change. This led, in 2012 to the creation of a partnership with Aberystwyth University and my initial MPhil research investigating climate change, behavioural economics, decision making and mindfulness. That initial project gathered interest both in Welsh Government and academia and led to further research projects, (Pykett, Lilley et al. 2016)(Whitehead, Jones et al. 2017) completed as I continued to work on sustainability and low carbon lifestyles on the ground, in communities in Wales. This combining of research and practice has become the focus of my work, analysing an issue whilst also actively seeking to resolve it, the two informing and adding value to each other. In this research I use Action based Real World Research methods (Robson and McCartan, 2016) and draw on my extensive networks and work experiences to facilitate on the ground inquiry, going to places academics may not normally travel. My research begins, in the world of practice, in the everyday interactions and moments of individual and group reasoning that combine to make policy and inform interventions. Whilst the research includes ethnography, it is not just an ethnographic exercise designed to record and reflect what is happening, it uses a combination of observation, action research and a contextualised practical intervention. It engages with people and the issues they are facing to actively investigate a problem and seek answers, resolutions and further avenues for research.

Box 1 - Behaviour change in the Welsh Public Sector

I am sitting in a meeting in the Welsh Audit Office (WAO) in Cardiff, it's spring 2018 and we are having discussions about minds in governance, this time in relation to policy making and behavioural economics. We are discussing the development and application of Behaviour Change work in the public sector in Wales. With me is Chris Bolton, from the Audit Office. Unlike most of the WAO who spend their time auditing others, his work is about developing capacities and improving public services by showcasing best practice. For the last few years that has included promoting behaviour change. There is also someone from the Welsh Government Association, Clover Rodriguez, who has worked with Chris on the 'behaviour change project' and Kate Carr from the Office of the Future Generations Commissioner, which has an interest in this area, linked to work on the Well Being and Future Generations Act (an innovative piece of legislation requiring the Welsh Public Sector to act in ways that demonstrates long term sustainability). We all share an interest in the Act and the fact it requires new ways of working. As a group we have all worked in the public sector for some time, and our conversation first circles around our experiences and frustrations with overly bureaucratic ways of working and thinking that hinder progress. We agree that our experiences of the structures, practices and rituals of the public sector stop good people from doing a great job. Chris discusses the "*Behaviour Change Festivals*" he has been running in Wales over the previous few years, showcase events designed to inform and inspire the public sector. He is now attempting to gather and promote best practice through recording and publishing podcasts about Welsh based sustainability projects. But he is concerned, there is a lot of what he describes as 'cherry picking' because the public sector simply do not have the background to help them understand behaviour change and the social and mind sciences that inform it. They are essentially being asked to understand the citizen in a very different way, more emotional, socially and contextually contingent and for them this is a huge leap in their understanding of the world. Chris notes that this lack of knowledge is reflected in the poor quality of the behaviour change work being done, itself creating a negative spiral where people question it's efficacy and blame the idea and supporting theories rather than poor implementation. We finish the meeting reflecting together on the need for training programmes to build 'behaviour change' capacity in the public sector to better understand humans decision making.

1.2 Mistakenly assuming rational government

My previous MPhil research suggested that mindfulness and behavioural economics training could be used to build individual and group capacities of mind to improve self-awareness and decision making in government (Lilley, 2013). It concluded that skills in these areas could improve both the design and delivery of policy and also be helpful in changing behaviours themselves. In the research projects that followed after my initial thesis I became more curious about what had sparked the growth in the use of mindfulness and behavioural economics in organisations, and policy organisations specifically (Pykett, Lilley et al., 2016)(Whitehead, Jones et al, 2017). A growing number of academic writers were critiquing both mindfulness and behaviour change for their lack of efficacy and ethics and overly individualising problems. Mindfulness had, and continues to be, criticised for being a palliative, used to 'fix' people rather than addressing the dysfunctional systems which caused them to break down in the first place (Purser and Ng, 2016). Behavioural economics meanwhile was being critiqued for, rather than being transformative, also maintaining a dysfunctional system by serving neoliberal aims, and being overly individualistic and lacking in ethical reflection (Leggett, 2014). More recently it has been criticised for failing to acknowledge the bias of politicians and policy makers themselves, if rationality does not exist in the general population then policy makers and politicians cannot themselves be 'remotely objective' (Sutherland, 2018).

This research has attempted to investigate underlying issues related to understandings of mind, emotion and rationality that impact policy making processes. Over time I have come to see mindfulness and behavioural economics as representing a 'canary in the coalmine'. They are an indicator of an issue, an answer to an underlying issue. Both approaches highlight our lack

of understanding of psychology, how our mind works, reasons and makes sense of the world. This lack has been made evident through initiatives such as the European Commission Enlightenment 2.0 project, (<https://ec.europa.eu/jrc/en/enlightenment-research-programme>, 2019). In its first report, entitled "Understanding Our Political Nature, How to put knowledge and reason at the heart of political decision making," it stated:

"Humans do not always think rationally. This is not necessarily problematic. What is problematic is to neglect it and base politics on the assumption that they do," (Mair et al, 2019, p.11).

The report suggests we need to get smarter about how we make policies and integrate science in political decision making at an institutional, collective and individual level. It argues the 'deficit model is inadequate' and an 'accurate picture of our political nature' is the only thing which will enable us to understand what really drives politics and policy making. The civil servant responsible for commissioning the report reflected in a research interview with me, that, because of a crisis in democratic government, getting this 'accurate picture' is an important and growing area of work:

"So many people are working in this space of rethinking government. There is the evidence and policy crowd which I am in, there is the policy lab, people which I am involved with as well, there are the futures people, the foresight people, the participatory leadership people. What they are all doing is different sorts of practice techniques that deal with biases and improve thinking, to either improve creativity or innovation or better decision making."
EC civil servant, scoping interview.

He also describes a lack of joined up thinking between practice and theory:

"That is often the way of the world, you have on one hand a bunch of scientists looking at the science, but hopeless at coming up with practical ideas and then you have the practitioners who never read any of the science at all, but they intuitively work their way to some quite interesting things that feel good. You have the equivalent of peer reviewing scientific papers, they exchange best practice, and it does sort of shake out things that work but it's like that old joke, it works in practice but nobody knows why it works in theory." *EC civil servant, scoping interview.*

According to this civil servant, the report is applicable to all governments. I have focussed in this research on the Welsh Government because of its legal obligation, through the Well Being and Future Generations Act 2015, discussed earlier which includes changing ways of working in public bodies in Wales, requiring the public sector to be collaborative and inclusive and to: *"think about the long-term impact of their decisions, to work better with people, communities and each other, and to prevent persistent problems such as poverty, health inequalities and climate change."*

(<https://futuregenerations.wales/about-us/future-generations-act/,2020>)

(Welsh Government, 2015). This requirement creates a strong case for a need for people in government in Wales to understand the mechanisms of biases to allow them to effectively make collaborative decisions for the long term.

1.3 It's not rational

Political leaders across the EU, the UK, and Welsh and Scottish Governments, have all stated a need for new understandings of human nature as essential to support the necessary transformation of policy processes in Government.

Their aspirations, discussed below, are for more collaborative working through emotional engagement, self and other awareness and improved understandings of decision making.

In a 2018 speech, John Manzoni, Chief Executive of the UK Civil Service called, not just for “cosmetic” but “profound and lasting transformational change of the Civil Service,” including changing work practices, how civil servants understand emotions and expertise, and developing capacities for better decision making and collaboration:

“Policy expertise is not enough. We need leaders with empathy, who can manage their teams through transformation and encourage continuous improvement. Leaders with broader experience, who are effective in a complex, multidisciplinary world, who lead with their hearts and their guts, as well as their heads, who see the big picture. Leaders whose instincts - developed through experience - are collaborative; who are used to working across boundaries, confident beyond their own professional area, and inspire and empower their teams. “(Manzoni, 2018)

His declaration that to be effective at dealing with complexity leaders need to be empathetic suggests a current lack of empathy is limiting their ability to deal with complex issues. Manzoni's words would be welcome by the Enlightenment 2.0 project, however, the phrase: “leading with their hearts and their guts” suggests a use of vague and undefined terms that constitute the kind of ‘folk psychology’ that the Enlightenment 2.0 project wishes to address. Folk psychology is a term used to describe the uninformed starting point most of use to understand our everyday interactions, informed by our direct and experiences of our own mind which in turn is moulded by our culture and context, importantly folk psychology is not informed by education or science. It’s how we understand our own and others’ psychological states based on our everyday interactions with each other and the world, rather than any expert knowledge (Chater and Oaksford, 1996). As I will show, at a time when their jobs require them to be experts at information analysis, processing and

interpersonal relationships, their day to day interactions are informed by an inadequate, outdated folk view of their minds and how they perceive their world. This is also evident in calls from policy leaders in Scotland and Wales for more psychologically informed government. One Scottish initiative suggests public sector workers need to develop capacities of: "Deep listening, awareness of self, awareness of systems," whilst also: "Seeking diverse perspectives, embracing uncertainty and taking adaptive action." (Sharp, 2018, p.15). In Wales, First Minister, Mark Drakeford has called for more distributed leadership, challenging hierarchical, top down processes. Shortly after his appointment in 2019, in a private speech I accessed during fieldwork, he shared a vision for collaborative working, describing how poorly hierarchies process information:

"I'm against the way hierarchies operate and dominate the way we do things. It's one of the ways I still think the Civil Service is not in a place where I would like it to be. I'm personally impatient of hierarchies, when I am preparing for questions on a Monday morning I'm clear, I want to talk to someone who has worked on the question not someone several spaces away from them in a hierarchical organisation where, by the time one message has been passed from one layer to the next, the person I am speaking to knows no more about the subject than I do. What I want to do is to talk to the person who has been working on the topic that is in front of me. And, when it comes to meeting people where there are difficult policy issues, the people I want in the room are the people who are closest to the formulation of the advice that we are realigning. I want an organisation that is interested in that way of doing things" *Mark Drakeford, inaugural speech to Civil Service January 2019*¹

1.4 The neo neuro projects

Leaders are calling for change and there is more demand for 'mind based' solutions to difficult problems. Neuro-informed projects and interventions are

increasing, including the use of mindfulness and behavioural economics. Mindfulness has largely been used to help leaders and workers understand and manage stress and, as can be seen in Box 2, it has reached and influenced top levels of government with an All Party Parliamentary Group led by both Conservative and Labour MP's. Meanwhile, as described in Box 1, behaviour change is being 'cherry picked' to solve difficult policy problems but the public sector does not have the psychological education which would enable them to understand and implement it effectively. In this research I investigate how mindfulness and behavioural economics are being operationalised in government, whilst also considering how they may be more effectively used. I do this through an analysis of how they are being understood and implemented, and also by developing and combining them in an eight session, three month programme. I then use the programme both as a point of inquiry and reflection for senior civil servants to consider the issue of mind, emotions and rationality in their work, and also to see what, if anything, changes as they learn new information, skills and reflective practices related to perception, emotion, cognition, reasoning and decision making.

Box 2 - Mindfulness in politics

I am sitting in a room in Westminster Central Hall, London, Oct 2017, outside it's a bright, mild, autumnal day. A 'select' group of people have been brought together for a Mindfulness in Politics Day. It has been described in the morning's Guardian as a world first, leading the field. "Way ahead of the curve," quoting American mindfulness guru , and the day's keynote speaker, Jon Kabat Zinn.

I am with Parliamentarians from all over the world. Sweden, with its own mindfulness training programme for MPs, has sent three people. Sri Lanka's education minister, Mohan Lal Grero is here and so is Júlia Abraham, a director of the Hungarian opposition LMP party. MPs from France, the Netherlands, Ireland and Italy are also attending. Alongside them are a handful of mindfulness teachers and academics from across the world as well as a number of Lords and current Westminster staff.

Box 2 Contd....

First on stage is Chris Ruane, known as the Mindfulness MP, he represents the Vale of Clwyd and is Chair of the All Party Parliamentary Group on Mindfulness. With high energy he introduces Political Mindfulness Champion and Cabinet Minister, Tracey Crouch.

“I haven’t got my shoes on,” says Tracey. “My mindfulness teacher told me to take them off and to anchor through my feet”. She smiles across at her teacher, also in the room, he responds with a wise and assuring nod. Everyone enjoys the small act of barefoot etiquette rebellion. A cabinet minister standing in a Westminster meeting room with no shoes on, what next? She quells any concerns of a barefoot revolution by assuring us: “I’ve actually managed to anchor in my (shoe) heels too”.

Many significant events have taken place in Westminster Central Hall, including the coronation banquet of Anne Boleyn, the trial of Thomas Moore and the lying in state of Sir Winston Churchill. One wonders where Tracey Crouch standing in a annexe room with no shoes discussing her attention and mental health issues, sits on the spectrum of significance. How the 21st century issue of how minds experience overwhelm, and how they could better pay attention and regulate emotions has become a central topic of debate and conversation.

1.5 Many ways to explore

I am an interdisciplinary social scientist based in human geography with many years of practical experience in social and environmental change and public policy. I use the affordance of my academic context to draw on a wide range of theories and disciplines to support my research. I benefit from a career studying and working in and with organisations on behaviour change and many years spent on my own personal development, including mindfulness. The social sciences I use draw on key debates from a number of areas. My research is underpinned by discussions and current debates in philosophy and psychology, consciousness, cognition and decision making. These include philosophical reflections from thinkers such as Clark (Clark, 2013) and Churchland (Churchland, 2013), who contest a need for a radical review of our understanding of mind, perception and how humans create their everyday shared realities. Most people, they contend, hold a 'folk' view of mind which mistakenly assumes an objective reality, an autonomous conscious will and a consistent authored self. But science points to an inconsistent self, authored in the moment through prediction and prediction error, to achieve short term needs, creating reality as it goes (Chater, 2018).

From psychology I also draw on contemporary research on the link between emotion and cognition. In neuroscience and psychology ideas of emotion as universal with fixed bio-psychological prints, separable from cognition and rationality are being challenged by scientists such as Damasio, Feldman Barrett and Pessoa (Damasio, 2006) (Pessoa, 2013, Barrett, 2016). All of them offer research to show how previous science is flawed and emotion and cognition are interlinked in ways that are counter intuitive. This has significant implications for how we navigate our world, our relationships and our decisions. I start with discussions on the nature of decision making from cognitive psychologists and behavioural economists such as Kahneman, Tversky, Mercier and Winter (Kahneman, 2015) (Tversky and Kahneman, 1981)

(Mercier and Sperber, 2017) (Winter, 2014) all of whom challenge commonly held assumptions about the function and nature of individual and group decisions. Given this work is situated in how organisations reason I also refer to relevant research from management and organisational studies such as Langer, Weick, Dolan, Senge and Kegan (Langer, 1989) (Weick, 1995) (Dolan, 2014) (Senge, Scharmer et al., 2005) (Kegan, 2014). The broad focus is on decision making: how we create our reality and act in the world. Based in Human Geography, my research also reflects on critiques from critical geographer colleagues such as Jones, Pykett and Whitehead who have looked sceptically at behavioural economics and the introduction of psychology into government (Jones, 2013)(Whitehead, 2017)(Pykett, 2016). I have an interest in mindfulness as part of a potential solution to the issue of civil servants not understanding their minds and as a reflective practice currently being used in workplaces. In considering mindfulness and how it might be used in the most effective way to support change I have drawn on critiques from thinkers in management studies, anthropology, education and sociology including Purser, Cooke, Forbes and Stanley. (Cook, 2016, Forbes, 2016, Purser, 2019, Stanley, 2019, Kucinskas, 2018.).

Ultimately this research is about creating change and resolving issues, not just analysing them. Behaviour change and mindfulness are being seen as potentially transformative to the way policy is created. At the same time they are both also viewed as, at worst, maintaining and, at best, tweaking existing dysfunctional systems and ways of working. Critics suggest they are both being stunted and ultimately reinforce the problems they seek to address in the first place. This research examines this history and critique and then builds and tests an alternative proposition in pursuit of supporting real transformation.

1.6 From observation to resolution, time to think again

My research attempts to address the gap between on-the-ground praxis and science, and to make research contributions both to theory and practice. The main research question it considers is:

“How are issues relating to cognition, emotion and perception hindering the ability of the Welsh Government to address wicked and complex problems, such as climate change, and how might these issues be better understood, resolved and improved?” In order to answer this question it explores:

- a) To what extent do civil servants define the job of policy making as needing to be more psychologically and behaviourally informed.
- b) To what extent do civil servants characterise the organisation by recurrent failings, which derived from workload, a lack of understanding of cognition, emotion and perception.
- c) How do civil servants perceive themselves? To what extent does their own cognition/emotion/behaviour nexus impact on the lack of success in addressing wicked problems? How might these ‘failings’ be addressed?
- d) How might an approach that melds behavioural insights and mindfulness (as well as going beyond the two) help to address and resolve these organisational and individual level issues? i.e. the intervention.
- e) What kinds of alternative models of cognition, emotion and forms of training need to be developed in order to create a Welsh Government that can be more effective?

Chapters 1-4 review literatures from behavioural economics and emotion and decision science, relevant to the main research question. Chapters 5 and 6 focus on sub questions (a),(b) and (c) whilst Chapters 7 and 8 offer insights

from civil servants which address sub questions (d) and (e). Chapter 9 concludes with a summary and reflection addressing the overall RQ. As a whole, the research seeks to contribute to the thinking needed to support the development of practical interventions and the theoretical frameworks that underpin them.

This thesis is split into three parts

1. Review and Methods (Chapters 1-4)
2. Defining the problem (Chapters 5-6)
3. Solution and Conclusions (Chapters 7-9)

I start with an analysis of behaviour change representing a significant shift towards more psychologically informed government. It looks at the development of behavioural economics, starting with Simon's notion of 'bounded rationality' (Simon, 1982) and moving to Kahneman and Tversky's research experiments looking at choice under uncertainty (Tversky, 1974) and how we often use shortcuts to make decisions, acting according to feelings rather than what would be best for us in the longer term. I discuss how behavioural economics was introduced by David Cameron into the UK government with the inception of the Behavioural Insights Team and Cameron's desire to make policy go 'with the grain' of human nature rather than against it. I introduce a number of responses to this new psychological government - mostly critical - that suggested it was potentially manipulative, overly simplistic and individualistic in its application (Leggett, 2014 #25)(Jones, 2013). That other behaviour change models might be more effective (Darnton, 2013) and that behavioural economists themselves are biased by their own limited perspectives (particularly lacking a more social and contextual understanding of the mind and thinking and a now outdated appreciation of emotions (Phelps, 2018)). The final critique is that, if as behavioural economics suggests people are subject to bias, lacking rationality as defined by classic

thinking - then policy makers must also be biased and lack the ability to reason effectively. Sutherland turns the spotlight on politics and civil servants, suggesting they mistakenly believe their decision making is objective, utility maximising and made in environments of near perfect information. Instead he states the function of their decision making is to make it defensible rather than objective, and the best decision they can make (Sutherland, 2018). So while the code that underpins all the working practices of the Civil Service states they must be honest, have integrity and be objective, civil servants have little understanding of their own subjectivities and appreciation of the impossibility of objectivity.

In Chapter 3 I look in more detail at advances in the science of mind and the false divide between rationality and emotion that behavioural economics has not fully addressed. I discuss the rapid development of emotion science in the latter half of the 20th Century and the beginning of the 00s, how these advances have led to a paradigm shift in our understanding of the nature and function of emotions (Barrett, 2016) and how this impacts decision making in government. I go on to consider how people in workplaces are currently trained in how minds, perception, attention and emotion, work given this is core to their job. Whilst others may find 'training' related to the mind or emotions unethical and potentially dehumanising (Rose, 2013), my analysis of work practice shows that ignoring capacity building in these areas results in the kinds of unconscious bias, poor decision making, relationship breakdown and ultimately mental health issues for which workplaces are critiqued. My hypothesis has come to be that critics leave organisations in something of a bind, accusing them of dubious ethical behaviour if they attempt to 'train the brain' at the same time criticising them for poor working conditions and practices, in part resulting from the default use of 'folk' psychology and a lack of training in how human minds work. This results in any 'brain training' that is offered being focussed on wiping up the mess caused by a lack of

appreciation of humans and human processes. It also creates a void instead of a deeper, more constructive conversation on how to better combine research, critical thinking and practice in the workplace.

In Chapter 4, I describe the methods used to explore the research questions and develop further hypothesis and build solution focussed intervention. I discuss the use of SenseMaker, an innovative participatory distributed ethnographic method which enabled a capturing of narratives, signified by participants themselves. It offered both quantitative and qualitative information, giving insights into the everyday working lives and interactions of senior civil servants, also providing feedback on the impact of the programme on their work. This was supplemented with more traditional semi structured interviews and field work notes.

Chapters 6 and 7, outline the problems, discovered through the research, of how civil servants perceive their organisation, as defined in sub question 1 of the RQ, characterised by recurrent failings deriving from workload, emotion and particular assumptions about mind/cognition/decision making. The chapters also consider, through an analysis of their reflections and the data inputs from SenseMaker, how civil servants perceive themselves, and their own emotion/behaviour nexus and how it impacts how they work with others and make decisions. Many of their insights were available to them once they were involved in the programme, making visible problems through the investigation of solutions, creating some overlap between chapters 6 and 7 and Chapters 8 and 9. They discussed the effects of stress on decision making and how hierarchy and a culture of hero leadership acted as barriers to optimal decision making. They understood these ways of working were grounded in particular understandings of mind and emotion which they then experienced as flawed.

Chapters 8 and 9 focus on how might an intervention using behavioural insights and mindfulness help civil servants to understand, address and

resolve the organisational and individual issues they have identified? Also, what kind of alternative models of cognition, emotion and what forms of training need to be developed to create (in this instance) a Welsh Government that can be more effective? These Chapters use the empirical data from interviews and SenseMaker to explore what, if any, difference a Mindfulness, Behavioural Economics and Decision Making programme, updated with contemporary science on emotion/cognition, made. The chapter discusses findings which showed people starting to work more collaboratively, more aware of having subjective, predictive minds and the implications of a more interlinked emotion and cognition system. They understood the nature of their attention as selective and began to experiment with using it in different ways. Some also described it changing the way they understood behaviour change in policy work whilst others showed signs of development which indicated they were more able to deal with complexity. I also explore the limitations of the programme and the research, that whilst it had some significant and interesting impact on senior leaders they felt they were still working in a culture blind to the fact these capacities are a necessary technical requirement for what they do. The legacies of the Civil Service, together with its political context, mean it is, ironically, more resistant to change than most organisations and, despite having objectivity enshrined in its code of practice, it is the least likely to reflect effectively on its own, deeply embedded, subjectivities.

1.7 Hopefully biased

In Chapter 9 I conclude with reflections on the comments from the senior leaders themselves, that Governments need to take seriously their lack of understanding of decision making and all its constituent aspects discussed in this thesis and taught in the programme. That if they are ever going to do something differently they have to understand how their mind has evolved to constantly assess current experience based on expectations informed by past

events and working effectively with this needs new expertise, skills and structures. I suggest there is evidence that mindfulness, behavioural economics and decision making programmes, such as the one delivered in this research might usefully contribute to the development of this expertise.

This is an ambitious project, using multiple and innovative research methods to investigate and analyse a problem, whilst also formulating and testing a solution. Its strengths are in its scope and impact. Further programmes have already been rolled out, alongside a podcast with participants sharing the benefits of the course with others, the podcast was the first to populate a new digital learning hub in Welsh Government. Some of the participants, two years later, have maintained a radically changed management approach and I have also been asked to contribute to a number of conferences and events to discuss the learning and findings. It is also sure to have missed things out, by drawing on a range of academic thinking and science, I have been able to go wide at the expense of going deep into topics that certainly merited fuller discussion. It will certainly be subject to the negative impacts of the predictive nature of my own mind and the very biases it surfaces in others. Whilst during the last four years people have suggested the strength of a PhD is that it isolates a young researcher to facilitate original research, as hopefully this research shows, this is also likely to lead to them reproducing their own knowledge bubble. In an attempt to address this, I have endeavoured to go out into the world to test out ideas and thinking on people working in government, on organisational and social and environmental change. I have sought to challenge myself and not get caught in my own echo chamber. One piece of advice I have been given repeatedly as I write this PhD is that it is only my first, and not my last word. So here I present only the beginning, in the acknowledgement that it will be flawed but in the hope that it offers a stimulus for future work in this area. That further research might lead to whole new ways of working, based on the best

mind/cognition/emotion science, that our decision making and relationships can then evolve giving us a better chance of addressing and adapting to the great climate emergency and other social and environmental challenges of our time.

Chapter 2 - Government meets the mind sciences

“Policy makers, like most people, normally feel that they already know all the psychology and all the sociology they are likely to need for their decisions. I don't think they are right, but that's the way it is.”

Daniel Kahneman in an interview with Jesse Singal, 2017 (Singal, 2017)

2.1 Overview

In this chapter I look at government and how, through the development and growth of behavioural economics, it came to meet the mind sciences, including psychology and neuroscience. I will explore how this coming together resulted in traditional policy making and classic models of “rationality” being challenged that this then made way for an engagement with social science and more “human centred” approaches to policy development. I discuss how this, potentially radical turn, in government has been critiqued by numerous academics for its lack of efficacy and poor ethical considerations. I will examine the core themes of these critiques, as well as some of the attempts made to address them, including the development of sociological models which attempt to counter the overly simplistic and individualistic nature of nudge based behavioural economics.

I will go on to look at one major critique that, if the rationality of the citizen is being questioned, then the rationality of policy professionals themselves must also be held up for review. I will consider this in the context of relational and collaborative governance initiative and anthropological research on the everyday lived experience of policy makers.

I will then reflect on the implications of this behavioural turn in a changing policy environment, where policy problems are increasingly complex and “wicked”, significant amongst them, climate change and social inequality. I will consider how more human and behavioural understandings of both the

citizen and the public servant might influence how wicked problems are viewed and addressed.

I will conclude by suggesting, despite the fact behavioural economics has succeeded in its argument that decision making is more emotional than it is rational, its representation of the cognition/emotion link lacks any appreciation of recent science and thinking. That the behavioural government project also fails to recognise the lack of internal staff capacities needed to make it effective, ethical and transformative. As such behavioural economics is the beginning of a discussion on new forms of thinking, rather than a solution and endpoint. In Chapter 2, I then investigate contemporary theories of the cognition/emotion axis that could inform this lack and be used to underpin the building of skills, capacities and processes. To fully understand this I also critique current training and development programmes in government which fail to draw on contemporary science but are rather cherry picked and poorly executed. How existing organisational training creates another barrier to the development of effective, psychologically informed called for by Kahneman, demonstrated by his quote at the start of this chapter.

2.2 The beginnings of behavioural government

The roots of the recent growth in behavioural government can be found in behavioural economics (BE). BE directly challenges the notion of rational economic man, homo economicus, that historically underpinned and informed our political and economic systems. Described by (Cohen, 2012) as: "A fiction invented by economists" homo economicus proposes people are rational and will always maximise their utility for the long term. This theory suggests people will, efficiently and rationally, allocate scarce resources for their well-being over time. We intuitively suspect this view to be incorrect, indeed, commercial marketing thrives on selling products such as perfume and cars, not on logical facts such as the length of time perfume smells sweet or the effectiveness of the engine, but rather they focus on identity and sexual

proWess to entice consumers to part with their money. It has taken half a century of work from academic researchers in psychology, economics, law and other social sciences for economics to catch up. One of the first scholars who defined the broad field of BE was Herbert Simon, an American economist, political scientist and cognitive psychologist with a primary research interest in decision-making. Simon, born in 1916, was one of the first thinkers and academics to question homo economicus and the theory of rationality that underpinned it. He introduced the concept of "bounded rationality" in his book *Models of Mind: Social and Rational* (Simon, 1957). He suggested people are not rational, as defined by classic economics, instead they adapt their decision making relative to their cognitive capacity and the social situation they are in, as such optimal decision making exists only within particular 'imperfect' contexts. Simon concluded that whilst this is not perfectly rational, nor is it irrational, instead he defined it as 'bounded': "Bounded rationality is not irrationality. ... On the contrary, I think there is plenty of evidence that people are generally quite rational; that is, they usually have reasons for what they do." (Simon, 1982). Simon suggested decision making was more about 'satisficing' than rationality, combining the ideas of satisfying and sufficiency, and suggesting that at best we sufficiently satisfy our needs rather than making optimal decisions. Herbert's ideas were extremely influential and formed the ground on which behavioural economics was built, however they were also criticised as an overly simplistic answer to a complex problem, like classic economic theory itself. Following his death a series of articles were published exploring Simon's ideas, amongst them were critical reflections such as that of Kenneth Arrow who asked: "Is bounded rationality unboundedly rational?" concluding that bounded rationality might serve to help us on our way to a more useful theory, but it wasn't an adequate theory in itself (Arrow, 2004 p. 54).

2.2.a We are not rational we are bounded and biased

Daniel Kahneman and the late Amos Tversky have become infamous for their work on decision making and cognitive bias, which built on Simon's theory of bounded rationality. Their much celebrated academic partnership, formed in the 1970s, investigated bias and heuristics in economic decision making (Jones, Pykett et al., 2013) (Lewis, 2016). Their work represented an early attempt to more fully integrate psychological understandings into economics and led to theories and thinking which were foundational to the new school of Behavioural Economics. Herbert Simon had concluded that decision making is less than optimal and, unlike much of the behavioural science of the day, they began with the belief this couldn't be addressed simply through education (Lewis, Ibid p.147). They came to the conclusion that barriers to non-optimal decision making are wired in sub conscious biases which need external, corrective strategies.

Their research had an interest in how uncertainty effects decisions and judgements, they designed a number of probability based experiments which led them to conclude people use patterns rather than, as they described it, pure logic to make decisions. They hypothesised that the human condition is cognitively limited and they developed a concept of 'cognitive bias' to account for this (Tversky and Kahneman, 1974), they described these as systematic errors in thinking linked to the availability of information or to social cues that affect the decisions and judgments people make, stating these errors could be identified and categorised. The first three heuristics or biases they identified were related to decision processes involving anchoring, availability and representativeness. An anchoring bias involves an initial piece of information overly influencing, relative to other information, what we may perceive later. Availability biases are where people use information that is immediate and recent to evaluate a choice, thereby biasing their choices towards what is available rather than relevant. Representativeness involves incorrectly

assessing the probability of an object or event based on features that associate it with one group over another, rather than a correct statistical understanding of how representative it is. All of these biases, which act as short cuts to help humans think quickly, result in, according to Kahneman and Tversky, and behavioural economists who followed them, sub optimal decisions and conclusions. After Tversky's untimely death in 1996 Kahneman published their research in popular book form, *Fast and Slow Thinking* (Kahneman, 2015). The book became a best seller, but it was Cass Sunstein and Richard Thaler who made the work famous, published defining behavioural economics in their 2008 best seller, *Nudge, improving decisions about health, wealth and happiness* (Sunstein and Thaler, 2008). Sunstein and Thaler took Kahneman and Tversky's behavioural experiments and research and built an approach to governance which they termed 'libertarian paternalism'. Rebonato describes this as a, mostly failed, attempt to adequately reconcile libertarianism and paternalism. It attempts to address an ideal of the right of individual free choice, with the duty of governments to govern in order to maintain communities and social cohesion. It justifies the need for something which, at the very least, points us in the right direction and allows for freedom of choice whilst also recognising we rarely have unlimited time and sufficient information or "the analytic abilities of a rational decision maker (more precisely Homo economicus)", (Rebonato, 2014 p.359). Rebonato argues that libertarian paternalism is grounded in rational choice theory and as such does not recognise, and is not interested in, the messiness of human decision making where people might wish (and in his view have every right) to make their own mistakes. (Ibid p.382). Also, there are reasons why people make the decisions they do that are more to do with culture, socio-economic background and specific contexts. Therefore decision making is much more complex than behavioural economists allow for, I will explore this in more detail as we go on. However it is this simplistic view of behaviour

change, conceptualised and published by Kahneman, Sunstein and Thaler that made it into the imagination of a soon to be UK Prime Minister, and launched it into the political and policy world, and, as we will see in the next section, irrevocably changing the way we do and see policy.

2.2.b Biased biases nudge into UK government

Nudge Improving decisions about health, wealth, and happiness was added to the summer reading list of the shadow cabinet by the leader of the UK Conservative Party, David Cameron, a year before his party gained power. Cameron also used the book as the basis of a Ted talk introducing a behavioural “new age of government” which goes with the “grain of human nature” and treats people “like they are, rather than how we would like them to be.” (Cameron, 2010). He claimed that behavioural economics was an effective, cheaper and empowering way of doing government that was adapted to the realities of human nature, promising it would also make us happier whilst also achieving (somewhat miraculously) the three objectives of governance of accountability, transparency and enabled choice. In the Ted talk he includes a slide of the five white middle-aged, mostly American, male experts who, in his view, were set to inform this new approach to British policy making because they understand: “Why people behave the way they do” (ibid). They reflected the new school of behavioural economics (Kahneman, 2015) (Sunstein and Thaler, 2008) together with thinking from marketing and persuasion (Cialdini and Cialdini, 2007) and positive psychology (Seligman, 2004). I have already discussed the work of Kahneman, Sunstein and Thaler, Robert Cialdini, is a marketing and psychology professor and author of *Influence, the psychology of persuasion* (Cialdini and Cialdini, 2007). Influence discusses six “weapons of influence”, based on compliance research, that can be used to persuade people to behave in ways you want them to (ibid). The fifth person, Martin Seligman is a psychologist, founder of positive psychology, and author of bestselling book *Flourish, A new Understanding of*

Happiness and Well Being (Seligman, 2004), his work focuses on decisions and well-being, using positive psychology. Cameron's choice of academics notably excludes many other experts and thinking related to decision making, economics and happiness, notably sociologists, anthropologists or geographers who may have had a less individualised and more contextualised view of decision making. The five thinkers all have an individualistic approach aligning well with Cameron's neoliberal view of government and the individual having both freedom of choice and personal responsibility.

Cameron's party were elected shortly after his Ted talk and within a few months in 2010 he had set up and launched a small Behavioural Insights Team (BiT) consisting of seven people tasked with taking his behavioural economics agenda forward and transforming at least two major areas of policy, whilst also spreading an understanding of behavioural approaches across Whitehall and achieving a tenfold return on the cost of the unit. (Halpern, 2015, p54). Early wins on energy use and health (Team, 2011) (Team, 2010) made the team popular and it expanded quickly, in 2012 it was released from government ties and became an independent organisation which, as I write ten years later, has over 120 employees in offices across the world including London, Manchester, New York and Australia. Much of its work focuses on using linguistic and visual devices to adjust the 'choice architecture' to encourage one choice over another, these include psychological mechanisms, such as framing and anchoring. They largely test different frames and nudges using random control trials, producing a number of different versions and scaling the trial until they are satisfied with the result. The use of Nudging has spread to governments globally, including Australia, the UK, Peru, Singapore, France and the United (Afif, 2019) (Whitehead, Jones et al.,2014).

Whilst the work of the team, and behavioural economics as an approach, has been successful in terms of its spread and uptake, it has also gathered multiple critiques. Hailed as a new form of governance which is in some way

more 'human', it is critiqued as a potentially manipulative way of using psychological means to maintain existing dysfunctional processes, appropriating neuro understandings to achieve neoliberal aims. (Whitehead, Jones et al., 2017 p.5). It is this critique that I will go on to discuss through identifying five 'nudge backs' which question the efficacy, ethicality and theoretical underpinnings of this neural turn, starting with the academic argument that behaviour change is an attempt to sustaining a failing neoliberal state.

2.3 The behaviour change nudge back(s)

2.3.a Nudge back 1 - Neuroliberalism, a reaction to a neoliberal crisis?

Putting psychology into the hands of government using words such as 'behaviour change' and 'nudge' in its description, has, perhaps unsurprisingly, attracted significant academic critique. (Leggett, 2014) (Rebonato, 2012, Loewenstein and Chater, 2017) (Whitehead, 2017) (Jones, 2013) (McMahon, 2015). Some, such as Jones and Whitehead have developed new concepts to help develop critical behaviour change theory, "Neuroliberalism" considers both the ethical impact of behavioural government and its effectiveness in a neoliberalist government context (Whitehead, Jones et al. 2017 p. 72). Neuroliberalism also acts as a shorthand for the multiple ways in which neoliberal society attempts to sustain itself through neurological means, "attempting to correct behaviours that appear to threaten the future of the market orientated society." (Jones, 2013 p.50). As such Jones and others argue that whilst there are cases where behavioural insights have created transformative change, this is mostly not the case, rather interventions more generally are typical of "the inevitable corruption of science by politics" used only to meet the "practical requirements of public policy delivery" (Whitehead, 2011, p.2833-2834). Instead of engaging in new and novel ways with citizens and the nature of freedom in the light of the new sciences it instead

characterises the individual as transformed from homo economicus “coherent, bounded, individualised” into Homer Simpson: “Incoherent, unbounded, socialised, unintentional, one point in the broader flow of thought action and the beneficiary of a unique, but largely illusionary biography;” (Whitehead, Jones et al. 2017, p.77). This, largely negative, re-characterisation, rather than creating the ground for engagement and innovation raises questions about the individual’s ability to make choices therefore legitimises the need for governments to facilitate better decisions through choice architecture and nudges. Whilst this might go, as Cameron described: “with the grain of what is depicted in human nature.” It also raises questions about which experts, and what expertise, defines a good decision? (Leggett, 2014 p.7) (Sugden, 2009). Critics point to the fact nudge advocates take no account of this, as the nudge still allows choice and therefore the expertise that informed it does not instigate a mandatory behaviour (Sugden, 2009 p.11). There is evidence that nudgers themselves are aware of this incontrovertible point, David Halpern, a founding member of the BiT notes: “We all have our self-serving attributional biases, and these can get us into real trouble” (Halpern, 2015 p.327). This point forms a central tenet of this thesis, one that I will explore further, for the moment it raises a simple, but very important question: What are the implications of one group of flawed selves governing another group of flawed selves?

2.3.b Nudge back 2: The subjectivity, misrepresentation and bias of the neuro

As well as questioning the transformative potential and ethics of the application of behavioural economics in government, critiques also challenge the overly neuro-reductionist nature of the sciences which inform it, particularly the focus on neuroscience and psychology. They suggest that, to create a more holistic and credible view of behaviour change, there needs to

be a widening of the research base to include more of the social and the critical social sciences.

Neuroscience is criticised for overly reducing the individual to small functioning parts of their brain, with the “seductive appeal” of neuro-imaging potentially over claiming the results of localised brain activity. (Pykett, 2018 p. 3). Neuroscientists themselves debate the usefulness of reducing function down to small parts of the brain, suggesting that the brain is more distributed, acting as networks across a number of different areas. However, this still reduces the individual to activity in the brain and fails to take into account any influence of the rest of the body or of socioeconomic, relational, cultural or historical influences on the mind. (ibid p. 1). Cognitive psychology has also traditionally conceived the mind as isolated within the individual, and ignores the fact the mind is embedded in a body, in a physical environment (Wicker, 1979). With its origins in economic decision making, law, cognitive psychology and, more recently, neuroscience, behaviour change uses a very limited view of mind and of behaviour and consciousness and fails to draw on alternative academics and experts with a broader understanding of consciousness, perception, cognition and decision making. Thinkers and researchers who see mind as embedded in relationships, networks, society and emergent from our environment such as (Clark, 1998) (Grund, Waloszek et al. 2013) (Noë and Thompson, 2002,) (Varela, Thompson et al. 2017) (Noë, 2009). In Chapter 3 I will be exploring these more extended and embedded models of mind and how they might inform the behaviour change agenda in the next chapter, first I will concentrate on exploring the critique.

Pykett suggests that as well as opening the net more widely within neuroscience itself, there is a need for critical social sciences to play a part in defining and developing the behaviour change agenda, this could include critical neuro-geography (Pykett, 2018), psychology (Parker, 2015) and neuroscience (Choudhury and Slaby, 2016), all of which take a broader and

more social and contextual view of mind and cognition, encompassing cultural, socio-economical and historical factors. They also offer a critical lens on the scientific practices themselves, challenging both the researchers and the nudge advocates own biases discussed at the end of the previous section. (Choudhury, Nagel et al., 2009, p.63). These critical analysis' advocate the individual cannot be reduced to the functioning of small areas of the mind, or just the mind at all, Choudhury argues the human brain is fundamentally a cultural organ and neuroscience is as much about how people choose to interpret and represent neuroimages as the images themselves. (Choudhry, S, Mind and Life, New York, April 2018). Meanwhile Callard uses a genealogy of research on the resting mind state to highlight the dangers of early research assumptions about the absolute correctness of particular theories of mind. Callard describes how the discovery, in 1997, that the mind is active and task orientated, even when it has no stimulus, significantly shifted how we viewed the mind, until that point it had been seen as something which activated only in response to a stimulus from its environment and goals (Callard, 2011 p.236). When it had no goals or environmental impetus, it was assumed it was not really doing anything and any activity seen in neuro images was considered "baseline noise" and dismissed in experiments. The discovery that this baseline was actually performing task related activities, independent of any external input or goal related activity, opened a line of inquiry as to the nature, purpose and function of non-stimulus-response activity which in turn raised questions about how that related to 'self'. (Ibid, p.236). Prior to this discovery the self had been defined in terms of an individual's behaviour in relation to a particular task, this new finding led to an understanding of our selves which needed to account for the autobiographical narratives the mind produces in this resting state. The non-acting mind was redefined by psychologists, changing from "baseline noise" to an active "resting state" to a "default mode network", the narrative of which contributes to our understanding of self.

Callard argues that this change of definition transformed the brain from being in a state of rest, to being “perpetually productive and orientated towards the future” that the discovery of this “hitherto unquantifiable inner experience” has also “destabilized many of the assumptions built into the models of cognitive science.” The theories and concepts which are then being used to understand these new discoveries must, inevitably, be biased by assumptions from cognitive psychology and neuroscience, and should be considered with that in mind. Callard suggests that “the moment of uncovering the mystery of the resting state is also, perhaps, the moment in which its mystery is colonized,” that there needs to be a wider engagement with social science who can contribute to “the building of a different model of self” not limited by individualistic psychological reductionist thinking. (Callard, 2011, p.250).

Narratives of a slightly out of control, ruminating and self-referential mind are now prevalent, as a correct understanding of the mind and this is mostly discussed in the context of a negative and self-sabotaging potential, (Sinclair, Seydel et al., 2017, p.77) (Kabat-Zinn, 2005, p.405). In *Mindfulness for Busy People*, writers such as Sinclair suggests, “we can wake up” to the constant stream of stressing thoughts and realise, “it is just a thought, just a story.” (Sinclair, Seydel et al. 2017, p.77) This makes the default mode network seem straightforward, simple and as easy to train as building a bicep (which is not easy to train by the way) and does not acknowledge the complexity, diversity and constantly developing differing opinions in this area (Zhou, 2019) (Pagnoni, 2019). Using an overly simplistic view of the DMN and the ‘chattering’ mind fuels lucrative initiatives that promise to help us become happier by ‘controlling’ this unhelpful ‘chimp’ (Peters, 2013). Ignoring it’s positive and evolutionary benefits and potential role in our social intelligence (Mars, 2012). There is little reflection on how framings of mind themselves influence how we perceive and organise ourselves and understand our cognition nor is there enough critique of overly simplistic appropriations of

complex topics. This includes dual process theory and bounded rationality, both are theories of cognition and reasoning central to behavioural economics, and both are simplistic explanations of complex neurobiology. They have been adopted as truisms, but they are, at best, oversimplified and at worst, as I will go on to discuss, highly contested. With a wider social science lens, positioning the mind in an embodied and socio economic context, we would be able to consider not only the situated and contextual nature of perception, cognition and memory but also: "enduring conditions of inequality, social difference and subjectification, power struggles over recognition, and spatially and socially uneven material and discursive capacities for action." (Pykett, 2018). Critical social science helps us avoid getting caught in oversimplifications and self-reinforcing loops which are likely to slip us up in the longer term. We need to be wary of using a narrow range of scientific voices in the discipline of behaviour change, if we are to effectively consider neoliberalism, its impacts, efficacy, ethics and potential development.

2.3.c Nudge back 3 - A paradigm shift in emotion/cognition science

As well as involving more social science, nudge based behavioural economics and dual process thinking has also been critiqued for not taking account of significant shifts in our understanding of how emotions and decision making link, an area which has seen significant progress in thinking over the last 50 years. Psychologists Elizabeth Phelps and Karolina Lempert, for example, suggest the dual system theory, Kahneman's foundational concept, is questionable to the point it: "hampers further scientific advances" (Phelps, 2018) (Lempert, 2018 p.109). That it divides emotion and cognition in unhelpful ways and suggests to the public, and other scientists, there is historical evidence for the competing nature of emotion. They point out that certain parts of the brain, such as the hippocampus, historically, which were previously associated with the more emotionally driven limbic system, are now

seen to be integral to cognitive functions, such as memory. This, amongst other findings has led them to suggest: "As appealing and parsimonious as the dual systems view is, without a clear neural instantiation, it is difficult to see how it could be accurate." (Ibid).

Kahneman's dual system theory persists both in scientific and public arenas, where popular science it still presents it as established science. In a March 2019 *Making Sense* podcast called "The Map of Misunderstanding" cognitive neuroscientist Sam Harris interviewed Kahneman about his lifelong work. He received rapturous applause and during the interview explained his theory: "there are clearly two ways that thoughts come to mind [...]" he then caveated this with the comment, "theory is less important than the basic observation that there are two ways for ideas to come to mind," arguing the simplicity of the idea is part of its success: "You have to describe it in a way that will be useful." (Harris, 12th March 2019). But Lempert and Phelps do not agree and are not alone in arguing that this oversimplification is, in the longer term, unhelpful. Social and cognitive scientists Sperber and Mercier in their work on reasoning, laid out in the book *The Enigma of Reason*, describe dual process theory as, "but a makeshift construction amid the ruins of old ideas." (Mercier, 2017, p.13). They argue the whole idea of "flawed" human decision making is flawed itself, missing the point that reasoning did not evolve for objective decision making, but for other functions, largely to do with social cohesion and interaction. This critique is important because our understanding of how we reason, as I will show in the empirics chapters, influences how people make decisions and reason together, and how they design processes and bureaucracy in government. I began this chapter looking at how homo economics, from classic economic theory, largely informs how governments and the Civil Service approach decision making in themselves and others.

Classic theories of economics are now under review, and have been since Simon's work in the 1950s. However policy makers and politics are barely keeping up with shifts in science, something which, if it were happening with the physical sciences, might be much more obvious and subject to criticism. The sciences of mind, and their developments, are largely invisible and not something they are held accountable for not assimilating into their work. Nikolas Rose, famous for his writings on mind and state, notes: "There are close linkages between the ways human beings are understood by authorities and the ways in which they are governed." (Rose, 2013 p.7). Rose argued for critical reflection, including whether theoretical understandings of mind are correct and up to date. Also, as I will go on to discuss, this applies to authorities themselves,, how they understand their own cognition and behaviour is closely linked with how they organise and govern themselves which then impacts how they organise and govern others.

2.3.d Nudge back 4 - It's enabling, not paternal

While social and emotion science casts a critical eye on its lack of an invitation to the behavioural economics table, other critiques argue it dumbs humans, and their decision making faculty, down, when instead it could be used for human development and empowerment.

Gerd Gigerenzer, psychologist, and Director of the Harding Center for Risk Literacy at the Max Planck Institute for Human Development in Berlin, has demonstrated that behavioural economics can be used to build capacities in individuals and groups to better navigate uncertainty and risk. (Gigerenzer, 2015). Gigerenzer, like Kahneman and Tversky, built on Herbert's work on decision making and 'bounded rationality' discussed previously, instead of dual process thinking, Gigerenzer developed the theory of ecological rationality, recognising that decision making is subject to contextual and emotional influences, more in line than the arguments already explored in this chapter. He believed that people could be trained to understand their decision

making processes and become, as he called it more Risk Savvy (ibid). This is in stark opposition to Kahneman's view that "there is not much hope" of overcoming our cognitive biases through education (Marshall, 2014 p.58) because they are wired into our cognitive biology. However, as Lempert argues, he lacks empirical evidence for this, there are no neural correlates for dual process thinking (Lempert, 2018, p.109). Mercier meanwhile argues it is a "makeshift construction" (Mercier, 2017, p.13). In interviews Kahneman is adamant that thinking cannot be improved through understanding system one and two thinking, because despite 50 years of research and writing, he is no better: "I don't think my intuitions are significantly improved." (Harris, 12th March 2019). Though he does say he can recognise when "I am likely to be making a mistake", describing it as a mental flag, akin to when we see a visual illusion is out to trick us, we start to look in more detail to try and work it out. Kahneman says he "doesn't feel guilty" about not getting better at decision making but uses it instead to continue to justify the need for libertarian paternalism, that it is the job of governments to design systems that will help us do 'the right thing', after all, "that is why we elect them". (Ibid). He appears to have no interest in the potential for empowerment through training and education and also fails to see the irony that policy makers must also be subject to cognitive bias. Who is going to take charge of their choice architectures? In the interview with Sam Harris, Harris challenges Kahneman and his belief that education is pointless, arguing we have learnt and developed in many ways over generations and surely this new knowledge could, and should, be used for our development. "What if we made stunning progress on this. Such that our generation looked like bumbling idiots compared to our children or grandchildren?" Says Harris's (Ibid).

Gerd Gigerenzer's work supports Harris's view, people can be educated on bias and understand their decision making as intelligent, adaptive, and designed to make "good errors" in a complex, fast moving world (Gigerenzer,

2015 p.366). He argues that people are risk illiterate and that it is possible to build risk literacy to improve our decision making capacity. He is critical of the way Nudge quickly jumps to intervention over education: "I do not object to nudging per se, but I do object to the justification of such techniques on the basis of people's lack of rationality by libertarian paternalists such as Thaler and Sunstein"(ibid, p.363). Gigerenzer agrees, in line with arguments, made previously in this chapter, that Nudge, Kahneman and Sunstein and Thaler are wrong to blame the individual mind for its poor decision capacity. Gigerenzer accuses them of being misleading when they suggest, "educating people, is a hopeless endeavour," and is critical of how they use that as a justification to justify government intervention. Nudge, he believes, is mistaken and has no empirical evidence to justify describing people as lacking rationality, instead he says people have an adaptive rationality, which can be improved on (ibid p.365). That they regularly learn statistical thinking and models which enable them to understand uncertainty and risk, so rather than, "blaming and nudging" people, we should be educating them (ibid, p. 365). Gigerenzer is not alone, the Netherlands based, Self-Regulation Lab enables people through education, helping them understand biases so they can design and implement their own nudges to support self-regulation such as increasing exercise or water consumption. Whitehead describes the work of the Netherlands lab as a positive, but ironic, use of behavioural economics seeking: "Ironically, to preserve the autonomy of the subject by acknowledging the limited nature of behavioural autonomy." (Whitehead, Jones et al. 2017, p.87).

Gigerenzer does credit Nudge with one achievement, it has made: "Government officials aware of psychological factors." (Gigerenzer, 2015, p.376). This is significant, as I will go on to discuss, the lack of knowledge or understanding of psychology and neurosciences in the policy making process contributes to poor decision making, a lack of good collaborative working and less than optimal policy processes.

Other academics, such as educationalist Robert Keegan, believe people's decision making capacity can be improved through the development of capacities which help them see "how we shape coherent meaning out of the raw material of outer and inner experience." (Keegan, 2018). He suggests we can improve our 'knowing' by developing meta cognitive skills, which allow us to see our thinking processes more clearly. Sam Harris, a meditation advocate suggests in the interview with Kahneman. Referenced previously, that meditation could be used to develop meta cognition and support education on cognitive bias, that it could help: "become wise to the ways (their) negative and positive emotions distort (their) cognition , such that (they) can be more intelligent stewards of (their) uncertainties." (Harris, 2019, 34 mins). Meditation researchers, such as Erika Carlson, back this up with numerous examples of how mindfulness practices can build meta capacities allowing us to see our biases and improve our information processing (Carlson, 2013). The ideas in this section significantly inform the intervention used in this research, described in Chapter 4, from which much of the empirical data is drawn. The intervention consisted of eight training sessions over a three month period with senior welsh government leaders and combined education on behavioural economics and cognitive bias, with practices to develop meta cognition, interoception and meta awareness. It is innovative, and unusual as training, to bring together education on decision making with reflective practices such as mindfulness. It is from a similar hunch to that described by Harris, together with gathering evidence from behavioural economist advocates such as Gigerenzer, meditation research on meta cognition, and the work of Rowson and the RSA, discussed in the next section that led to the idea that an intervention combining the two could potentially address bias. It was designed to test if empowering education on bias and decision making could develop effective and ethical decision making and in turn support more integrated and holistic approaches to behaviour change. Some of these will be

discussed in the next section which looks at the ways governments and the public sector have attempted to operationalise and scale behavioural insights through toolkits and frameworks, some more holistic than others.

2.3.e Nudge back 5 - Applying and improving behaviour change models in practice

As discussed previously in this chapter, the use of Nudge influenced behavioural approaches have increased in government, including attempts to scale the work through developing and encouraging the use of toolkits, designed to make it easier for policy makers to integrate understandings of cognitive bias into policy making. The first of these toolkits was Mindspace (Dolan, Hallsworth et al. 2010). Ironically perhaps for a document produced by behaviour change experts, it is long and detailed. Its lack of success at scale is evidenced perhaps by the production of a much shorter "simple pragmatic version" called EAST a few years later (Hallsworth, 2014). Mindspace is an acronym representing key cognitive biases, 'M' for example, stands for "Messenger" emphasising the importance of thinking about who delivers a message, 'I' stands for "incentives", indicating the role of reward in behaviour change. East reduced the 10 biases presented Mindspace to four concepts: the need for behaviour change to be Easy, Attractive, Social and Timely (EAST). This shift from a 96 page document covering 10 biases to a paper half the size, covering four basic concepts indicates a failure of Mindspace to effectively communicate behaviour change in policy making. Both draw from cognitive psychology and a small amount of social psychology (social norming). They ignore other social sciences such as sociology or anthropology, which, as already discussed, would offer different, more contextualised, approaches to behaviour.

In response to concerns about the limited approach taken by Mindspace and the Behavioural Insights Team to behaviour change, other models have been developed to offer more nuanced and holistic understandings of

behaviour. In 2011 the RSA ran a project called "Transforming Behaviour Change", (Rowson, 2011). The project was intended to develop a more "sophisticated understanding of the relationship between our social challenges, our behaviours and our brains." (Ibid, p. 3). It challenged Mindspace by acknowledging contextual and social aspects of human behaviour and gathered sociological, cultural and philosophical perspectives to create a more "transformative" and "holistic" view of human behaviour acknowledging humans as not just neural but also (and equally) social, biological and cultural. Using this model Rowson trialled a project combining education with reflexive practice and social and material changes in the environment in order to shift behaviour. (Ibid).

Other models, in health and more recently in environmental sustainability have also been developed and also take a wider and more contextualised view of behaviour. Examples include the Behaviour Change Wheel, Social Marketing processes and the ISM model,

The Behaviour Change Wheel (Michie, 2014) developed by health psychologist Susan Michie, is popular in public health contexts and synthesises learning from 93 models of behaviour change (Michie, Richardson et al. 2013), indicating the wealth of behaviour change models available, few of which Nudge draws on. The wheel developed first from Michie's initial COM-B model, which stated that in order to change behaviours (B) you must address capability (C), motivation (M) and opportunity (O). Elements of nudge make up a small part of the psychological aspect used in COM-B which itself is only a small part of the Behaviour Change Wheel indicating the complexity involved in the Wheel framework compared to Sunstein and Thaler's Nudge.

Social marketing, another approach that has been operationalised in toolkits and frameworks for public policy work, was also developed initially in health to address issues such as the spread of infection and basic hygiene (Curtis, Kanki et al., 1997) more recently it has been used in environmental

sustainability (McKenzie-Mohr, 2000). Social marketing takes theories from commercial marketing and applies them to social issues. It uses psychologies of framing and persuasion to shift behaviours, linking both to Nudge and Cialdini's work from marketing, mentioned earlier. It also uses understandings of convenience and how social and environmental contexts can be designed to shift behaviours, which has similarities to choice architecture, as used in Nudge. In Wales, the context of this research, social marketing was introduced in 2011 by WG and culminated in a number of projects designed to help segment the Welsh audience in terms of the kind of messaging that was most likely to prompt change, including a Sustainability Survey (Welsh Government, 2011) and the *Sustainable Development Narratives for Wales, A Framework for Communications*. The framework included "compelling and clear narratives about sustainable Development and Climate Change" to allow "people to see climate change concepts in a positive, constructive and hopeful frame and to motivate them to both support the Government's action and take action themselves". (Welsh Government, 2013). These documents were shelved soon after being published as ministerial priorities shifted, indicating again a struggle amongst policy makers and politicians to understand the role and value of psychological and behavioural approaches in policy making. The methodologies behind the social marketing approaches were more nuanced, contextual and social than the more individualised and homogenising nudge approach which make little attempt to understand the different contexts in which their audiences operate and understand their world.

Whilst the Welsh Government explored social marketing, the Scottish Government worked extensively with the ISM model which is largely based on sociological theories of social practice. (Darnton and Evans, 2013) Social practice sees behaviour as the result of practice: "Routine driven, everyday activities situated in time and space and shared by groups of people as part of their everyday life." (Verbeek and Mommaas, 2008, p.634). These practices are

motivated by material, social and individual factors (Shove, Pantzar et al. 2012) (Darnton, 2013) and this approach advocates that all these elements need to be taken into account to change behaviours. According to Andrew Darnton the ISM approach is a more appropriate intervention for a complex system, perhaps testimony to this fact, it has been used as the behaviour change "tool of choice" in Scottish Government to help meet its 2032 Carbon targets (Ibid). It also challenges the neurocentric critiques of Nudge as it more fully acknowledges the contextual and social nature of behaviour.

The behaviour change wheel, social marketing and the ISM model are rarely discussed or critiqued by academics or the media in the same way Nudge has been. Perhaps this is because they are hardly known of outside their limited contexts. Interestingly they are also more visible in the devolved governments of Wales and Scotland compared to the UK Government, suggesting a London-centric bias towards the more individualised Nudge approach. These models offer a view of the human and of how behaviour emerges that is more nuanced and contextualised and challenge the limited perspective Nudge is based on, perhaps this is more attractive to more regionalised and arguably more human focussed regional government. However, they are still limited in their use wholesale by any governments, and as described in the Welsh social marketing case study, there are indications that governments do not entirely understand or value these psychological approaches. But then, as we will go on to see in the next section of this chapter, their understanding of psychology in relation to themselves is also very limited, therefore the fact they are unable to use the human sciences effectively in their work is unsurprising. It is this issue I will look at in the next section, where I will consider whether governments need to understand first how emotion, patterned thinking and social and historical norms effect their organisations, how they interpret evidence, make decisions and relate to each

other before they can effectively use these psychological knowledges to improve how they design and deliver policy for and to the world generally.

2.4 Summary, behaviour change and nudge backs

In the first part of this chapter I explored the basis and history of behavioural economics in contemporary governance. I have shown how the introduction of behavioural economics was subject to its own biases, failing to take account of other views of behaviour change and models, limited by the research politicians chose to draw on, overly individualised and American academic-centric, aligning with neoliberal ideals and failing to take account of social, contextual and systemic reasons for individual human behaviour. I have described five critiques, or "nudge backs", to Nudge informed behavioural economics.

1. The neoliberalism critics, that behavioural economics is an unconsidered and problematic response to a crisis in neoliberalism and unhelpfully dumbs down the human decision maker.
2. The science it is based on is overly neuro centric and neuro reductive,
3. Nor does the behaviour change foundational concepts, such as dual process thinking, take into account radical developments in emotion/cognition science.
4. Empowering and transformative versions of behaviour change have largely been ignored, and behavioural economics has been used to dumb down human decision making and justify government intervention.
5. More nuanced models of behaviour change that recognise the value of a much broader scientific approaches are hardly visible in the discussions of behavioural economics in governance. Many of these include the sociological and environmental aspects of behaviour showing our actions to be as much a product of social relations and

context, not just individual choice, habit or heuristics.

A repeating theme throughout this section has been the biased and flawed nature of the policy maker and the policy process itself. How do we understand and address biased policy making? Nudge theory and the work of Kahneman states that the government must fulfil its governmental 'paternalistic' duty and create conditions where humans are able to make the 'right' decisions (whilst not completely restricting choice). But how does this take account of the bias of politicians, civil servants and policy makers, their understanding of their job and of behavioural government? The next section focusses on this question, examining how history, structures and daily workplace practices create very real and particular biases within the policy organisation, how this influences their work and their appropriation of the mind sciences. At the end of this section I will conclude that there is strong evidence of a need for them to understand themselves and their own "bounded rationality" in order to effectively apply behaviour change to the general public.

2.5 What's true out there, is true in here, the biased Civil Service

2.5.a Impacts of a legacy of hierarchy and meritocracy

The UK Civil Service and the whole of the public sector has roots in the hierarchical monarchical systems of the monarchy and their centralised administrations (Pyper, 1999, p.5). Numerous attempts have been made to modernise the Civil Service over the last century, with some success, but the hierarchical structure, based on perceived meritocracy, remains. During fieldwork I regularly witnessed Civil Service conversations focussing on a person's grade and how this affected how their voice should (or should not) be listened to. This hierarchical approach is embedded in Britain's institutional history, but as I will evidence, there is a strong sense that modern problems

need more collaborative ways of working and more distributed leadership (Drakeford, 2019) (Cooke, 2012). Indications that old ways of working are not addressing contemporary problems can be seen in reports such as that produced by the Williams Commission on Public Service and Delivery in Wales, which criticised the Welsh Public Sector for its poor performance, claiming it was failing to adapt to the increasing complexity and scale of the job of governance (Williams, 2014, p.63). The report recommended that, in order to adapt, government needed to develop capacities and structures that would enable innovation, flexibility and responsiveness (Ibid, p.74). This research explores and tests the nature of this capacity building, testing a prototype solution.

The modern Civil Service began over 160 years when Trevelyan began a journey which continues today, to move away from top down systems run by small groups of elites and then the bourgeoisie towards more meritocratic and now more collaborative government. Whilst it had good intent Trevelyan's original government was limited, made up almost exclusively of highly educated Oxbridge graduates tasked as 'generalist administrators' operating in highly hierarchical structures. It wasn't until the second world war that, due to necessity, the Civil Service became more diverse as women were brought in together with more specialists. (Pyper, 1999, p.10). However, it has largely maintained its original focus of developing administrative generalists and still struggles to modernise, evidenced by the speech from the current Chief Executive, John Manzoni, quoted in Chapter 1, urging the organisation to improve by becoming more representational, collaborative (internally and externally) and less bureaucratic (Manzoni, 2018) and developing new expertise, of "heart and gut" and not just head. (Ibid).

Not only is the Civil Service struggling to transform from a top down system to a more distributed, collaborative organisation, it also has the challenge of maintaining objectivity, integrity and honesty, as laid down by

The Civil Service Code, introduced by the Masterman Committee in 1949 (Masterman, 1949) to address corruption, updated by the Armitage Report in 1978 and then again in 1996 and in 2006 when anonymity was taken out (Horton, 2006, p. 41) it is intended to ensure transparent and rigorous processes which ensure objectivity. However, as I will go on to show, behavioural economics has brought into question whether it is possible for a code, or internal processes designed with a code in mind, to succeed in ensuring objectivity. (Hallsworth, 2018).

2.5.b Early attempts to identify and address bias in policy organisations

It took a few years, as I discussed in the previous section, for behavioural insights to shift its focus away from the policy process to policy organisations themselves. In 2016, the Institute for Employment Studies, commissioned by the Department of Energy and Climate Change (DECC) on behalf of a cross-government group, conducted a rapid evidence assessment on common factors in organisations related to behaviours, decision making and change (Cabinet Office, 2016, p.8). The evidence highlighted that all organisations are subject to bounded rationality and use shortcuts and heuristics in their decision making (Ibid, p.46). The report went on to present a framework to help organisations improve their decision making (Ibid, p.6). Unlike previous reports such as Mindspace and EAST (Dolan, 2010) (Cabinet Office, 2016), Organiser did not focus on applying theories of cognitive bias to external work, but rather on how organisations could become less biased and make better decisions internally. It pointed out that internal biases may contribute to poor policy, as much as external bias, and explored "the risk of policy failing to achieve its ambition, by highlighting possible unintended responses from, or behaviours by, organisations." (Ibid, p.4). The report appeared to make little impact, the framework it developed was quite complex, but it was followed up in 2018 by a more focussed report from The Behavioural Insights Team, *Behavioural Government: Using Behavioural Sciences to make better decisions*

in government. The report focussed entirely on the political and policy process, starting from the admission, notably absent from their early reports, that: "Elected and unelected government officials are themselves influenced by the same heuristics and biases they try to address in others." (Hallsworth et al, 2018, p.7). The report acknowledges governments cannot use behavioural insights to shape policy without exploring the effect of their own biases on policy making and processes. It evidences this with research demonstrating that decision making in policy is only slightly more accurate than if it is done by chance, quoting research showing that supposed objective decisions, such as those made by judges, can be influenced by whether or not it is their birthday (positively), or if their football team lost recently (negatively) (ibid p. 16). They also quote research showing how the beliefs of policy makers unhelpfully bias the interpretation of data, and that providing additional information, commonly believed to help people revise their views, makes the effect worse, (Baekgaard, 2017) (Banuri, 2017). In one experiment politicians were offered information about public and private school performance. Where politicians had pre-existing strong beliefs in public schools, they correctly interpreted the information as schools performing well, as it fitted with their existing belief. When the same group were presented with information that suggested private schools performed better, they interpreted it wrongly as it did not fit with their existing belief. In summary, politicians receiving information most at odds with their prior attitudes (or biases) only interpreted the information correctly 38–61 per cent of the time (Baekgaard, Christensen et al. 2017).

Research from Banuri suggested that policy makers wrongly believed their bureaucratic processes, recruitment procedures and meritocratic hierarchies address subjectivity and succeed in achieving objective governance. He suggested their conviction their processes were sufficient to meet the objectivity required by the Civil Service code made them blind to even the

potential they may be biased, stating: "This finding should worry policy professionals and their principals in government and large organisations, as well as citizens themselves," (Ibid, p. 24).

In experiments on decision making traps Banuri found policy makers were subject to sunk cost bias, loss and gain framing and confirmation bias, and their organisational procedures did, "not protect against partiality and subjectivity" (Banuri, Dercon et al. 2017, p.3). In one experiment, focussing on policy related to reducing the minimum wage, it was shown that policy makers, as in Baekgaard's research, were more likely to assess evidence correctly when it agreed with their own prior beliefs (Ibid). This was in part ameliorated when people had more of a social science background (Ibid, p. 12), suggesting certain individual capacities improved information analysis, positively correlating with discussions earlier in this chapter that education could improve people's ability to assess evidence in less biased ways.

Another critique of the lack of bias awareness in policy makers has come from Rory Sutherland, founder of Ogilvy Change. In a 2018 paper, *Policy Making Under Uncertainty*, he claims every assumption policy makers have about human decision making is wrong. According to Sutherland politicians assume both they and citizens make decisions which are: "Individualistic, standalone, non-path-dependent, context-free, status-free and utility-maximising, made in an environment of perfect trust and perfect information," when every one of those assumptions has been refuted by behavioural economics. (Sutherland, 2018, p.2). Sutherland suggests the requirement for objectivity results in the policy environment becoming more biased rather than less, as its resulting pedantic commitment to accountability means decisions are made according to how well they can be defended, rather than whether they are correct or even the best decisions. A decision that can be defended has a function in that it can keep policy individuals, and their organisations, safe "a well-reasoned decision is easy to defend, no matter how

bad the (decision) outcome.” (Ibid p.3). This is functional for the organisation, it keeps it alive, operating at the speed it needs to and impervious to attack. Thus, the individual policy maker, as a constituent part of their organisation, is like every human, aiming to survive as best it can: “Evolution favours fitness over accuracy. We detect contrasts rather than absolutes. We are also a social species, who have evolved to make context-dependent, path-dependent, status-seeking, satisficing choices made using a heuristic toolbox in a non-ergodic environment of uncertain trust and highly imperfect information.” (Ibid p. 3) Sutherland claims that simply writing core values and codes into an organisational document and designing processes into the organisation fails to make the Civil Service “remotely objective.” (Ibid)

The Behavioural Insight Team’s Behavioural Government report outlines the numerous ways governments exhibit bias, identifying three categories:

- Biases related to the individual, how they notice things, allocate attention, noticing, framing effects and confirmation bias
- Biases related to group working, how group effects either polarise decisions or converge in unhelpful ways.
- Biases relating to how they execute policy, including over confidence and optimism and a false illusion of control. (Hallsworth, 2018)

Suggesting that governments are subject to individual, team and policy design biases is, as research identifies “worrying” (Banuri, Dercon et al. 2017, p.3), particularly when there is little to address it. Research discussed later into training programmes suggests many policy makers only receive a two hour online training on the existence of unconscious bias, largely related to prejudice and stereotyping, whilst a few might also attend a behaviour change workshop which will talk about bias in relation to policy design. The

Behavioural Government report recommends much more than this, including implementing strategies to mitigate bias, creating structural and procedural changes, such as anonymised job applications. One area they identify which needs addressing is how the selective attention of individuals, groups and organisations lead to bias. I will go on to explore this issue further and consider research which suggests attention capacities in the workplace are often ignored but need to be taken into account as part of addressing bias, subjectivity and improving leadership.

2.5.c Links between attention and addressing bias

The Behavioural Insight Teams' (BiT) report on behavioural government discusses attention and noticing, and how the allocation of attention influences "how information and ideas enter the agenda for policy makers," (Hallsworth et al, 2018, p.8). The problem is magnified by the increasing amounts of available data and opinions that compete for the attention of the policy professional, together with the discovery, discussed earlier, that our attention does not follow rational rules (Langer and Roth, 1975) (Weick and Sutcliffe, 2006)(Dolan, 2014) (Bazerman, 2014).

Paul Dolan, co-author of *Mindspace*, and author of *Happiness By Design* (Dolan, 2014) suggests that attention drives our behaviour and "Is the glue that holds (your) life together," (Dolan, 2014, p.69). He suggests it is a foundational capacity for behaviour change (Ibid, p.107) arguing, "the misallocation of attention is our fundamental problem" and the "reallocation of attention must be the fundamental solution," (Ibid, p.99). Dolan also discusses using practices such as mindfulness meditation to train the "conscious reorientation of attention" but says this is limited as it is too effortful for many people. Mindfulness is often discussed in therapeutic (Teasdale and Segal, 2007) or Buddhist contexts (Goldstein, 2013), it is interesting it is recommended here by a behavioural economist to improve our decisions and behaviours. In the empirics chapter I will show how small

practices of mindfulness gave policy makers greater attentional capacities which, together with theoretical understandings of attention, led to them reporting significant insights into their own assumption making and other's behaviours. Dolan is not alone in pointing out the significance of attention capacities, Business Psychologist Bazerman suggests that a contributory factor in poor decision making by leaders is they fail to notice things. He uses Kahneman's theory of dual process, system 1 and 2 thinking to advocate the development of noticing capacities and cultures to promote more system 2 thinking, to address blindspots and biases (Bazerman, 2013). Meanwhile, Ellen Langer, a psychologist who has researched attention in the workplace since the 1970s, (Langer, 1975) also advocates noticing and becoming more mindful in organisations as an antidote to what she describes as the constant 'mindlessness' dominating workplaces. Her early work echoes that of Kahneman and Tversky's, like them she was curious about workplace rationality, and like them she performed a number of decision based experiments and revealed people's rationality to be flawed, instead of using Simon's theory of bounded rationality to explain this, she suggested humans were simply "mindless" and needed to become more 'mindful', (Langer, 1989) Like Kahneman and Dolan, Langer argued we are constantly misrepresenting our experience, and that we should create more mindful workplaces where people are, through practice and cultural norms, able to notice novelty and more of what they are not seeing (Ibid). Karl Weick, an organisational theorist, built on Langer's work to develop attentional strategies in organisations to improve how they use information to create shared meaning, decisions and behaviours. Like Langer and Dolan, Weick also suggests mindful attention could improve people's attention capacities, arguing that it could: "induce a rich awareness of discriminatory detail and a capacity for action," (Weick, 2006, p.515).

The fact attention, or the lack of it, is being raised by the BiT and several other researchers, from the social and organisational sciences, is also pertinent given the speed at which the Civil Service now works,

Through ethnographic study Rhodes revealed day-to-day lives of civil servants, particularly leaders, as "hectic", "fast" and "unrelenting" (Rhodes, 2011). Rhodes reported they were so frenetic they started to become stressed about their stress and the anxious state in which they are forced to make decisions. He contested that it brought attention to "the limits to human ability" and the "fragility of the webs of meaning and action that we weave." (Rhodes, 2011, p.16). It also raises questions about the quality of the decisions they are making, which are likely to be more automatic, using previous experience, mental shortcuts and biases, described by Kahneman as System 1 thinking. According to the BiT report on attention, even under normal conditions attention is biased, if this is speeded up by ever faster demands then it will make it even harder to enact good attention. This, as ethnographer Rhodes described: "Does not particularly surprise, yet it does alarm. Key decisions are clearly being taken by stressed out workaholics who are in denial," (McAnulla, 2006, p.1087). The way policy makers use attention will not just influence what information they process, it will also impact how they relate to others. As I have discussed, policy and political leaders are calling on the Civil Service to be more collaborative and relational, which also requires them to appreciate how their attention works as they share and debate ideas with others. The Behavioural Government Report also points to the fact that we are subject to multiple group biases, including group reinforcement, the illusion of similarity and inter-group opposition (Hallsworth, 2018, p.32), I will look at this more in the next section.

2.5.d Group bias and relational working

As well as individual biases policy makers are also subject, as discussed in the BiT report, to group biases. The European Commission Report discussed

in Chapter 1 notes that “policy making is driven by collective processes. However this does not inevitably lead to better decisions, as groups do not necessarily collaborate effectively.’ (Mair et al, p.21). In recent years there has been a drive for more collaborative Government, in 2012 the Cooke report *The Relational State: How recognising the importance of human relationships could revolutionise the role of the state* claimed the state should, “as well as being concerned with objective, material issues, care about the subjective and relational” (Cooke and Muir, 2012, p.8). The report suggested new capacities were required to improve this relationality including: “To empathise, communicate, listen and mobilise coalitions of citizens” (ibid) moving away from a ‘mechanistic’ and hierarchical government, reliant on bureaucratic auditing and monitoring and ‘targets and terror’ in order to achieve objectivity. (ibid). More recent reports, such as *Collaborative Leadership*, published by Workplace Scotland on behalf of the Scottish Government (Sharp, 2018) calls for a more co-productive government encouraging inquiry, dialogue and participatory knowledge in order to better deal with uncertainty and complexity in government decision making. They position the policy actor, not as someone who ‘does’ policy to the general public, but part of the process of policy making, recognising: “the co-created and dynamic relational processes in which we are already embedded” and that learning is “a relational achievement,” (Sharp, 2018, p.23). The report draws on theories of learning organisations and deep listening (Scharmer, 2009) (Senge, 1997). These more collaborative processes attempt to address group reinforcement biases and illusion of similarity identified by the BiT as biasing decisions (Hallsworth, 2018, p.32) by creating positive relationships which can “withstand challenge and honest conversations, and which are inherently open-ended and continuously evolving” (Sharp, 2018, p.14), when “nothing is clear and everything keeps changing”. (ibid, p.1). The EC report also acknowledges that most political issues are “complex, poorly structured and have to be addressed

while coping with uncertainty, ambiguity, incomplete information and time constraints." (Mair et al, p.21). It suggests people need to develop capacities to be able to reason about the mental states of others, they need to understand theories of mind to support them to understand their own knowledge and the knowledge of others. (Ibid p.23). They also need to appreciate the role of attention in group discussions, that short pauses can change how people are perceiving each other and the information with which they are presented. (Ibid, p.24).

2.6 It's more wicked than that

I have considered the history and development of behavioural government, first in terms of how it has come to influence the design and delivery of policy and then how it has been turned back towards the policy process. Before ending this chapter, I want to discuss the concept of "wicked problems", to illustrate further the government crisis behavioural economics attempts to address. Behavioural economics was introduced as a way of addressing difficult to solve problems, but it has been criticised for overly simplifying complexity and also that it's not possible for it to be scaled, or to answer the question of how to: "snowball 'simple' individual level behaviour change out to complex population level shifts?" (Spencer, 2018, p.229).

Early 'hard to solve' problems included increasing organ donation and decreasing salt consumption, as difficult as they were to address, many other problems are more complex. The rise of increasingly difficult and complex problems was first made visible in 1973, when research from Design theorist, Rittel and professor of city planning, Webber conceptualised "wicked problems". (Rittel, 1973).

They suggested that some contemporary problems were difficult to define, with no well-defined set of solutions and any potential solution being neither true or false and no way to test whether any solutions were effective. (Ibid). Climate change is a good example of a wicked problem, it has been further

defined as “super wicked” by Levin, (Levin, 2012, pp.125-129) because in addition to all the elements listed by Rittel and Weber, it has additional wicked features including:

- time is running out
- those who cause the problem also seek to find a solution
- the central authority needed to address it is weak or non-existent
- policy responses discount the future irrationally.

(Levin, 2012, pp.125-129)

More recently climate change has been described as “a threat that our evolved brains are uniquely unsuited to do a damned thing about.” (Marshall, 2014, p. 48) largely because it is in the future and uncertain, hindered by hyperbolic discounting and confirmation biases. Cognitive bias can help us understand why we don't do more about climate change offering a social science lens through which we can view these problems in a different way, but it does not on its own solve them: “It fails to account for the slowness with which the world has responded to the problem.” (Loewenstein and Chater, 2017, p.43).

Natalie Spencer suggests we need more systemic and “entrepreneurial” approaches to climate change, facilitated by whole shifts in organisational systems. She points to the potential of more behaviourally informed dialogue in everyday working practices to support that shift through exploring how internal biases hinder or accelerate the development of solutions (Spencer, 2018, pp.232). Like the government reports discussed earlier (Cabinet Office, 2016), (Hallsworth et al, 2018) (Mair et al, 2019) and the work of Gerd Gigerenzer, Spencer suggests there is an enabling way that behavioural insights can support a transformation of how government understands individual and group decision making processes. This in turn could transform the way they address policy making and ever more complex problems. This

lays the foundation for the question this research attempts to address and the hypothesis it tests, can behavioural economics, together with reflective practices such as mindfulness, help to support the organisational development needed, and culture shift that might lead them to better deal with wicked problems such as climate change.

2.7 Chapter summary

The first part of this Chapter explored the history, development and critique of behavioural economics in government and a shift towards more psychologically informed policy making. In response to this critique, in the second part of the chapter I moved to exploring how behavioural economics is being turned towards the policy process itself in order to address biases and less than optimal decision making in Civil Service organisations.

I have identified and described the problem that policy makers have a mistaken view of their own rationality. This view has a long and particular history of human rationality, influenced by philosophy, cognitive psychology and economics. Historical developments have led to an overly bureaucratic system which critiques claim, and research evidences, does not achieve the objectivity it sets out to deliver (Baekgaard, Christensen et al. 2017) (Sutherland, 2018) (Banuri, Dercon et al. 2017). I have shown how UK policy processes cannot guarantee good policy making because they do not address organisational and individual bias (Hallsworth, 2018, p.17).

I have also shown how this issue is magnified by the changing nature of government, that there is a significant increase in the volume and varying quality of information, together with a need for more collaboration and interaction with multiple and diverse internal and external stakeholders. Meanwhile policy issues have become more complex and “wicked”, in need of greater analysis, at the same time the speed of response needed has dramatically increased, exerting increasing amounts of pressure on individuals and the system. This combination of bias and increased demand points to the

need for policy makers to understand better how decisions are made and how they process and utilise information as individuals and groups (Cooke and Muir, 2012) (Hallsworth, 2018) (Mair et al, 2019). I have shown how behavioural economics can potentially address this, but that it has its limitations. I have discussed some of these limitations and I will go on to look at one of the fundamental issues of behavioural economics in more detail in Chapter 3, the need for behavioural economics to integrate a paradigm shift in emotion/cognition science. Central to this shift is our understanding of emotions, what we understand them to be and the relationship between emotion and cognition and perception. Previously our feelings were understood to be something which hindered thinking, but now they are seen as completely entwined, that a lack of emotions renders people less, not more, rational. I will be exploring this new science and reflecting on whether, if policy makers integrate it into their processes, they would experience their full 'irrationality' in ways that might make them more objective. I explore how and whether this, in turn, could improve their delivery of more effective and ethical psychologically informed government in line with their current intentions and commitments such as the highly aspirational Well Being of Future Generations Act (Welsh Government, 2015). By the end of the next chapter I will have explored theory and the critical debates which informed the action research intervention which forms the focus of this project.

Chapter 3 - The feeling-thinking problem, behavioural economics didn't go far enough.

"A cherished narrative in western mental philosophy is that "hot" affective and "cold" cognition processes battle one another or interact to control choice and behaviour. These views are deeply rooted in an antiquated mind-body dualism that has given us the 'rational economic man', the 'rational legal actor and even the triune brain, but these are fictions."

Lisa Feldman Barrett. (Barrett, 2018.p. 352)

"Humanity's journey through the 21st century will be led by policy makers, entrepreneurs, teachers, journalists, community organisers, activists and voters who are being educated today. But these citizens of 2050 are being taught an economic mindset that is rooted in the textbooks of 1950, which in turn are rooted in the theories of 1850. Given the changing nature of the twenty first century, this is shaping up to be a disaster."

Kate Raworth, Donut Economics, (Raworth, 2017, p. 8)

3.1 Overview

In Chapter 2 I discussed the challenge behavioural economics poses to contemporary 'rational' and 'objective' governance, how it has motivated a movement towards addressing cognitive bias and 'bounded rationality' first in policy making and then in the policy process. I detailed the work of Kahneman and Tversky in the 1960s and 70s, how they discredited the rational choice theory, which underpins classic economics, and through various lab based psychological experiments, evidenced how decisions were based more on emotional and social factors rather than pure cognitive reason. I discussed how the policy world has begun to integrate this thinking, challenging the theoretical legacy of 'emotion as interference' in good decision making inherited from centuries of philosophy, cognitive psychology and economic thinking. I looked at how it is increasingly being used in policy making and having a significant impact on policy design globally (Whitehead, Jones et al., 2014) (Mondiale, 2014) (Hallsworth, 2014). Finally how, after a number of years of being solely applied to policy design, the lens of bounded rationality, behavioural economics and cognitive bias has been turned back towards government the organisation itself, if the policy subject is emotional, biased,

contextual, that must also be true of the policy maker themselves, (Sutherland, 2018) (Hallsworth, 2018).

In this chapter I will explore further our bounded rationality and bias, and the potential neural and physiological mechanisms which underpin our 'irrationality' and flawed decision making. I will look at the nature, constituent ingredients and links between, cognition, emotion, attention and information processing. I will do this in the light of arguments discussed in the previous chapter, that behavioural economics offers a radical and potentially transformative approach to government but is outdated in its use of simplistic theories of dual process thinking and simple cognitive bias. By integrating more up to date thinking and research and integrating innovative and systemic methods of delivery, it could be both more ethical and effective.

Whilst the work of Kahneman and Tversky, discussed previously, showed that rational economic choice theory is incorrect and emotions play an important role in how we process information and make decisions, their thinking was grounded in research from the 1970s and before. In a 2009 paper on intuitive decision making Kahneman, in discussion with Gary Klein, describes how emotion and attention are linked in simplistic ways: "The firefighter feels the house is very dangerous, the nurse feels the boy is ill," (Kahneman and Klein, 2009). He makes no mention of contemporary science on emotion and decision making, attracting criticism (Lempert, 2018 p.109) (Mercier, 2017 p.13) for failing to acknowledge radical and non-intuitive understandings of the mechanism and nature of emotion and decision making. Kahneman's failure pervades behavioural economics, work by the Behavioural Insights Team ignores emotions (Hallsworth et al, 2018). This notable absence is in contrast to the European Commission, *The Political Nature report*, the author of which, in a research interview, criticised the Behavioural Government report for ignoring emotions.

This chapter will first critically examine the history of research on the links between emotion, cognition and reasoning. It will explore why emotion has been slow to be included in discussions on rationality. I will then consider contemporary and radical research on emotion, cognition and decision making. The recent science states emotion and cognition are intrinsically linked. Emotions are not reactions, as many of us assume, to the external stimulus of the world, but instead predict and ultimately construct reality and the world according to prior expectations. I consider how this more recent science could both inform and develop behavioural insights, offering an explanation of cognition which more adequately explains bias in a way that helps us address it more effectively.

In later chapters I will describe how I have used this recent science to inform the content development, design and trialling of an action based research interventions, mindfulness based behavioural insights training. In support of the development of the training, I will also, in this chapter, look at current training and capacity building in government, considering how emotions, cognition and decision making in the workplace are currently being addressed through professional development programmes.

Finally in this chapter I will look at mindfulness programmes, as an example of interventions which do attempt to develop capacities of attention, cognition and emotion. Mindfulness courses are currently largely delivered in support of well-being and self-regulation rather than bias and decision making, helping people adapt to meet, and compensate for, the overwhelming demands of busy and complex workplaces. I tentatively suggest that a lack of integration of the science of emotion/cognition into workplace systems and processes is the problem these programmes are introduced to compensate for. That mainstream mindfulness courses reflect on how embodied minds filter the world, but only at the point they have been broken

by a systemic lack of appreciation and understanding of how humans together make sense of their everyday reality.

The theories, literatures and discussions presented in this chapter, together with those discussed in Chapter 2, underpin the intervention used as the core method to gather data presented in the empirics Chapters 5-8.

3.2 A stalled start - the history of emotion research

Emotions have a history and, despite the fact they shape each and every one of us and our interactions with others, there is no consensus on the answer to the simple question 'what is an emotion?' (Hewitt, 2017, p.3). In policy making, emotions have traditionally been seen as a human feature which needs to be ignored and/or suppressed, the policy process has historically been viewed as a "deliberative, argumentative process, made of language and not 'non rational' emotion. (Anderson, 2016, pp.85-86). This view has its own history, shaped by 17th century Cartesian views of rationality which suggested effective judgement required humans to curb their 'passions', as a remnant of our 'animal inclinations'. (Descartes, 1989). This was also the view of evolutionary scientist Charles Darwin who suggested emotions were part of our evolutionary development and largely redundant (Lang and Bradley, 2018, p.20), these ideas were extremely pervasive and influence scientific and political thinking to this day. By the end of the 19th century three men, Charles Darwin, Sigmund Freud and William James, had been largely responsible for formulating the main theories of emotion, their work could have potentially seeded a flourishing of emotion science, instead it stalled for over half a century and their work alone informed all understanding in this area. Only in the latter half of the 20th Century, with developments in psychology, neuroscience and artificial intelligence, has there been a resurgence of interest in emotion, how it might contribute to new thinking of human decision making and behaviour (Churchland, 2013). This re-engagement by a number of different sciences, has completely turned on its

head the idea that emotion is a vestige of evolutionary development needing to be conquered, overcome or suppressed. Emotions are now seen as intrinsic to human decision making and motivational systems, playing a central and complex role in defining and prompting everyday human life (Damasio, 1999 p. 38) (Oatley, Keltner et al. 2006).

Before Darwin, emotion and emotional expression had been seen as 'god given' (Oatley, Keltner et al., 2006, p.5). After studying emotions across different cultures and species, as well as conducting small scale experiments in his home, Darwin challenged this, arguing instead that human emotions were biological, genetically determined and linked to the evolution of the species. He suggested emotion was universally expressed, the same for everyone, involved in action and linked to our animal roots, implying they had largely become redundant with humans development (Darwin, 1872). A few years on, in the late 19th century, philosopher and psychologist William James challenged Darwin's view, arguing emotions weren't the remnant of a primal reaction motivated by external stimulus, but rather an essential part of our motivational system. (James, 1884). James's work, which was combined with work from Lange and led to the James-Lange theory, marked the start of an important debate in terms of cognition and decision making, the causal loop of internal feelings and emotional states. Which comes first? The internal perception of the feeling which leads to a mental thought or state? Or the mental state which then requires and thus instigates the feeling? Or is it an amalgam of the two coming together? James suggested internal feeling was foundational for mental states rather than mental states (in response to external stimulus) causing feelings. This has implications for cognition and how emotions link to decision making, still debated today, it bring into focus the link between our interoception, our sense of the internal state of the body and our conceptualisation, the thought about the feeling (James, 1884). Following on from James, Sigmund Freud, in the late 19th early 20th century,

also worked on the link between emotions and thought, not related to our everyday cognition, but on the pathological implications of emotional disturbance (Damasio, 1999, p.38). Freud's work led to the development of psychoanalytical therapy and formed the basis for influential work such as Bowlby's attachment theory and child development, now extensively used in clinical work (Bowlby, 1958). These early developments in emotion science, parallel other scientific movements of the time, set the stage to grow research and thinking, but unlike physics, biology and other sciences, little else happened on emotions for many years. Instead the field became dominated by cognitive and behavioural science and emotions got relegated to clinical work, therapy and rectifying 'sub optimal' cognition (LeDoux, 1998, pp.25-27), it took until the late 20th century for things to change, emotion scientist, Antonio Damasio noted:

"Twentieth century science left out the body, moved emotion back into the brain, but relegated it to the lower neural strata associated with ancestors who no one worshipped. In the end, not only was emotion not rational, even studying it was not rational" (Damasio, 1999, p.39)

It took decades, until the latter half of the 20th century, for research on emotions to get going again, led by scientists such as: Paul Ekman and his research on basic emotions (Ekman and Davidson, 1994), Jaak Panksepp and ET Rolls, with their work on the correlates between neural networks and emotions (Panksepp, 2004) (Rolls, Treves et al. 1998) and Damasio, mentioned above, a neurobiologist whose work came to focus on the link between decision making and emotions (Damasio, 1994). Darwinian influences of an "animal"/evolutionary model still persisted in this research, emotions largely continued to be located in the lower parts of the limbic, reptilian brain, biologically designed to motivate action relative to particular experiences: " 'action dispositions', [...] built on inherited reflexes designed to keep our mammalian relatives alive." (Lang and Bradley, 2018, p.20). Darwin's

assumptions persisted and these lower circuits were labelled “old” and “hardwired”, each with its own particular neural fingerprint. Ekman’s work took emotions from animal to ‘basic’, informed by a variety of research (Ortony, 1990), still rooted in Darwinian thinking, that emotion expression was the basis of emotion, and could be measured and categorised allowing the identification of a core set of universal emotions, each with a distinctive expression and behaviour. As I will go on to discuss, this view has since been heavily contested, critics point to the fact that there was never any agreement on the number and type of ‘universal and basic’ emotions indicating that they were neither universal nor basic. Proposals at the time included anything, from two (Weiner and Graham, 1984) through to six (Ekman and Friesen, 1986) some identifying up to 11 (Arnold, 1960). The lack of agreement, alongside a failure to replicate experiments, (Barrett, 2017) led to critiques of theories of basic emotion as based on inaccurate, intuitive ‘folk psychology’. That theoretical hypothesis were biased towards a continuation of Darwin’s assumptions, looking for a brain basis for emotions, as they are experienced and expressed, rather than an inquiry into the nature and function of emotion (Barrett, 2016). Post-Ekman research has considered the role and function of emotion in our continuing evolution, this has led to more complex and nuanced theories which include motivational, relational, social, constructed, predictive elements. (LeDoux, 2012), (Damasio, 1994), (Barrett, 2016), (Böckler, Tusche et al. 2016) (Solomon, 2006). In the light of this research, emotion science aligns with the challenge to classical economics, outlined as early as 1967 by Herbert Simon, that emotions are necessary to intelligence and play an important role in decision making (Simon, 1967). Also seen in Kahneman and Tversky’s work which recognised a valance or “experience value” associated with decision making that doesn’t match “decision value” used in rational economic theory, (Kahneman and Tversky, 2013).

As I shall go on to discuss in the next section, contemporary emotion theories have much to offer behavioural economics, evidencing the intricate ways that cognition, felt sense and emotion work together in decision making. This is then fundamentally relevant and important to policy design and processes, their attempts to be objective and the cognitive heuristics and biases which make subjectivity inevitable.

3.3 A false divide, the cognition-emotion amalgam

As the science of emotion has developed it has, as often happens in research, raised more questions than it has answered. Questions which dominate the field, and for which there are no concrete answers, including: What is an emotion? What is the relationship between emotion and felt sense? Do emotions start outside or inside the body? Are they partly or completely constructed by the social and cultural contexts in which they emerge? If they are inside the body, where are they located? In the mind? In the heart? In the gut? If they are in the mind, where in the mind are they? The amygdala, for example, was for many years seen as the seat of the emotions, but this has since been contested (Plamper, 2015). Given all these questions, uncertainties and continuing developments, what can we say about what we know about how emotion and felt sense link to social judgement, evaluation and decision making and how this links to governance? (Ibid).

An ongoing obstacle to the development of the science of emotion has been that "our folk concept of emotion conflates (science of) emotions with the conscious experience of emotions (*behaviours caused by feelings*)."

(Adolphus, (Fox, Lapate et al. 2018 p.7). Our first person experience of emotions confuses and fuels resistance to counterintuitive results from experiments. A useful analogy for this is how once we looked across the horizon and believed the world to be flat, based on the irrefutable evidence of our direct visual experience. It was only with the inventions of the telescope that Greek astronomers were able to see beyond their direct experience and

instead could see the movement, nature, shape and position of the stars and the moon, they were able to conclude the world could not be flat but must be round. With the advent of brain imaging it has been possible to get visual representations of thought and felt sense, irrespective of any subjective reporting from the minds' "owner". This new science has brought both advances and controversies, whilst it allows us to view brain activity, critics worry people are reduced to neural correlates and interpretations of neural images are themselves subject to the cultural, institutional and historical biases of the neuroscientist which requires more critical thinking and reflexivity in the science itself, (Choudhury, 2009).

Outcome of advances in psychology and neuroscience have included the discovery that emotions do not, as believed previously, interfere with cognition but instead: "structure perception, direct attention, give preferential access to certain memories and bias judgement in ways that generally help people, in ways that we recognise as valuable to our humanity." (Oatley, Keltner et al. 2006, p.237). Antonio Damasio was one of the first neuroscientists to explore how emotions link to rational decision making after being exposed to the unusual behaviour of patients, such as Elliot who, following the removal of a brain tumour, started to struggle with decision making (Damasio, 1994). A number of tests revealed Elliot to be surprisingly normal, his working memory, perceptual ability, past memory, short term memory, language skills and capacity to learn new things were all perfectly intact. However, his reasoning was poor and eventually Damasio discovered that this was caused by his diminished ability to feel or have any intensity of emotion. Damasio concluded that Elliot's lack of emotion "prevented him from assigning different values to different options, and made his decision making landscapes hopelessly flat." (Damasio, 1994 p. 51). This led to Damasio's interest in researching the role internal feelings and emotions play in our

decision making processes (Damasio, 1994) (Damasio, 1999) (Damasio, Stella et al. 2010).

Earlier I discussed how there had been something of a hiatus in emotion research in the mid 20th century, whilst other sciences developed fast, there was little interested in looking at the functions and nature of human emotions. Comparatively, the past 30 years, since Damasio's early work, has seen a huge increase in papers and academic research in this area. In 1994 the first volume of *The Nature of Emotions, Fundamental Questions*, edited by Richard Davidson and Paul Ekman, whose work on basic emotion I discussed previously, was published. The volume brought together the latest research on emotion at the time. It represented the thinking at the time, where cognition and emotion were seen as quite distinct, as in an essay included in the volume from Panksepp: "A proper distinction between affective and cognitive process is essential for the neuroscientific process" (Panksepp, 1994). In 2018, 24 years later, a revised volume was published (Fox, Lapate et al. 2018), this second version included 16 academic articles, from a number of scientists, which represented a clear paradigm shift, instead of looking at the differences between emotion, judgement and decision making, many of the papers in this volume explain how intricately linked they are, such as the chapter by Luis Pessoa stating that "emotion and cognition interact so strongly that: "A demarcation between them turns out to be a fruitless enterprise. In the end we must speak of an emotion-cognition amalgam." (Pessoa, 2013, p.206). Similarly, in another academic handbook on emotion, *Understanding Emotion*, in its second 2006 edition, cognitive psychologist Keith Oatley notes, relative to the previous edition published in 1996, there is a "growing realisation" that emotions are not purely individual, motivational or universal thumbprints, but are emergent, mediating relationships and "social to their core" (Oatley, Keltner et al. 2006 p.xxvii). Oatley argues emotion must be at the centre of any attempt to understand how humans organise, decide and behave. He points

to three main ways research has shown how emotions effect judgement and decision making; through emotion congruence, emotional processing styles and emotions acting as decision short cuts. (Ibid, pp.247-249). Developments in emotion research have taken place in parallel with the growth of research and applications of behavioural economics, both reflect their own paradigm shifts, and both focus on cognition in human decision making. Despite this, the two barely inform each other, evidenced, as discussed at the beginning of this chapter, by the behavioural government report which includes how attention and noticing influences decision making, but makes no reference to emotion. (Hallsworth et al, 2018). Oatley's categorisation shows how emotion constantly prioritises and biases attention, causing us to perceive information, conversations, events and objects in positive or negative ways aligning with our internal states. I will explore his categorisation in the context of decision making in politics, policy and behavioural economics.

3.3.a Emotion Congruence

Emotions change our perception by influencing how we select information, numerous` experiments have shown how a negative or positive valence changes how we perceive and process information. Cognitive psychologist Gordon Bower discovered that learning is better when the information is congruent with an existing felt sense, such that sad people identify and remember more sad material and happy people remember more happy information (Bower, 1981). In similar work by Niedenthal and Setterland (Niedenthal and Setterlund, 1994) putting people into happy or sad moods was shown to influence which words they picked out in a test, choosing happier words if they were happy and sad words if they were sad (Bower, 1981). Meanwhile, a number of pieces of research have found that negative emotions cause people to see a problem as it is, with less bias (Goel and Vartanian, 2011) indicating that negative emotion functions to enable a person to see reality in more detail. This might suggest that the more sombre

Civil Service culture aligns well with seeing detail, but not with the creativity needed in the face of wicked problems and complexity. Negative emotions have also been found to better enable communication, social, cultural and survival functions (Parrott, 2002) whilst more positive states induce increased risk taking and creativity, making it more likely that accountants would necessarily inhabit slightly more negative states whilst marketing creatives would be more positive. Social psychologist Joseph Forgas developed the "affect infusion model" to explain how felt sense influences how we make decisions, suggesting that: "Affectively loaded information exerts an influence on, and becomes incorporated into, the judgment process, entering into the judge's deliberations and eventually colouring the judgemental outcome." (Forgas, 1995). Given that policy making, as discussed in the introduction, is being called on to shift from procedural and detail, top down ways of working, to more relational, collaborative and innovative approach this raises interesting questions about how this research could inform the emotional tone of the organisational culture, in turn supporting shifts in ways of working. As I will explore in the empirics chapters, it also raises interesting questions as to how emotions are currently understood and managed in the organisation.

3.3.b Feelings as information

Emotion also operates as a heuristic, according to Oatley et al it does this in two ways, first providing us with a signal, such as anger, prompting us to act to address the situation, and second as an evaluative judgement, embodying an encoding of a set of information learned from a previous similar experience and used to short cut the evaluation of current experience. It takes often complex information and enables us to analyse it in a short amount of time, by using an embodied felt sense of a previous, similar situation, so we can answer difficult questions quickly. One example Oatley gives is the difficult question of: "will that person make a good political leader?" There is not enough time to review all the information about that person, so we make a

judgement based on our felt sense, informed by previous knowledges and experiences (Oatley, Keltner et al. 2006, p.241). This theory formed the basis of Damasio's "Somatic Marker" model (Damasio, 1994, p.184) which suggested there are special instances of feelings "connected by learning, to predicted future outcomes of certain scenarios" (Damasio, 1994, p.174). Whilst some researchers have critiqued this theory as overly simplistic, they also acknowledge it as an important step in understanding how our internal feelings and emotions influence decision making (Reimann and Bechara, 2010). Later in this chapter I will go on, in later chapters, to discuss intuition, as one way people experience this shortcut.

Research has also shown how emotions act to create a specific cognitive bias, such as the availability heuristic (Tversky and Kahneman, 1973). Clore and Schwarz showed how people answer the same question about life satisfaction differently, depending on their mood. Participants were telephoned on either a sunny or a cloudy day and asked the question: "All things considered, how satisfied or dissatisfied are you with your life as a whole these days?" (Schwarz and Clore, 1983). The answer varied according to the weather; less life satisfaction was reported on the cloudy day. However, when the participants were first asked about the weather, making it visible, people appeared less subject to the biasing effect and there was less correlation in their answers between weather and life satisfaction. The researchers concluded that in the first instance mood, infused by the weather, was causing an availability bias, but this was reduced when the weather was made obvious through naming. This indicates a strong link between emotion and cognitive bias and also the potential for the effect to be mitigated through bringing attention to experience in different ways. This experiment challenges Kahneman's view that we cannot employ strategies to address bias, as I will discuss later, in similar ways to the results above, emotion regulation strategies involving the naming

of emotions have been shown to be effective at mitigating emotional effects on decision making.

3.3.c Mood influences on dual process thinking

Oatley also discusses emotion in the context of dual process thinking, linking positive moods to more system 1 thinking (Oatley, Keltner et al. 2006, p.243). Anxious moods, a negative state, facilitates deliberative thinking and more careful attention to details according to Oatley, with research showing that where more negative mood is present (without being anxious) people are more likely to consider information with less bias, rather than using prior knowledge as a short cut (Bless, 1996). System 1, according to research is: "intimately associated with the experience of affect.... referring to subtle feelings, of which people are unaware" which motivate action (Slovic, Finucane et al., 2007, p.398). Meanwhile, Slovic et al found that positive information led to a positive affect which led to more risk taking when participants were invited to answers questions in one experiment (Ibid, p.411) concluding that positivity influenced judgement directly and was not simply a reaction to judgement (Ibid).

All three of the effects discussed above, emotions as heuristic, as influencing perception and linked to system 1 or system 2 thinking, show how emotions guide action in an imperfect world operating, as Oatley describes as: "bridges towards rationality" (Oatley, Keltner et al. 2006, p.238). *It is not so much that emotions are irrational, but rather that in a complex world we often have no fully rational solution because we do not know enough.* (Ibid). In Chapter 1 I discussed how the lives of policy makers have become more frenetic, creating particular moods and a felt sense which, according to the research presented here, will effect what information they see, how they encode it and decision outcomes. However they operate according to a Civil Service code of objectivity, as I have discussed, which makes the assumption they can be emotionless and/or that organisational process can ensure

objectivity despite emotion. The research discussed here suggests procedures will not prevent emotion influencing decisions. As I will explore in the empirics section, much of the work of civil servants involves processing information and relating to each other, involving cognition, is intimately intertwined with emotion. It is inevitable that, unless it is in some way made visible, as in Clore and Schwartz's experiment detailed above, where the effect of the weather was made overt, how a policy maker feels will significantly influence their decisions and the policy and political process, particularly as that becomes faster and more frenetic.

3.3.d The emotion/cognition amalgam in decision making and bias

Contemporary emotion science is exploring how emotion influences the selection and interpretation of information, creating expectant and predictive filters which dictate perception. This new thinking challenges classical theories of emotion and economic rationality. As discussed in the last section, contemporary theories of emotion see them as critical and functional parts of the selection, perception and judgement process, without them we become irrational, no longer capable of basic choices.

Emotions informed by our internal felt state enable us to function and act in a complex, fast, world. Emotions influence cognition through interactions with our attention and perception, resulting in cognitive shortcuts and biases which allow us to navigate uncertainty and risk, but using processes that enable only a partial view of the world, forcing us to make up things up, sometimes with tragic results, such as in the case of Amadou Diallo. In 1999, Diallo, a 23-year-old male immigrant from Guinea, was killed by 41 gunshot wounds from New York City police. They had been chasing Diallo and saw him pull something from his pocket, at the same time as one of the officers was seen to stumble backwards. They were, without doubt, all experiencing states of fear, threat and anger, and believed they saw Diallo pull out a gun, explaining their stumbling colleague, they fired a barrage of bullets to prevent

further shots and injury to their fellow police officer. In reality he had pulled a black wallet from his pocket and had fired no shots, the stumble they saw was just a stumble. In an attempt to understand what had happened, psychologists Jolie Baumann and David DeSteno, ran simulated perception experiments. They discovered that anger caused neutral objects to be perceived as objects of violence, explaining why the police might have acted as they did and why their perception failed them resulting in the direst of consequences. (Baumann and DeSteno, 2010). Interestingly Baumann found the effect could be modified (positively or negatively) if the participants expectations were positively modified (they were told there was a higher or lower chance of the object being one of violence), influencing their expectation and improving their chances of seeing what was actually there. In a similar study, following the 2013 Boston Marathon, researchers found people who had been at the event were experiencing anger as a result of the attack, and meant, relative to a control group, they were far more likely to perceive all stimuli as threatening for some time afterwards (Wormwood, Neumann et al., 2017). They concluded that a person's internal state drives predictions and actions which then constructs their reality, they termed this "affective realism", conveying the idea that we see what our feelings expect to see rather than what is actually there (Wormwood, Neumann et al. 2017).

Most research on emotion and perception has been linked to pathologies of negative emotion in therapeutic contexts rather than in high pressure, high stakes politics and organisational decision making. Where there is research on emotion in workplaces in general, much of it is linked to wellbeing, failing to look at the issue further back in the system, where emotions and attention interact resulting in poor relationships and decision making. As a person becomes more stressed about an issue it narrows attention to the object we are anxious about (Mineka, Rafaeli et al. 2003) instigating a reinforcing cycle, where anxiety increases and the potential for a wider perspective decreases.

Two researchers who have looked at it this outside of therapy and in a social context linked to decision making, are Mullainathan and Shafir. Their studies involved researching decision making in people with a lack of resources, controlling for stress effects and poor nutrition, they showed that cognitive function reduced in farmers when their resources diminished, prior to harvest. Being poor meant not only less money, but also: "A concurrent shortfall of cognitive resources. The poor, in this view, are less capable not because of inherent traits, but because the very context of poverty imposes load and impedes cognitive capacity." (Mani, Mullainathan et al. 2013, p.980). According to Shafir and Mullainathan a lack of resource creates a "scarcity induced focus" (Shah, Mullainathan et al. 2012) which makes people more engaged and vigilant when making a decision about resources relative to others presented with the same problem but not experiencing the same scarcity. (Shah, Mullainathan et al. 2012). Their work showed that lack of resource leads people to choose a 'locally convenient response', rather than a long term optimal one, which would better fit a 'rational' classic economic model. Another example of this short term decision making due to stress would be choosing to take out a high interest pay day loan to cover debt and literally "buy some time", often not solving the problem, but further embedding people in debt (Shah, Mullainathan et al. 2012, p.685).

This has a direct link to governance, policy makers working with classic economic models assume people are making rational decisions and are not effected by scarcity biases directing their attention in particular ways. One example of an understanding of scarcity bias informing public behaviours is a community based climate change project which incorporated an bias into the development and delivery of a domestic energy reduction project. They switched from their traditional information deficit approach of providing a leaflet with useful energy saving tips, to using energy coaching techniques, successfully working with households one to one to see past their "scarcity

induced focus" and find creative ways to manage and save energy. (Lilley et al, 2016). The scarcity bias, and the tendency to focus on the thing we lack, also has implications for the policy makers and politicians in their work, often chronically short of time, their focus is narrowed towards thinking about what little time they have, rather than the actual work, which becomes stressful in itself (McAnulla, 2006, p.1087). This will also influence their interactions with others, which is especially important, given they are being called on to collaborate with others and are constantly in meetings. I will evidence in the empirics chapters how negative internal states influence how people perceive each other. Research has shown that negative emotion can lead to the interpretation of threat in neutral facial expressions. (Bradley, Mogg et al. 1999, p.267-278). This suggests people who are working with others in situations where they are experiencing stress may be more likely to see threat in others faces where there may be none, effecting working relationships and the interpretation of conversations and information. Research using The Emotional Stroop test, (Stroop, 1935) showed how more emotionally salient words drew participants' attention over neutral words. For example, rape victims were more likely to pay attention to words related to rape (Fox et al, 1991). Politicians and policy makers are also likely to be picking out information that resonates with their own experiences. Emotions have also been shown to have an effect on memory, another important aspect of judgement and decision making, influencing which facts are remembered. A person is more likely to remember something with higher emotional valance, and which is part of their personal or cultural experience. In an experiment in 1933, Bartlett found people were more likely to remember a particular line from a story which referenced separation from loved ones during a memory test. He hypothesised this was because the experience of WW1 and loss and separation were still uppermost in the cultural psyche (Bartlett, 1932). This finding links back to the work discussed earlier by Clore and Schwarz, on how

different kinds of weather affected decisions, that the feeling and emotion available to working memory "confers negative or positive value on whatever is in the mind at the time" (Schwarz and Clore, 2003).

In every moment, emotion prioritises and biases attention, causing us to perceive texts, narratives, events and objects in ways that have a positive or negative resonance with our internal state. I have started, in this section, to consider how this affects the way politics and policy is created, influencing information selection and processing. It is also relevant to how political and policy messages are framed, a 2004 experiment showed that persuasion was more successful when information about raising taxes, not a popular topic, was framed in a way congruent with the prevalent emotion in the receiver. (DeSteno, Petty et al. 2004). Sad people were more likely to respond positively to a message with a sad framing and people who were angry responded better to a message with an angry framing.

Using emotions to effectively persuade people of a political message was famously used by Goebbels, drawing on the work of Edward Bernays, who himself was influenced by his Uncle, Sigmund Freud, during the first world war (Doob, 1950) with serious ethical implications. The question then becomes how we can use understandings of emotion/cognition in modern times to ethically inform not only what and how governance delivers policy, but also how it understands itself in psychological ways. The approach in this research is to test if policy organisations can become less blind to their own emotion/cognition nature, to wake up politics and the policy process to their own lack of knowledge and capability, as an ethical approach to integrating psychology into the process of government.

3.4 An exponential growth in Emotion/cognition science demands new perspectives on decision making

3.4.a Emotion regulation and decision making

If emotion is so influential in choice and judgement, how can we improve our perception and individual and shared decision making? The science of emotion regulation, how we effectively influence emotional state, its mechanisms, role, function and implications, like emotion science in general, has grown phenomenally in recent years. Until the early 90's there were relatively few research articles published on emotion regulation, now there are thousands and, according to philosopher, psychologist and emotion regulation expert, James Gross the findings have thrown up more questions than they have answered.

There are still no definitive theories and concepts to explain what emotion regulation is, as Gross states: "Enthusiasm for the topic continues to outstrip conceptual clarity." (Gross, 2013, p.359). One question significant for this research, and dominating the field, is defining the boundary between emotion and emotion regulation.

We have discussed how the felt sense determines and directs our attention, enhances our episodic memory and facilitates social interaction, when emotion is too intense, not intense enough or directing our attention to places we don't want it to go then, as humans, we have capacities to do something to change what we feel and/or how we respond to what we feel. This is regulating our emotions (Gross, 2014), defined by Gross as: "Shaping which emotion one has, when one has them and how one experiences or expresses these emotions." (Gross, 1998). Emotion regulation (EmR) is part of our overall biological regulation system, key to its function is to up or down regulate our biological system to achieve a particular goal. EmR is most often talked about, particularly in the workplace, in relation to down regulation, when it is said that people need to curb 'being emotional', they are invariably

talking about negative emotions and the need to reduce them in order to work effectively (Hochschild, 1983). But up regulating positive emotions is also a feature of emotion regulation, in love or joy we amplify feelings to create more enthusiasm or interest, positive emotions yield positive, rational, actions, such as hugging someone in pain to help positively up-regulate their emotions to support pain management, but despite the fact all emotions are useful in helping us operate in the world, we rarely discuss emotions in broader functional terms, more often they are discussed as something disruptive and in need of rectifying (Hochschild, 2012). EmR can be oversimplified as something which motivates us to seek reward and avoid pain, however it can operate in counterintuitive and complex ways, for example we might love someone but not let them see how we feel (and therefore avoid them) so that we don't get hurt through being rejected. Gross suggests this is still goal orientated but describes it as "instrumental". This is highly relevant to the workplace where, to do our job effectively, we present an emotion state that can be different to the one we are actually experiencing in order to effectively perform our job. Researchers have shown that a surgeon can appear calm, in order to reassure a patient, when in reality they are experiencing feeling nervous. (Larson and Yao, 2005). In another experiment a debt collector made themselves sound angry when they weren't experiencing anger in order to successfully reclaim payment on debts (Sutton, 1991).

EmR is complex, like emotion it has links to memory, to social relations, judgement and core aspects of working life, it influences decision making and objectivity, making it relevant to politics and policy making. But like emotion it has been historically defined, not by its function in the workplace or its effect on politics and policy, but by how it can be used to address dysfunction through therapy and how we defend ourselves from overwhelming or negative states. Theory that has framed and therefore dictated our view

includes Freud's work on psychoanalysis, Lazarus's work on stress and anxiety, Bowlby's attachment theory and Mischel's work on deferred gratification. (Lazarus, 1966) (Freud, 1926) (Mischel, 1996) (Bowlby, 1969). Like research on emotion, there is less research on how EmR relates to cognition and decision making. Gross identifies five types of emotion regulation, all of which are relevant to decision making: situation selection (selecting situations which prevent emotions you wish to avoid), situation modification (modifying a current situation to avoid emotions), attention deployment (attending elsewhere, distraction to avoid emotion), cognitive reappraisal (cognitively reframing the situation to modify emotions) and response modulation (used to decrease the effect of the negative emotion and increase positive emotion, such as relaxation or exercise). Any of these mechanisms influence how a person responds to a situation and which decision they make. The most researched and evidenced EmR technique is cognitive reappraisal, involving changing the trajectory of an emotional response by reinterpreting the meaning of the emotional stimulus, an example would be re-appraising the negative experience of missing a train as being a positive opportunity to spend more time reading a favourite book. This compares to the most commonly used method of EmR used in Civil Service cultures, emotion suppression, which, as I will discuss, has been shown to negatively affect thinking and impact people's health, increasing the blood pressure of the person themselves and those around them.

EmR using reappraisal has been shown to reverse tendencies towards risk aversion in decision making. In two standard choice based research tasks, the ultimatum game and the balloon analogue risk task, appraisal was compared with emotion suppression, pushing emotional thoughts and feelings away. Reappraisal was shown to improve decisions relative to a group who suppressed emotions and a control. (Heilman, Crişan et al. 2010). In another experiment participants were given the task of choosing between two

monetary options, one risky and one safe, they were told to engage in imagery focused regulation strategies, either imagining a calming scene to “relax”, an exciting scene to “excite” or a control condition of simply “look”. The “relax” condition produced fewer risky choices compared to the others (Martin and Delgado, 2011). The important point here is evidence that emotions can be regulated to change how we perceive information, and that the approach we take to regulating our emotions affects our cognition, our choices and also influence how those around us experience the same information in ways that may or may not be functional. Much of the work in this area, as discussed, comes from therapy and looks at regulating anxiety, rather than optimising high stakes work environments, prior to the need for a well-being intervention. In a number of experiments, linked to loss aversion, it was found that using an imagination based regulation technique of asking participants to “think like a trader”, evoking confidence, they were made less subject to loss aversion compared to a control group who were simply told to attend to the problem (Sokol-Hessner, 2009). This result again suggests that different mind and felt states can be self-induced to alter perception and change consequent choices. Given many workplaces, including policy contexts, are reliant on team working and building relationships, it is also interesting to look at emotion regulation in relation to social decision making. In a 2010 study using the Ultimatum game, it was shown that an emotion regulation strategy could be used to change anger, the most common participant response, which in turn influenced decision outcomes. Researchers asked participants to use re-appraisal vs no regulation vs emotion suppression, to assess information, re-appraisal resulted in altered decisions, suppression and no regulation were seen to make no difference. In a follow up to the experiment participants who had used reappraisal were also less likely to punish partner participants responsible for unfair offers, which was unusual relative to other iterations of the experiment. (Van't Wout, Chang et al. 2010). In political and policy contexts

people are constantly regulating emotions, something I will show in Chapters 5-8, whether it is attempting to be positive when they are feeling tired or negative or suppressing anger and frustration when they are misunderstood or there is disagreement. The evidence suggests that, despite the fact this is likely to be a significant portion of what they do on a daily basis, they have little or no understanding of, or literacy in, what emotion regulation is. Whilst understanding how emotions are used and adapting them to influence decision making is seen as potentially manipulative and unethical, being largely blind to their own and others regulation and how it is negatively effecting what they do, is not questioned. This research will go on to consider how gaining more insight into emotion regulation might make for more effective and ethical decision making, better collaboration and improved approaches to behaviour change.

3.4.b Emotion/cognition in teams and organisational decision making

In the previous chapter I looked at how rational decision making in policy making and governance is something of a myth, that decisions and reasoning are more to do with maintaining and building relationships and how people feel at the time. I have described in this chapter how contemporary emotion science has now identified and started to map underlying mechanisms of felt sense and emotions which could be used to inform team working practices, in this section I will give an organisational context to this discussion.

Emotions have largely been ignored, seen as primal and in need of controlling and suppressing, in organisations in general and particularly in the 'objective' job of policy making. Traditionally emotions and their pathologies have been the focus of therapy and largely ignored in decision making in organisations. Attempts have been made in the workplace, as I shall discuss in a moment, to work productively with emotions to help us work better as teams or to support well-being and develop resilience, but in terms of jobs which require analysis and decision making, they are largely seen as things

which can (and ought to be) suppressed. There has been a bias against the study of emotion and decision making in organisation due its negative associations with the work of Freud on unconscious and psychodynamics. As a result research in the workplace assumes that employees are emotionally sterile, rational, completely conscious of their attitudes with no impairment on their cognition (Barsade, 2009). Emotion Regulation science, as we have discussed, suggests suppression is the least effective way to regulate and ameliorate the effect of emotions in the workplace, not only in relation to judgement but also due to its negative effects on an individual's health and the health of those around them, with people experiencing higher blood pressure when someone else in the group is suppressing their emotion (Gross, 2014, p.9). Meanwhile advances in neuroscience, personality and social psychology and organisational science is increasingly studying how implicit emotion effects organisations and decision making, (Barsade, 2009) linking to work by Tversky and Kahneman (Tversky, 1974) on rational choice and also to Ellen Langers' research on workplace mindlessness (Langer, 1975).

Forgas and George's work, on the Affect Infusion Model AIM (Forgas, 1995), discussed previously, was developed from an analysis of the workplace. The model states that "affectively loaded information exerts an influence on, and becomes incorporated into, a person's cognitive and behavioural process." (Forgas, 1995, p.9). They observed that groups and organisations have an affective tone which influences group judgements and that group discussion can influence the mood tone to increase or decrease its intensity and effect. This varied, depending on the mood, team discussion modified the effect of sadness, so it has less effect on group judgement, but failed to reduce the effects of positive emotion, tending instead to accentuate it. Given theory mentioned earlier in this chapter on positive emotion and cognition, this is also likely to increase risk taking, which may or may not be optimal, according to Forgas: "Even slight changes in mood can bias action plans and

subsequent organisational behaviours.” (Forgas, 1995, p.9). The significance of this bias is higher when decisions are intractable and complex (Ibid, p.27) making the use of emotional suppression in policy environments even more concerning. The emotions which are being suppressed are not noise or distraction, as previously assumed, but an adaptive, functional, component of social behaviour which are being held down, negatively effecting good decision making (Adolphs and Damasio, 2001). George has shown the many ways emotions influence organisational decision making, arguing making the case that much more research is needed in this area: “Not only can state affect influence decision making in myriad ways but memories of past emotional experiences and glimmers of future feelings and emotions surround many of the decisions people make in work settings and beyond,” (George and Dane, 2016). They are critical of a tendency to over focus on positive emotions and happiness research in daily life and the workplace, suggesting it is an unhelpful “glorification of happiness” (George and Dane, 2016, p.8). They point out, whilst happiness ought to be valued, other emotions have important functions, also worthy of research, particularly in relation to decision making.

“It is perhaps no wonder then that research on happiness has received much attention across multiple lines of psychology and organisational scholarship and throughout the popular press (e.g. Gilbert 21006, Haidt 2006, Rubin 2009) While our inclination to pursue and maintain positive affective states is understandable, the glorification of happiness in today’s world runs the risk of masking the fact that, from a decision making standpoint, the feelings and emotions we value are not always those most amenable to engaging with the decisions we face. In fact negative feelings and emotions, though by their very nature unpleasant or uncomfortable, can facilitate decision effectiveness under certain conditions”. (George and Dane 2016).

Much of the behaviour change work discussed in the last chapter considers the effects of cognitive heuristics on thinking and decision making and the external architectures that can be created to mitigate bias, this chapter considers advances in understandings of the mechanisms of cognition and emotion and how they might be understood and influenced to build capacities in organisations to address bias. Looking at how emotions mediate groups and decisions is key to this, but barely touched on by behavioural economics professionals and writers. Meanwhile much of training and development initiatives in the workplace on emotion is centred on neutralising negative emotions and building positive valance through emotion awareness and regulatory control, ignoring the fact that all emotions, including negative ones, have a function in the processes of engaging, deliberating and decision making. This research considers how an unbiased understanding of emotions could inform organisational capacity building to address group and individual bias and create adaptable, effective and ethical decision making scaffolding both externally and internally, particularly when governments are working with increasing complexity and intractability in decision making.

3.4.c A theory of constructed emotion: radical implications

As discussed earlier, a number of psychologists and philosophers, (Barrett, 2016) (Churchland, 2013), suggest we are at the brink of a paradigm shift as to how we understand the mind, consciousness and the role of emotions in perception and cognition (Barrett, 2016). Neurophilosopher Patricia Churchland, contests this is as monumental as Galileo's discovery that the earth moves around the sun and not the other way round as had previously been believed, or Pasteur and Lister's finding that invisible microbes cause the spread of infection (Churchland, 2013). In both cases human direct experience said one thing and investigation, with the help of scientific instruments such as telescopes and microscopes, led us to conclusions well beyond anything imaginable at the time. Galileo was arrested and tortured by the catholic

church for challenging theological views of heaven and earth and discoveries in emotion/cognition science are also meeting significant resistance. They challenge both theological and psychological thinking and the embedded status quo and are slow to be accepted and integrated into everyday working life, (Churchland, 2013).

These radical shifts in thinking offer new meta theories explaining the mechanism and functions of emotions. They range from slight modifications of earlier ideas of basic emotions, as a response to our environment and hardwired to motivate particular actions, through to emotions not being a response at all, but a central part of how we perceive our world, through to emotions being entirely socially created, through to emotions being part of a predictive system which, rather than reacting to stimulus, co-creates reality through processes of prediction (Wilkinson, 2019 p.101).

As I will demonstrate in Chapters 5-8, many policy makers work according to a folk psychology, that their minds are reactive, this underpins their belief that their emotions should be suppressed. New paradigms in emotion theory state emotion and mind are predictive rather than reactive, such as the Theory of Constructed Emotion, developed by Lisa Feldman Barrett. This change of view turns emotion suppression on its head, as emotions are part of how we construct the world and cannot be suppressed, explaining confirmation bias and requiring new emotion capacities in the workplace. (Barrett 2006) (Barrett, 2016). Barrett's work grew from her attempts to replicate early experiments which had led to explanations of emotions as a: "brute reflex, very often at odds with our rationality", (Barrett, 2017, p.xi). This classical model, she points out, is embedded in our culture, our legal system and incorrectly informs views of prominent and influential thinkers: "Such as Steven Pinker, Paul Ekman and the Dalai Lama," (Barrett, 2017, p.xi). Her theory links to other recent thinking on cognition and predictive processing, some of which has come out of developments in AI and machine thinking. In these models the mind sees

what it expects to see: “we don’t accurately perceive an objective reality ‘out there’ but rather we see what we need and expect to see” (Barrett, 2016). Contrary to previous beliefs, an experience does not trigger a response, but rather the brain constructs an experience of cognition/emotion dependent on context and past experience in order to support actions that help maintain and regulate the human system. The theory of constructed emotion adds more support to some of the ideas we have already covered, that the role of cognition and emotion are entirely linked and that their goal is: “neither rationality, happiness or accurate perception,” but rather the maintenance of individual allostasis (Barrett, 2016). According to Barrett our embodied minds are designed, not to see an objective reality out there, but to keep us alive by maintaining biological balance in the body. They do that not by a process of stimulus/response, but through a more complex process of prediction, based on a cascade system of likely priors, grounded in Bayesian probability theories that causes us to act in ways that will ensure our survival. Priors are informed by physical sensation and adapted and modified through action, emotions are constructed from this milieu rather than being universal reactions. Key to this theory, relative to the classical model, is that emotions are unique to each individual, their exact (social, environmental) context and their previous experience and not universal. They may have shared features across individuals, situations and cultures but emotions are entirely constructed and contextualised to a person. Consider the emotion of fear, as we discussed earlier, previously this would have been understood as universal emotion arising to make us run in response (say) to something appearing long, thin and ‘snake like’. The constructed emotions model sees this as a predictive process, where we construct, from scraps of visual information, something long, thin and ‘rope like’ that is likely in a particular context and landscape, to be dangerous, this causes us to change our direction of travel or our visual field in order to continue to confirm our prediction that it is a snake, or see the

error. In another context where we do not expect a snake, we will see it as a rope or a hosepipe. Through this process, Barrett states, "Emotions are constructions of the world, not reactions to it. This insight is a game changer for the science of emotion." (Barrett, 2016, p.16).

This paradigm shift suggests emotions and felt sense are integral, not just to how our attention is directed, as described previously in this chapter, but to how we construct information. It involves a complex process of felt sense, prediction and action feeding back on itself to create the world we expect, this is facilitated through our actions, decisions and behaviours. Earlier in this chapter I discussed how felt sense, expectation and action led to police officers shooting an innocent man and how it influenced threat perception following the Boston Marathon. Barrett's work is part of a set of theories of mind linked to predictive processing, informed by developments in artificial intelligence and machine learning. I will look at this theory in more detail in the next section. This theory informed the theoretical basis of the intervention discussed later, and potentially supports less biased and behaviourally informed ways of working in governance and policy making.

3.4.d Mind as predictive: new perspectives on cognition, behaviour and bias.

Proponents of the predictive model, integral to the constructed emotion theory discussed in the last section, say it offers a unifying account of perception, cognition and action (Clark, 2015). To help make the model accessible, one of its proponents, Andy Clark offers an everyday example of the: "Perceptual strangeness of unexpected sensations as when we take a sip of tea under the strong expectation of coffee", (ibid). In this model the brain does not react to stimulus, nor does it simply infer the world through referencing bottom up stimulus to schemas or associations, instead the mind is continuously offering multiple predictions of the world and seeks information to confirm one prior prediction over another, acting in ways that help to fill in gaps in such that we perceive information that confirms our

prediction, creating the reality we expect to see. As a result we taste strange coffee, rather than tasting the real tea that we are drinking. Clark calls this a "multilayer probabilistic generative model" perception, action, emotion, attention, reasoning and learning and the environmental context are bound together into what he describes as "cognitive co-emergence" (Ibid, p.8). The predictive processing model, together with theories of constructed emotions, explains how humans bias the world with their own expectations of it: "Our basic involved structure (gross neuroanatomy, bodily morphology etc) may itself be regarded as a particularly concrete set of inbuilt (embodied) biases that form part of our overall 'model' of the world." (Ibid, p.175). This model is in opposition to our folk psychological view that our mind is: "an elaborate stimulus-response link", rather it uses a: "statistical organisation that actively generates explanations for the stimulus it encounters," (Seth, 2016, p.1). This challenges dual process theory, suggesting that instead of cognitive bias being due to fast, short cut, system 1 thinking, it is a result of a predictive processing model where we are more likely (such as in confirmation bias) to create the reality we expect.

In Chapter 2 I discussed Kahneman's argument for using choice architectures to overcome system one thinking and cognitive bias. I also described how Gigerenzer overcomes bias through education and risk literacy, these approaches both come from an understanding of the mind as something which takes shortcuts in order to operate at speed. If bias is created as a function of a predictive (not reactive or shortcutting) mind, does this change how it is addressed? Neuroscientist, Helen Slagter, in a presentation at a major mindfulness research conference in 2018, stated that mindfulness practices may help "jam the predictive processing machinery." Mindfulness develops the capacity for focussed attention and Slagter suggested that in more advanced practitioners: "the ability to focus attention should become more and more effortless or 'bare' as it naturally emerges

from no longer habitually engaging with other arising generative models." (Helen Slagter, Amsterdam conference ICM, July 2018). By becoming more aware of generative models as they arise, they might enable more noticing of predictive errors and support cognitive reappraisal to reduce the effect of this type of processing on behaviours. This would create a mechanism for positively disrupting confirmation bias, including implicit stereotyping, in relation to race, age, sex. Perry Hinton argues there is a link between predictions, society and culture that leads to the re-representation of stereotypes, and this is not a failure of decision making, but rather the only thing a mind can do "Implicit stereotypes, as associated with social groups, do not indicate an unconscious cognitive "bias (a cognitive monster) within the fair minded person, but are learnt associations arising from the normal workings of the predictive brain in everyday life." (Hinton, 2017, p.5). Slagter suggests that meditation can make visible the generative models produced by the predictive mind: "Our predictive processing (PP) theory of meditation offers a unifying account of the effects of different styles of meditation on brain and mental function. It sees these as lying on a continuum: gradually reducing PP and increasing present moment awareness. " (Helen Slagter, Amsterdam conference ICM, July 2018). If these predictions are the foundations of bias then meditation could, using this model, help overcome bias.

The predictive model builds on earlier work by Clark and Chambers (Clark and Chalmers, 1998), their theory of a more extended mind, embedded in our context and relationships links emotion with cognition, all working together to co-create our reality in the moment as a 'single inferential weave'.

"This (extended mind) provides a rich new entry point for accounts of experience, emotion and affect accounts that do not compartmentalise cognition and emotion but reveal them as (at most) distinctive threads in a

single inferential weave. In this dense, ongoing, multilayer exchange, interoceptive, proprioceptive and exteroceptive information work constantly together, and the flow of humane experience emerges as a continuous construct at the meeting point of diverse systemic expectations and the self-structured sensory flow." (Ibid, p.297)

Theories of extended mind, together with previous discussions on the links between decision making and emotion and with the predictive mind model, come together to create a far more nuanced and complex decision making system than system one and system two thinking. To explain the extended mind model, Clark uses the example of a piece of paper used to perform a long mathematical puzzle, the paper is appropriated as part of a cognitive process in a way that makes it an essential part of thought itself. Clark's extended mind model supports the idea of thinking, mind and felt sense being a social, relational and contextual experience (ibid, p.39) creating a 'self' which is extended way beyond the boundaries of the skin. Applying this thinking to the way organisational decision making processes are designed would lead to profound changes. Our major economic, government and legal systems have been built on assumptions and theories of rationality which are, as I have discussed, outdated, the rise of behavioural economics is an indicator of this, but it does not go far enough. These predictive models have the potential to inform what we should be doing to change, adapt and develop our major institutions: "To transform our laws our health, and who we are. To forge a new reality." (Barrett, 2017, p.293). In the next section I will look at how organisations have, over the last fifty years, used understandings of emotion/cognition to design their organisations and build decision making capacities in their staff with detrimental effects.

3.5 Addressing emotions in the workplace

3.5.a Emotional Intelligence: an early attempt to address the emotion/cognition amalgam

In this section I will look at two ways emotion and decision making have to date been addressed in organisations and organisational research, emotional intelligence and Intuitive decision making. I will then discuss mindfulness, mentioned in the last section, a practice increasingly used to develop emotional intelligence, leadership and effective decision making as well as wellbeing.

Organisations initially measured and improved work performance by focussing on how employees performed physical tasks. Over time they became more interested in the internal, psychological aspects of humans, and the need for people to overcome differences and work better together. Psychologists were recruited to measure personality and IQ differences in the belief they could be matched to a particular job, this proved useful in the war where large amounts of people needed to be employed quickly to do difficult jobs. Daniel Kahneman himself was involved in personality testing in order to better recruit soldiers and officers in the Israeli army (Lewis, 2016, pp.76-78). Early initiatives were based on personality type testing such as Myers Briggs which used extensive questionnaires to type people according to pre-determined categories, such as introversion vs extroversion and more or less intuitive (Myers, 1962). By identifying someone's type, it was believed a person could build self-awareness, reflect on their own personality dispositions and also help them appreciate difference, this meant less disagreements and more effective team negotiations. Emotional intelligence (EQ) followed on from personality testing, popularised by Daniel Goleman, a New York Times Journalist and author, EQ aimed to build self-awareness and capacities to help people appreciate and deal with difference. Through Emotional Intelligence, Goleman popularised the work of Social Psychologist Peter Salovey and

Personality Psychologist John Mayer, (Salovey and Mayer, 1990). Salovey and Mayer were interested in social and interpersonal intelligence, including social and relational skills, which they believed were separate to the cognitively based Intelligence Quotient (IQ) but, like IQ, could predict a person's success in an organisational or institutional setting. They believed, as with cognition and IQ, these relational skills could be measured, understood and developed, they called this emotional intelligence (EQ) defining it as: "The ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide ones thinking and actions." (Salovey and Mayer, 1990, p.189). Emotions in EQ are characterised as something to guide or influence thinking and decision, the elements included in emotion intelligence were, and remain today:

- *Self-awareness* - understand oneself
- *Self regulation* - *emotional* self-control in the service of a goal
- Self motivation - working for reasons beyond money
- *Empathy* - *attunement to others*, handling relationships, a skill in *managing emotions* in others
- *Social skills* - managing relationships and building networks (Goleman, 1998) (Issah, 2018)

The first edition of the book Emotional Intelligence was published in 1995, at a time when the classical model of "basic emotions" dominated emotion science. This is reflected in Goleman's writing, he states that the core of EQ is to understand our basic emotions of anger, sadness and fear, be aware of them in ourselves and find ways to regulate them through appraisal or other activities including mindfulness, distraction or just giving ourselves time (cooling down) (Goleman, 1998). Goleman separates the 'rational mind' and the 'illogical, emotional mind' (ibid, p.8) in line with Darwinian thinking of emotions as "outdated neural responses". In EQ the aim is to prevent emotions "swamping" rationality, instead allowing a balanced and

“appropriate’ level of felt sense (ibid, p.10) Goleman represents “emotionally intelligent men” (note the gender representation, even in the updated 2004 edition of the book), as:

“Socially poised, outgoing and cheerful, not prone to fearfulness or worried rumination, they have a notable capacity for commitment to people or causes, for taking responsibility, and for having an ethical outlook; they are sympathetic and caring in their relationships. Their emotional life is rich but appropriate, they are comfortable with themselves, others and the social universe they live in.” (Ibid, p.45)

As this description demonstrates, and as referred to earlier in George and Dane’s work on emotions in organisations (George and Dane, 2016), the focus in EQ somewhat glorifies the positive, the task is to optimise the positive and mitigate damage caused by negative emotions. (ibid, p.87)

Despite the fact it has been available for over 20 years and the term ‘emotional intelligence’ is normative in organisational discourses, applied practices are not a norm in organisational ways of working, demonstrated by numerous articles attempting to justify an EQ workplace business case, (Issah, 2018). The science, meanwhile, has moved way beyond the theories which formed EQ, with critiques put forward as early as 2002 by Salovey himself (Barrett, 2002). In a 2006 essay about emotions in the workplace Salovey and Feldman Barrett argued there had been over-excitement about the “heuristic value of emotional intelligence” which led to an early appropriation of concepts and ideas still in development. As a result, nascent work was misrepresented, oversimplified, and failed to keep up with research developments (Barrett, 2002, p.2). They suggest that EQ failed to recognise emotions emerge in social and cultural contexts, are not individual, and are neither right or wrong in any absolute sense. They argued that there was an

over emphasis on the benefits of positive emotions, failing to acknowledge all emotions as functional and “temporally and culturally situated.” (Ibid, p.2). They were concerned that there was an emphasis on: “prevention, abbreviation or transformation” of negative emotions, ignoring their functionality and that they have important adaptive functions. This is evident in the language of EQ which instructs practitioners to deal with emotions by understanding, controlling and managing their negative emotions. This focus on the primacy of positive emotions directly contradicts research showing negative emotions have an important role in directing attention in decision making. (Barrett, 2002, p.2). Different mood states are linked to adaptive ways of thinking that may, or may not, be appropriate to the context. (Parrott, 2002) and negative (relative to positive) states are functional by predisposing people to a more conservative analytical approach to problem solving, required for accounting or other similar professions, whilst more positive emotions induce more risky and creative approaches, less precise and detailed appropriate for creative problem solving (Isen, 2000).

Robert Steinberg writing in the forward to the book *Emotional intelligence science and myth*, suggests there is no significant scientific evidence that would support EQ, (Matthews, Zeidner et al. 2004). Russell and Barchard suggest emotion intelligence has little scientific justification precisely because the thing they are talking about has no agreed definition: “An understanding of emotional intelligence requires an understanding of emotion [.....] there is no agreed upon account or even definition of the term “emotion” that emotional intelligence researchers can rely on.” (Russell and Barchard, 2002).

3.6 Insights and dilemmas from intuitive decision making

The connection between emotion and decision making has also been explored through studies and analysis of the use of intuition in the workplace. Some have argued intuition makes decisions less effective whilst others argue our intuitive sense makes us more effective. Kahneman and Tversky argued

intuitive decision making should be viewed with caution as it is likely to be biased (Gilovich, Griffin et al. 2002). In a 2009 paper Kahneman discussed with Gary Klein the role of intuition in heuristic decision making. Klein researches natural decision making (NDM) which suggests experts can make effective decisions using intuition. NDM argues that when a person has years of experience, their internal feelings, combined with mental schemas and associations based on previous experience become a 'felt cognition', that allows for fast, expert thinking. Kahneman's work, as discussed previously, says the exact opposite, that experts apply short cut, patterned thinking, drawing on their internal felt sense, which can go catastrophically wrong, precisely because they their previous experience to inform the current situation. Kahneman called this an "illusion of validity" (Kahneman and Klein, 2009, p.517) a bias creating unjustified over-confidence in experts, and specifically clinicians. Ironically Klein and Kahneman acknowledge their two different approaches simply reflect their own biases. NDM research is carried out in the workplace and seeks largely positive examples of effective intuitive decision making whilst Kahneman's heuristics research is lab based and specifically looks for examples of flawed decision making, therefore they both find what they are looking for. They appear to come to opposing conclusions, but they do both agree there is 'skilled' intuition, and draw on Simon Herbert's 1992 definition to describe it: "The situation has provided a cue, This cue has given the expert access to information stored in memory, and the information is stored in the body, and the information provides the answer. Intuition is nothing more and nothing less than recognition." (Simon, 1992, p.155). If a person has had enough experience, in a stable environment and across time, intuition is likely to be correct, this may apply to a firefighter or a nurse, but less likely to apply in the complex world of trading and stocks. Kahneman and Klein agree that expert intuition is more likely to fail in "wicked environments" using Hogarth's definition of a wicked environment (Hogarth, 2001)

(Kahneman and Klein, 2009). They give an example of an early 20th century physician who used his 'expert intuition' to predict which patients were likely to develop typhoid. He palpated their tongue to check his diagnosis was correct, before the days when hand hygiene had been understood to be paramount in preventing the spread of disease, making his intuition disastrously self-fulfilling as he spread the disease through his own touch. (Kahneman and Klein, 2009, p.520). In the previous chapter I discussed "wicked problems", which share elements with Hogarth's "wicked environments", they both feature a high degree of uncertainty and a lack of validity in fast changing complex situations. In non-stable, wicked, environments it is less likely that 'skilled intuition' will be correct. Another term used in recent years to describe increasing amounts of uncertainty and complexity in organisations is "VUCA" where the operating conditions of an organisation are experienced as: volatile, uncertain, complex and ambiguous (Hicks and Nicholas, 2002). The term VUCA is widely used in organisations today and researchers have suggested that a combination of skilled intuition and cognitive bias is needed to address these work environments. A 2017 paper, based on action research, attempted to address the differences highlighted by Kahneman and Klein through a pluralistic and multiple perspective approach to decision making. This combined intuition based natural decision making, understandings of heuristics and cognitive bias and the reflective practices of mindfulness. In their view this combination used together, could address "non-rational and non-linear" workplace decision making and the effect of affect (Robinson, 2017, p.1). The practice of mindfulness was used to support this approach by developing self-awareness and an "understanding of one's own subjective experience", (Ibid, p.3). Their hypothesis is supported by research showing short mindfulness practices could reduce the effects of sunk cost bias and the bandwagon effect, (Hafenbrack, Kinias et al. 2014) (Fiol and O'Connor, 2003). Similar research has

shown mindfulness has the potential to reduce age and race bias (Lueke and Gibson, 2015)(Gupta, 2018). Given these findings, Robinson et al suggest mindfulness could be central to supporting improved decision making: “As it helps the individual and/or collective mind to introspect and switch to ‘broadly focused attention’ which are overall conditions for receptivity to intuition, wisdom and social improvisation,”(Robinson, 2017, p.9). The next section will explore in more details research on the potential for mindfulness to support decision making and address bias.

3.7 Mindful noticing to address mindless organisations

Mindfulness has been linked to better decision making since the 1970s when Ellen Langer and Karl Weick both used versions of the practice in organisations to improve attention skills, meta cognitive capacities, perspective taking and decision making. In 1975 Ellen Langer published a paper called the “illusion of control”, looking at prediction errors in gambling (Langer and Roth, 1975). Her research showed how a small amount of anchoring (offering wins) led to a misattribution of skill and an overconfidence in future prediction (Langer and Roth, 1975). A year earlier Tversky and Kahneman had published their very similar research, *Judgement Under Uncertainty, Heuristics and Biases* (Tversky and Kahneman, 1974) to demonstrate the irrationality of quick decision making. (Tversky and Kahneman, 1974). Whilst Kahneman developed system 1 and system 2 thinking on the basis of their experiments, Langer suggested individuals and organisations needed to cultivate mindfulness, which she characterised as practices of noticing and re-categorising to enable them to see beyond habitualised perceptions. She suggested this would overcome their flawed decision making, which she called “mindlessness” defined as “a rigid use of information during which the individual is not aware of its potentially novel aspects” (Langer and Piper, 1987, p.280).

There are obvious parallels between Langer and Kahneman's work, both recognise tendencies to misrepresent information, leading to poor decisions and predictions, both appreciate the intuitive, emotional features of decision making. They do, however, take very different approaches to addressing the problem they identify. Kahneman focusses on understanding biases better to design external choice architectures which will prompt good decision making, the basis of behavioural economics. Langer, meanwhile, suggests developing individual and organisational capacities to better notice novelty and see beyond the habitualised, she calls this mindfulness. Whilst related, this is not the same as Buddhist-based practice, popularised as a well-being activity in recent years, Langer knew nothing of this other mindfulness at the time she came up with the term and her practices.

Well-being focussed Mindfulness has become well known in recent years as a practice adapted from Buddhist meditation to support well-being. This version of mindfulness is defined as: "actively tuning into each moment in an effort to remain awake and aware from one moment to the next." (Kabat-Zinn, 2013, p.20). Jon Kabat Zinn is seen as the founder of this contemporary practice, coming out of his work with chronic pain patients in a United States hospital. A Buddhist meditator at the time, he hypothesised that one of the core practices used in Zen meditation, mindfulness, could potentially help patients manage pain through exerting a type of cognitive shift to change the pain response, he developed, and successfully trialled a mindfulness based intervention. This led to the development of programmes to address the mental pain of stress and anxiety, which in time became standardised 8 week Mindfulness Based Stress Relief (MBSR), and Mindfulness Based Cognitive Therapy (MBCT) programmes. In recent years mindfulness has also started to be used in workplaces both as a well-being activity to help people better manage stress and anxiety but also to improve performance and interpersonal relationships, particularly in leadership (Good, Lyddy et al. 2016, p.115). The

Mindfulness industry is now global, offered both commercially and in health service delivery and management, this has also made it the subject of critique I will discuss this in more detail later in the thesis. (Purser, 2019)

Like Kabat Zinn, Langer defines mindfulness as a particular way to pay attention to experience, but instead of suspending judgement being key to the practice, she suggests it requires a flexibility of mind and skills in noticing new things. Langer's organisational mindfulness is maintaining: "a flexible state of mind in which we are actively engage in the present, noticing new things."

Organisational Psychologist, Karl Weick drew on Langer's version of mindfulness to support his research looking at perception failures and decision making in high responsibility organisations. Weick noticed how the information people select is influenced by their attention. He proposed there might be a "pre-conceptual" form of attention, which sees through the conceptualising mind and disrupts the habit of categorising information improving capacities to see new or novel data. Weick combined Langer's and Kabat Zinn's approaches to develop an organisational approach which: "Enacts alertness, broadens attention, reduces distractions, forestalls misleading simplifications, accelerates recovery and facilitates learning," (Weick and Sutcliffe, 2007, p.37).

While there is growing evidence for the benefits of mindfulness in therapeutic settings, there is little research available on mindfulness and decision making in the workplace. Much organisational mindfulness is focussed on well-being rather than decision making, which some find problematic. Tomassini suggests that mindfulness in the workplace lacks an ethical grounding resulting in the practice perpetuating toxic organisations by giving workers coping skills to deal with dysfunctional settings. Other critiques suggest mindfulness in the workplace needs to change from a therapeutic model, focussing on the individual, to one that works from a team and

organisational perspective, recent critiques note mindfulness for teams is distinct from mindfulness for individuals and we need to broaden our understanding of mindfulness in organisations to account for this. (Rupprecht, Koole et al., 2018). Jon Kabat Zinn himself has suggested that his original programmes were developed in a public health context and need updating to meet the needs of different contexts, including the wider global contexts of climate change, inequality and prejudice. (Kabat-Zinn, 2017).

In the following chapters I will discuss the development, delivery and outcomes of an intervention which combines behavioural economics and mindfulness. The programme is informed by the theory on emotion and cognition presented in this chapter and the different types of mindfulness discussed in this section. It sets out with the intention to develop and apply mindfulness in ways that challenge systemic toxic ways of working, whilst also building capacities to support policy organisations to address wider global challenges, as described by Kabat Zinn.

3.8 Chapter summary

In this chapter I have looked at developments in emotion science which link emotion and cognition and position them as vital for decision making. These developments challenge historical views of emotion as something which interferes with rational decision making which can (and should) be eradicated from human choice mechanisms. I have considered how our economic, legal and governance systems are based on an outdated view of emotions, that behavioural economics has offered psychologically informed policy making as a solution, but this has quickly become outdated as emotion, cognition and behaviour science has grown. I have considered how behavioural economics needs to engage with the new sciences of emotion and cognition, and incorporate theories that better account for our biases, such as predictive and extended models of mind and emotions as constructive rather than reactive. This has the potential to make behavioural economics more effective and

more ethical, as it requires transformation, not just in how policy is designed and delivered, but in the policy making process itself.

I have also discussed approaches which build psychological capacities in individuals and organisations to overcome bias, optimise attention and integrate emotions in decision making, something Daniel Kahneman showed no interest in (Marshall, 2014, p.48) which set a course of behavioural economics being a science applied to others, rather than something which applied to policy makers themselves. According to biographer, Michael Lewis, Kahneman was not interested in reflecting on his own biases or the effects of his own experience on his decisions, he once said: "he attached no particular importance to his own childhood experience or even his memories," although he later contradicted himself saying he hated waiting in queues because of hours waiting anxiously for his dad in his childhood (Lewis, 2016, p.66). Kahneman's aversion to working on internal capacities no doubt influenced the development of the most popularised forms of behavioural economics, such as Nudge, other voices, who have used education, risk literacy and reflection towards the same ends of addressing bias, have been ignored (Langer and Moldoveanu, 2000) (Weick, 2012) (Gigerenzer 2015) although this is changing, with more recognition of the need for psychologically informed working at a personal and interpersonal level (John and Stoker, 2019) (Mair et al., 2019).

The next chapters outline the methods used and results from a solution focussed action research project which attempts to address the issues raised above through using an intervention to explore issues surrounding a more psychologically or 'neuro' informed policy process as well as offering potential solutions. Chapters 5-6 will outline the problems of a lack of understanding of the mind, emotions and bias in government and chapters 7-8 will look at potential answers. Before that Chapter 4 will discuss the methods used, including details of innovative distributed ethnographic software that captured

vignettes describing what it is like to work in government and how the programme influenced ways of working. The intervention combined behavioural economics and reflective practices, it used group based interactive training to explore the more radical theories of mind and emotion presented here. It utilised, but also went well beyond, normal forms of organisational training on mind and emotion and was ambitious in its intention to investigate and demonstrate the potential for building enabling capacities in policy makers for improved psychologically informed governance. Its aim was to find out whether, if policy makers better understood their minds, their emotions, choices and behaviours, they might create cultures of policy making which have real ability to deliver transformative change in complex systems, to help solve the wicked problems of our time.

Chapter 4 - Methods

4.1 Introduction

This project used action research to explore the question of how a lack of knowledge of emotion/cognition/behavioural science is preventing the Welsh Government from addressing wicked problems such as climate change. It also considered whether behavioural economics and mindfulness could, through being combined in a three month programme, address wicked problems through capacity building. This chapter discusses the mixed methods research approach used in this investigation. My research is ambitious, attempting to innovate by bringing a number of methods together to gather data from a number of different angles, also attempting to limit the biases likely to arise from using a single approach. The approaches used included:

- Semi structured scoping interviews
- Deep hanging out, ethnography
- SenseMaker – a distributed ethnographic method, capturing a mixture of quantitative/qualitative data
- Semi structured, elite, post programme interviews
- Pre and post course surveys

I will cover three of these approaches in depth in this chapter, SenseMaker, semi structured post programme interviews and deep hanging out. Two will be discussed in less detail, scoping interviews and pre and post surveys. The three approaches I will be discussing form the basis of the empirics chapters; the other two methods gathered data which informed the

programme approach and provided outcome indicators, but the data they produced has not been included in this thesis due to lack of space. Through using a mixture of methods I was able to gather both quantitative data, revealing patterns in how groups of people perceive their jobs, and qualitative (anonymous and non-anonymous) data through narratives gathered via an app, semi-structured interviews and a workshop. Much PhD research aims to look at issues, develop theory and perhaps make recommendations for future research. This work was ambitious in its scope in that it aimed to identify issues, develop theory and also design, deliver and evaluate a potential solution. My aim was to counter and challenge the usual siloing of practice vs academia described below by an European Commission civil servant and commissioning author of the 'Political Nature, Understanding our political nature' report (Mair et al., 2019):

"You have, on one hand, a bunch of scientists looking at the science but hopeless at coming up with practical ideas and then you have the practitioners who never read any of the science at all, but they intuitively work their way to some quite interesting things that feel good." *EC civil servant, author Political Nature Report, semi structured interview.*

I have attempted an approach that begins with an on the ground inquiry into the problem and culminates in the production of an evidence based prototype of a programme. Whilst there are obvious limitations to any research, I show how even a small scale, but well-designed project can both rigorously research and develop and deliver viable solutions. Testimony to its success has been demand for re-runs of the programme in Welsh Government and further approaches from projects in the European Commission, NHS England, the Welsh Government, and, in an advisory role, to a political project in Westminster.

4.2 Starting point, research questions and approach

I use an action 'Real World Research' applied approach (Robson, 2016), seeking to investigate and make change to how reasoning and decision making takes place in government, attempting to 'shape the world as well as explaining to us why the world is in the shape that it is' (Robson, 2016, p.3). The approach is participatory, but, working with elite participants, with limited capacity due to heavy workloads and high responsibility, it is adapted to their situation, using multiple strategies for gathering data. The research did not, as an action research project, specifically aim to develop or contribute to an academic discipline, nevertheless, it has generated knowledge which develops emerging academic threads in behavioural economics and mindfulness. It also offers potential ways to resolve critiques in behavioural economics (Jones, 2013) (Leggett, 2014) and mindfulness (Purser, 2019)(Forbes, 2016).

Action research methodologies align with non-exploitative and empathetic feminist approaches, (Robson, 2016, p.165), whilst also addressing bias, encouraging the suspending of assumptions and avoiding pre-conceived views of both the problem and potential solutions. I began with an interest in helping to understand and better deal with the real world challenges of policy making and politics in the face of climate change and other wicked problems. I am not a policy maker, and never have been. However I have spent many years as an influencer, delivering and developing projects, in the public sector and as such could be described as an 'insider' rather than a career academic. My background makes me a pragmatist, I believe change can only happen by understanding and starting from where people are. Essential to this way of working is finding and linking to existing frames and understandings rather than offering ideas, which may seem good or justified, but are radically different or have no existing reference points to people's existing experience. Academic critique is often offered from high and distant places and leaves people feeling defensive and paralysed, once in the messiness of a problem,

critiques can fail to hold. I have worked , therefore, as a collaborator and co-producer of solutions, offering outside expertise in behaviour change, mindfulness and climate change, giving me credibility and access to the highest levels of management in the Welsh Government. (Trist, 1976, p.46). Without my background, competency and solution focussed approach, I would not have been able to engage so closely with senior managers. My work builds on both an MPhil, an ESRC and a research impact project, (Lilley, Whitehead et al. 2014) (Pykett, 2016) (Whitehead, 2017) (Pykett, Howell et al. 2016). The MPhil succeeded in gaining access to staff in the Welsh Government interested in ethical and effective approaches to behaviour change. My network was further developed through the ESRC and research impact project, building trust and scoping the nature of the issue needing further investigation. This initial work informed the basis of my PhD research and a desire to "Contributing both to the practical concerns of people in an immediate problematic situation. (Gilmore, 1986 p.160). On starting the research there was: "A dual commitment (in action research) to study a system and concurrently to collaborate with members of the system in changing it in what is considered a desirable direction." (ibid).

The main considerations of real world research are it:

- Has an interest in solving problems
- Attempts to get large effects and has concern for actionable factors
- Almost always works in the field
- Has both time and cost constraints
- Is generalist, uses a range of methods and approaches
- Is orientated towards client needs
- Needs well developed social skills in the researcher

(Robson and McCartan, 2016, p.11)

Critiques of real world research accuse it of lacking rigour and being “dubious”. According to Robson, to overcome this, a researcher needs to demonstrate a scientific attitude and aim to find the truth (Robson, 2016), needing a degree of scepticism, navigating a participatory approach while also being sceptical requires reflection. I have been both frustrated with, and shared the frustration of, civil servants struggling to deliver effective policy in an outdated and bureaucratic system, caught in short political cycles, making long term planning impossible. According to Robson “entering into an investigation involving other people is necessarily a complex and sensitive undertaking. To do this effectively and ethically you need to know what you are doing.” A researcher, says Robson, needs exceptional social skills and expertise enabling them to effectively navigate situations. (Robson, 2016, p.6). Real world research is similar to investigative journalism, which aligns with my experience, I trained and worked as a journalist for three years at the start of my career. In terms of the ethical and collaborative aspects I also trained and worked as a mediator and group facilitator. I have followed ethical principles and followed a code of conduct that respects the interests of those taking part in the research (Robson, 2016, p.18). I allowed the research to unfold, rather than being overly directive. At the same I have been systematic, giving serious thought to each step and using the practices discussed in this thesis: of reflection, mindfulness and self-challenging to work effectively with my own subjectivities.

The research question considers how issues relating to cognition, emotion and perception hinder the ability of the Welsh Government to address wicked problems, such as climate change. The research gathers evidence by engaging with civil servants in various ways related to this topic, through one to one meetings, sitting on advisory panels and conducting scoping interviews with people designing and delivering interventions in organisations. Based on this

work I designed and offered an intervention (Fig 2) which allowed me, and the participants, to engage in a shared journey, gathering data before, during and after the intervention. Through this process I investigated the topics of:

- f) To what extent do civil servants define the job of policy making as needing to be more psychologically and behaviourally informed.
- g) To what extent do civil servants characterise the organisation by recurrent failings, which derived from workload, a lack of understanding of cognition, emotion and perception.
- h) How do civil servants perceive themselves? To what extent does their own cognition/emotion/behaviour nexus impact on the lack of success in addressing wicked problems? How might these 'failings' be addressed?
- i) How might an approach that melds behavioural insights and mindfulness (as well as going beyond the two) help to address and resolve these organisational and individual level issues? i.e. the intervention.
- j) What kinds of alternative models of cognition, emotion and forms of training need to be developed in order to create a Welsh Government that can be more effective?

I have, as discussed, taken a real world research approach, which includes the use of scoping research, action research, behaviour change methods and elite interviews. Action research offers a way of working in the field, using multiple research techniques to create change whilst also generating data for scientific knowledge production.

I have worked in social and environmental change for over 25 years, as an activist, a practitioner and a project manager. I am a white, cis woman with a high adverse childhood score, a significant motivating factor for my work. I am

from a working class background which informs my interest in inclusivity and diversity. Having worked in NGOs and the public sector and lived and worked in co-operatives, I have a strong interest in collaborative and inclusive ways of working. I have worked with the Welsh public sector for over 20 years, transitioning from being a political activist and campaigner - attempting to change beliefs and attitudes through information sharing - to being a practitioner attempting to facilitate, co-produce and model alternative ways of working. I now straddle the practitioner/academic divide, with a good idea of how the public sector works and the issues they face, particularly in the development and delivery of policy related to sustainability and wellbeing. I have become friends with civil servants working on sustainability giving me further insight into the challenges they face

As an interdisciplinary social scientist working on behaviour change I am acutely aware that my own values, beliefs, experiences and biases will have influenced my approach, understandings and interpretations of data. I have used a number of research methods to attempt to address this, I will discuss these in the next section.

4.3 Mixed Methods

4.3.a Overview

The mixed methods used in this research were implemented across two phases, a scoping phase (Fig 1) and an intervention phase (Figs 2 and 3). The scoping phase informed the nature, design and content of the intervention. It looked at how organisations combined theory with the reflective practices of mindfulness and the outcomes of this work. My research includes conversations with civil servants and public sector staff working on behaviour change. I am particularly interested in effective ways to introduce mindfulness and 'internal' change work in organisations and within the Civil Service. This was the most challenging element of the programme, given that conventional

trainings in this area focusses just on information and not on internal inquiry. Data from the scoping phase also contributed to helping to identify the problem of a lack of understanding of the cognitive/emotional/relational aspects of government.

Fig 1: Scoping phase

Method	Audience	Data
Deep hanging out (ethnographic)	<ul style="list-style-type: none"> • Civil servants • Public sector staff working on behaviour change • Civil Service working groups on mindfulness • Mindfulness initiative 	Field notes
Scoping interviews	<ul style="list-style-type: none"> • Mindfulness practitioners working in organisational and change contexts 	10 Semi structured interviews (est 10 hrs)
Scoping case studies	<ul style="list-style-type: none"> • Organisations working with behaviour change both as their job and internally 	Two organisational case studies made up of six semi structured interviews each. (est 12 hrs)

However it was the intervention phase that contributed most to the data that makes up the empirics presented in this research. Fig 2 gives an overview of the programme. The course was tailored to the workplace, using an eight session format, over a three month period, starting with an introductory session, followed by an intensive all-day and seven two hour sessions. This format allowed people to learn theory and practices and then apply their new understandings directly in their work contexts, embedding their learning through reflection with peers. Through their sharing of experience they re-imagined their workplace together, understanding it in new ways influencing both their individual area of work, and the wider culture of the organisation. Each section included theory, group reflection and individual and group practices. The research methods used during and after the intervention are listed in Fig 3 and discussed in more detail in the next section.

Fig 2 Intervention – Mindfulness Based Behavioural Insights, content

Session	Timings
<p>Taster and orientation session Intro to themes and format of course</p>	<p>1.5hrs</p>
<p>Day Intensive Intro to relevant theories of mind and emotion, neurophysiology, decision making theory, behavioural economics, bias. Intro to basic mindfulness practices and supporting app. Development of group reflection/trust</p>	<p>6hrs</p>
<p>Session 2 - Attention Theories of attention,, multi-tasking, emails, decision making– the full cost of interruptions. Group check in and reflection Attention practices – pausing, noticing, 10 min mindfulness practice.</p>	<p>2hrs</p>
<p>Session 3 - Emotions Neurophysiology, latest understanding of what emotions are and why they are relevant to decision/policy making. Group check in and reflection Body scan practices: developing interoceptive capacity</p>	<p>2hrs</p>
<p>Session 4 - Predictive mind/bias Understanding cognitive bias and decision making in more depth. The predictive brain and constructed emotion. Group check in and reflection Life practice, paying attention during the day (plus body scan and attention practices).</p>	<p>2hrs</p>
<p>Session 5 - The social brain Neurophysiology of interactions, emotions, bias and shared decision making. Dialogue practices (noticing how we predict/make assumptions, as another talks). Group check in and reflection Repetition of body scan and attention practices</p>	<p>2hrs</p>
<p>Session 6 - Communication Meetings and team decision making, further exploration of cognitive bias in policy making. Group check in and reflection Dialogue practices, dealing with difficulty. Repetition of body scan and attention practices</p>	<p>2hrs</p>

Session 7 - Collaboration, organisational and cultural development Neuro insights and mindfulness in organisational development (Deliberately Developmental Organisations) Group check in and reflection Dialogue practices, dealing with difficulty Repetition of body scan and attention practices	2hrs
Session 8 - Leadership - Course review and post course planning Group check in and reflection Dialogue practices, dealing with difficulty. Repetition of body scan and attention practices	2hrs

Fig 3: Research methods - Intervention phase

Method	Audience	Data
SenseMaker	Senior Civil Servants Participants of mindfulness programme	110 data points (short narratives ranging from single sentence to short paragraph) Quantitative data (using triads and dyads)
SenseMaker workshop	At the end of the programme	Meeting notes
Deep Hanging Out	With civil servants during and after the programme	Field notes
Post programme semi structured elite interviews	Senior civil servants Elite semi structured interviews	8 semi structured interviews (Est 7hrs)
Pre and post surveys on mindfulness measures	All participants	Scale based feedback on mindfulness, stress, happiness working in partnership with Kalapa Leadership Academy.

4.3.b SenseMaker

SenseMaker is a data collection method developed by Snowden which is designed to interrogate complex systems, (Snowden, 2010). It operates at the interface of anthropological and psychological methods and is a form of 'distributed ethnography' using technology to facilitate a participant-oriented journaling system which allows qualitative and quantitative analyses. It has

been designed to capture real-time reflections on daily life and aims to be participative and empowering while mitigating the biases of a researcher coding the data. "The goal is to utilise rich context narrative to inform sense making and also to create objective data in which cognitive bias is minimised and we can place some reliance on the conclusion drawn." (Snowden, 2010, p.228). SenseMaker is designed to give voice to people in a way they are not normally heard.

SenseMaker incorporates signifiers which are used by the participant to self-signify their micro narrative. The signifiers are co-designed with the target research group. For this research the process of design and delivery consisted of:

1. An initial full day design workshop with me as the researcher, the SenseMaker team and a representative from the scoping work with an interest in mindfulness and behaviour change in the public sector. The workshop included identifying signifiers through scoping relevant literatures on behaviour change and mindfulness.
2. Prototyping an initial version of SenseMaker, with the signifiers, with a number of civil servants. Feedback was then integrated into a second and third version. This part of the process was slightly rushed due to a lack of time. It would have benefited from more time and testing.
3. The full version was finalised and presented for use to senior civil servants at the beginning of the programme. This included supporting the participants to download, install and use the SenseMaker app to both input and signify a narrative.
4. Prompts given via email and during the programme to encourage the data inputting (of narratives) by participants.
5. The collating and analysing of data from the programme, including theme analysis of narratives using Nvivo.

6. Feedback of initial analysis to group of participants at two hour workshop to allow them to verify, contest and explore the patterns and associated narratives identified by the researcher. Feedback was used to confirm, correct and develop the initial findings. Notes from the meeting were collected via meeting notes and added into final data analysis.

As discussed, participants inputted data through an app on their phone or via a tablet. Once the app was open, they were requested to choose one of two prompts:

•Prompt 1: Please share a recent workplace experience when you interacted with others.

•Prompt 2: Please share a recent decision that affected you personally which illustrates what it is like to work here.

SenseMaker narratives are always contextualised to the environment of the participant, in this case the Welsh Government workplace. They are anonymous and often come in anecdotal form - Snowden suggests that those that appear most poorly constructed can also be the ones with most meaning. (Snowden, 2010, p.229). In this research 112 narratives were entered via the app, 78 were in answer to prompt 1 and 38 answered prompt 2. Below are two examples of smaller anecdotes:

The Papers

A paper I proposed for Cabinet was removed from the forward agenda without consultation. The paper was critical to ensure cabinet's agreement to taking a policy forward in a consensus direction

Percent x 0.724 Percent y: 0.0725

The challenge

*I was **challenged in a meeting** on a way of working that I felt I had made huge efforts towards working in the way the other person wanted to*

Percent x 0.824 Percent y: 0.131

Both offer interesting insights into the difficulties and frustrations of working in the Welsh Government environment. They are honest and direct and are a very different type of data to that gathered during interviews where people were perhaps more guarded and less direct in their comments. More detailed paragraphs offer a depth of insight into what it is like to work in WG and also how the learning from the programme started to influence their understanding of their work:

*Working with colleagues in a lessons learned/next steps meeting this week I noticed that **one of the officials involved appeared stressed**. I have a great deal of respect for this big-brained colleague who is usually good on the detail and nuance but can sometimes be overzealous in the design of processes - he doesn't always choose the simplest solution. **I noticed in this meeting that he was speaking quickly repeating his points rather than developing them and (I thought this most interesting) pushing us away from experimentation and towards closing off potential solutions**. I think what he wanted was to explain to us was the very real need for actual rather than paper-based solutions. This is a really important point to make but it was getting lost somehow in the noise. The group did eventually make a decision as to what to do but despite rather than because of the help. I was at a loss as to how to resolve this within the meeting and have requested another (on a related topic) at which I hope to do better. SenseMaker, *Percent x 0.6911 Percent y: 0.1155**

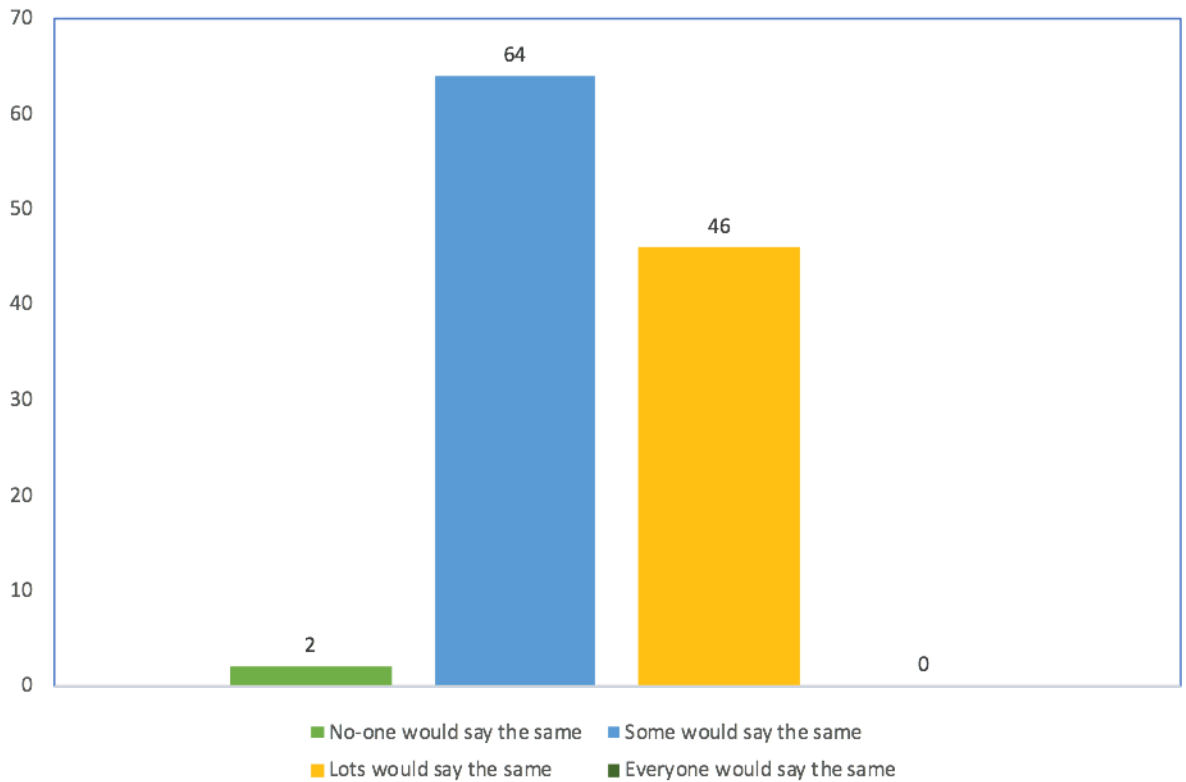
As discussed earlier, once they had been entered into the app the narratives were tagged and codified by the author using what Snowden describes as a semi constrained signification system, designed using the process described above.

The first type of tagging asked questions such as:

- Who should know about the story?
- What is the emotional tone of the story?
- What is the gender of the person writing?

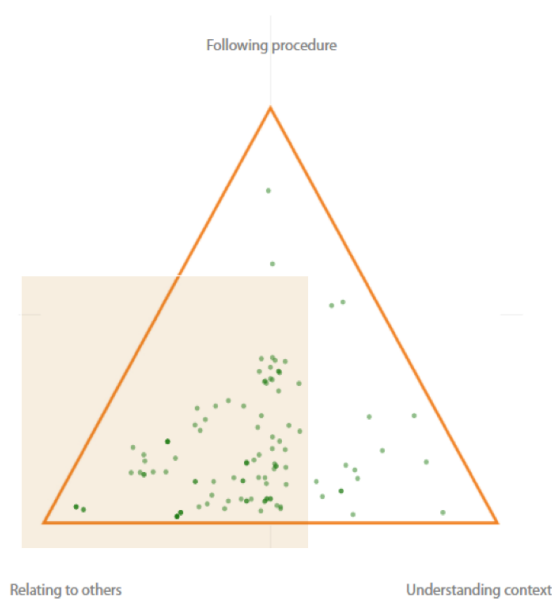
The example below, fig 4, "Who would say the same?" shows how people were given four options, no one, some, lots, everyone. The graph shows that people felt overall that others/lots would day the same about the narrative.

Fig 4



Participants then positioned a data point on each of seven triads . The triads attempt to find out more about how the participant viewed the narrative in terms of the culture and processes of the organisation. In the example below (Fig 5) participants were asked to place their narrative in relation to the three signifiers of: following procedure; relating to others; or understanding context. This made it possible to analyse patterns across the narratives, as shown below, where there is a clear pattern that the narratives are clustered more in the bottom left corner of the triad, towards ‘relating to others’.

Fig 5: Triad 2 - the most important thing in my story is.....



The majority of data points are towards 'relating to others' which initiated a discussion in the post programme workshop on how true this is and how well civil servants are supported to do this work.

SenseMaker encourages respondents to think about the presence of several things that are not mutually exclusive, that might all exist to different extents at the same time. The triad above (fig 5) has three signifiers, all of which are fairly neutral in this context, another triad might have three positives or three negatives, the idea is that they do not have opposites, that they all might be equally and mutually possible. Participants input their narrative and then answer the question: "the most important thing in my story is...." by positioning their dot in the triangle in a place where, in their opinion, their narrative matches. Each dot represented on the triad then refers to a narrative. If a dot is placed in the middle it shows that the person believes the narrative represents all three elements equally. (Van de Merwe et al, 2019). In the triad above the shaded area shows various patterns that might be interesting to analyse further, with narratives signified in three main ways:

- A number positioned centrally, therefore the narrative equally represents relating to others, understanding context and following procedures
- A number positioned equally between relating to others and

understanding, therefore the narrative equally relates to relating to others and understanding context, relating less or not at all to following procedure

- A number (relative to the other two corners) moving towards relating to others, with two narratives being placed entirely in the relating to others corner.
- A very small number of narratives in the 'following procedures' corner and a few more in understanding context, relative to relating to others.

SenseMaker data then consists of narratives plus patterns created by data points shown on triads. In Fig 5 this opened up an inquiry into what the job is of 'maintaining relationships', how significant it is and whether the SCS felt they had the capacities for this type of work.

The strength of the SenseMaker method is that it allows a researcher to explore an issue in new ways, finding different trends and uncovering different perspectives. The downside of the method is that, despite its attempts to overcome bias, the interpretation of the data is still subjective. The researcher may (for example) see significance in clusters where there is none or assign unjustified importance to particular narratives which may not be justified. It is also unlikely the data will be reproducible in the way science would want to confirm a finding, though arguably this is not its intention. Another downside is the platform itself, busy people do not have time to input narratives, once they have inputted data they then have to navigate signifiers. The signifiers are novel, requiring people to reflect, but busy people with little time for reflection may just put a dot down without much thought to get through the exercise. The platform is experienced by some as irritating, making it less likely that they will engage with it consistently over time. To overcome weaknesses in the data input and analysis further exploration of the patterns

through consultation and is essential. In this research the post programme workshop enabled the participants to explore the patterns that came out of SenseMaker. In this instance it allowed them to think about whether their roles were more about following procedure or relating to others and understanding context. On reflection they felt this was accurate and that the organisation did not appreciate this enough, and they weren't given adequate training and support to do this part of their job well. Future research would need to use this information to develop further hypothesis which could be tested more rigorously using other methods. In this research some of the output from SenseMaker and the workshop helped inform deeper exploration of themes through the semi structured interviews.

The research question was attempting to find out the "extent the organisation is characterised by recurrent failings, deriving from particular neuro/psychological assumptions about cognition/emotions." It was also attempting to find out how civil servants perceive themselves and if a programme would help resolve some of these issues. By selecting a number of the narratives that are clustered moving towards "relating to others" as below, it is possible to get some idea of the nature of people's experience of relating to others within the organisation.

Fig 6: triad 2, analysing a smaller cluster



Note: the triad above shows fig 5 but with a smaller cluster of nine narratives which can then be analysed together to find common threads and/or innovative ways of working that might be developed or amplified to support people in working at relating to others..

A number of narratives represented in fig 6, in the highlighted cluster, are listed below and show how a potential pattern could then be explored through narratives: They offer anecdotal insights into incohesive team communications and meetings hindered by fixed perspectives, where people are facing challenges and appear not to have capacities, tools or approaches that might help them overcome those challenges. This highlighted an area for further investigation.

Divisional prep

I met with my SLT - I wanted to encourage them all to bring food to a divisional meeting to share. 2 of them were receptive, 2 very negative, the 5th disinterested. I decided afterwards simply to bring food for all myself.

Percent x 0.224 Percent y: 0.103

The Meeting

A meeting where a new policy was discussed which included some people with very fixed perspectives who were reluctant to consider other perspectives This had a

lasting impression on the morale of some team members who expressed concern at the inability to create consensus

Percent x 0.244 Percent y: 0.1085

Other anecdotes simply describe people working together, expressing neither negative nor positive experiences:

Lync intro

I learnt this morning how to use the new Lync system in work, with help from Thea and Julie.

Percent x 0.2259 Percent y: 0.1308

As well as highlighting how people experienced their work, narratives explored instances where people were starting to apply their learning from the programme in sophisticated ways to build better relationships and address bias and the negative effects of fixed views and making assumptions:

Listening and not doing anything else

I have been practicing being more mindful when I am listening. I often multitask when trying to listen (eg writing notes, thinking about something else, even using my phone) and also have a habit of anticipating what the person is going to say or trying to jump to the conclusion they might be reaching. My practice involves trying to focus entirely on the person talking, focus on the words (not what they are going to say next or how I might intervene), making eye contact where appropriate, etc. I find it difficult at the moment, but it is quite rewarding. I am transforming the purpose of the interaction, so I am receiving more, not distracting myself so much and not seeking to impose my own interpretation as much. Percent x 0.2926 Percent y: 0.1369

The triads offered a way to discover how the senior civil servants experience and deal with relationships, cognition, emotions and perception. The data from the triads made visible something the senior civil servants had never seen or reflected on previously: the time they spent dealing with relationships, relating, navigating their own and others' perceptions, perspectives and

emotions. This gathering of senior leaders' completely anonymised, anecdotal experiences provided fascinating insights into their work. But the data could also be ambiguous and muddled and the analysis was subject to the researchers own biases, there might have been clusters which the researcher ignored or failed to see. Narratives representing pre-programme experiences were mixed with others that showed the effects of the programme where it might have been useful to clearly see how the narratives did or did not change as the programme continued. It was impossible to analyse the narratives according to the day they were inputted and so it was difficult to assess how or whether they aligned with the timeline of the programme. It was also impossible to analyse whether one person was inputting more narratives, or how they were distributed across the participants.

SenseMaker also used 'stone' graphs, such as those shown below, to signify their stories . Here there is a spectrum between what may be perceived as positive – a dynamic/cocreative axis vs the more negative coercive/static axis. They were asked to consider themselves, their team, managers and the Civil Service in general in relation to these two axis. In the two graphs below it's possible to see how they placed themselves as significantly more dynamic/co-creative than other cohorts they worked with or for, including citizens.

Fig 7: an example of a Stones graph. Senior civil servants view of their own dynamism/cocreation capacities.



Fig 7: In this ‘stones’ graph there is a significant cluster of dots towards ‘dynamic and co-creation’, representing the senior civil servants view of themselves. In the post programme workshop one civil servant noted that the use of the words ‘coercive and static’ were negative and they did not want to associate themselves with that language, which is likely to have skewed the results. This term had been chosen by a civil servant as a useful term in the participative design process, despite reservations from the researcher.

Fig 8: Stones (2) the civil servants view of citizen dynamism/co-creation capacities.

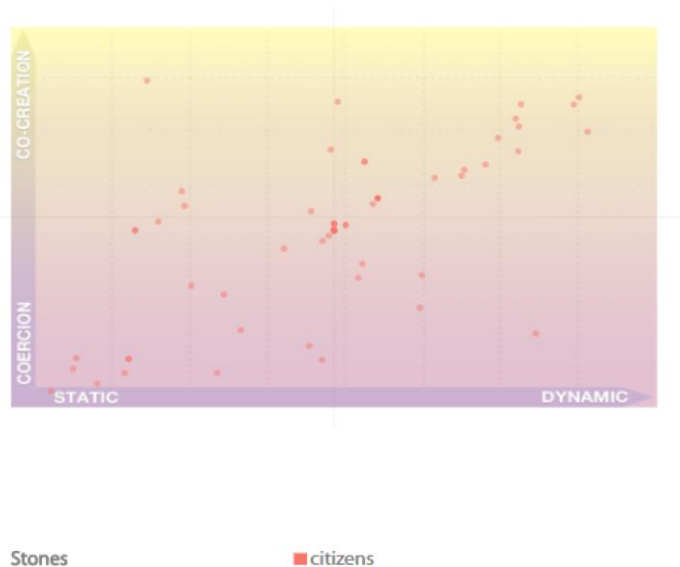


Fig 8: In this version of the same graph, the red dots represent the senior civil servants view of citizens and how dynamic/co-creative they are vs coercive/static. The data is more evenly distributed across the graph indicating they believe citizens to be less dynamic and co-creative than they are, but showing some elements of every level. Whilst the data might have been skewed in fig 7 by the use of negative language, this

is more likely to be an accurate representation of their views. The two graphs, along with two others on their views of other civil servants and the organisation in general, enabled an insightful conversation in the post programme workshop (see pg. 157). The participants concluded the Civil Service culture was most lacking in capacities for dynamism and cocreation relative to the other groups.

The SenseMaker workshop formed part of the action and participatory approach to the research. Half the participants attended the workshop. They were presented with images of the SenseMaker widgets (the triads and stones) followed by an open discussion. Notes were taken of the discussion these were then included in the research as fieldwork notes. Participants discussed issues in detail, giving another layer and depth to the SenseMaker data. As they reflected, they started to both see and redefine the social/emotional aspect of their work as both 'technical' and core to their job, something their organisation needed to take more seriously. Because the participants had built up an unusually close working relationship with each other and with the researcher through the programme, they spoke freely, openly and honestly, adding an authenticity to the data.

SenseMaker as a method supported the action research approach whilst also aligning with the hypothesis underlying the research questions, related to rationality, behaviour change and cognitive bias. By removing the researcher from both the data collection and analysis, via the self-signified narratives, it reduced bias and allowed for authentic first-hand anecdotes from participants. This gave invaluable insights into real world experiences, less filtered and biased by post-event remembering gathered through the more unusual relational experience of interviewing. However the way that the researcher analysed the clusters might have biased what information was seen as more significant and therefore what was presented back to the civil servants in the workshop. In an attempt to address this the data was also analysed by a member of the SenseMaker team and not just by the researcher themselves. There was also a significant amount of data which this thesis could not use due to lack of space and time.

4.3.c Semi structured elite interviews

The data from SenseMaker offered insights into the everyday lives of the policy makers. It also offered some information on the effects the programme had on working practices. As real world research, the aim is to use multiple strategies to layer and add depth to the data, where possible, one set of information informs another. To build on the SenseMaker data and workshop I also completed a number of more traditional semi-structured interviews. I completed two sets of semi-structured during the research. The first were scoping interviews, the aim of which were to explore the field of more social and transformative forms of mindfulness, where people were exploring bringing novel theoretical frames (relative to the mainstream) to create change. I was also interested in case studies of organisations using behaviour change and/or mindfulness to support different ways of working. I used a combination of purposeful and snowball sampling to identify these interviewees. Purposeful sampling allowed me to select individuals and groups with especially knowledgeable or experienced in my area of interest. (Palinkas, 2015, p.2), whilst snowball sampling was used to extend this group as one person gave me the name of another, allowing me to reach people who otherwise might have been hard to reach as this is a relatively small group. (Atkinson, 2001). Both purposeful and snowball sampling are subject to researcher bias as there will be groups I will have not found or been put in touch with. During the research I helped start a network, mindfulness for social change, which has since become global. Through this network I was able to gain a reasonable view of what type of work existed at the time, which supported my choices and widened my options beyond my own networks and the networks of people I initially spoke to. These interviews are not discussed in this thesis, mainly because of the lack of space, but they informed the design and delivery of the intervention which was then further informed through discussions with Welsh Government.

Post the intervention I interviewed 8 participants, which was half the total. I chose to divide it by gender, an accurate representation of the whole group, four women and four men. As part of my criteria I also identified a spectrum of course engagement, from those who became enthusiasts who said it has 'changed their life' (such as the participant labelled PP2) to people who had found it useful but did not make such transformative claims (eg the participant labelled PP5) through to people who engaged at a minimal level and expressed frustration with some of the programmes content and/or format (the participant labelled PP8). It is also worth noting that the interviews were supported with the SenseMaker narratives, which were inputted by all the participants. This meant, rather than relying solely on the interviews, the interviews and the narratives were analysed together with Nvivo to find and explore themes.

According to Cloke, interviewing on its own is potentially problematic (Cloke, 2004). There is an incorrect assumption that during an interview people will speak openly and honestly and that that will facilitate the offering of 'truth' (Cloke, 2004, p.149). Given the wider topic of this research, and the slippery nature of bias, reasoning and objectivity, I had a particular interest in addressing researcher biasing. One strategy to overcome this was gathering data in multiple and diverse ways. Each method then needed designing optimally, including the semi-structured interviews. Cloke et al, suggests that for an interview to result in undistorted information one of the first things it needs to do is: 'create an atmosphere conducive to rapport', (Cloke, 2004, p.149).

A number of factors contributed to the relaxed atmosphere I built with interviewees. Having been a journalist for a number of years, and having many years of more general work experience, I have developed skills in putting people at ease to enable them to talk freely. Often, at the beginning of the

interview, people are taking time to arrive in the 'topic', especially when they represent an elite group, as these directors do, with little time to think about the meeting beforehand. I always sent questions in advance for them to consider but with little expectation they would be read, which turned out to be well founded. Hence, I always gave interviewees time to orientate themselves during the discussion. Holding this relaxed and open space needs to be embodied in the researcher, a relaxed body results in softened vocal cords (all but one of the interviews took place over the phone), which in turn relaxes the interviewee. This is reflective of the theory presented in this research of the social nature of humans and the ways mindfulness practices can make us sensitive to our own and others felt sense and the field created between the two. Essentially, I practiced in the interviewing some of the techniques I had taught them in the programme and which they, in turn, had reported successfully using to put others at their ease. This is reflected in Whitehead et al 's suggestion that mindfulness offers the human geographer a "practice based pathway to developing an engaged, but not overwhelming psychic space within which intersubjective research can be pursued". (Whitehead, Lilley et al. 2016, p565). In Whitehead's experience as a participant/researcher involved in a mindfulness and behavioural economics programme the practice of what he terms "bare attention , makes the surfacing and discussion of often unacknowledged aspects of emotional life easier for both those being researched and those carrying out the research." (Whitehead, Lilley et al. 2016, p.565). Being relaxed with this group is also important because they are elite interviewees, that is people "with close proximity to power, with particular expertise, where the balance of power is in favour of them." (Morris, 2009, p.209). This demands a sophisticated researcher (Morris, 2009, p.212) who can create a comfortable environment for the interviewee to talk in, whilst not overly manipulating the situation in ways that might negatively influence the data. The fact I am of a similar age to the

interviewees, recognised for my expertise in my own area and also with years of knowledge of the public sector in Wales, helped to build a relationship based on honesty. I had effectively 'deeply hung out' with these people, see below, (Geertz, 1998 pp.79-82), which created a closeness and intimacy which is unusual, both in the workplace and between a researcher and an interviewee, I earned their trust.

Many interviewees described, during the interviews and the programme, how useful some of the information and the training had been. The danger is that this relationship would make them less likely to be critical, so I addressed this in the interview by making it clear that criticism was welcome. Interviews would start with some 'small talk' to build rapport and help relax the participant (Richards, 1996, p.203). I would follow this by making visible the difficulty that I was both the person who delivered the programme and the person doing the interview. I framed it as essential that they should be open and honest, as this is very much a learning experience for all of us. The idea that criticism is not bad, but instead something which can be learned from, was also covered extensively in the programme, supporting a shared frame of understanding.

I began with softer questions to get them comfortable with speaking on the topic. The first couple of questions asked them their name and their background in terms of mindfulness and behavioural insights training to get them into thinking again about the topic. I asked a total of 7 questions, two of these had sub questions. The questions ran from introducing the topic, following up and probing questions and more specific questions (Plas, Kvale et al. 1996, p.133). As we worked through the list, the questions demanded more from the interviewee, and invited more critical feedback. Towards the end I was also attempting to gather information on how this had changed ways of working and everyday practices. Later questions included: "How did they engage with the practices? What comments did they have about the content

of the programme? What did work?" What didn't work?" "How had this had influenced their work?" These questions also built on findings from previous impact research I had worked on and my MPhil (Pykett, Lilley et al. 2016) (Lilley, Whitehead et al. 2014). This previous research highlighted how difficult it is to identify exactly how capacities of attention, cognition and emotion impact work. By the time these interviews took place, following the final workshop in September, the interviewees were four months away from the time the bulk of the programme had taken place, and a good six months ahead of how work had been prior to the programme. It would have been hard for them to remember what they had integrated relative to how it had been before the programme. The final questions necessarily became more probing, asking for more detail and specific examples.

Kvale suggests six quality criteria for interviews, including the 'extent of spontaneous, rich, specific and relevant answers from the interviewee' and 'long answers from subjects' relative to the length of the interviewer's questions. Kvale also states that the best interviews are interpreted through the interview itself. (Plas, Kvale et al. 1996).

In the excerpt below I show how the interviews succeeded in achieving the criteria laid out by Kvale, this example is with one of the most senior directors and is a reasonable representation of all the interviews. As an interview with an elite interviewee who is extremely busy, the answer to the first question could have been considered rich in terms of the question which was: "Has the course had any effect on how you approach your work?" He explains in this first quote how he has a very different narrative and previously he had gone along with believing they should be suppressed. This is a significant insight, particularly for someone in his position, also male and his age, however, to improve it I continued to probe. Each time he responded with a rich comment that fleshed out his initial insight, he described how he is interacting with others in very different ways, listening more and not shutting off to people by

predicting what they might say. Again, rich data, but with additional probing, he reflects that this is not a straightforward positive, and that sometimes he felt listening more openly meant he “didn’t get the outcomes he wanted”, which adds another layer of insight into his context and the difficulties of introducing change:

Interview excerpt:

Researcher: So, do you think, the practices and the programme has changed that for you?

Interviewee: I think I have always been able to do that better, but I feel a lot better at it now than I always have been I know what’s going on in a more sophisticated way I have a narrative that enables me to understand what’s going and not suppress my emotions but notice them and decide whether I want to behave in line with them or choose some other form of behaviour, I think I went with the emotional suppression before [.....]”

Me: I think, it’s very tricky but it would be useful, can you bring to mind, or if you have any examples where something happened differently as a result of how you have changed.

Interviewee: Ermm. Well the one about, it always ends up sounding a bit banal but my mum gave me a lift into work today, long convoluted story about inset days and people need to look after kids and we were on our way and I had a meeting I needed to get to, as soon as I get to work. We are driving the normal way to work and there is a horrendous traffic jam, not sure what’s happening but its taking a lot longer to get in and I am starting to feel stressed and anxious about getting to work and frustrated and that could easily turn to anger and all those kind of things. But I am in the car with my mum and my younger one, she had decided she wanted to come with my mum to drop me off so I tried to enjoy just having an extra 10 minutes

with my daughter in the car rather than spending 10-15 minutes being in terrible traffic stressed and frustrated in the rain on a Monday morning trying to get to work you know. That kind of thing.

Researcher: Did that change your engagement with the meeting do you think? Or not? 42:02

Interviewee: So, when I got here I was fine because I had a nice conversation with my mother and Anna and I hadn't got stressed about being a bit.... You know I got here in time for the meeting in the end, it might have been different if I had actually been late but I got here in time for the meeting, and the meeting was, I started of the day in a much better frame of mind than kind of I might otherwise have having had that experience of getting to work. So that's about you know exercising control over your reactions to things I think, and you know, they can be relatively small incidences but if they go the wrong way they can affect your whole day in an adverse way and make you much less effective, and less likely to get the outcome you want from a meeting or interaction, if it goes the other way.

Researcher: So, it's interesting you say that you understood this before, but now you have a more sophisticated understanding of what's going on. Are there other times when you are with people when you can see a change or something else happening?

Interviewer: Ermm, so I would say in meetings. Probably one of the things I would say that has come out of this is that I am listening more to what other people are saying and being more open about where conversations or meetings are going to reach an outcome. So, I think my normal approach is to, before the interaction or meeting decide what I want the outcome to be, and I am going to channel everything towards that and if I don't get that then that will be a bad outcome or I will have to come back to it again or whatever. I think I mentioned this in some of the discussions we've had, this thing about having a conversation with people where sometimes I am getting ahead of what they are saying and predicting what they are going to say next

and trying to finish the interaction more quickly as a result. I don't know where this is going, let's cut to the chase, you don't need to say what you were going to say for the next 10 minutes, so we are just going to finish it there kind of thing and I think I have changed my approach a lot in that sense. So, I tend to be more receptive to what people have got to say, I still have an idea of what I want to achieve obviously ermm but I'm perhaps a bit more prepared to ermm listen and react rather than predict and kind of fit everything into a pre-determined channel. Which is quite interesting I think for me.

Researcher: Yes, has that been a positive experience? Has that worked?

Interviewee: Has it worked? It depends what, I think in a way it's about really thinking about what you are really trying to achieve with things which again is quite a difficult. You know it's nice to have an outcome to get to where you want to get to at the start, you start to think that's what you want to achieve, but actually there are possibilities here that you haven't thought about. Ermm for me that's, you know, a very positive thing to think in those terms, I think. But sometimes it means I don't necessarily get the outcome I thought I was going to get at the start and sometimes that feels a bit adverse, if that makes sense. But it's interesting at the same time, so there are two slightly conflicting sort of things going on here. My normal mode and tendency is still there in me, but there's this other thing I am experimenting with which is a different set of interactions, but it's something I can feel I can tap into now in a way which I wasn't able to before for some reason.

Researcher: That's fascinating, really interesting to see how that goes.

Interviewee: It does mean meetings go very differently. I don't know, sometimes it doesn't go so well, if you don't chair them in a certain way they'll just not get anywhere, and people just want to talk in an inconsequential way and if that happens then it's my role to channel things a bit. I have to find a way of employing the right mode at the right time if that makes sense. That's the advanced level I think when you have different modes that you can adopt and you adopt the right role for

the right situation as opposed to only having one and you use that every time (laughs). That's where I was, I have been anyway. So, I have to go Rachel, are there any questions you want us to cover that we haven't?

Researcher: Yes, I wonder, the last question is about where this is used or developed or where it could be going.

Interviewee: I definitely have thoughts about that, I do want to find a way of keeping this going in some way or developing it in the Welsh government. I think I have told you I have spoken to the Perm Sec about this and she is definitely interested in this kind of stuff which is a positive and she said, "if there is another programme I would very much like to do it myself" which is really interesting thing for her to say. I definitely want to pursue this as part of, get this more into the DNA of the organisation as a normal thing to be doing as part of Welsh Government so let's talk about that again, yes that would be great.

Researcher: Yes, maybe I will try and to get out of you at the meeting as to why you think this fits with Welsh government public sector generally. That's one thing it would be good to cover.

Interviewee: Mainly it would be good for all organisations, that would be my starting point. This is the kind of thing that would help people do their jobs better.

Once the interviews had been transcribed the interviewees were given the opportunity to read through them and confirm the name they wanted used and if they wanted anonymity, They were also offered the opportunity to highlight areas which were sensitive, and could be written without attribution and others they preferred to remain completely confidential, they were also invited to make any corrections. Three of the eight participants said they would be happy for their name and title to be used, all of these identified as male. The rest asked to be anonymised as a 'senior civil servant' as a result I

chose to anonymise all of the quotes used in the research, identifying them only as male or female. Of the eight interviewees four were female and four male, they were also chosen to reflect the levels of engagement with the programme from the 'enthusiasts' who attended virtually all the sessions through to the other end of the spectrum, "low engagers" through to a person who was able to attend a few classes and had been more uncertain about the impacts of the programme.

NVivo was used to systematically find and organise common themes, representative quotes were then chosen based on different themes. The interviews were then analysed, together with the SenseMaker narratives and the field notes, to systematically organise the data and find themes and common ideas across the data. Initial text and discourse analyses identified eleven themes including, awareness and attention, behaviour change, bias, perspective taking, emotion, meta cognition, mind teaching, organisational culture, practice applied. This was further analysed to find the themes which formed the structure for the empirics Chapters 5-8. This ensured that quotes weren't just cherry picked from the data instead allowing for common ideas to be selected and presented through representative quotes chosen through structured rigorous analysis.

4.3.d Deep hanging out

The third main research method was researcher observation, what anthropologist Geertz termed "Deep Hanging Out", (Geertz, 1998, pp.79-82). This is a method of participatory observation in which the researcher is present in a group for extended periods of time or for long informal sessions in order to capture a culture, group or social experience. As well as using SenseMaker and conducting semi-structured interviews, I spent time talking to civil servants informally and attending relevant meetings in the Civil Service. During quite a number of these meetings I was the only non-civil servant in

the room, which meant people spoke candidly as civil servants rather than editing their contributions. I was able, to some extent, use my years of experiences of working with civil servants and in the public sector to become 'one of them', contributing to discussions on a similar level. I took scraps and notes from these interactions which further contributed to the research data and is included as ethnographic/fieldwork notes. This gave me an insight into the UK Civil Service as well as the Welsh Civil Service,, and also, through being an advisor to the Mindfulness Initiative, an organisation responsible for the All Party Parliamentary Group, it gave me access to events which included politicians and influencers in mindfulness and behaviour change.

5 Ethics

Ethical approval was given through Aberystwyth University's ethics committee. There were no vulnerable adults involved in the research. SenseMaker included a statement which laid out the use of the research and asked for permission for data to be used for research purposes, all participants had to tick the box before proceeding. All participants were given a questionnaire prior to engaging in the programme to find out if they had any mental health or other issues relevant to using the practice of mindfulness. None offered any issues which would preclude them from being involved in the programme. All participants were made aware they were entitled to leave the research at any point. Each interviewee signed a letter in advance of the interview which outlined the nature and use of the research and all gave permission for their data to be used. All interviewees were given the opportunity to see the interview, correct any errors, and highlight information they preferred not to be included in the research, or that needed to be handled with sensitivity. A data plan was provided for during and post the research. This was approved as part of the ethics approval process.

6 Conclusion

This chapter has described an ambitious research approach that combines multiple methods in order to understand 'real life'. These methods attempt to both understand a problem on the ground whilst also designing, developing and testing an intervention and then evaluating that intervention.

The scoping work provided a good understanding of what does and doesn't work in the workplace, drawing on examples from large and small organisations and through two in-depth case studies. Data was gathered both during and after the intervention. SenseMaker gathered both anecdotal moment-by-moment insights and statistical patterns. Additional information was gathered through a post-programme workshop, in-depth interviews with a number of the participants and deep hanging out. The interviews and ethnography provided more depth and detail and allowed time for the participants to further self-reflect. All of these approaches and methods fed into and were using an ethos of action research. Allowance was made for the context of policy making and the nature of the high level elite research participants.

The deep "hanging out" in one-to-one meetings, advisory groups, events and informal interactions, and gathering field notes gave an outsider/insider view both of internal politics and the effects of the programme on Civil Service work. There was also additional data collection through pre and post surveys (not included in this chapter as the data, whilst interesting, was not relevant to the main discussions of the thesis). As a whole approach this created a vast, potentially too much, rich data, which at certain points made it difficult to work out what the focus of the research should be. On reflection any one of these methods could have been used on their own, and more time could have been given to the development, design and application of each one and at times I felt overwhelmed with the task I gave myself. However, I do believe the combination of these methods represents both a valid and original approach

to researching these areas, which has given rise to new and novel insights into both mindfulness programmes and behavioural insight initiatives. More importantly, and testimony to its rigour, it has now been taken up by the Welsh Government and others, and there is increasing interest from other areas of the public sector. I will discuss this further in the final conclusion. Without the use of this multi-strategy, mixed-methods action research approach, I don't believe it would have had anywhere near the impact it has had to date.

Part 2 - Defining the problem

Chapter 5 - In the field, the problem of rational government 1: organisational

5.1 Overview

In Chapters 3 and 4 I discussed how, in politics and policy making, reason and rationality are under radical review, raising alarm bells in government founded, as they are, on assumptions of rationality and a belief in themselves as rational actors working objectively with a fixed reality, making optimal decisions for the long term (Hallsworth, 2018) (Sutherland, 2018). In response to this radical insight, there has been a call for more psychologically informed governance, and a steady rise in the use of behavioural economics in policy design and delivery (Halpern, 2015). This neuro turn in government has also attracted significant critique (Whitehead, Jones et al. 2017) (Leggett 2014) (Loewenstein and Chater, 2017) (Mercier and Sperber, 2017). One set of criticisms point to the need for policy makers to look inwards at policy processes and address the organisational in-house 'irrationality' and bias, before applying it to policy design and delivery in the wider world (Banuri, 2017). The argument is, if citizens are not rational in the way we once thought them to be, neither are politicians or government officials. Addressing internal failures of rational decision making needs to be integral to effective and ethical behaviour change (Jones, 2013).

In the methods chapter I described how my research included the design and delivery of an eight session, three-month, intervention. This was used as an action research method, testing if building cognitive/emotional capacities in policy makers, alongside education on theory, would improve their delivery of psychologically informed government, collaborating with them in the design and using their insights during and after the programme to inform both theory and practice. The content of the intervention was grounded in behavioural economics and drew from neuroscience, sociology, philosophy and psychology, informed by critiques and theory discussed in Chapters 2 and

3. Mindfulness was used to build capacities of meta cognition and reflection enabling people to make visible some of their own 'irrationalities' rather than seeing irrationality as something which only needs to be corrected in the citizen. As such it implicated us all in cognitive bias, not just the policy subject out there, and also gave agency to see and name bias in all of us. Mindfulness practices also built participants interoceptive capacities, enabling them to be more intimately connected with their felt sense and emotions and become aware of how interlinked cognition and decision making are. The practice also helped them positively navigate their biases in themselves and others. It gave them skills in, and more informed ways to work with their nervous system, supporting them to deal effectively with both uncomfortable situations and habit change. Finally it presented both mindfulness and behavioural insights as not just individual, but systems issues and encouraged a view that did not only make the individual responsible, but also encouraged reflection on how the system could, and should, also change.

The next four chapters (5-8) will discuss data captured prior, during and post the intervention to explore the learning and results of the intervention and address the research questions of: How are issues relating to cognition, emotion and perception hindering the ability of the Welsh Government to address wicked problems, such as climate change, and how might these issues be better understood, resolved and improved? The data will show how civil servants understand their job in terms of psychological and behavioural capacities and whether or not understanding these more clearly might (and did) improve ways of working in the organisation. It specifically looks at whether a programme melding behavioural insights and mindfulness (as well as going beyond the two) helped address and resolve some organisational and individual level issues, whilst also raising more questions. Finally, through these empirics, I will discuss what kinds of alternative models of cognition, emotion and forms of training might be developed, and systemic approaches

might be taken, to create a Welsh Government that can effectively and ethically deliver more psychologically informed government.

The data used in these chapters includes information collected using SenseMaker, a method of distributed ethnography, described in Chapter 4, as well as semi-structured interviews with programme participants. It also includes ethnographic field notes collected whilst engaging in Civil Service committees, and various meetings and discussions with staff from both the UK and Welsh Government, some of whom would be described as 'elite' given their positions. It also draws on desk research into government training and development strategies and the courses and programmes they provide for staff. This research took place over three years from 2016 to 2019, the data offers an insight into the nature of everyday decision making and reasoning in policymaking, how cognition, emotion, perception and relating to each other is fundamental to how government is produced. It highlights how little people understand or are trained in these areas and the resulting negative outcomes. It also considers how the learning they gained from taking part in the programme started to address some of these problems, sometimes subtly, sometimes dramatically, offering insights and opening up opportunities for further development and research.

The first two empirics chapters (5 and 6) focus more on outlining the problem, as evidenced in the research data, and the second two (7 and 8) focus more on the solution. Within these two sections, the first chapter (5 and 7) discusses more "organisation" elements of the issue and the second two (6 and 8) discuss "understanding of mind" and its influences on decision making. The organisational elements relate to organisational structures or effects of increasing volumes and types of work they deal with. The "understandings of mind" chapters relate to aspects of the human psyche, attention, emotion and theories of mind and how that influences decision-making. These divides are in some ways notional, helping to organise and support the reader to navigate

a large amount of data. In reality “organisational” and “understandings of mind” are linked and interdependent, the social and material structures of an organisation influence attention and emotion, meanwhile our emotions and the way we pay attention influences the social and material structures of organisations.

I will begin this chapter by looking at organisational issues, and how the effects of hierarchies, so prevalent within public organisations, influence reasoning and decision making, how civil servants themselves describe top down working, information processing and knowledge sharing, and how some have started to adapt and change. I will go on to consider the additional effects of stress on decision making, rationality and objectivity, resulting from the combination of top down, hierarchical, working as well as increased workloads, less staff and scarcer resources. Finally, I look at existing organisational training programmes designed to support decision making and build capacities of attention, emotion, bias and cognition. I discuss their limitations, suggesting, because they are themselves informed by a rational actor model, they fail to offer the kind of theory and/or in-depth training needed to achieve effective outcomes. Instead, they provide piecemeal and overly short, one hour or half day programmes, which are scalable and meet procurement requirements, but do not build significant emotion/cognition and decision making capacities or deal with the biases and subjectivities that form a barrier to good policy process.

5.2 Hierarchical structures lead to suboptimal decision making

In this section I look at how current organisational structures broker knowledge and influence decision making through configuring interactions, relationships and expertise in particular ways. I will consider how the number, type and quality of relationships in government is changing, how structures and capacities are not adapting to accommodate this, and how this impacts

group reasoning and decision making. Themes arising from the data collected include:

- Hierarchical structures, together with a lack of relational/perception capacities, result in sub-optimal and prolonged decision making, leading to an excess of unproductive meetings and emails, increasing workloads (and therefore stress) and potentially decreasing effectiveness.

- A lack of capacity to deal with the "difficult" and the "uncomfortable" in the workplace arising from a risk averse, meritocratic culture. This contributes to a limited capacity for innovation, collaboration and optimal group reasoning.

- A chronic failure to understand how humans operate, how they create and understand themselves and each other, leading to stress and a feeling of overwhelm, often blamed on austerity and reduced resources, rather than a failure of organisational systems. This discussion will be developed further in Chapter 6.

In a private speech, accessed during this research, to senior civil servants at the start of his tenure as First Minister in January 2019, Mark Drakeford highlighted the slowness of decision making in Welsh Government (WG) questioning its' efficacy:

"Do we believe that urgency is a characteristic of the Civil Service machine? Are we confident that we make decisions in a way that has the minimum possible steps between the start of a process and the final decision being taken? Are we confident the Board the Permanent Secretary chairs, and I have chaired, that it really does cut through some of the things that are of lower value and squeeze out the things of lower value so we can focus on the highest impact and the highest value?" *Mark Drakeford FM Speech to senior*

civil servants, January 2019, Cathays Park, made available by special permission.

In Chapter 3 I discussed attention biases in government, referring to the Behavioural Insights Team report Behavioural Government, (Hallsworth et al, 2018). Drakeford's comments describe these biases in action in WG. The Behavioural Government report suggests there is a lack of understanding of the role of attention and noticing in government, resulting in certain issues being prioritised over others, without any sense of which is more important. This leads often to fast developing problems being prioritised over slow issues (Ibid p.08)), which would include climate change, social inequality and other wicked problems. Drakeford called on his senior civil servants for change, to get better at focussing on things that really matter, improving:

".....our ability to make decisions in as timely a way as we can, to be confident our energies are focussed on things that really matter rather than things that allow us to demonstrate we have gone through the processes that we have to do. I think that's a challenge for us all, and it is a challenge I want to work with you on, until the end of this assembly term." *Mark Drakeford FM Private Speech to senior civil servants, January 2019, Cathays Park, made available by special permission.*

Drakeford's comments, that energies are overly focussed on demonstrating "we have gone through the processes that we have to", supports Sutherland's argument, discussed in Chapter 3, that much of their decision making is about demonstrating they have "followed through on processes" rather than effectively worked through information to make a good decision (Sutherland, 2018).

As discussed in Chapter 2, the UK Civil Service has developed from the administrative arm of monarchy, moving from a body based on royal grace and favour to a meritocratic, hierarchical system. In recent years there have been calls for changes to the hierarchical ways of working both by political and policy leaders, such as Drakeford, and expert committees and reports (Cooke, 2012) (Johnstone, 2018). Notably the 2014 Williams Report criticised poor performance in the Welsh Public Sector, saying changes in structures were needed to support innovation and address complexity, this has failed, demonstrated by Mark Drakeford's 2019 speech quoted in Chapter 1, that he is: "Very much against hierarchy," showing that five years on from William's Report, hierarchy still negatively dominates how Welsh Government works. Drakeford offers the example of policy briefings where, he notes, hierarchy means that, rather than getting the highest quality information, he ends up talking to someone who: "knows as much about the topic as I do." (*Mark Drakeford FM Private Speech to senior civil servants, January 2019, Cathays Park, made available by special permission.*)

Aspirations toward change are evident, not only in advisory reports or leaders' speeches, but also in strategic Continuous Professional Development (CPD) documents such as "Leading in the Welsh Public Service", produced by Academi Wales, a Welsh Government funded training body. The document outlines desirable public sector leadership skills and behaviours and includes competencies in: "sharing leadership" (Wales, 2017, p.16) and "collaborative decision making" (Ibid p.16). In addition legislation such as the Well-Being and Future Generations Act (Government, 2015), an ambitious Act requiring the public sector to consider future generations in all public sector decisions, calls for "collaboration" and "involvement" as two of its new ways of working (Wales, 2016). Despite these intentions in leadership documents and legislation, the data gathered in my research showed the hierarchical system

to still be very much the default operating system of Welsh Government, with significant impacts on reasoning and decision making. The quote below, from a senior civil servant who took part in the Mindfulness Based Behavioural Insights and Decision Making Intervention (MBBI), describes how the systems they have in place focus on “telling people what to do” and not, as the Academi document states about ‘sharing leadership’ or ‘collaborating’:

“So many of our systems are about telling people what to do, actually often they are about telling people what not to do, so we have lost that human element. I think that’s the important bit, and that’s what I got from that stuff on mindful organisations, it was all about the people and trusting people and helping equip them and give them space.” *PP2, male senior civil servant, post programme interview.*

For this person, the negative effects of hierarchical working were brought into view through exploring case studies, as part of the MBBI programme, of learning organisations, also known as deliberately developmental organisations, I will discuss this in more detail later in this section. Programme participants who attended a post-course workshop, one of the research methods described in Chapter 4, discussed how hierarchies still limit open and honest conversations, preventing collaboration and innovation, as people are forced to edit themselves in accordance with where they are in the structure:

“Because of the hierarchy we lose a lot of good ideas because people don’t get a space to speak.” *Ethnographic notes, post programme workshop Sept 2017*

This supports comments made in reports mentioned in Chapter 2 (Cooke and Muir, 2012) (Sharp, 2018). These reports suggested, as far back as 2012, that internal organisational development needed to take place to enable communication and build positive relationships that “can withstand challenge and allow honest conversations, and which are inherently open-ended and continuously evolving” (Sharp, 2018, p.14). Hierarchy is made visible through the use of grade identities; this is evident in a number of comments from programme participants: “We describe people by their grade and where they are in the hierarchy.” *Ethnographic notes, post programme workshop Sept 2017*. This influences how they assess each other and how they navigate interactions, an example of this is shown in the SenseMaker narrative below:

“I was working with two different colleagues this week. In both cases they were telling me about an issue in their workplace. Neither were part of a formal conversation but rather an unexpected chat over a cup of coffee, so I considered myself off-duty. In both cases, the staff involved were at a lower grade than myself and working in a different area of the organisation. However the issues that arose did (separately) both relate to work in which I am involved at my level.” *SenseMaker narrative Percent x 0.5267 Percent y: 0.3133*

The fact this person discussed their work colleagues in terms of their “lower grade” demonstrates how people think about and mediate their relationships and conversations through grade identities. The fact they were having coffee and therefore “off duty” is also an interesting reflection on how they see their identity as a leader, specific to particular times and activities. The way this person describes their interaction suggests they were open to a conversation, despite the differences in grade, but it also shows how grading and context

(the timing and place of the discussion) has a significant impact on how they assess and gauge the nature and relevance of a conversation. There is little awareness in this comment that the people they are talking to will be aware of the senior grade identity of this person, potentially editing their comments, which will effect what and how they share information. During fieldwork I experienced a number of instances where staff grades influenced people's interactions and perceptions of each other. In one example, towards the end of a teleconference meeting involving a discussion about a potential programme with a team in Welsh Government, the member of staff I was with realised one of the people, invisible to them apart from vocally, was a higher grade than they had assumed (and a higher grade than they were). When the call ended the person became agitated, inferring they would have communicated differently had they known the grading difference. Ironically their lack of knowledge of the difference made them communicate more "openly and honestly."

Some participants in the post programme workshop said they didn't think the effect of the grading system was as bad as it has been historically. However, the lowest grade person in the room, only one of two people attending not in the Senior Civil Service, disagreed, saying he thought grades significantly interfered with collaboration and group discussions showing there is a significant blind spot in the SCS.

Further evidence of the influence of grading on interactions and in the wider Civil Service became evident during an informal interview with a young UK female senior civil servant. She described how she had felt so strongly that the grading system was a barrier to collaborative working and optimal policy processes, she set up an initiative to challenge it, OneTeamGov. The aim of the project is to bring about "radical government reform." One of their six principles, outlined on their website, is, to find ways to work across boundaries to become more collaborative: "To break down boundaries between groups

(and to work across) policy professions, departments, sectors and borders.”

<https://www.oneteamgov.uk/principles>

One activity used to challenge the influence of grading in OneTeamGov is by practicing discussions with “grade anonymity”, organising events where people can talk freely without anyone knowing anyone else’s grade. The UK female I interviewed is, as mentioned young for a Director, and often people at these meetings assumed she must be a lower grade than she actually is leading them to talk, she reported, much more openly to her than colleagues who know her grade and who she works with day to day. She pointed out how helpful she finds this in her work, by finding out what people actually think and the expertise they have, it makes her life easier and supports her to do her work better. This strongly supports the case that hierarchies in the Civil Service lead to people in lower grades to edit themselves, failing to share their expertise and opinions and have “open and honest conversations” as recommended in the Sharp Report above (Ibid p.14) or to enact distributed leadership, as called for by Mark Drakeford. The outcome is that information and knowledge is not effectively utilised within the system of governance and decision making and reasoning is sub-optimal.

If interactions are edited relative to where people are in the power structure to maintain group and individual identities, then this would explain why reasoning is not rational according to the frame of classic economics. In Behavioural Economics this is a social bias, social biases include heuristics such as the halo and the bystander effects, group reinforcement and other in-group biases all of which de-rail reasoning. Theorists, such as Eyal Winters, take a different view to the one offered by more traditional behavioural economists, arguing this is not flawed reasoning, instead that it has an evolutionary advantage which makes this, at first sight irrational way of working, rational. Winters defines rationality, not as something linked to good reason, but rather as an action which offers an individual the greatest evolutionary advantage

(Winter, 2014, p.xvii). The evolutionary advantage gained here is not an increase in material goods but rather achieving successful reciprocal, group relationships that will ultimately support an individual's material, physical and mental survival. Other thinkers, such as Mercier and Sperber also suggest apparent flawed reason and rationality is not cognitive 'bias' but instead is functional in supporting our ability to evaluate our own thinking and the thinking of others helping maintain identities and positions in social groups, which, like Eyal, they argue is key to our survival. (Mercier, 2017). This points to biases being sensible ways of maintaining systems, to increase our chances of keeping safe. Alvesson also argues some level of "stupidity" and "an absence of reflexivity, a refusal to use intellectual capacities in other than myopic ways, and avoidance of justifications" is functional in an organisational system, even if it does not lead to the best decisions (Alvesson and Spicer, 2012). My research suggests that, as we face wicked problems, there is a need to both maintain the system, AND make good decisions, requiring a very different way of working and a renewal of our understanding of cognition. Chapters 2 and 3 discussed a number of streams of research which, from different disciplines including geography, critical neuroscience and sociology, argue the need to understand the brain as a bio-social-contextual organ, rather than something which is only individual. By doing this there would be a shared understanding of reasoning and rationality as social functions, emerging from the need to maintain relationships, contextualised into situations and environments rather than to serve individual, rational outcomes. (Choudhury, 2016) (Clark, 1998). With this shared understanding there could also be changes in the ways people interact and how they organise themselves to reason more effectively, particular on difficult and complex problems.

5.3 Heroic leadership, where is expertise?

The Civil Service is a hierarchical institution made up of bureaucratic processes and rules which individuals need to understand and successfully navigate to maintain and advance their position. The quotes above suggest much organisational communication is about people maintaining this hierarchy, rather than collaboratively exploring shared expertise to achieve the most optimal decisions. This hierarchy is based on "heroic" leading, leadership from the top by a person believing themselves to be, and believed to be, the expert. First Minister Mark Drakeford's comments in his private speech to civil servants in January 2019, described this way of working as both "dangerous" and "highly ineffective":

"I am opposed to the idea of leadership as some sort of heroic function..... I am not in favour of that (*heroic leadership*) at all, it's dangerous as a concept, it's also highly ineffective, it runs out of road quickly. I am in favour of collective leadership, it's how I want the cabinet to work..... I am also in favour of distributed leadership as well. I don't think leadership is exercised by spotting a problem and asking yourself who else is responsible for this..... That sort of collective and distributed leadership opens the door to the contribution that citizens make to the problems. How they can be assets rather than problems." *Mark Drakeford, Private speech to Senior Civil Service, Cathays Park on 28th Jan 2019, by special permission*

One senior leader and MBBi participant, described his experience of, without being conscious of it, becoming a 'heroic leader' in Welsh Government. How it emerged from culturally embedded norms, rather than through his individual intention, as he understood his role relative to the group and what others, particularly his manager, expected of him:

"I know I had a reputation as a fairly clear, straight talking, person who says it as it is, not in a, what's the right word, not in a demeaning sense, but with a clarity, in fact I was described by a previous boss as their Rottweiler, which I think I wore as a mark of pride for quite a number of years, I was sent in to sort things out when they weren't going particularly well." [...] "I would sometimes think, am I being too hard edged? But he (*my boss*) never said I was, so I would assume the way that I was working was ok, I have been working with him for three years and he appointed me to the job." *PP2 male senior civil servant, post programme interview.*

This fits with the First Ministers' description of how hero leaders tend just to spot problems, rather than facilitate finding answers and solutions. That their managers are forced then to defend themselves, rather than discuss any problems openly as Drakeford describes, the whole process is then about demonstrating: "We have gone through the processes that we have to do" (2018) rather than collaborating together effectively to address the problem. The quote above shows this way of interacting and leading was not intentional on the part of the leader but linked to how his team and his boss viewed him, emerging from shared cultural norms, and as I shall go on to discuss, because he had not been trained or equipped to deal with the interaction any differently. When this same leader had the opportunity to reflect, through the MBBI programme, he realised he did not believe he had any other option but to be "hard edged" and "direct" because he did not have any training or other shared frame of reference that would make him act otherwise:

"I think what I realised was how frustrated I got when, despite the right answer being obvious, and the next steps being obvious, people didn't, couldn't or wouldn't take them and what I didn't have was a wide enough of range of responses to cope with the continued difficulty in improving, so I

would find I would be repeating myself in subsequent meetings where I would say, well you haven't done that so, try harder. It is not actually a very satisfying message to deliver, and I am not sure it's a particularly helpful one to have. But that's what my team would have seen of me, a fairly hard edged, clear, demanding, not I hope unreasonably demanding, approach." *PP2 male senior civil servant, post programme interview.*

This heroic leadership approach maintains his position as the "expert" in the team, here to save others who do not appear to know any better. It is also a response to the value his colleagues place on this way of working, despite the fact it does not seem, by his own analysis, "satisfying", implying it is also not optimal. His management tactics are linked more to his identity within the group and maintaining the existing dynamic and culture than to getting the best answer through the most effective leadership supporting the arguments discussed earlier in this section (Winter, 2014) (Mercier, 2017). This quote is also an example of the use of folk psychology, discussed in Chapter 3, to understand another person, (Ward, Ross et al. 1997, p.104). This leader is using his understanding of himself as a baseline for understanding the person he is managing. He makes the (in his view respectful) assumption they both see things the same and therefore: "The answer being obvious". He shows no appreciation of the other persons perspective, that it will be unique to them and their experience. In the next chapter I will show how this person's management style changed once he had a different view of his own and others' embodied, contextualised mind. Post the programme he reflected that, in his view, part of the problem had been he had not had the knowledge, skills and capacities to do the relational part of his job:

"My personal take would be that I have felt unequipped to deal with those sorts of things because so much of my professional training has been logic,

evidence, rationality, objectivity, rules, procedures and its driven out more of that emotional component." *(PP2, male senior civil servant, post programme interview.*

This quote fits with Sutherlands argument, discussed in Chapter 2, that policy making is more about creating defensible, and not good, decisions (Sutherland, 2018). The Director describes a process where he holds the other person to account, based on his view of both the problem and the potential solution and a belief that the other must see the world as he does. This forces the other person to justify their decision, rather than a conversation where the two of them collaborate, together sharing and understanding what is actually going on and working towards a solution. The "rottweiler" approach is not about sharing understandings of each other's experiences and views, but rather whether one person, under implicit threat, can defend their actions to another. Thus, as Sutherland says, objectivity in government is produced by creating well-reasoned "defensible" decisions "no matter how bad the outcome", (Sutherland, 2018, p.3)

The quote from the person above is also an example of the micro interactions produced by a culture of hierarchy, meritocracy and hero leadership. Exploring these comments in detail allows us to see the exact nature of the problem Drakeford, together with other leaders quoted in the introduction of this thesis, are attempting to address as they try to move towards more distributed leadership and collaborative working. Social and group biases, folk psychology and the cultural context are all influencing the interaction in complex ways, all of which the director is unaware of. As I will go on to describe, the nature and size of the problem is not fully appreciated by those demanding change or the government tasked with creating it is evident

in the numerous reports that state change needs to take place, there is no offer of effective, evidence informed route map to make it happen.

The significance of the problem was also made visible through data captured using SenseMaker which showed how the work of Directors is not just about ensuring bureaucratic processes, but also involves relating to each other, maintaining relationships and developing shared understandings of complex topics, but with little training or technical understanding of how this is done. The SenseMaker data brought together qualitative and quantitative outputs, the quantitative element was produced from participants' coding of each of their own (qualitative) narratives, as described in Chapter 4.

The SenseMaker triads below, Fig 1-4, show how they coded their narratives in ways that suggested their job is largely about relating to others, maintaining relationships and increasing understanding rather than, as might be expected from an 'objective' organisation, reasoned thinking, following procedures and immediate action. Alongside the data shown in these triads, a frequent word analysis using NVivo showed frequent use of the word 'meeting' indicating they spend significant amounts of their time in meetings of various sizes and types. A deeper discourse analysis revealed they regularly need to navigate their own and others' negativity in these meetings. In summary they spend much of the time coming together with multiple stakeholders, discussing, negotiating, sharing, often in contexts where there is negativity, offering a picture of their job as one where they are working with their own and others' minds, using cognition, including attention, reasoning, perception, emotion, language and memory. However, as I shall discuss in more detail in a moment, they know very little about these elements of cognition, but instead act in the belief that bureaucratic processes will ensure good decisions. I used a post programme workshop to understand more about these findings, and also to check for bias in the SenseMaker process.

The workshop, discussed in Chapter 4, gave participants an opportunity to reflect on the SenseMaker data to refine the results of the triads. In the workshop participants confirmed that their work was increasingly relational, that this might be anything from, 75-90% of their job, including one to one, team, organisational and stakeholder meetings. These interactions involved managing, directing, facilitating, reasoning, requiring them to develop and maintain relationships.

Note: Re triads shown below. Participants were requested to write a short narrative (for more information see Chapter 4). Once they had written their narrative they were asked to code it using a number of triads which gave them three related but different options. They would then place a dot somewhere within the triad to indicate whether the narrative was more related to one aspect of the triad than another. A dot in the middle would represent an equal balance of all three elements represented in the triad, whereas a dot towards a corner would indicate a dominance of that element.

Fig 1

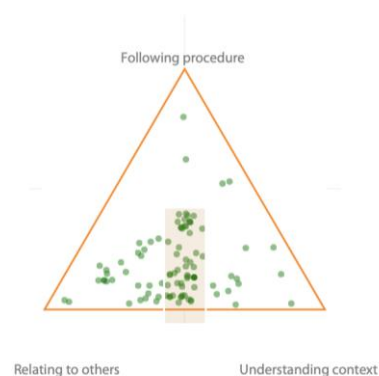


Fig 2

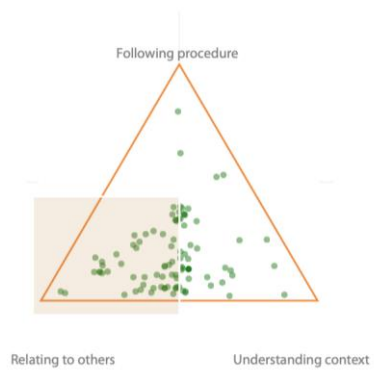


Fig 3

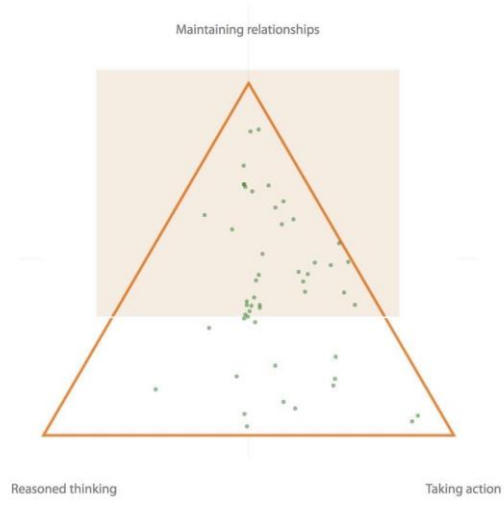
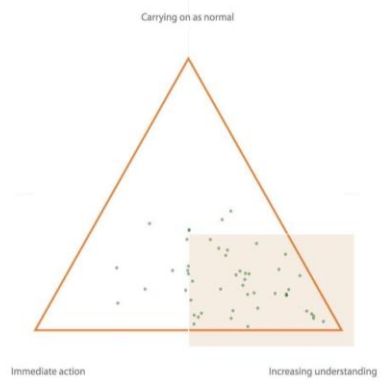


Fig 4



They reflected that, having been part of the programme, this relational aspect of their work, demonstrated in the coding of the triads, was now much more visible to them. The programme enabled them to consider the personal, interpersonal and relational aspect of their jobs as being as technical as any other part of their work. As they looked at the results in the triads presented to them in the workshop, their comments included:

"The relationship bit of the triangle (Figs 1,2&3), it is a technical job and an empathetic job."

"We don't prepare people to do that empathetic part of the job. When I was young I was just thrown into it with no training at all. I am trained how to draw those numbers from those spreadsheets. But there are no tricks, no easy tools to pull from the box to deal with people."

" We are struggling to deal with these different things without getting any help to deal with them. You just have to use the hierarchy and default."

*Ethnographic notes, post programme workshop, participant comments,
September 2017)*

In the last comment listed above, the participant notes how a lack of knowledge of cognition and human and relational aspects leaves them automatically defaulting to the processes and structures and, what they describe below as, unempathetic hierarchical ways of working:

"I agree that we are constantly interacting with people. We are mainly just trained to do disciplinaries, and interview and recruit people. The technical work we do is reinforced by the system, the process and the organisation whereas the empathy is not reinforced by the process. It wasn't taught in

schools, it's not taught in work and it's hard to correct for that later in life."

Ethnographic notes, comments made in post programme workshop

September 2017

This insight led the participants to consider ways the organisation could address a lack of capacity by changing their structures and processes, as one said:

"I do see the Civil Service is characterised by process, how we communicate with people together isn't something dealt with by process, how do you create an organisation shape that supports communication and clarity?" *Ethnographic notes, comments made in post programme workshop*
September 2017.

This comment resonates with arguments put forward by The Cooke report, discussed previously. Cooke believes a movement to a more collaborative, relational organisation is difficult because it does not share power equally, within its own organisation and in relationships with citizens. It is habitually transactional, competitive, individualistic and meritocratic making it difficult to change its way of working to approaches that are: "Driven by human interconnection" (Cooke and Muir 2012 p.35 and p.41). The Behavioural Government report suggests that intergroup biases, including the illusion of similarity and group reinforcement, disrupt good group decision making in policy. These biases help to maintain existing group structures, something the European Commission Report, Understanding Our Political Nature, as referenced previously. According to the report, group think in policy and politics causes members to: "Privilege group harmony over the independence of thought" (Mair D. p.24). Collectively these reports state government uses reasoning to maintain identities and relationships more than

it objectively collects and analyses information to make good decisions. (Hallsworth et al, 2018, p.109).

5.4 Targets and fear

In a hierarchical system reasoning works to maintain a top down system, one layer keeping the next in check. Central to maintaining this system is the performance management process, which historically embeds threat based working. One UK civil servant described how this operates, saying staff are "constantly set up to fail":

"The thing is, we have this management performance system, and everything is collected on this system, it constantly sets you up to fail, you are under threat, everything people do is put into this system. Then we have all this wellbeing stuff - coaching and mentoring, help with weight, help with sleep, access to counselling, but no one accesses it and I don't know why."
Ethnographic notes from Civil Service meetings, UK Government, March 2017.

This person describes the difficulties of working in a hierarchy with a threat based management performance system. They then express surprise that people do not, in an attempt to deal with the threat based system, access the extensive organisation well-being offering, designed to help people cope better and adapt to the fall out of working in a climate of fear. This offers an interesting insight into discussions about individual experiences of overwhelm and stress, which I will look at later in this section, how they are largely framed as wellbeing issues and individuals lack of resilience, rather than setting off warning flags that internal systems and processes are dysfunctional. There are a number of possible reasons why people are not interested in wellbeing activities, as described here, whether they are not the right activities, although this person describes a long list of them, or the activities themselves are seen as more pressure, something else to do. It could also be that the negative

emotional state that is produced in their work creates a lack of motivation to become involved in new activities, it certainly begs the question, given discussions I have outlined in this thesis, that it might be better to change the performance management system to one that motivates without causing overwhelming anxiety and absenteeism. There is also evidence suggesting wellbeing activities, by relaxing and sensitising, make people more aware of the difficulties they are experiencing (Britton, Davis et al. 2018) and therefore people may intuitively avoid them as a way of maintaining an effective numbness to adverse work conditions. Another UK civil servant noted how a threat based performance management system, combined with a job that has excellent terms and conditions, creates an abusive relationship where people are scared to leave but damaged by staying:

“The organisation, at once it damages you, treats you really badly but at the same time it’s safe (in terms of pay and conditions) so you stay in it.”

Ethnography, discussions with civil servants, March 2017.

A Welsh civil servant, also expressed this view, describing his experience of working in the English Civil Service and their ‘unforgiving targets and fear approach:

“I mean I have worked for 20 odd years in the English system, in all sorts of roles, but including performance management. They are intended to be, well, you will do this or else and the ‘or else’ tended to be, you need to do this or you lose your job. So a very hierarchical, top down, unforgiving environment. Which is characterised by the targets and fear approach” *PP2, male senior civil servant, post programme interview.*

Despite his comment that England is worse than Wales the data suggests there is a targets and fear approach evident in Welsh Government, as described in the SenseMaker narrative below:

"My micromanager - peer colleague who acts as my line manager was very critical about poor handling of a situation which was partly of my making, but partly of hers and I was given the blame with little insight. I reacted more than I should and was criticised for physically pointing my finger during the conversation." *SenseMaker Narrative. Sensemaker narrative, Percent x 0.6916 Percent y: 0.0189*

5.5 Mistakes as learning opportunities

The MBBI intervention included case studies of organisations which used different understandings of mind, emotion and reflective practices such as mindfulness. These included Deliberately Developmental Organisations (DDO'S), first discussed in Chapter 3, which take a completely different approach to performance management, abandoning a threat based system and viewing mistakes, not as failure, but as learning opportunities. In DDO's mistakes are accepted as inevitable and an essential part of organisational development. This fits well with the model of mind I discussed in Chapter 3, which uses prediction error based on generative models and active inference to perceive the world (Clark, 2015). As opposed to the rational view of mind which underpins a hierarchical system and sees mistakes as a failure of objective thinking, due to laziness or incompetency. DDO's are a concept which grew out of work by Harvard education academics, Kegan and Lahey, who set out to find organisations that supported organisational development through staff development and failsafe learning (Kegan, 2014). They found three US based organisations who fitted the DDO criteria, one of which was Bridgewater Finance, a large successful finance company, that believes:

"learning from your mistakes is a job requirement" (Kegan, 2014, p.5). Staff are asked to record mistakes, failure to do so is frowned upon. They also use a 'pain button' via an app on their mobile devices, this is pressed when they are having a negative experience at work, especially if it happens during interactions with others. Follow-up conversations are then organised to explore the event in more detail and identify underlying causes. Bridgewater describe this as "getting to the other side" and highly value the learning it offers. (Kegan, 2014, p.5). As Kegan puts it: "The company de-stigmatizes (and even celebrates) making mistakes. More than that, it treats the ongoing, often painful experiencing of one's imperfections as valuable data collection for learning rather than non-productive blame." (Kegan, 2014, p.5). Bridgewater builds capacities of attention and mind insight in individuals to support these failsafe ways of working. Bridgewater CEO Ray Dalio specifically attributes this approach and the use of meditation for his personal, and the company's, success: "It (meditation) gives me clarity, open mindedness and prevents emotional hijacking," (Dalio, 2013).

One participant from WG, having explored Bridgewater and the concept of DDO's during the programme discussed the need for the organisation to develop culturally, applying different understandings of humans and how they operate, as in Bridgewater. This is in contrast to the the shorter 'toolkit' training made available in Welsh Government which fails to address the problems they lay out:

"The challenge is that most, well every public service organisation I have worked in, and I have worked in quite a lot of them including this place, are not culturally minded. They do training and they offer courses and they have lists of things you have to go on courses for, but that is not cultural development and organisational Development, that's giving people a new screwdriver to put in their toolkit, it's not thinking about how the toolkit is

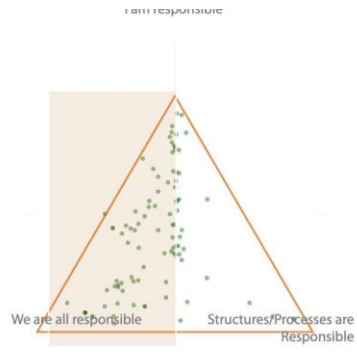
used and I think that is a leadership challenge." *PP2 senior civil servant, post programme interview.*

In Chapters 6 and 7 I will look more at how the programme challenged ideas of heroic leadership and hierarchy, how it gave some people simple tools to help them work differently, whilst others gained insights which contributed to a more systemic and cultural approach to organisational design.

5.6 Who is responsible, me or us?

So far in this Chapter I have looked at how hierarchical structures and heroic leadership prevent the type of collaborative working that might address decision biases in groups. To explore group and collaborative decision making in more detail, the SenseMaker coding triads looked at perceptions around who, or what, is responsible for policy decisions and process, whether it is existing processes, the managers themselves or as a shared responsibility across the organisation, distributed leadership as First Minister, Drakeford is calling. It revealed that people, more than processes, are seen as responsible for what happens in policy, with 70% of the data (Fig 5) in the people segment of the triad. However it also showed that half the managers feel they are personally responsible using their narratives as a guide, (54%) this would suggest that collaborative working and distributed leadership is still a work in progress with only 35% stating the narrative represented an event where "We are all responsible". (Fig 7)

Fig 5



Who is responsible?

Fig 6

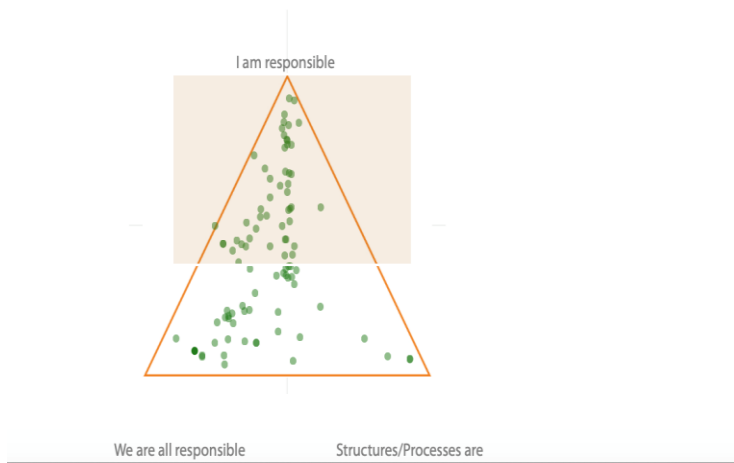


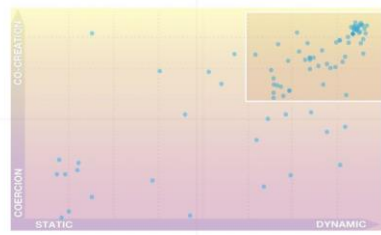
Fig 7



The SenseMaker data also showed an over-confidence bias, as they rated themselves as far more collaborative and co-productive than their teams, the wider organisation or the citizens they serve (figs 8, 9, 10, 11). This could indicate that “being collaborative” is a preferential identity to represent themselves, as it does not entirely correlate with other data collected during the research, which points to senior civil servants struggling to collaborate. This result also links to earlier discussions on group and identity biases. The fact they identify as collaborative, whilst they state those around them are not, reinforces the idea that they generally believe themselves to be the expert, this time, with some irony, as expert collaborators.

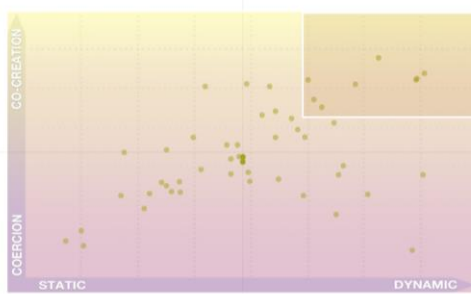
Note: in these SenseMaker dyads participants were asked to place a ‘stone’ where they felt the narrative was on a spectrum from dynamic/collaborative through to static/dynamic. They were asked to do this for four different groups, themselves, their team, managers, the Civil Service in general and citizens.

Fig 8



Stones □ citizens □ civilservice □ managers ■ me □ team

Fig 9



Stones □ citizens ■ civilservice □ managers □ me
□ team

Fig 10

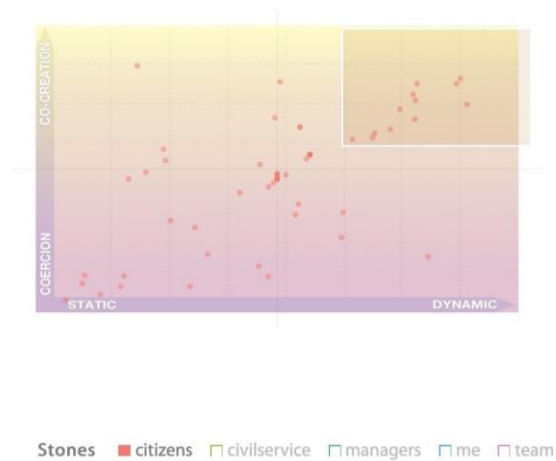
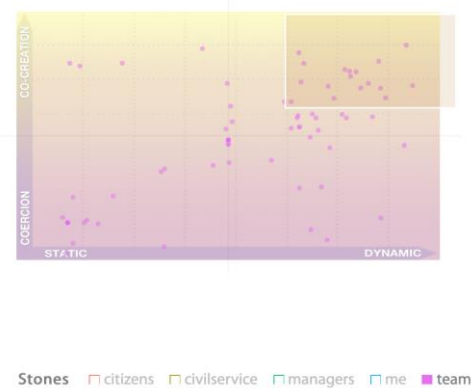


Fig 11



5.7 Overwhelmed, stressed and irrational

Having considered how the hierarchy, hero leadership and threat based management influences decision making, support in group biases and act as a barrier to collaboration, I will now look at the influence of stress has on decision making, stress often caused by hierarchy and increases in volumes of work. In Chapter 2 I discussed Rhodes' ethnographic study of the UK Civil Service, and its description of policy makers and politicians lives as increasingly hectic, negatively impacting decision making (Rhodes 2005). In

this section I will discuss civil servants' experiences of stress and overwhelm in the Welsh Civil Service, how they perceive it and how it influences how they work and reason with each other. Many of the comments in this section are reflective of Purser and Forbes' McMIndfulness critiques I touched on in Chapter 3. Purser and Forbes argue organisations tend to deal with stress as inevitable in contemporary workplaces, something individuals need to address themselves by building personal resilience, rather than a responsibility of the organisation itself, (Purser, 2019) (Forbes, 2019). Instead of dealing with the organisational causes of stress Purser argues they: "Transfer the risk and responsibility for well-being onto the individual," ignoring "the social, political and economic dimension," of the workplace (Purser, 2018, p.2). Many of the people quoted in this section describe stress as a personal inadequacy, something they need to work on, in addition to everything else they are doing. It is also generally talked about in terms of the harm to people's well-being and absenteeism ignoring the effects it has on information processing and decision making. As discussed in Chapter 3 negative emotions influence the information people see and their perspectives on each other, but government organisations do not see individual anxiety and stress as an indicator of system failure with significant impacts on decision making, leading to more stress.

According to one civil servant in Welsh Government, their own internal research has identified significant and growing levels of stress in the organisation:

"We did some research in 2014 on a representative sample of civil servants in Welsh Government and found 86% had physical stress symptoms while 33% showed signs of addiction (to technology). This was a non-Minister day (recess or Friday) so very few of us would have been on emergency call and we

should theoretically have been able to delegate any potential interruptions to others." *Email correspondence with female civil servant working on change programme in WG*

This research considers how stress itself biases thinking and impacts decision making and reasoning, given the levels identified in the survey above, if stress is this high, it is having a significant effect on the quality of decisions in WG. According to Kahneman's, dual process theory, which I discussed in Chapter 2, stress and overwhelm are more likely to induce poor (System 1) thinking, because it is fast and automatic and therefore uses less energy (Kahneman and Egan, 2011). According to Kahneman, System 1, uses patterned thinking and is more emotionally informed which, as well as making it more energy efficient, makes it more biased, this would suggest that a stressed workplace, as described in the email comment above, will also be a biased workplace. Phelps' work on emotion and cognition contests the simplicity of Kahneman's dual system theory, but supports the idea that stress inhibits good decision making and leads to more automatic thinking (Phelps and Lempert, 2018) because parts of the brain essential to decision making, the prefrontal cortex and the amygdala, are significantly affected by stress, not just during, but also after the stressful event, (Hains and Arnsten, 2008) (Roosendaal, McEwen et al., 2009) (Lempert, 2018). Other evidence shows that certain biases, such as risk aversion, ambiguity aversion, framing effects and loss aversion are far more likely to happen when people are anxious. (Porcelli and Delgado, 2009) (Hartley and Phelps, 2012 pp.115-116). More anxious states have been shown to make people interpret neutral and ambiguous information as negative, also making them more risk averse. (Ibid pp.115-116). Stress also effects how people create their reality through prediction, making them more susceptible to active inference, more likely to see what they expect to see (Pezzulo, 2014) (Clark, 2015, p.235). The fact people are more likely to

make poor decisions when they are stressed could also lead to additional work dealing with the outcomes of a bad decision, it could also result in poor communication, leading to strained relationships and more stress.

According to the data collected in my research stress is commonly linked to relationship and communication breakdown. People lack decision making and relationship capacities and rather than seeing this as an organisational issue or a lack of training, they internalise it, it becomes their failure to cope, as in this example from a UK civil servant:

"I became ill with a stress related illness, about 2001, so 15 years ago. And... I had never been a big one for western medicine and popping pills and all that, so I was looking at different ways of dealing with it. The stress related illness was work related. Essentially, promises that weren't fulfilled, so that's it in a nutshell. So, up to that point I had been very driven, very work focussed, I'd been on an upward trajectory, this was the way I was going, and then suddenly this brick wall came into my life and I wasn't used to dealing with what I considered failure, and of course the failure is my fault, why couldn't I deal with this etc etc. *UK female civil servant, pre programme interview.*

The participant describes a working environment where staff believe they need to be highly driven, one where there is little capacity to deal with difficulty and difficult decisions. This person also describes becoming ill as their fault, not the organisation's and therefore their responsibility. There is nothing in this person's statement that indicates they believe this is an organisational problem, and one effecting the policy process. To use an analogy, if this organisation were producing widgets and the means of production meant people got injured in ways that effected widget production (volume and quality) which then also effected other people and production processes then, in order to solve the problem, it would need to be seen as a

whole system/organisational issue, not just the responsibility of one person to improve their capacity to work in a system that produces poor widgets. Because the effects cannot be seen in as concrete way as a poorly produced widget, in this instance much of this is invisible. Lempert and Phelps argue that the effects of stress move people to less goal directed action and more habitual responding where they are no longer: "Sensitive to the value of outcomes" and are less able to offer a well-evaluated response based on the issues at hand (Lempert, 2018, p.101). More stress leads to a decreased ability to spot new and different information, vital when dealing with complexity and difficulty, as many people are. Poor decision making in turn leads to a less satisfactory working environment and strained relationships. Creating conditions where individuals are stressed is analogous to placing plants in unsuitable soils, the outcome is, they don't perform as well as they would if the soil was optimal. However the problem is not understood in this way, rather, as the previous quote suggested, it is understood largely as a personal well-being issue, where, continuing the plant analogy, a person should learn to cope better with suboptimal soil. The next quote describes how sub optimal conditions are normalised:

"Very much, if you are working here, you are on a treadmill almost. And you don't have much time to think and reflect on what you are doing because there are so many deadlines you have to achieve and there is a constant pressure. The system is driving you, all the time forward in a certain direction."
PP7, male senior civil servant, post programme interview.

Another senior civil servant noted, how this effects the whole public sector and is getting progressively worse:

“That would be the same across the public sector, things are not getting easier, money is getting tighter, staff are getting fewer we are still expected to do what we have been doing, if not more. So it’s not going to go away and I think unless we find ways of being able to deal with those issues, you know, what we are facing is just going to get worse and the impact it has of course it ends up putting more stress and more pressure on people who, for whatever reason, are able to cope with it, or those who are coming to work but not coping with it but who are still there five days a week, so it’s never ending circles isn’t it? We’ve got to find ways of being able to support and being able to tackle it as best we can. *PP5, male senior civil servant, post programme interview.*”

This person also describes stress as a wellbeing issue, one that we need to be “able to support” and “be able to tackle” as best we can. He does not describe it as a systemic and fundamental problem of the organisations, one which threatens the quality of policy making and itself creates stress. In Chapter 6 I will look at how, once given different understandings and capacities related to cognition, perception, perspective and emotions, people start to understand decision making differently and work in ways that tackles the problem more at source, rather than as only a coping issue.

Whilst wellbeing initiatives and caring for staff is to be encouraged and applauded, there are examples elsewhere, particularly in “high responsibility settings” where stress and tiredness are treated, not as a wellbeing issue, but as systemic and organisational, addressed via changes in structures and processes. A good example is in clinical settings, a 1999 study: “*To Err is Human: Building a Safer Health System,*” (Kohn, Corrigan et al. 2000) found between 44,000 and 98,000 patients died each year in the United States as a result of preventable medical errors, caused, not by something unique to the

medical world but to: "The manifestation of universal human fallibility," caused by stress and fatigue, (Kohn, Corrigan et al. 2000). To counter this, they did not create a well-being programme but The World Health Organisation, among others, developed systems to address the decline in cognitive performance caused by fatigue and stress (McConnell, Fargen et al. 2012). These interventions include shared attention exercises such as check lists used by teams during an operation to vocalise every action making it visible to all in the room and giving permission for anyone to challenge a questionable action. This acknowledges human fallibility and spreads responsibility across the team and the system, rather than relying on an individual staff member, in this case the surgeon, to correct themselves and become more persistent, resilient, gritty or focussed, in order to deal with large amounts of pressure. The checklist operates as an interactive team "nudge" addressing some of the inevitable effects of tiredness and stress, whilst also reducing on-going pressure and overload by distributing leadership. It is one of a number of systems, protocols and understandings used in high responsibility organisations to increase reliability, (Lekka, 2011). It is interesting such interventions are used only where there are lives are immediately at stake, in other organisations where there is no immediate threat to life, status quo biases dominate, carrying on with sub optimal, but familiar, default ways of work until crisis emerges. The Behavioural Government Report mentioned previously argues that interventions, such as those used in clinical surgery, should be used to overcome biases in policy and political processes (Hallsworth et al, 2018, p.41) such strategies would improve the policy process, where lives may be seriously implicated, but at a distance and in the much longer term.

The data captured in this research shows how people will self responsabilise and internalise the issue as a failing in themselves, rather than

arguing for the need for it to be addressed systemically, as described in this quote:

“Around three years ago, I was experiencing a lot of stress at work. I was successful, hard-working and ambitious, but I was also highly-strung, anxious and impatient. I realised that my job could always be stressful and that I needed to change my perspective towards it to overcome that. A couple of friends had mentioned mindfulness, so I thought I’d give it a go and did a 4-week online course.

Before this, the idea of sitting in silence for 10 minutes terrified me. I liked being busy and active and definitely didn’t think I was the type of person to meditate. But I very quickly saw the benefits for me – and those I interact with – and I’ve been hooked ever since.” *Katy Owen, Social Action Team, Cabinet Office, (Owen, 24 May 2016)*

In this quote Katy describes the problem as a personal one, related to a failing of her personality, she is too highly strung, impatient and anxious. Earlier another civil servant described the government environment as one where people are encouraged to be “driven”, rewarding character traits Katy berates. Previously in this chapter I showed how, despite efforts to change, the Civil Service still operates as a meritocratic, hierarchical, performance, threat based system, which individuals are forced to use their minds to navigate, but are offered no training in the cognitive capacities needed to do it.

In Chapter’s 2 and 3 I discussed the work of Karl Weick, who was particularly interested in the work of high responsibility organisations, which need to operate at speed and under pressure, making sense of large amounts of fast moving and complex information. Rather than approaching this as a “wellbeing” or personal issue which needed increased individual resilience,

Weick considered how an organisation could better utilise attention and meta-cognitive capacities to improve how they process information. He also highlighted the negative spiral where poor decision environments create stress, leading to poor decisions and more stress. He described how workplaces are dealing with increased volumes of information which is often: "Low quality, low value, highly ambitious and with a short period of relevance." (Weick, 1995, p.69), this then creates overload, interfering with "rational decision making," (ibid, p.69). Overload leads to a loss of perspective, as the group becomes distracted by irrelevant, interfering cues (ibid, p.69), leading to more errors and an increased experience of overwhelm. Weick worked on increasing organisational awareness capacities, including working with attention, judgement and how they come together to make sense of information.

In a narrative gathered through SenseMaker, an MBBI participant describes seeing the effects of stress on a "big brained", but stressed, colleague in a meeting, :

"Working with colleagues in a lessons learned/next steps meeting this week I noticed that one of the officials involved appeared stressed. I have a great deal of respect for this big-brained colleague who is usually good on detail and nuance but can sometimes be over zealous in the design of processes - he doesn't always choose the simplest solution. I noticed in this meeting that he was speaking quickly, repeating his points rather than developing them and (I thought this most interesting) pushing us away from experimentation and towards closing off potential solutions. I think what he wanted to explain to us was the very real need for actual rather than paper-based solutions. This is a really important point to make but it was getting lost somehow in the noise. The group did eventually make a decision as to what to do but despite rather than because of the help. I was at a loss as to how to

resolve this within the meeting and have requested another (on a related topic) at which I hope to do better." *SenseMaker narrative Percent x 0.6911 Percent y: 0.1155*

This narrative suggests the process and the decisions made in this meeting were not as satisfactory as they could have been, given the person describes wanting to organise another meeting and "do better next time". This is a recurring theme in the data, the additional time, through extra meetings or emails, that needs to be spent improving or dealing with poor quality meetings and discussions, and how this adds more workload to people who are already feeling overwhelmed. Weick argues it is possible for organisations as a whole to develop skills and capacities to address stress, changing ways information is processed in teams and across team. As part of this he advocates building group and individual attention and meta cognition capacities (Weick, 1995, p.94) he calls this, "collective mindfulness". This is in stark contrast to the quote from Katy earlier, where she suggests individuals need to develop mindfulness to help them overcome personality flaws and a failure to do a "job (*that*) will always be stressful". Weick argues shared organisational understandings of perception and attention will result in more productive and less stressful ways of working. The Behavioural Insights team also suggest working on attention and perception as an organisation, not as an individual, to challenge group based biases and improve reasoning and decision making (Hallsworth et al, 2018, p.109).

The way stress and the experience of overwhelm is described and understood as a self-improvement responsibility has been critiqued not only by Forbes and Purser, discussed earlier (Purser, 2019) (Forbes, 2019) (Stanley, 2019). Others, such as Tomassini (Tomassini, 2016) raise the ethical issue of people self-correcting to adapt to an abusive system, such as the one described in

this chapter, on one hand encouraging people to be highly driven and on the other blaming them when they cannot cope. Meanwhile, as explored in Chapter 3, suppressing negative emotions because they are seen as unacceptable in organisations, may dampen them in unhelpful ways, negating their functional, motivating aspect. Purser and Forbes argue that self-improvement and coping in the workplace is an internalisation of neoliberalism which overemphasises individual responsibility whilst upholding existing growth and development based economic systems, (Purser, 2018). Stanley suggests that to remedy this, psychological interventions designed to address the issue should challenge rather than uphold the status quo, pointing to the need for training and capacity building that changes the system, rather than merely performs a wellbeing function. As a wellbeing intervention it may only “encourage an ‘accommodation’ to the status quo,” (Stanley, 2019). In Chapter 6 I will describe the outcomes of an intervention designed to challenge the status quo in Welsh Government and how this, to some extent, shifted narratives away from individual well-being and towards building organisational structures and capacities.

5.8 Objectivity creates its own resistance

Finally in this chapter I will look at how the Civil Service organisation is resistant to innovative attempts to address cognitive biases and poor decision making, because it is subject to the thing it is trying to correct, its own bias and lack of good decision making processes. This is evident in the quote below, from an MBBI participant, who changed his management style significantly as a result of the programme, but believes this could not be translated into complete culture change, because of the very bureaucracy challenged by the programme:

"So the mindful organisations you describe seem to have been delivered by very powerful, enthusiastic individual leaders and I've not seen that same

sort of leadership in public service, and it certainly isn't the case here. So I can see that these approaches would be hugely beneficial to you know, people based organisations, but I think it has to be within a context and I don't see that context here, I see just bureaucracy, hierarchical, very formal, I'm talking about at an organisational level. So I am not sure that the climate is right in this organisation for it to be, for the leadership to want to turn it into a mindful organisation I could see bits doing it, almost subversively, teams of individuals, perhaps that's the way to do it" *PP2 male senior civil servant, post programme interview.*

This statement both demonstrates a need for change, called for by the policy and political leaders, and also shows how difficult it is to bring it about. If there is a desire from both leaders and senior directors to become less hierarchical and bureaucratic, what slows its progress? The UK and Welsh Government have two main ways of creating change in the way people relate to each other, analyse and deal with information and perform process. The first is through training programmes, the second via culture change programmes, sometimes the two are linked. Training programmes are offered in Wales either through an in house leadership training body, Academi Wales, or brokered via an internal training management team, currently called FutureProofing, which also works on culture change. In the UK there is also a large Civil Service Learning Department which provides an extensive programme of online and face to face training, this is made available across the UK. Much of the training available through Civil Service Learning is provided by a consortium of training providers, currently led by the international consultancy firm KPMG which draws together a group of organisations, including corporates such as Lane4, MindGym and QA. (Learning 2018). In a meeting with UK civil servants in September 2018 I met representatives from the UK Civil Service human resources department,

responsible for procuring training providers. They said that because time and resources were scarce, they procured training resources that were, quick, cost effective and scalable. According to HR staff, KPMG's costs are high, to have won the most recent four year training contract worth between £80-150 million <https://www.gov.uk/government/news/award-of-learning-contracts> organisations need to navigate complex and time consuming procurement procedures, put in place to ensure objectivity, transparency and accountability. However these same procedures will also prove prohibitory for any small organisations, as they will not have the staff resource available to fill out the copious forms which are needed to demonstrate accountability and objectivity. Thus demonstrating the procurement process is not objective because the process is biased toward large, rather than the best.

The design of this procurement strategy, requiring a large organisation to complete the process, but then needing to subcontract to smaller companies to actually deliver the training reduces the amount of money left for actual training delivery. Much of the training in the Civil Service Curriculum, is short, on-line and necessarily over complicated, (Learning 2018). A pertinent example is the intervention designed to teach behavioural insights consisting of 7.5 hours training plus a short workshop and some online study. Once completed, it claims a member of staff should: "Be able to apply the EAST framework to your own particular policy concerns and understand the importance of testing and trialling your suggested policy interventions. In doing so, you will demonstrate how behavioural insights can help create more efficient and effective public services," (Learning, 2018). This amount of input seems tiny relative to the topic it is discussing. Meanwhile aspects of human decision making are delivered in training slots of only a few hours this includes: "Collaboration across departments, government and beyond" consisting of 1.5 hours of on-line training, claiming to result in: "An improved sharing of best practice and innovative ideas, helping the Civil Service to

become less siloed and creating more positive working relationships.”

Meanwhile, a one hour tutorial on emotional intelligence suggests after 60 minutes remote study a person will be able to: “Listen to and control your emotions, as well as read other people’s emotions” and “be able to make better decisions in the workplace” (Learning, 2018, p.142). When we take into account the amount of research and theory available on these topics it is hard to imagine these short courses will be successful, particularly as they are working against decades of a siloed, uncollaborative, emotionally suppressive culture. These training interventions take research, grossly simplify and operationalise it and dilute any transformative effect it might have.

During the research, as part of my fieldwork I was part of a Civil Service group responsible for offering presentations on Mindfulness. This experience represents a good example of the negative effects of group biases, influenced by the hierarchy, in Welsh Government, leading to less than optimal outcomes. In 2016 and 2017, I was one of a number of presenters in the annual Civil Service Learning Roadshow, tasked to deliver introductory mindfulness sessions in venues across the UK. To do this a single PowerPoint was developed such that each training event would be uniformly the same.

Despite the fact many of the geographically spread trainers were qualified and that training works best when it is both responsive and adaptive to the context and interactive, it was made clear the PowerPoint had to be followed exactly, without deviation. Meanwhile, the final say on the content of the presentation was with the most senior civil servant, who was not the most experienced meditation teacher/trainer in the group, but who held the highest rank in the hierarchy. This micro example represents the type of processes and structures which exist across government at both a small and large scale. Where group and identity biases influence decisions and processes aimed at ensuring objectivity, standardise in a way that reduces the effectiveness of the outcome, informed by the person who may not be the most expert in the group.

UK Civil Service Human Resource staff who I met during this research suggested that one way innovation can get into the organisation is through a combination of internal enthusiastic staff and external experts offering it for free. External people might want to build their profile or use it for research and internally enthusiasts want to diversify their workload and help others. Ironically this means that alongside the large scale quick fix training internal untrained enthusiasts teach interventions of variable quality on top of their full time role. In meetings with civil servants in 2017 and 2018 there was discussion of "enthusiastic amateurs" taking mindfulness forward because it had not been included in the five year training contract with KPMG and therefore there was no way to procure it formally for another five years. The fact that training is largely tied up in big contracts over long periods of time makes it hard to innovate and experiment. This is only aggravated by the fact that once it is part of a large contracts it is operationalised in ways that significantly dilute and simplify complex topics making it unlikely to have any real effect. It may result in lulling people into believing they have built skills and capacities in an area when they have barely engaged with it. The very processes set up to ensure fairness and transparency in training procurement creates barriers to the innovation and transformation they are aiming at. It seems no surprise that Chief Executive Manzoni warned of the danger of the UK Civil Service achieving "cosmetic" rather than "transformative" change, (2018) as the whole system is designed in a way that transformation is impossible and cosmetic change is all that is possible.

5.9 Chapter summary

This Chapter has looked at a number of factors which limit effective reasoning, decision making and collaboration, loosely defined as, organisational. It addresses sub research questions, highlighting recurrent failings of the workplace caused by a system designed with a lack of understanding of the human mind, characterised by hierarchy, hero

leadership, a lack of distributed leadership, stress and the limitations of training procurement processes and delivery. I have shown how these get in the way of good decision making and policy process by:

- Failing to address stress as a structural, organisational issue, with significant implications for decision making and collaboration, itself causing stress. Instead seeing it mainly as a wellbeing issue, effectively shutting the barn door one the horse has bolted.
- Hierarchy and heroic leadership creating group biases and preventing more distributed leadership. Reasoning focussing around the maintenance of individual identity and organisational status quo.
- A lack of capacities in senior leaders to perform the job they are actually doing, maintaining relationships, analysing complex and variable information. Meanwhile, there is acknowledgement in research, and the civil servants themselves, that bureaucratic processes do not ensure objectivity. Training/capacity building and systems change is needed to do what effectively they now understand to be technical aspects of their work.
- A failure of the procedures and systems used to decide on, develop and deliver training. This includes overly large and long term procurement contracts, only a limited number of large organisations can tender for, making it costly and limiting the potential for innovation. Meanwhile a pool of internal but unqualified enthusiastic internal volunteers attempt to innovate but lack the professional expertise to be effective. Together this results in short, scalable but diluted programmes delivered by professionals alongside patchy and variable training offered by untrained staff.

The combined effect of all the points above results in a less than optimal decision environment, where the nature of human decision making is poorly understood, leading to bias, strained relationships, poorly constructed

decision processes and additional workloads, exacerbating an already stressful situation.

In the next chapter I will look at how a lack of understanding of the human mind more specifically gets in the way of good decision making. This includes a lack of knowledge and capacities in attention, theories of mind, emotion and perception of self and others. Chapters 7 and 8 will explore potential solutions to the issue through insights from and results of the Mindfulness Based Behavioural Insights Intervention.

Chapter 6 - The problem of rational government - understandings of mind

“With just the slightest pause, we can begin to appreciate the symphony of activities and experiences, past and present, that come together in each simple moment of awareness. Yet out of the symphony we typically hear only one or two notes. And these, almost always are the ones most familiar to us.”

Presence: An exploration of profound change in people, organizations, and society. (Senge, Scharmer et al. 2005, p.28).

6.1 Overview

In Chapter 5 I looked at how Governments create poor decision making environments, characterised by hierarchy, hero leadership, stress, overwhelm, bureaucracy and a failure to see the essential need for cognitive/emotional knowledges and capacities to address bias and support collaborative working. Such skills are only addressed once they become a mental health issue, seen as an unintended and unavoidable outcome of a 20th century bureaucracy dealing with 21st century problems. However, looked at through a behavioural economics lens this is also an issue of poor decision making, and a lack of understanding of the functions and nature of reasoning and rationality. It is also a problem of a failure to keep pace with research in theories of mind and

emotion, instead relying on folk psychology to underpin organisational process and systems. Policy work is increasingly relational, in Chapter 5 I showed senior policy makers reporting that a high percentage of their work involves maintaining relationships, but they have limited or no training in what has become core part of their work. Without training or insight they find themselves defaulting into being hero leaders, to fit with the hierarchy, biasing decisions by privileging certain expertise because of where it is in the structure. Whilst there are aspirations towards more collaborative, less biased, ways of working, practical on the ground evidence of change is sparse. Despite good intentions, there is little sign of any well considered, evidence based, route map likely to bring such a transition. Instead there is a patchwork of training courses, based on cherry picked, outdated science, procured largely on scalability, using procurement systems that ensure accountability but are ineffective at delivering well evidenced, value for money innovation.

In this Chapter, using data captured through interviews, SenseMaker narratives and ethnography, I will move away from looking at the organisational influences that create a poor decision making environment, instead focussing on factors related specifically to a lack of understanding of mind, including perception, cognition, emotion and perspective taking. In truth the organisational context links with a lack of understanding of mind, one informed by the other in a co-emergent feedback loop creating everyday realities, such that all the elements described in these chapters are intimately linked. The organisational imposition of stress, caused by large volumes of work, top down leadership, heroic leadership is informed by a lack of understanding of mind. Meanwhile organisational structures themselves impact the way we use aspects of mind, attention, emotion, perception and reasoning, organisation are created through our generated perceptions, influenced by personal histories, stress and our interactions with hero leaders. It is possible to change our relationship to the experiences of our world, and

change our organisations, but it is also possible to change our organisations to change our experiences of the world. The divide of organisational/understandings of mind used in these chapters is a convenient way of dividing my empirical data, but ultimately the two are not separable, but two sides of the same coin.

In this chapter I will look at how attention, emotion, cognition, perception, perspective taking, and theories of mind negatively influence the analysis of information, individual and group reasoning and bias. Many of these human capacities, were only made visible to civil servants in this research once they engaged with the MBBi programme. As a result the quotes I use are often, but not always, in the context of insights from the intervention itself, however the main insights and learning from the programme will be covered in Chapters 7 and 8. In Chapter 5 I discussed how the civil servant participants started to not only make capacities of mind and emotion visible, but also see them as essential "technical" expertise related to decision making and group working. These technical elements, discussed in this chapter, include:

- The understanding of objectivity as a core, but unexamined and misunderstood value
- The nature, potential and limits of attention
- Theories of mind and understandings of both self and 'the other'
- Individual and in-group biases,
- Emotions, how historical, and outdated, understandings negatively influence decision making

Chapters 7 and 8 will look at the data collected during and after these same civil servants had taken part in the MBBi programme and explore how

new understandings of decision making environments and of mind, emotion and cognition positively influence how they understand and deliver their work.

6.2 Rationality and Objectivity in Code

As I discussed in Chapter 2, rationality and impartiality are cornerstones of government, embedded in The Civil Service Code. The code was written in the 1990s, following the discovery of deceit and misconduct amongst senior civil servants (Horton, 2006, p.41), it includes the four main values of "integrity", "honesty", "objectivity" and "impartiality". These values are all admirable and appropriate but, as I have discussed previously, there is little reflection on how subjectivities, identities and group biases work against them, instead acting to maintain the organisational status quo. This is apparent from Banuri's work, discussed in Chapter 2, which found that organisational procedures, intended to ensure the transparency and accountability, fail in practice and, "do not protect against partiality and subjectivity" (Banuri, Dercon et al. 2017, p.3). The Code is introduced to new civil servants within days of starting their job, with checklists produced by the Civil Service Commission suggesting ways it should be implemented. The checklists largely use an information deficit approach, if we tell give people a checklist of what they need to address, they will address it, (Commission unknown). It does not acknowledge the technicalities of human cognition and subjectivities involved in each of the values, let alone new developments in research in this area:

- 'honesty' - being truthful and open;
- 'objectivity' - basing your advice and decisions on rigorous analysis of the evidence;
- 'impartiality' - acting solely according to the merits of the case and serving equally well Governments of different political persuasions.(Commons updated 2015 p.3)

Given the “rationality war” amongst academics, discussed throughout this thesis, (Sunstein and Thaler, 2008) (Winter, 2014) (Kahneman, 2015) (Mercier and Sperber, 2017) (Chater, 2018) (Phelps, 2018) where “Sophisticated reasoning on reasoning does not come near to providing a consensual understanding of reasoning itself” (Mercier and Sperber, 2017), the likelihood that the Civil Service might achieve objectivity through simply writing a code and providing checklists seems naive. In this chapter I will demonstrate, through the collected data, how, despite the Civil Service code, subjectivities are regularly produced by, and influence the everyday decisions and interactions of civil servants through the unintended use of mental heuristics and folk psychology.

Civil servants professional development has, since the 1990's been guided through competence based management systems (Horton, 2010). The competency approach creates “behaviour frameworks” (Wales, 2017) and “success profiles” (2019) which outline optimal behaviours staff should display to achieve competency. Wales uses this approach to identify capacities and behaviours which would support the Civil Service Code. It lists indicative behaviours managers in the Civil Service should demonstrate such as: “I will continually reinforce a culture of inclusive decision making and shared leadership,” and, “I will encourage and support others to think differently, to question and try new ways of doing things, taking appropriate calculated risk.” (Wales, 2018). Staff are meant to use feedback from staff appraisals and team members to help them develop these behaviours. There are a limited number of training courses available to help them, including those offered by Academi Wales, the public sector leadership training arm of the Welsh Government. The Academic offers workshops such as a half-day session on emotional intelligence and positive psychology, which, as I discussed in Chapter 3, many believe is outdated, (Salovey and Mayer 1990, Barrett 2002 p.2). They also

publish briefing documents on cognitive bias and decision making, (Bethan Johnson 2018), condensing and simplifying the complex topic of human reasoning to a few pages. There is no in-depth training or information made available, on the complex elements that make up human subjectivities, including individual and group perception, cognition, attention and bias.

A competency based behaviours framework for senior leaders in Wales requires leaders to improve, objectively and accurately assess themselves against lists of behaviours increasing their competency from basic to more advanced through "Listening to feedback from colleagues " (Wales, 2017, p.4). The documents tell them to develop self and emotional awareness and take opportunities to reflect, but it gives no instructions on how people might do this. There is no on-going training or ring fenced time offering opportunities for them to explore themselves, their perception, emotions and bias. Their lack of self-awareness capacities is apparent from the comments presented in this chapter and also from previous interviews following earlier iterations of the programme. In a previous piece of research Pykett and Lilley et al found Welsh Government staff described how they had little available to support them to explore their own subjectivity and its influence on their work. Being on an earlier version of the programme explored in this PhD, that touched the topic of bias had "improved their ability to meet organisational requirements for objective and evidence-based decision making" (Pykett, 2016, p.3) (Lilley, Whitehead et al. 2014, p.23). According to one UK civil servant, training on how minds work doesn't happen because people are wary of what might surface:

"I think the minute you ask people to start touching into their own minds, fear and anxiety comes up because it's not what people are comfortable doing. Whether that's based on their own experience or on a misconception, they might have some resistance to that, to just exploring their

own mind because of the negative connotations." *SW1, female UK civil servant, scoping interviews.*

As I will go on to show, this research found the opposite, once people were given ways to understand mind in ways that are relevant, contextualised and evidence based, they do not find it fear inducing, but rather insightful and empowering. As one person describes: "We are supposed to be objective, and actually you can't do that without understanding the emotions and the biases and that part of the picture." (Pykett, 2016, p.36). I will go on to look at the different elements of cognition discussed in the MBI programme in more detail, exploring the research question of how a lack of knowledge of emotion, perception and bias are hindering Welsh Government in their policy process and the addressing of Wicked Problems. I will start by looking at how a lack of understanding, and capacities of, attention is problematic in policy making and limits how people understand themselves and others.

6.3 The Limits of Attention

As discussed in Chapter 3, attention is selective, is effected by our mood, our culture and our own individual previous experience. Our mood and internal state influences, literally, what we pay attention to, making us potentially blind to information that is right in front of us. (Damasio, 1994) (Oatley, Keltner et al. 2006, p.237) (Bower, 1981). Government organisations base their ways of working on assumptions that attention is limitless, that a person can work consistently for hours with no lessening in the quality of their focus. Staff are not made aware of the mechanisms of focus and attention which are constantly filtering, selecting and prioritising certain information over others, instead they work as though they are, largely, seeing an objective reality (Langer and Roth, 1975) (Weick and Sutcliffe, 2006) (Dolan, 2014) (Bazerman, 2014). Attention, its limits and influences on people's perception was something participants became more and more aware of as they

participated in the MBBI programme. Until that point, they had believed attention myths, as described by this person:

"I am one of those people who thinks I am successfully multi-tasking, but I'm not. It was really useful to see and go through understanding the cognitive processes involved in attention and multi-tasking. So I turned off emails while I was doing a report - it was revolutionary, I had allowed two hours and it only took 45 mins. Also, when I went back to it I didn't need to tweak it and usually I do - it was a real eye opener." *Ethnographic notes, participant discussion, female senior civil servant, May 2017*

In Chapter 5 I discussed Weick's description of a negative spiral where overwhelm negatively influences perception, which causes more overwhelm, and further negatively impacts perception (Weick and Sutcliffe, 2006, p.69). That by understanding the link between attention, perception and stress a person might reverse the spiral by becoming less overwhelmed from the start. This view is counter to the current norm, that stress is inevitable, and people need to build more grit and resilience to cope with it. This norm is analogous to early industrial factories, where children and women, scavenging for scraps of material under cotton machines, would need to get better at fighting tiredness to avoid injury and death from the machinery. At some point organisations realised this was a problem that could be addressed, saving limbs and lives by adapting the machinery rather than the putting the onus on the people, they worked out how to place safety guards on machines to improve working practices and save lives.

Once the participant in the quote above understood some basic facts about attention, she changed how she worked, saving time and avoiding stress. Importantly she noted she saved not only the time it took to write the report, but the time she normally needed to correct her initial draft. Thus, by

understanding some simple findings from science she gained space in her day and felt more positive (and by implication less stressed), describing this simple insight as "a real eye opener". She said this was the first time she had heard any science on attention, despite the fact that focussing is foundational to everything she does. This participant was also able to see this was not just about self-responsibilization, getting staff to improve their attention skills and ignoring social, structural and contextual issues, as suggested in the McMIndfulness critiques discussed previously (Purser, 2019) (Stanley, 2019). She transferred her public health experience, and the role environment and context play in directing behaviour, plus her new understanding of behavioural economics to appreciate how the issue is not just individual, but also organisational:

"There are analogies here to healthy food - we tell people they need to eat healthy food, maybe they even start having some healthy meals but then they are surrounded by unhealthy food - this is particularly bad in hospitals where until recently there were only unhealthy vending machines. We have an organisation that wants people to pay better attention but then puts them in a working environment where it's hard to actually pay attention. We need to create the infrastructure that nudges, that creates the behaviour, not just get people to practice. *Ethnographic notes, discussion with female senior civil servant, MBI participant, May 2017*

Research presented in Chapter 2, suggests that attention is undervalued and poorly understood in the workplace (Bazerman, 2014) (Langer, 1987). Neuroscience shows our attention builds matter in the brain, neural networks are created by the repetition of thoughts and actions, leading to the often repeated statement "what fires together, wires together" (Draganski, Gaser et al. 2004). These neural networks influence and inform our perceptions of the world, prioritising and dictating our attention. According to

The Behavioural Government report, discussed previously, a lack of appreciation of the nature of attention in political reasoning leads to issues appearing more salient than others "regardless of whether they are the most urgent or important." This leads governments to respond in ways that do not reflect actual priorities, tending to deflect attention away from slow developing issues: "Attention on issues cascades rapidly, perhaps reaching for whatever solutions come to mind easily, even as slow developing problems go unnoticed." (Hallsworth et al, 2018, p.08). This is particularly an issue when dealing with wicked problems such as climate change that are complex and long term. The EC "Understanding Our Political Nature" also recognises how assumptions that attention is objective in politics and policy is problematic: "Emotions, moods and other contextual cues modulate perception, direct attention and affect what is remembered (Mair et al., 2019, p.29). The quote below gives an example of how this happens in Welsh Government on a daily basis, with negative consequences. It is from a female senior civil servant describing how mood, combined with expectation negatively influenced her attention when she was reading an email on an emotionally charged topic from someone she had a difficult relationship:

"I was kind of in an agitated state because this person had sent me something and I was reading it so fast and I was looking for things to find fault with, I wanted to find things that were wrong in it and it was only in the second, third read where I kind of brought my agitation levels down that I actually read it properly. So that was a bit of an eye opener in terms of how we deceive ourselves." *PP3, female senior civil servant, post programme interview.*

This led her to reflect on how often this might have happened in the past without her realising it:

"I'm thinking, god how often have I done that? How often have I not read something and then drawn a conclusion that's completely wrong?" *PP3 female senior civil servant, post programme interview.*

In Chapter 3 I discussed how emotion science has shown that our internal mood state effects what information we select, leading us to pick out information congruent with our mood such that a negative internal state will result in us seeing only the negative information in an interaction (Bower, 1981). In the example above, this person describes an agitated mood directing her to only see negative information in the email, when she reads it a few times, focussing her attention and naming her mood, she is able to see it is not negative in the way she had first perceived. She then gets the worrying insight this might happen quite regularly without her knowing implying previously she might have, "drawn a conclusion that's completely wrong." This is a good example of how emotion effects attention and judgment in the policy making environment, potentially influencing the analysis of information and decisions. It also shows, as I will discuss in Chapters 7 and 8 how someone can develop meta cognitive capacities to positively change this. In another example, a person realised that, by directing her attention, she was able to have a positive effect on a meeting, indicating prior to this her lack of understanding of attention might have led to a more negative outcome:

'So last week I was in a meeting with two colleagues from my department and a couple of our lawyers and we were working on developing some legislation, and you know, relationships are a bit fraught at the moment because everyone is under a lot of pressure and we didn't exactly have raised voices, but there was a sort of passionate exchange going on, and I was making a conscious effort to be present in the meeting and thinking about

feeling myself sat on the chair feet on the floor. You know, consciously being here, pausing and digesting it all before jumping in." *PP6, female senior civil servant, post programme interview.*

She then reflected on how this had changed the meeting outcome and what happened normally when there is no one in the room with an understanding of, and skills in, attention:

"If I hadn't been behaving in that way and I had jumped on the bandwagon and been very uptight and very agitated we probably wouldn't have resolved anything in that meeting, we probably would just have ended up sending things back and forward in emails underlined and in capitals and then not come to any resolution of the disagreements that we had." *PP6, female senior civil servant, post programme interview.*

This person describes a situation where, because she is more aware of her attention and its link to affect, she is able to pay attention in a different way, influencing the group process. This clearly shows that a lack of understanding of attention is a norm in government meetings, particularly difficult ones, leading to longer, more stressful meetings and the additional work of extra emails. Another participant below talks about how his agitated mood negatively influences frustrating meetings leading to ineffective meetings:

"Well I probably would have just got frustrated (*previously*), because I spend a lot of time with lawyers and they are always telling you you can't do things. And I am always saying yes, but we have to do things and you always get sort of into a dialogue of trying to push people all the time and

they become more resistant to what you are saying." *PP7, male civil servant, post programme interview.*

The person here also shows, as discussed in the Chapter 5, how in the absence of any other insight or capacities, as a leader, he defaults to his position in the hierarchy when the meeting becomes pressured. He describes how this leads him to start "pushing" people to agree with him, noticing this only results in people becoming more resistant. He has no other technical knowledge, in relation to how he might focus and hold his attention in a way that would enable a more effective and collaborative conversation. He has only unhelpful structures or processes to dictate how he uses his attention. In Chapters 7 and 8 I will describe in more detail how the programme changed his and others use of attention to reason more effectively in meetings, leading to less time taken to do the same amount of work, with less stress and more satisfactory outcomes.

6.4 Folk psychology and Theories of Mind

In Chapter 3 I discussed theories of mind (as predictive rather than reactive) and emotions (as constructed rather than universal) which, according to their proponents, set to transform how humans view themselves, with significant impact on our major institutions, impacting: "our laws our health, and who we are. To forge a new reality." (Barrett, 2017, p.293). These theories contradict previous ideas, such as emotion acting as a barrier to clear cognition and instead stating that emotion and cognition are entirely linked, combining to construct how we see and co-create our world. I also discussed how, if people do not have the opportunity to study these, or any other, theories of how their mind and emotions operate, they are left defaulting to what has been termed 'folk' psychology, (Ward, Ross et al. 1997, p.104). Folk or common sense psychology is an intuitive understanding of mind based on individual introspections. The idea people correctly intuit their own minds is

heavily contested, as I have discussed throughout this thesis, behavioural scientists Nick Chater argues: "Our common sense psychology isn't true" (Chater, 2018, p.12) adding: "Psychologists and philosophers from B F Skinner to Daniel Dennett have long doubted our abilities to introspect our minds and perceptions. There is (now) a rich tradition of scepticism about our common sense view of our minds, (Ibid, p.13).

Given we do not understand our own minds, it is unlikely we accurately intuit the minds of others. Understanding how we do make sense of another person's mind has been the subject of psychological experiments since the early 1980s. In an early 'theory of mind' experiment, young children were asked to predict whether an adult, who has just left the room, would realise on their return an item had been moved. Before the age of 3/4yrs the child assumed the adult would know exactly what the child knew and would be able to identify the object in the new location, even though they hadn't seen it move. Since the child saw the item removed, they believe the adult has the same mind as them and so would also know where the object now was. After 4 the child realises if the adult hadn't seen the item move, they would look for it in the original position on their return (Wimmer, 1983). After the age of four the child, can appreciate that another mind does not see exactly the same as they do. However, whilst in this gross sense humans learn that another person does not see exactly the same as they see, to some extent they continue as adults to assess others minds on the basis of their own experience and introspections. This is part of the folk psychology which we use to navigate the world, to understand what others do and think we will, unconsciously base our assessment on the basis of: "What would I do in that person's shoes?" transporting ourselves, via our imaginations, we then: "Make up (our) mind what to do and project this decision onto the opponent" (Goldman, 2012, p.10).

In the last chapter I evidenced that much Civil Service work, particularly that of senior civil servants, involves interacting with others, using their mind to understand their own and others' perspectives and, as a group, analyse information and make decisions. I also discussed how this becomes subject to group biases, and how this then raises the question, central to this thesis, of how civil servants understand their own minds. When programme participants reflected on what they knew about how their mind makes sense of reality, they suggested they had little to draw on, and were mostly using their own "common sense", akin to folk, psychology. In an interview European Commission Manager and co-author of the Understanding Our Political Nature Report, (Mair D.), David Mair argued that much political ideology is just "a folk view of human nature" and suggested behavioural insights could be used to inform and improve this. He reflected on having discussed this with the Director of the Behavioural Insight Team, David Halpern, some years previously:

"I remember having a conversation with David, a long time ago, where it seemed to me that one of the most important questions was: 'What does behavioural science have to say about ideology and politics?' Right from the beginning I thought that. What is political ideology? Isn't it just a folk view of human nature? Therefore isn't there some really interesting things that this process can do? And following on from that don't we need to apply this (behavioural insights) to the business of policy making?" *Interview David Mair, European Commission Manager and co-author of the Political Nature Report*

When participants were more informed on theories of mind, through taking part in the programme, they described it as "revolutionary":

“That session you did about the brain. You know the brain being a box and the external world not being real, I thought that was quite thought provoking. Having spent 35 years running about the place, it’s been really important to have that space and enough of an understanding as to why things might work. [...] (I have become) a bit less of a perfectionist, a bit less of a control freak a bit less obsessive, a bit less pass/fail.” *PP2 senior civil servant, post programme interview.*

Once this participant had learnt a theory of mind that challenged and then replaced his ‘folk’ view of perception and objectivity, he changed how he thought about his mind and this influenced how he worked with others. One result of this was he became less of a perfectionist, saw the world as more haphazard, based on predictions and expectations and therefore a place where doing everything ‘right’ did not make as much sense as it had previously in his folk view.

Another participant was unusual in that he held a Philosophy PhD and therefore had more than a ‘folk’ view of mind. His understanding of philosophy and mind was not, he said, something he discussed with colleagues, but it did influence how he did his job, led his team and related to other colleagues. This indicated knowledge of theories of mind does influence how we approach work, potentially making a person less subject to folk psychology:

“So you study people like Descartes and Hulme and philosophy, and they make you think quite a lot about the nature of being a human being and consciousness and the continuity of personality. So yes that’s definitely there in my mind and in the background somewhere, bubbling around and having an effect on the way I think about things. I often find myself having conversations with people and they are limiting themselves in some way, ‘I

am not able to do this' or, 'I always react in this way', so I always find myself saying, 'no, it's up to you, you get to choose how you react to things, don't pretend you are being compelled by somebody else'. I definitely have thought about some of these issues before a bit. *PP1, male senior civil servant, post programme interview.*

His background expertise meant that, unlike his colleagues, he starts from a position of having explored philosophical theories of mind. This significantly informs his views and ways of working with others:

"You know about David Hulme? Scottish enlightenment philosopher, very old. But really interesting guy, basically very sceptical thinker about all kinds of things. One of his things is the personality, that you just exist from moment to moment and you tell yourself a story that links these moments together because that makes life more liveable, because it's just a random series of events. I have thoughts like that bubbling around in my head at various times and perhaps that is not a mainstream view of thinking about the mind. But it is certainly consistent with the science now." *PP1, male senior civil servant, post programme interview.*

Interestingly having expertise in this area meant he wanted to learn more, rather than assuming he knew all he needed to know, about the topic and its impact on his work, this person became the main person who championed the course in Welsh Government. He combined his existing knowledge of mind with new learning on the predictive mind, opening up new insights into how he worked with his team. As he describes below, he noticed he had a habit of 'getting ahead' of what his team were saying, so instead made an effort to let them finish their sentences, acknowledging they might say something other than what he was expecting:

"Sometimes I am getting ahead of what they are saying and predicting what they are going to say next and trying to finish the interaction more quickly as a result. 'I don't know where this is going, let's cut to the chase, you don't need to say what you were going to say for the next 10 minutes, so we are just going to finish it there, kind of thing.'" *PP1, senior civil servant male post programme interview.*

In Chapters 7 and 8 I will discuss how this impacted his work, here I want to emphasise the point that people understand their minds according to common sense, or folk, theories which are inadequate. That people who have had some opportunity to reflect on the mind, through education or training, work differently based on their knowledge, and also appear to want to learn more, appreciating the important role it plays in how they work.

In another example, showing how knowledge overrides the 'folk' view of mind, a programme participant, working on young people policies, reflected on how training she had accessed on the science of mind, specifically the teenage mind, had changed how she viewed young people. She now understood what had seemed their 'irrational' choices and behaviours, this then influenced her approach to working on policy:

" It was just fascinating understanding the biology of what is going on in terms of a teenagers body, what is going on in terms of their brain development and connecting that to their behaviours and thinking: 'My god this isn't just stropiness there's a physical underlying issue here,' and so we need to take this seriously rather than saying that's just growing pains or that's just teenage angst etc, we should treat it in a more scientific, kind of, not scientific, but semi scientific, way rather than trivialise it I suppose." *PP3, female senior civil servant, post programme interview.*

This quote again reflects how assumptions, drawn from “common sense” or ‘folk’ theory of mind had been dramatically shifted once this person became informed through expert information. Part of this person’s role included developing and delivering policy interventions in areas of Wales experiencing high levels of deprivation, where there are likely to be many young people struggling with education and unemployment. Gaining insight into the underlying cognitive causes of disruptive behaviours, including hormonal and biological changes in their brain, significantly impacted how she understood the problem, which in turn changed how she approached creating a policy solution.

6.5 Plastic minds, busy minds

Two “folk” misassumptions of mind the research made visible were

1. A belief the mind is “fixed”, (doesn’t develop after a certain age) and
2. The mind is inherently ‘busy’ in a way that cannot change.

Evidence participants understood the mind as fixed is shown in the quote below, this participant discusses how learning the science of neuroplasticity, that brains can learn and develop into old age, was “revolutionary”:

“One little nugget for me was at the very beginning, that it is possible to retrain the brain, that you can, if you change the way you do things. There are pathways which will change and that will change the brain, so that was a revolutionary moment.” *PP6, male senior civil servant, post programme interview.*

Neuroplasticity is a fairly recent neuroscientific discovery, contrary to previous thinking, our brain physically changes and develops, whatever age

we are, in response to our behaviour and how we direct our attention (Draganski, Gaser et al. 2004). Neuroplasticity was discovered in the 1970's by accident by Michel Merzenich. Merzenich was conducting experiments attempting to prove the hypothesis the brain is fixed and found the opposite, the brain is fluid and dynamic and actually changes over time (Merzenich, Nelson et al. 1987). Starting a new activity and paying attention in different ways, at any age, builds neural networks in the brain which then embed different and new ways of thinking and behaving, (Draganski, Gaser et al. 2004) (Drakeford, 2019). In the quote above, the participant describes as 'revolutionary' the idea the mind adapts and changes physically as "you do things". Implicit in the quote is that he previously believed both his and others' minds were fixed and couldn't adapt. This is in contrast to the participant who held a Philosophy PhD, he described starting the programme with a view of mind as dynamic, in line with ideas of neuroplasticity:

"So the thing is, when I wake up tomorrow, you are literally starting again, because everything is in a constant state of flow and flux. Things are dynamic, this person is like that now, but the 11 year old won't understand that that will change, there is a sense of a changing dynamic. We are all rivers sort of thing."
Ethnography, post programme workshop, notes September 2017

This person describes himself as in a "constant state of flow and flux" waking up as a new person each day, allowing for a more dynamic, less fixed way of understanding himself and others translating into different ways of viewing others.

The concept of working in dynamic and collaborative, rather than fixed hierarchical ways, was another theme in the research, being more dynamic is associated with being more flexible, less fixed and more able to be with uncertainty and to reason effectively in groups without fixing to certain views.

This was explored using SenseMaker, participants were invited to signify their narratives according to whether they saw them as representative of more dynamic/co-creative or static/coercive ways of working. They were asked to do this relative to different demographics, themselves, their teams, the organisation and citizens out there. As can be seen in Fig 12, 13 & 14 below, they represented themselves as far more dynamic than either their colleagues, or citizens, putting 28% of citizens (Fig 14) and 30% of civil servants (Fig 13) in the static/coercion quadrant vs only 11% of 'me' (themselves) (Fig 12).

Note: figs 12-14 are "stones" graphs. Participants were asked to place a stone in the graph relative to where they thought their narrative sat between coercive/static and dynamic/co-creative. They were also asked how this might reflect on different stakeholders they work with, colleagues, the Civil Service in general and citizens. As can be seen in these graphs, they assessed themselves as far more dynamic/co-creative than either the Civil Service in general, or citizens.

Fig 12



Fig 13

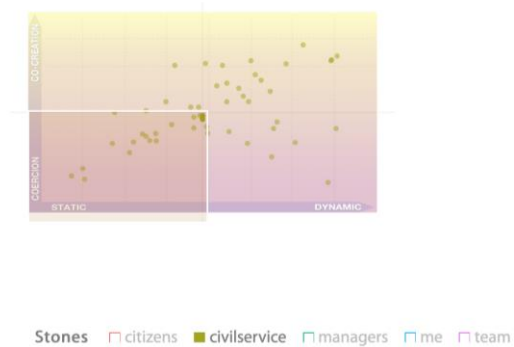
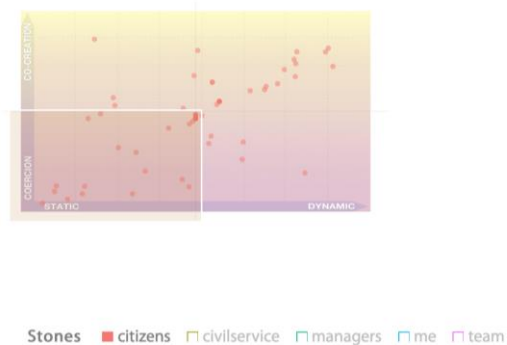


Fig 14



In the post programme workshop, when discussing these results represented by these graphs, the participants suggested that the “static/coercive” space was one they would not have wanted to identify with, therefore one they were less likely to attribute to themselves. However, given they were fully aware that the ‘static/coercive’ zone was negatively associated, it is interesting they rate the rest of the Civil Service and public citizens as three times more likely to be in the static place. This might suggest, even if they are more dynamic, they do not perceive a shared culture of dynamic working in the organisation or between the organisation and the citizens on the outside. This also indicates a lack of a collaborative culture, given the people they are working with are seen as ‘static and fixed’. In the next chapter, I will show how their perspective on this started to change as they had the opportunity to explore neuroplasticity, alongside other theories of mind and

emotions. The programme appeared to help them build capacities for more dynamic conversations, offering the potential of more dynamic and creative working which may also have led to more effective reasoning, though this would need further research.

Another 'folk' belief was the 'busyness' of the mind, and how busyness prevented good thinking. Through developing an understanding of, and skills of, meta cognition (the capacity to see our thoughts and to experience our internal state from a slight distance) this busyness became more visible. Our internal 'busy mind' is often most obvious when we pause, such as during a mindfulness practice, we notice how there is a voice in our head, which appears to be constantly commenting on, analysing and judging our experience. This is also referred to as the 'resting state' or 'default mode network' (DMN), which, as I discussed in Chapter 2, is still not fully understood by the mind sciences (Callard, 2011). Participants described their "busy mind" as a constant stream of thoughts, which prior to the programme they had not really explored, nor had they considered its' effects on their thinking, once they did, they described preferring a 'clear mind' because a 'cluttered mind' was uncomfortable and interfered with clear thinking:

"Clearing your mind is really good, 'cos for me, it's always so bloody cluttered, I am just doing one thing and then I am just going on to do the next thing, the next thing, the next thing and just trying to stop doing that all the time, it's (clearing your mind) really helpful." *PP4, female senior civil servant, post programme interview.*

When this person was asked what it was like to have a clearer mind she said:

"It's easier to prioritise and see a way through things, constantly breathing, just stop rather than bouncing about in your head." *PP4, female senior civil servant, post programme interview.*

This person describes her thinking as "always so bloody cluttered" and "bouncing about" in her head in a way that sounds painful and undesirable. She is grappling with her own ideas of what feels like a full and busy mind, vs her desire for a clear mind which she believes will help her think more clearly, prioritise and "see a way through things". In Chapters 2 and 3 I gave a number of examples where, through a lack of understanding of how human attention works, issues are poorly prioritised (Hallsworth et al, 2018). The example given by this participant links the busyness of her intrinsic brain activity to her lack of ability to prioritise. Scientists argue about the function of the DMN and whether it is more self-referential or part of our sociality (Mars, Neubert et al. 2012) (Raichle, 2015). Some believe it works with other networks to both predict and react to experience (Tops, Boksem et al. 2014). What is clear is that this function of the brain does play a significant role in how we experience and understand our world, "and it is never turned off" (Raichle, 2015, p.440). Also, for most of us, like fish in water, we are so used to our internal voice, we don't notice it until it is made obvious, through programmes like the MBI or certain therapies such as cognitive behavioural therapy. If we do see it, as this person describes, it is often seen as something which seems "busy", something which jumps around and is slightly out of control. Another participant discussed how, once he brought his attention to his mind through starting to practice mindfulness, he found it overwhelming evident in this conversation between the participant and me, here as the trainer:

"The participant said he has a particularly busy brain (he said people have commented that he has a busy brain) and that we should explore with the

group, that maybe some people's brains are too busy for mindfulness. I push it back to him and say that yes, it's more difficult if you have a busy brain, but the benefits may be greater if you do the practice. He agrees to do a two week experiment and practice more. A few weeks later he comes back to me and says I was right, he just needed to practice more and be with the difficulty, his brain seems calmer." *Ethnography scraps - conversations and interactions during the programme May 2107.*

In the next section I will describe how, once people were able to be with their "monkey minds" another term they used to describe their very busy internal brain state, they could start to notice how it was unconsciously informing their thinking and perception. Put together with their understandings of behavioural economics this was useful because it helped them see through their subjectivity and how this unconscious (when it wasn't attended to) narrative was influencing (and biasing) their experience and their judgement of information and of others. This also offered the potential for people to become more aware how their attention is being unhelpfully influenced, both by the group, and their own internal analysis and judgement.

So far in this chapter I have looked at theories of mind and how they influence how people reason together, I looked at themes, related to "folk psychology" that made visible during and through the programme. In the final part of this chapter, I will explore how civil servants understand emotions in themselves and how this influences individual and group reasoning in unhelpful ways.

6.6 The emotional mind

In Chapter 3 I described how the emotion sciences have significantly developed and grown over the past 50 years. This new research has led to a paradigm shift in how the function and nature of emotions are understood. Whereas previously our feelings and emotions were seen as something

entirely different to cognition and reasoning, now the two are viewed as completely inter-related (Pessoa, 2013) (Damasio 1994) (Forgas, 1995) (Barrett, 2016).

In the introduction to the thesis I gave examples of political and policy leaders calling for the development of more relational and emotional capacities in government organisations. The 2012 Cooke report argued that without attention to these emotional capacities, relational government would “remain no more than a pleasant dream” (Stokes, 2012, p. 59). Stokes argues that emotional maturity and attentive listening are essential components to more collaborative working. It is from the development of these capacities that: “relational government will need to be built”, but, he stated, there was no evidence, at least when he was writing in 2012, these skill sets exist in politicians and civil servants (Cooke and Muir, 2012, p.59). The data collected in this research confirmed Stokes’ view that civil servants have little understanding of the link between emotions, work and rational thinking, instead their expertise in this area is littered with outdated science, myths and folk psychology. A common belief was that emotions could, and should, be suppressed at work. An example can be seen in the quote below, from a programme participant and senior civil servant, describing his belief that emotions could be “shut out”:

“I guess perhaps it links with the earlier point I made about shutting emotion out of work, which I have always left at the door when I’ve come into work.” *PP2, senior civil servant, post programme interview.*

In the next chapter I will show how, after participating in the programme, this person significantly changed his approach to his own emotions at work. This included him understanding how emotion and

cognition work together, co-engaged in directing attention and assessing and assigning value to incoming information, contrary to his previous belief expressed in the quote above, that emotion and cognition compete in unhelpful ways. Neuroscience has shown that the anterior insular, part of the mind involved in interoception (feeling our internal state), and emotion is also “robustly engaged” in our executive functions, such that “a demarcation between them (emotion and cognition) is a fruitless enterprise. In the end we must call them an emotion-cognition amalgam.” (Pessoa, 2013, p.206). If Pessoa’s conclusion is correct, for the civil servant to “leave his emotions at the door”, he would need to remove his anterior insular as he entered work, keeping it in a safe place and then replace it on the way out as there is no other way he would be free of his emotion and internal felt state. This is of course ridiculous, and, as neurobiologist Antonio Damasio, discussed in Chapter 3, would attest, removing the emotional parts of his brain, would make the senior civil servant less rational, not more. Through treating and working with people who had brain damage, Damasio discovered that if the brain could not, because of injury or illness, integrate emotion and cognition effectively, people became incapable of being rational. Without emotions, they had no faculty to assign value to different choice options, leading them to continuously rationalise, and unable to decide on anything. (Damasio, 1994, p.51). This points to emotions being an essential part of our reasoning, and our survival (Winter, 2014, p.4). As well as assigning value to settle on a decision, emotions influence human reasoning by facilitating the relationships through which we reason. Emotions inform and support human negotiations, the expression of anger and love both indicate a commitment, either to kill or to care for another. An emotion performs a function of engaging two or more people towards a desired outcome (Winter, 2014, p.7). Regulating the level of arousal and expression of these emotions may help support processes of human negotiation but does not negate the importance and function of the

emotion as one aspect of the communication. Rather emotion regulation (say in terms of love or anger) is more about managing the expression in a way that effectively communicates the investment the person has in the decision. One participant noted how he noticed during the programme that he engaged with, and regulated, his emotions differently at home and work:

"I often have emotional reactions to things at work I think, but at home it's constant you know you are always reacting emotionally, or mainly anyway. Whilst I think over the years, with the professional environment, you kind of learn techniques to enable you to deal with situations without engaging your emotions so it's a rare event I think. But you know today in work I am mainly feeling grumpy and sad about having to be here rather than be at home, but I am able to kind of step back a bit from that and deal with my interactions with people as if that wasn't the case. You know it's understandable that I feel like that but I shouldn't spend the whole day talking to everyone else about feeling bad, that's probably not an appropriate way to behave even if that's how I feel." *PP1, male senior civil servant, post programme interview.*

This person's quote is contradictory, he begins by saying he "reacts often" at work, and then counters that saying emotions are a "rare event" at work, finishing by saying he is feeling "grumpy" (and he is at work) indicating an emotional event is happening in the workplace right at this moment. He then states it would not be appropriate to express his grumpiness to others at work and describes using cognitive re-appraisal to regulate his feelings describing it as "understandable" because he would rather be "at home". He shows meta-cognitive abilities, he can see his grumpiness, name and reappraise so is not suppressing it. By naming the emotion, as I discussed in Chapter 3, this person helps reduce the effect that suppressing it would have on his nervous system and heart rate. He suggests he "should not" talk to

others about his feelings of grumpiness, but by naming and acknowledging it to himself he reduces effects he might have on decisions and interactions. By naming it he also mitigates the influence of a very negative mood on his perception caused by his mood, as discussed in Chapter 3. Naming an emotion reduces the biasing effects of the mood, a negative internal state has been shown to result in perceiving more negative information (Goel and Vartanian, 2011) and also increases risk aversion relative to positive emotion (Forgas, 1995). The more he and/or others are aware of these effects and of the potential to regulate them, the better they might be at navigating mental predictions and their biasing effects.

6.7 Negative emotions in the workplace

Dealing with difficulty and negative emotions is a recurrent theme in the data, both in the SenseMaker narratives and the post programme interviews. In the narrative below a person describes experiencing negativity during a meeting with an external stakeholder:

“Met with some stakeholders from the third sector for the first time, they were unrelentingly negative about other public sector partners - not so much Welsh Government but others. Despite trying to steer them onto a more solution focused and positive agenda they remained negative and whinging which made me less likely to trust them to be strategic and collaborative.”

SenseMaker Narrative Percent x 0.736 Percent y: 0.2225

The stakeholder mentioned here represented a County Voluntary Council (CVC), one of a number of local organisations across Wales funded to support and facilitate networks of local community projects. It would be interesting to quiz the CVC on their view of the interaction described above and understand more about why they might have been being negative. Given the research I have discussed, the quote here suggests the civil servant was

either in a negative state themselves, and so only saw negative information, or was correct in seeing negativity but viewed this as unhelpful rather than interesting feedback. Interestingly they also decided this negativity meant this stakeholder could not be trusted, be strategic or collaborative. I have discussed how cognition and emotion link and how all emotions are functional. Perhaps the CVC were struggling with a work difficulty and looking to negotiate a change towards a different and improved way of working? Whatever the issues, the civil servant avoided exploring the negativity, seeing it as unprofessional, ignoring and effectively suppressing it by attempting to: "steer them to a more positive agenda," presumably believing it is only through holding a positive frame that a solution will be found. When the positivity strategy didn't work it had a significant effect, dissolving any trust between the two and resulting in an ineffective meeting. In another SenseMaker narrative, a person described how they dealt with a colleague's negativity during a negotiation:

"Negotiation - I had to engage with a colleague who was negative in relation to my role in work which she was responsible for leading. This was an area with which I was very familiar and which was outside her experience. It also impacted significantly on other work I was undertaking. Previously I would have approached this in a clear fashion which might have caused strain between us." *SenseMaker narrative Percent x 0.496 Percent y: 0.163*

This describes a common situation in the Civil Service where tension arises because staff, employed as generalists and not specialists, end up managing an area where they have limited expertise. This person says previously they would have approached a situation like this in "a clear fashion" potentially which might have "caused strain". This narrative was written during the time this person was on the MBBi programme and suggests they were

trying different ways of working to normal. But this, and the previous quote, show how cultural beliefs about emotions, that negative is bad and positive is good, influences our perception. As discussed previously, research now offers other ways of understanding negativity, a negative view may be more in touch with things as they are, and may better enable communication related to social, cultural and survival functions (Goel and Vartanian, 2011) (Parrott, 2002) whereas a positive emotion may result in missing certain information and more risky behaviours. Both negative and positive emotions have value in negotiations, in the first quote, more of an analysis by the civil servant could have led to deeper understandings of the problems faced by the CVC, and more likelihood of resolving a real on the ground issue (Slovic, Finucane et al. 2007, p.411). In the second narrative the negative view might have been operating as a commitment device, with the two people attempting to assert their own positions in order to effectively do their work and maintain their identities within the system. However rather than working in a culture where negativity is viewed as functional, or at least valid feedback, the person here says previously they would have dismissed or avoided it by: "dealing with it in a clear fashion", in turn resulting in an unproductive "tension", one where, like in the first example, their relationship would have been weakened. To consider this a little more, here is what the person describes in the second part of their narrative, describing how their approach was influenced by the programme:

"Having reflected after a mindfulness session I was able to take a more measured approach and find a way forward which did not threaten the other persons' sense of leadership and responsibility. The outcome was acceptable to both of us and importantly was a successful piece of work." *Sensemaker narrative. Percent x 0.496 Percent y: 0.163*

It is hard to know exactly what happened from this short narrative, and we will look in more detail at the positive results of the programme in Chapters 7 and 8. They describe changing their approach from “clear” to “measured” and making efforts not to threaten the other persons “sense of leadership”, indicating a different, more nuanced, view of emotion, and particularly negative emotion. Due to the programme they changed their interaction with this person leading, to an insight and a strengthening of their relationship which in turn led to “a successful piece of work”. The two examples given in this section demonstrate the cultural norm being a lack of knowledge of emotion and cognition, leading to strained relationships and less than satisfactory work outcomes. Another participant, in a conversation during the programme, noted that the organisational culture generally favoured not dealing with negativity and having difficult conversations. This avoidance of difficulty resulted in people being in roles where, in this person's opinion, they shouldn't be, because: “No one will have that 'difficult' conversation with them.” *Ethnography, comment made during training, trainer reflections, May 2017.*

In Chapter 5 I discussed Bridgewater, a successful finance company and a Deliberately Developmental Organisation, which is unusual in that it actively acknowledges and learns from mistakes and difficulties rather than penalising or avoiding them. Dalio, the founder and Chief Exec, has built a culture where, when difficulty arises, it is explored as a learning opportunity. He notes that certain individual capacities make a big difference to the outcomes of this process, such as meta cognition and self-awareness, both learnt through meditation: “You can tell a big difference between people who do meditate and people who don't.” He maintains that, in order to disagree, a person needs not to be “trapped by the emotion”, they need to be comfortable with

difficulty and difficult emotions such as the "emotions of feeling weak" and that meditation builds essential skills that help. (Dalio, 2013)

Another participant described how, during standard organisational training, they were given a set of tips to help with difficult conversations, but what they really needed was to create a culture, like in Bridgewater, where difficult conversations were viewed as positive ways to learn and develop.

"We go on courses on how to have a difficult conversation, and you get a checklist, but that is not the same thing as having a culture in which difficult, which clear conversations are expected and expected by the individual, or the other half of that clear conversation, so I think we shy away from it making the problems worse because you create an organisation where no one expects to have clear conversations. I also think the same is true of developmental and more positive conversations, I don't think we are very good at that either." *PP2, male senior civil servant, post programme interview.*

An example of a "checklist" can be found online on the Civil Service Learning website, the checklist makes suggestions such as people need to be "curious rather than furious" saying:

"When you are angry at, frustrated with, or confused by someone's behaviour, imagine thinking to yourself, "Wow! I wonder how they could see things so differently than I do? I really want to try to understand how they arrived at their conclusion." It's a significant shift when you can go from furious to curious." (*Learning unspecified*)

On first reading this seems good and useful advice, acknowledging that anger, if investigated, may help the parties in conflict productively explore

their differences rather than either defend or blame. It then suggests, to diffuse any emotional charge, a person should “enter from the ‘third story’ and think like a mediator”:

“Enter from the ‘third story’ - Entering from the third story simply means stepping back and trying to take yourself out of the situation emotionally. It’s similar to what a mediator does in a difficult situation. The mediator takes a neutral, objective role, rather than a subjective role.” *Tip sheet - Civil Service learning (Learning unspecified)*

This statement suggests a person directly involved in conflict/difficulty might be able to take, as they say, a ‘neutral and objective role’. It does not acknowledge how difficult that would be for someone who is neither a third party nor objective and, given all that we have discussed about subjectivity and bias in this thesis, has no training, capacities or skills that would help them do that. Given we are all social animals, wired to be part of a group, conflict is a particularly difficult thing to navigate. Nor does this advice take account of the hierarchy and the power differential and group biases I described in Chapters 2 and 5. It uses an information deficit approach, largely shown to be ineffective, as discussed in Chapter 2. If someone is told they need to “step back” and “be objective” that is what will happen. An analogy might be to imagine a person being told to “go play football” without any skill development or training, they may successfully kick the ball around the field, based on observations of others and previous football matches, but they are unlikely to become a premier league player. In the context of the senior civil servant, dealing with wicked problems and complex situations rather than a premier league match, they need to be a top player but are not given the skills to do it. Evidence the checklist training approach is not effective is apparent in the narratives and quotes above. This can lead to, as one participant describes,

catastrophic results, with people: "Failing catastrophically in a job they should never have been asked to do." *PP2, male senior civil servant, post programme interview.* He finished by pointing out that the Welsh Government failed to recognise that the organisation is all about the people: on to suggest this is a reflection of the fact the organisation doesn't value human beings as a resource and so doesn't invest in them: "I think we fail to realise that if it wasn't for people this and every other public sector organisation would cease to exist, it's all about the people, and how they choose to work and how we help them work and this programme has helped bring that into much sharper relief." *PP2 senior civil servant, post programme interview.*

6.8 Summary

In this section I explored the research question in terms of how issues of cognition, emotion and perception hinder the Welsh Government to address wicked problems. I looked at how civil servants understand themselves, their minds and their emotions and how that impacts their work. I described their limited understanding of human attention, leading to ineffective multi-tasking, which some recognised was a structural and process issue, and not a failing of the individual. I discussed how participants in the programme, started to see the relationship between their mood and perception noticing they were not as objective as they previously thought. Rather, their mood dictates what information they perceive, in turn influencing their decisions and behaviours. I described how people with no knowledge or training on theories of mind and emotion, the majority of staff, were left using 'folk psychology' to inform interactions, information processing and decision making. I also demonstrated how, the few, people with some training on mind, operated in quite different ways valuing this expertise, keen to use it and learn more. I also considered people's experience of their 'busy minds', and the Default Mode Network, discussed in previous chapters. Participants described how their 'busy minds' made them less able to think clearly and effectively

prioritise their work. Finally, I discussed emotions, how civil servants believe they should suppress their emotions, despite the fact they are essential to effective reasoning. I described how negative emotions are avoided or misread, putting a strain, or even causing breakdowns in stakeholder relationships. I looked at how they deal with negative emotions largely seeing them as a barrier to a good decision making, rather than something which could support them to better analyse and assess information.

I examined how government currently builds capacities of emotion, perception, mind and decision making in their training, through offering such short training sessions, some online, together with booklets and checklists. These appear ineffective, failing to acknowledge our decision making processes as habituated, historical, embedded in our everyday interactions and environments, habits which take a long time, and work, to shift. Also failing to appreciate human attention, cognition, emotion and subjectivity has a strong social and survival function and is embedded not in individuals but in social groups and organisational cultures, rendering a tip sheet even more impotent.

In the next section, "Finding Solutions", covered by Chapters 7 and 8 I will describe the results and outcomes of the 8 week programme delivered over three months to senior civil servants in Wales in 2017. The programme, which I have started to discuss in the previous two chapters, investigated attention, emotion, cognition and theories of mind and used the reflective practice of mindfulness to support a first person inquiry into these aspects of the human psych. It also discussed how cultural, historical and organisational systems influence our cognition, emotion, attention and bias, moving the focus away from being an individual, wellbeing, issue, the space these topics most often occupy. Through analysis I will offer potential solutions, in line with the research question and approach, offering both practical and theoretical

contributions to this area of research and the quest for more effective policy approaches to wicked problems.

Section 3 - Finding Solutions

Chapter 7 - Finding solutions, decision making revisited - organisational factors

7.1 Overview

Section 2 (Chapters 5 and 6) defined the problem of how a lack of understanding of how the human mind works, together with organisational factors creates a poor policy making environment in government. It also described how the organisation fails to fully see or adequately address these issues and is resistant to change, subject to its own status quo and organisational biases.

In Part 2 I will focus on potential solutions and promising areas for future research, mainly through discussing outcomes of the three month programme and other methods described in Chapter 4. I will describe in Chapters 7 and 8 how the programme changed people's understanding (in some cases informing them for the first time) of how they think, make decisions, analyse information and perceive and predict others. I will show how, as a result, they experimented with different ways of working, leading to interesting and mostly positive outcomes. These two chapters will mirror Part 1 and Chapters 5 and 6. Chapter 8 will focus on the elements of how people understand their mind (attention, emotion, perception, bias) and this, Chapter 7, will focus on the more organisational elements, looking at, structures and hierarchy, stress and people's experience of overload and organisational resistance, how the programme changed and interacted with people's view and experience of these.

7.2 More relational/collaborative ways of working

Chapter 1 opened with statements from all three UK Governments calling for more collaborative government. They included Mark Drakeford, First Minister of Wales, in a private speech to his senior leaders, stating his opposition to "hierarchy" and "leadership as a heroic function" expressing his

view, hierarchy is a “dangerous concept” and “highly ineffective” because it “runs out of road quickly”. Instead, he advocates collective working and distributed leadership, “that is how I want the cabinet to work.” In June 2019 I was invited, as a result of this research, to a meeting discuss policy capability in the Welsh Government. The meeting was held in the Welsh Civil Service Building in Cathays Park, Cardiff, the meeting room I was in, with a number of other academics, is known as the ‘innovation suite’ and has been converted from fixed, grey/brown tables in boardroom style and magnolia walls, to colourful moveable tables, surrounded by sofas with cushions and Welsh designer label throws. I had previously been told this room was designed to create a different atmosphere, supporting group conversations, outside the norm of usual government meetings, it was particularly useful when groups needed to have difficult conversations. During the meeting I was in, one civil servant mentioned Drakeford had been using the room for Cabinet meetings, that politicians would sit in a circle, with no desks to hide behind, to discuss cabinet matters. This is an example of Drakeford attempting to make his ideas reality by using spaces and meeting architectures to support more collegiate conversations. An open circle, without tables makes people more vulnerable and potentially results in less defended discussions. Drakeford’s approach remains experimental, there are no researchers observing to see if it improves decision making and there are no other rooms like it in the building. Whilst admirable, what Drakeford is doing is not seen as “technical” or essential rather something peculiar to him and his thinking, likely to change when another First Minister takes charge (as one senior civil servant pointed out to me). Collective and collaborative decision making should, according to the Understanding Our Political Nature Report, be taken more seriously, as all policy issues are dealt with collectively:

“Most political issues are complex, poorly structured and have to be addressed while coping with uncertainty, ambiguity, incomplete information and time constraints. Policymaking therefore is to a large extent driven by collective processes.” (Mair D, 2019, p.21). Making it subject to a number of biases and errors of judgement, “The tendency towards intergroup discrimination and in group favouritism, collective processes often subject to group biases and judgement errors leading to poor decisions.” (ibid).

The report describes how policy making and politics works collectively and is blind to the science of reasoning and rationality as applied to collective processes. It refers to research to point out group effects, including availability biases, where certain information is shared, biasing discussions, and other, potentially significant information being withheld. The order in which information is shared also makes a difference, something discussed at the start of a discussion will have more salience than details shared later. Time pressures, as discussed previously, and perceptions of psychological safety will also have an impact on the quality of a groups’ reasoning. (Mair. D, 2019)

In Chapter 5 one participant described how his colleagues had, admired him for being, a “Rottweiler”, and a “hard edged” manager, as they believed that being hard and top down, was the best way to improve work performance. Acting like a vicious dog would seem opposite to the evidence presented in the Understanding Our Political Nature Report that, in order for groups to be able to reason well, they need psychological safety. As a result of being involved in the programme the participant discussed, who was previously admired for being a rottweiler, began to reflect on less adversarial, more collaborative, approaches to managing others:

“You know, I was so busy chasing outcomes and this weeks’ must do’s and moving from one problem to another it became easier to be too hierarchical about it and not try to understand why an organisational person was

struggling and what my response was to help them. You know shouting is easy, shouting at people to try harder is easy, it doesn't require very much other than volume. But how do you help? Is harder. It's in no one's interests having to watch people and organisations fail, because that doesn't achieve anything, hence the need for a culture where we can help people succeed, not do it for them, not take away their responsibility, but how do we help people succeed? I think a large part of this has been me saying well, what would I want if I was that person? Would I find the way in which I, in my current role, have previously engaged with them, would I find it helpful? And I suspect, in more cases than I would like, the answer would be, "not particularly helpful".
PP2, male senior civil servant, post programme interview.

In Chapter 5 I discussed how this person had found some teaching on the mind, in an early session in the programme, to be 'thought provoking'. It detailed science showing the mind is predictive, rather than reactive, that we create the reality we expect rather than seeing an objective world out there. (Clark, 2015) (Trackman, 2016). This then led him to question his common sense assumptions about theory of mind. He explained in his interview that previously he had thought that people were rational, and his view of rationality was they thought like him. This is an example of a person using 'folk psychology', using his experience of his own mind to understand others. He believed that treating others like himself was respectful with no sense of it being biased. When people acted in ways that countered his own rationale he assumed they must not care or be "lazy" or "stupid" once he understood a theory of mind which challenged his folk psychology, it changed how he listened to others:

"I have been trying much more to be more empathetic and understand the difficulties others have and allow that they are as ambitious and keen to

succeed as I am, so that it is not that they are lazy and idle and unbothered, it's that they are facing genuine difficulties. So, I find it has shifted my perspective quite considerably." *PP2, male senior civil servant, post programme interview.*

The programme did not discuss or teach practices of compassion and empathy, rather it discussed recent research and theories of mind and emotion, as predictive and constructed and not reactive and universal (Clark, 2015) (Barrett, 2016). These theories of mind and emotion gave him up to date expertise to base his behaviours and approach to others on, using these theories he could understand how and why the other person would be viewing the problem very differently to him. As a result, rather than understanding the person as 'like him' but lazy or uncaring, he understood the person was not like him at all. Therefore he could not make any assumptions about how the person in front of him might understand the same work issue. He became compelled to try and understand what was happening from their point of view, seeking out how they were constructing their view, aware of the limitations of his own assumptions and judgements:

"I have much more been putting myself in the other person's shoes and trying to see the world through their eyes and understand why they find these things difficult and why they, or their organisations, find these things difficult, then trying to be much more empathetic rather than judgemental I suppose." *PP2, male senior civil servant, post programme interview.*

As a result there is a significant change in his interactions and collaborations with others, resulting in a much more open and honest sharing of information, as I discussed in Chapter 5 in the OneTeamGov initiative, once

hierarchical, top down, habits shifted people started sharing their difficulties and having effective conversations about how to deal with them:

“It has changed the nature of the relationship and it has made them a lot more open, which is more helpful because I actually find out more about what’s going on than you do in a more adversarial relationship where people hide things or just share with you what they want you to see but not the bit they are worried you might have a go at them about. ” *PP2, male senior civil servant, post programme interview.*

This approach is aligned with behaviour change models, particularly social marketing, which state that assumptions and judgement need to be put aside in an attempt to understand the problem from the persons perspective rather than through the observer’s filters (McKenzie-Mohr, 2000) (Darnton, 2013) (Dolan, 2010). Thus this leader has not just understood a better way of relating to their staff, they have also understood the best first step in a behaviour change process. This approach also creates more psychological safety as the person they are working with shares “the bit they are worried you might have a go at them about.” According to Edmondson psychological safety affects individuals’ willingness to “employ or express themselves physically, cognitively, and emotionally during role performances,” when there is a lack of safety they disengage or “withdraw and defend their personal selves”, (Edmondson and Lei, 2014, p.25). The psychological safety that came from a change of approach in this senior manager led to a willingness to share the reality, and difficulty, this person was experiencing, leading to a better analysis of the information which then allowed them to find ways to move forward:

There is a: "Better understanding and a more open minded view about what might then be necessary to move things along." *PP2, male senior civil servant, post programme interview.*

This is significant, given that the senior civil servant is a Deputy Director of a Welsh Government Department managing health services, and the person they are managing will be a senior manager in health services, the issues they are discussing are likely to impact important services and many citizens. The senior civil servant did feel he needed to caveat his description of this new way of working, saying that some fundamental things had not changed, including his expectations for competency and professional capacities, perhaps reflecting a tension between his new "more empathetic" way of working and the old "hard edged" approach:

I haven't changed, in some cases, I have still quite clear views about competence of organisations and whether they have the competency or capacity, so it hasn't changed those views, I have not moderated that sense of expectation or ambition, but I can understand more clearly why people are finding it harder to do things and that these are not, you know, bad people or idle people, these are people who are managing difficult situations so I need to try to be helpful rather than blaming." *PP2, male senior civil servant, post programme interview.*

He then shares that, perhaps his caveat is more to do with justifying himself to colleagues, who are judging him for his change of management style, no longer calling him 'hard edged' instead accusing him of being 'soft':

"I've been accused of being soft because they were surprised at how I haven't leapt in and done the, 'work harder and do better' presentation." *PP2, male senior civil servant, post programme interview.*

This shows how difficult it is to transition into different ways of working when the culture is pointing in another direction and gives further evidence that tip sheets, short courses and leaflets are unlikely to change much.

Initially this participant talks of assuming he knows the right answer this would be described as an over confidence bias, and is discussed in an internal Welsh Government information sheet on decision making discussed in Chapter 5 (Bethan Johnson, 2018), "we know we are right" and when people do not agree with us we dismiss their view. The information sheet suggests civil servants need to check "Am I listening to others?" or "have I considered others' perspectives?" (Bethan Johnson, 2018, p.11). Based on the example above, it can be seen this is more of an embedded and complex phenomenon than the information sheet suggests. This participant needed to go through a process of understanding new information, reflective practice and discussions for him to start to change. In a conversation a year later the same participant discussed how he was still exploring how he viewed his own expertise, saying:

"As a leader I expect to be saying something that is valuable, that is better than others, I am realising that this is not so important, that it is ok for others to say more important things than me." *Ethnographic field notes*

This person described changing his approach to working with others as a result of the compelling scientific evidence base he was presented with on the MBI programme:

" I think that's what this process has helped me to understand, is, you know it's reinforced the importance, the central importance and equipped me with some techniques and a little bit, not too much, but a little bit of underpinning for it so that it's not something that, well that's just a fad, because it clearly isn't a fad, there is a logic to it which appeals to the evidence based, fact driven person that I am. I don't pretend to understand and I say I couldn't recite them back to you but they made sense when you talked about them and I read about them and I saw the videos of them. So it's enough to know that this is something that was worth spending time getting into." *PP2, male senior civil servant, post programme interview.*

Another senior leader described how understanding behavioural insights through the programme had led her to change her approach from being critical to what she describes as "empathetic" and collaborative, though empathy was specifically never used as a word in the programme:

"I've often been sort of, criticised is the wrong word, but whenever I got 360 feedback from staff or from my line manager, one of the things that I am frequently criticised for I guess, but obviously we should use positive language, it's not criticism, that I am not necessarily empathetic, and that if somebody has done a poor piece of work, I'll kind of go, that's a poor piece of work. Now I've sort of taken a softer approach, so actually some of that behavioural insights thing sort of helped me think more about the impact on others, of how I approach a situation so it's not to say I have suddenly transformed myself into being kind of hugely empathetic, but you know, it's all helping." *PP3, female senior civil servant, post programme interview.*

This participant describes how, through understanding her mind and behavioural insights, she now sees the 'impact' she has on others, and how a

negative or positive approach has an impact on her work relationships. Other participants reported how different understandings of mind, gained both through learning theories of behavioural insights, and practicing reflective practices of mindfulness, meant they engaged with people in more collaborative ways, this SenseMaker narrative, reflects previous comments, describing how this person has changed their approach, now listening to their team, rather than assuming they have the right answer and making assumptions about others expertise:

“Who speaks first: “Mindfulness training and pausing before meetings has helped me spend more time listening before diving in with my views. I have found this helps produce better outcomes. My default mode, particularly with my team is to think about the subject of the meeting beforehand then start the meeting by saying what I think. I have changed my approach so that I now start by asking the team what they think - in a meeting yesterday I listened to their views first and decided that their approach was better than mine so I didn't need to intervene. This saves energy for me and them because they don't have to push back against the position I had reached. Similarly today I went to a one-to-one meeting with a senior colleague. I paused before the meeting and decided to start by asking about his recent holiday before getting to the subject in question. I needed to say very little because my colleague was very open and I felt that by listening I was making more progress than I have in previous meetings with this person. I am trying to continue to practice this technique of letting the other person have their say first on the basis that it seems to produce a better atmosphere and makes meetings less stressful and more productive.” SenseMaker narrative Percent x 0.626 Percent y: 0.2556

As in the previous section, this person notes how they save time by acknowledging that others might be as expert as they are, this fits with Drakeford's idea of more distributed leadership. The narrative also states that there is less "push back" from the team, presumably from people disagreeing with the managers idea, or feeling they are not being valued and instead are being imposed on by their manager. This person then notes how listening first makes for a 'more productive" and "less stressful" meeting. This echoes finding presented in Chapters 6 and 7 where an increased understanding of mind and emotions let to better interactions, resulting in more effective meetings and then less stress. This is in contrast to people using folk psychology, or defaulting to the hierarchy, making for poor interactions, leading to ineffective meetings and ultimately stressed staff. Frazzled staff are then less productive and, in the longer term, need to invest time into wellbeing activities to 'fix' themselves, to start the cycle again. Similar examples were offered in other narratives, such as the one below:

"Not rushing to action. I received a meeting invite for a catch up from one of my team. Before the meeting I paused and resolved to listen and pay attention to the conversation. My colleague started the discussion by updating me on a number of work issues and it then became clear that the real concern related to another colleague and their behaviour. The points made were fair ones and ones I had noticed earlier. I noticed that I was starting to react to think about solutions and actions that I could take in response to these issues. I stopped myself from doing this and tried to ask more questions in order to understand the situation better. My colleague then said that they didn't want me to do anything but wanted to share the issue. I said that I would reflect and consider how to respond. On reflection I was pleased that I had moderated my default instincts to some extent by not rushing to action." *SenseMaker narrative, Percent x 0.6763 Percent y: 0.1942*

This person describes using meta-cognitive capacities, developed during the programme, which enabled them to see their thoughts and what they describe as their “reactions”. They say they notice they were starting to react, “to think about solutions and actions that I could take in response to these issues” but, instead of getting caught in this, they were able to notice it without acting on it. This changed how the interaction unfolded and what seemed an unexpected outcome that the person talking to them did not actually want a response, or a fix, but just wanted to share an issue. They then described feeling pleased with how the interaction went, giving the sense that both parties were reasonably happy at the end of the discussion. This narrative shows how the programme changed their approach to what seemed a potentially difficult conversation (‘concern’ related to another colleague) and gave them capacities to interact in a different way. Their response appeared to facilitate a different type of discussion where the member of staff could express ‘concerns’ and feelings rather than suppress them, that this helps people think more clearly and, as described here, helps move the situation forward.

Below is another example of someone listening in a different way, allowing someone else to speak without being interrupted. Again this appears more collaborative, with open and equal sharing of views and observations between a manager and a member of their staff. This resulted in a meeting that was described as “constructive” and “positive” and the manager noticing their “impact on others” and the effects of being “more thoughtful in their interventions”:

“I had a one to one meeting yesterday with a member of my team in which I made a conscious effort to let him speak and not interrupt. The meeting went well, and he said that he had found it very constructive and moved us

on. We spoke about another member of the team who is taking time to settle in - I mentioned that I have been doing my best to be very positive and encouraging and not challenging her sometimes off-beam way of approaching things (reflecting her previous work experience which is very different from the rest of the team). He said that he had noticed my approach and appreciated it. Reflecting on all of this I feel that the mindfulness training has made me much more aware of my impact on other people and more thoughtful in my interventions." *SenseMaker Percent x 0.6539 Percent y: 0.1774*

The examples presented here show people engaging in slightly different, more collaborative, conversations with their teams, some of which appear quite radical, with people moving from managing like a "rottweiler" to taking time to listen, making less assumptions. In another example a manager was willing to listen to others' opinions rather than beginning a meeting by imposing their own view. Others are taking fairly small steps towards exploring listening without interrupting and attempting to be open to hear more from their colleagues and team members. It is impossible to know for sure exactly what difference this might make to decisions or ultimately to policy, but they describe better relationships, discovering new ideas, being open to unexpected outcomes and able to value others' expertise over their own. In Chapter 2 I discussed the need for governments to be more relational in order to work more effectively with the "irrational" mind, I suggested that understanding more of their own mind and the minds of others might help them do that. I discussed both the Cooke Report on relational government and the collaborative leadership initiative in Scotland (Cooke and Muir, 2012) (Sharp, 2018) . The Cooke report states that in order to be collaborative, leaders need to move away from a "targets and terror approach" and towards empathy, better communications and listening, (Cooke and Muir, 2012, p.8).

The Scottish initiative draws from Harvard Management Professor, Peter Senge's concept of Learning Organisations and Scharmer and Senge's change model. In his seminal management book, the Fifth Discipline, Senge states: "Most managers find collective inquiry inherently threatening. School trains us never to admit that we do not know the answer", (Senge, 1997, p.25). He points out how, from a very early age, we are trained to compete in order to improve, rather than collaborate. He describes how historically people have been rewarded for advocating their views, not for the kinds of collaborative inquiry that is needed to surface in-group and cognitive bias. Senge's "learning organisation" uses formal and incidental learning to develop an organisation which is "continually expanding its capacity to create its future" (Senge, 1997, p.14). This includes learning from mistakes, understanding they are inevitable, particularly when people are trying new things: "All learning takes place in the context of failure" (O'Keeffe, 2002, p.135).

For this to work, there needs to be a "fail safe" culture and staff need skills and "personal mastery", which according to Senge includes understanding reason and intuition and seeing interconnectedness between things (Senge, 1997, pp.139-173). Learning organisations have similar features to Kegan's Deliberately Developmental Organisations (DDO's) discussed in Chapter 5. DDO's were used in the MBBI Programme as an example of an organisational, rather than individual, approach, to support changes in the use of attention and emotion, they both see the value of taking a constructive approach to mistakes (Kegan, 2014) (Kegan, 1982), this resonates with the participant below, as they reflected on the benefits of the programme:

"I would be trying to link the benefits, perhaps some of the benefits of organisational letting go and being more trusting and needing less bureaucracy and fewer rules but more of a high trust, enabling environment for people to thrive in, because it works for me, has worked for me so why

would I assume that other people need to be controlled why can't I assume that other people have the same view of their work as I do of mine, which is the desire to do a good job, to be trusted, to be given space to be offered support, be allowed to fail a little bit, as long as I learn from it, to be allowed to develop key relationships." *PP2, male senior civil servant, post programme interview.*

Both DDO's and Learning Organisations approach human rationality in an unusual way, Senge believes the vast majority of organisations make fundamental errors explained by their failure to understand how humans think, including group biases, the maintaining of identities at the expense of good decision making and biases caused by people's lack of direct connection with the outcomes of their decisions. (Senge, 1997, pp.139-173). A Learning Organisation uses a cultural approach, based on the fact we all operate from a folk psychology, and do not understand ourselves, but need the support of the culture, as well as training and appropriate processes to think more effectively. The data presented in this section suggests that when people learnt more about their minds, through the MBBI programme, they operated differently, more collaboratively, and were more aware of the need to change processes and structures in the organisation, as well as to learn more through training.

7.3 Overwhelm and stress - a different perspective

In Chapter 5 I discussed how the Civil Service reported, like many organisations, increasing levels of stress, internal surveys revealed 86% of staff showed signs of physical stress when using email. I went on to describe how this has largely been addressed as an individual wellbeing issue rather than an effect which negatively influences the policy process, needing to be tackled at a structural level. Instead stress is seen as an inevitable, outcome of

contemporary working life, an unavoidable waste product which needs wiping up after the event, rather than dealt with at source, any damaging effects on the production of good policy is invisible or ignored. In Chapter 5 I also compared this approach in policy making to research in clinical surgery, where tiredness and fatigue are not addressed by expecting people to increase their coping skills, as the risk to patients is too high. Instead processes have been introduced to prevent mistakes (avoidable deaths or the removal of the wrong limb) and improve the quality of their work. I also reflected on the work which argues that stress will lead to more automatic, shortcut and biased thinking (Lempert, 2018, p.101) (Kahneman and Egan, 2011) (Weick, 1995, p.69). I described how civil servants experienced stress and gave examples of a negative spiral of poor decision making, weakened relationships and experiences of overload, leading to unsatisfactory work outcomes, more work and more stress. Unlike in operating theatre, no lives appear to be at stake and the negative effects of stress, bias, poor decisions, strained relationships and more stress is ignored. In this Chapter I will discuss how, once people had the opportunity to learn more about attention, theories of mind, emotion and bias, they worked in ways that were more effective and satisfying, apparent through shorter meetings and better relationships with others. Importantly because they were more satisfied with their work, they were less stressed and therefore much less likely to need to seek out wellbeing activities to help them.

7.3.a Countering culture - Slowing down to go faster

In Chapter 5 I presented data from SenseMaker narratives which made visible the amount of time civil servants spent in one to one and group meetings. post programme interviews revealed how, by learning theory, and through reflective practice, they changed their approach in meetings, becoming more relaxed and able to be open. The participant below describes

as a “really interesting concept” that becoming more reflective (rather than hurried) makes for a more effective meeting:

“That’s what I think it was, so we were all relaxed and I think we were more reflective and more relaxed and then more open. Which is why I think it is a really interesting concept within work, because that would make better use of people’s time, and meetings and things, by taking that approach, rather than that sort of rushing in and doing things and doing meetings for meetings sake, just being a bit more reflective, well a lot more reflective.” *PP4, male senior civil servant, post programme interview.*

This person describes how slowing down would be a “better use” of people time. Often slowing down is discussed in terms of improved wellbeing, but here he talks about how, counter-intuitively perhaps, it improves the meeting. A number of people described how, as a result of the programme they became more reflective, pausing more often:

“I found myself taking a deep breath and doing that naturally, not thinking about doing it as part of the practice, but doing it because I was sensing that something was winding me up, for want of a better phrase, and spotting those signs and saying right, ok, deep breath, bring it back down again. *PP3, female senior civil servant, post programme interview.*

In Chapter 5 I described how participants had described a busy organisational culture, a busy mode seen as a default for successfully getting more done. Starting to achieve more by being less busy and paying attention in a slower and more reflective way, seemed counter-intuitive to many. In the quote below the participant needs to qualify how he has “slowed down” with

the comment “in the most positive sense” indicating slowing down has negative associations within the organisation:

“I have slowed down and, I mean that in the most positive sense, instead of rushing around the place, and wondering where the last 15 years have gone, in work terms, but just trying to be more reflective and that was really important. And the techniques, I sit in meetings that are sometimes interminable and dull, where previously frustration might have shown. Two or three calming breaths, and I can find more positive ways of moving things along.” *PP2, male senior civil servant, post programme interview.*

The above examples show how pausing and slowing down changed people’s experience of meetings, making them more “open” and “positive” which in turn, and to their surprise, made them more effective. By going a little slower, more aware of and able to shift, their internal state they were able to “move things along” rather than becoming frustrated. Being aware and naming tension, as discussed in Chapter 3, regulates emotion, noticing and reappraising negative or overly positive thoughts allows a person to change the effect of mood on their perception, improving their engagement in meetings and potentially their decisions (Heilman, Crişan et al. 2010). A more tense and negative state leads to people conferring a negative value on whatever is in their mind at the time (Schwarz and Clore, 2003) this seems evident from the example above where the participant describes becoming less tense, and then less “frustrated” and then finding more “positive” ways. Without the theory and practices he had learned, he would have, as he describes, remained frustrated, been more likely to assign negative value to the meeting discussion, which, he implies, would have made it difficult for the meeting to progress.

An indication a slower, more reflective approach was extremely counter cultural, was demonstrated by participants describing how hard they found it to justify to colleagues that a "slower" paced meeting might finish faster, and be more effective. In a post programme interview, one participant suggested there was a need for some more hard data to back his experience up, otherwise colleagues would not believe him:

"If it could be shown to save some time in meetings, because often, some of our meetings tend to be quite long and you are going over the same ground again and again, but if there were more pausing going on then that might not happen." *PP6, male senior civil servant, post programme interview.*

This person describes how he believes one of the things that happens when people pause and are less tense and more reflective is that there is a reduction in repetition, shortening the meeting perhaps because people hear more of what is going on the first time it is said. The idea slowing down enables people to see more of what is happening is also suggested in the SenseMaker narrative below.

"My colleague was stressed and speaking ten-to-the dozen. In the room I would try to use my presence as a calming influence and brought the temperature down. On the phone this felt really challenging, but I stuck with it. I was basically running at a completely different pace to my colleague - slower and more methodical but also aware and energised and spotting much more of what was happening." *SenseMaker Narrative*

This person describes a telephone call where, because they were pausing and slowing down they were "spotting more of what was happening" relative to their colleague, who was stressed and speaking very quickly. The

Behavioural Government report advocates introducing 'break points' (Holsworth, 2018, p.30) , in conversations to address confirmation biases which are, "a tendency to seek out, interpret and judge information in a way that supports ones pre-existing views and ideas."(Holsworth, 2018, p.29), these break points allow people to check their assumptions. The slowing down people describe in the quotes above, together with the theories they are bringing to bear about assumptions and predictions do appear to create a disruption in the flow of the conversation, allowing them to be more aware of their assumptions. There is less repetition and more reflection, potentially addressing in-group biases. In Chapters 2 and 3 I discussed Ellen Langer, a workplace psychologist, who investigated workplace rationality and subjectivities at a similar time to Kahneman and Tversky (Langer, 1975). Like the Behavioural Insights team Langer advocated practices which break the normal flow of experience, such as "noticing" and "noticing novelty". (Langer, 1989). This compares to Kahneman who had little hope that people could address their biases through working on them individually, (Marshall, 2014, p. 48) instead arguing flaws in human decision making must be addressed by external agents designing choice architectures. This research found civil servants did gain more insight into how their attention operates, influencing how they worked with others this is likely to have consequences for policy design.

The BiT Behavioural Government report does not discuss the effects of stress or negative emotions on thinking and bias, something the authors of the EU, *Understanding Our Political Nature*, think is a mistake. The EU Report states stress is likely to effect decision making, "in the context of perceived threats or when pushed to decide rapidly, may dramatically change decision-making strategies," (Mair et al. 2019, p.32). The report describes research showing stress moves people from flexible, reasoned decision making, to more intuitive decision making (similar to System 1 thinking) which involves less conscious,

and therefore reasoned, thinking. In the quotes in this section participants described how being able to relax, shifted how they felt, influencing how they process information. In Chapter 3 I discussed how certain professions manipulate emotion in their job in order to achieve a particular outcome (a surgeon evoking calm, a debt collector evoking anger) (Sutton, 1991) (Larson and Yao, 2005). Here the civil servants show they have learnt capacities to change their mood state to reason better with others, countering a cultural norm of suppressing tension in meetings, potentially leading to less frustration and more negatively biased thinking.

7.3.b Attention, emotion and decision making are a technical part of our job

In Chapter 5 I showed how the programme made visible to participants the psychological and behavioural aspects of their work, seeing more how their own understanding of their cognition/emotion influenced their work. Through their involvement in the training they came to see this part of their work as as technical as any other part of their job. They also became aware of how this was not reflected in the quantity or quality of training and capacity building they are offered on these topics, nor is it taken into account in the way the organisation runs itself. This participant below describes how previous training he has taken had had little impact:

“I was also trying to think about this in the context of other management type training I have done and stress, you know I have been on stress training before and how does it compare with that? And I was trying to think about that. And if I have come away with two or three things from this, which I think I have, then that is a much better score than I would say for virtually any other training I have done around management. I am probably not the best student in the world at picking up a course and putting it into practice, I think why I am giving this a tick is because with this course I think I

have been able to do that." *PP7, male senior civil servant, post programme interview.*

When asked whether he could identify what made this programme successful, compared to others, he believed it was because the science was made "very clear and easy to understand" and the whole training was evidence based:

"One of the things I was trying to think about was that you actually gave lots of evidence and you weren't just telling us, it was an evidence based approach, often you go on courses to avoid stress and they sort of tell you lots of things, you know this, this, this, but they don't tell you why, what was the rationale behind it? You spent a lot of time doing that and so it was a much more evidence based approach which enabled me to accept what you were saying and actually not being so sceptical." *PP7, male senior civil servant, post programme interview.*

This person described the programme as "evidence based" pointing out it wasn't just "telling us things". I discussed in both Chapters 5 and 6 how the training offered in Welsh Government is not based on up to date psychological and behavioural science, that it oversimplifies complex research into tip sheets, checklists and extremely short courses. This quote suggests this person agrees that a focus on science rather these "tips" which, as he says just "tell us things" is more effective. An example of a tip sheet is on the Civil Service learning site on stress (Ministry of Defence, date unknown). This list tells managers they need to help their staff avoid and deal with stress, by making sure the people they manage are:

- appropriately trained to do their role,
- not working excessive hours and "are able to take their holiday"

- able to take opportunities for development.

One day training workshops are also offered on “dealing with pressure” (Civil Service College, 2018). Topics covered include: “What is pressure”, “Self-awareness and personal triggers for feeling pressure”, “the pluses of pressure” and, interestingly: “A discussion on how to deal with hierarchy”. The length of the workshops forces them to use an information deficit approach, sharing facts about stress to change behaviours.

The programme deliberately did not offer tips and techniques, but rather presented psychological, social and neuroscience on cognition. It also gave people reflective practices, opportunities and skills to develop self-awareness, as well as opportunities to discuss with their peers the impacts of their learned insights on their work. The mindfulness practice allowed them to explore their own perceptions, thoughts feelings and be more attentive to how this influenced their interactions with others and how they analysed information. This gave them an intimate first person experience of their internal narratives, perceptions and subjectivities, allowing them to see things about themselves they had never before been aware of. This is something an information based tip sheet or workshop would not deliver. During the programme, they also had time to take what they learned back into the workplace, experiment, then come back and discuss with their peers new understandings and learning. Through this process it changed habits through a peer group learning journey, as I have and will show, this did start to effect changes.

According to a Welsh Government booklet on decision making and bias: “Reason, left to its own devices, will engage in false beliefs and systematic errors,” therefore policy leaders need to be: “Deliberate and disciplined in their decision making (Bethan Johnson, 2018, p.4). It notes that “Our decisions impact lives and the success of our organisations.” (Ibid, p.4).

Whilst stating how important it is for policy makers to understand their processes of reasoning and decision making, the booklet consists of only 19 pages and references a very small handful of the 1000s of academic papers written on topics of reasoning and decision making. It gives descriptions of a number of biases and gives tips to improve decision making. Such as: "Not suppressing emotions but using cognitive re-appraisal", and "uncover the real motives behind your decisions," "Be open - live your values," and "have an open door and an open mind" (Ibid, pp.12-14). Such tips are unlikely to offer the kind of learning journey experienced through the MBBI programme, or effectively teach what is a complex science of emotion and perception (Wormwood, Neumann et al. 2017) (Hochschild 1983) (Gross 2013). In its oversimplification, the booklet is also contradictory, the final tip states: "Be open - live your values" then suggests people should spend time "uncovering the motives behind your decisions". As values embody our histories and therefore reflect biases, living unexplored values could simply reproduce bias. Untangling ideas such as these and considering their implications is a significant task not to be underestimated (Forgas, 1995).

The approach taken by these information sheets is analogous to early attempts to stop people smoking by offering them information about the dangers of the habit. Smoking is embedded in personal, social and material structures, modern smoking cessation interventions have found that social and structural interventions are far more influential than information targeted at stopping a smoking habit, despite the fact that the information tells people they will die (but in the future) (Cummings and Proctor, 2014, p.33). How we utilise emotion/cognition are part of relational, social and organisational norms, embedded in our history and our everyday communication practices and contexts (Dixon-Gordon, 2015). How we work with our emotions, understand and live our values, relate to each other, are habits and practices that are part of our culture, learnt across lifetimes and therefore unlikely to be

changed by “tips” and short courses. This is also emphasised by the EC report on human nature in politics, which discusses the many reasons why and how emotions are part of our thinking and points out that addressing biases in decision making and mitigating disinformation, will require “significant effort” and an “integrated approach” and not just information booklets. (Mair D. 2019, pp.17-18).

7.4 Understanding evidence changes work practices, reducing stress

In Chapter 5 I discussed how Weick and Langer approached overwhelm and organisational decision making not from a wellbeing perspective but instead in a way that informs how organisations utilise cognition, perception and attention in the workplace. (Weick, 1995, p.94) (Langer and Moldoveanu, 2000). They looked at the problem of stress at the source, rather than as an outcome, of poor working practice. Their work and approach informed the MBI programme, and the outcomes were similar to those Weick and Langer experienced. In an example below, a participant expresses excitement at seeing another person, more senior than him, change how he works, recognising that less work meant better quality work, less stress and an improved quality of life:

“He straight away said it had changed his life, he had turned the email alert off, didn't work in the evenings, wasn't answering all his emails and was doing lots of (*mindfulness*) practice. He was interested to report that everything had kept on going and no one had said anything and that he was totally bought into it. Best comment I heard; "once I realised I was entirely dispensable, I could see my work more objectively and do it better, with less stress." *Email communication, Programme participant, May 2017.*

This person believed, if this was happening at such a senior level, then it could have effects more broadly across the culture of the organisation. Two

years later we met again at a mindfulness conference and he commented enthusiastically that the changes he had seen during the course had lasted across time and reached across the whole department. Another participant described how changing how he uses his attention at work had also filtered through to changes in the team:

“I have been really consciously trying to focus on one thing at a time, rather than do the impossible. So I think it has really had an effect on my day to day work and probably has filtered through to changes in the team as well.”
PP5, male senior civil servant, post programme interview.

This quote referred to sessions looking at the science of attention and multi-tasking, which included practical exercises, together with discussions on organisational understandings and practices of attention and task management. The person describes how this influenced how he approached his works with his team, including considering new email protocols and organising a workshop to look at attention, cognition and mindfulness:

“Rather than just keep it to myself, I’ve talked a number of times, and you know, others have been interested and I have been interested to share with others. So when we have been talking about planning things and how we are going to approach things. They probably don’t realise that it is the result of a mindfulness vibe spreading through to them. I think probably it has infiltrated the way we work as a team.” *PP5, male senior civil servant, post programme interview.*

The fact he has learnt the science behind attention, rather than simply techniques, has made it easier for him to adapt and apply his learning to his context and his team. Whilst this in itself does not change the whole

organisation, it demonstrates if a programme is taught in an evidence based and contextualised way, it has effects beyond the individual and can start to become more structural, avoiding the need for stress courses and mindfulness based wellbeing programmes to clear up the overwhelm caused by poor understandings of the limitations of attention. It would be interesting in future research to compare the effects of the theoretical and practical understanding this manager has gained through the programme, compared to effects and outcomes of someone who has only read a tip sheet or booklet.

Another participant noted how understanding cognition, emotion and attention had enabled him to see how "beating myself up" for mistakes, now made no sense. Once he had seen this, he was able then able to connect more with the values that informed why he worked in the public sector:

"You are actually making a difference to people's lives, which is one of the reasons I am doing what I am doing, so it's enabled me to think about the positive and stop beating myself up about some small things that I didn't quite do right. Thinking about it, that is a point that you did make during the training course. *PP7, male senior civil servant, post programme interview.*

In Chapter 5 I wrote about evidence of an organisational targets and threat culture, where people are put in fear of making mistakes. The person above describes how, through understanding more science of mind, he was able to see how managing performance through threat no longer made any sense, as a leader this is likely to also have an effect on those around him. What became clear from the data was that leaders hadn't previously had any opportunity to reflect on their attention, and its impacts on the culture of the organisation in both negative and positive ways, despite the fact they are using it all the time. The participant below shows how once he had the

opportunity to “engage with that bit of theory” and give “time to think” it created a “tipping point” which changed his “whole relationship with work”:

“The recognition that my whole relationship with work needed to change. Because it was costing me a huge amount and I had been so immersed and I hadn’t seen that, so that all brought me up short and I think that all caused me to think about, you know, why was I working 15 hour days? Did I need to work in that way? Was there a different way of engaging with work issues that might be more productive and much less stressful and also more respectful of other people, and then I think it was that, and that bit of theory if you like that became a sort of tipping point, it just came together with those sorts of thoughts and really brought me up short and one of the things I really valued about that programme was the time to think.” *PP2, male senior civil servant, post programme interview.*

This is the kind of positive result the programme aimed to achieve, where understandings, through behavioural insights and personal reflection, changed the way people understood themselves and others, leading to changes in the ways they worked with others. That changes in relationships, interactions and the analysis of information might translate into changes in the policy process.

The quote from the participant below, brings together a few themes I have discussed, about normalising mistakes, the influence of social norms and identities and the effects of being able to express negative emotions:

“I think the other thing I found really helpful as well was knowing, which is another reason why I think mindfulness would be helpful within this organisation, I think just knowing how stressed, yes, so stressed other people feel. But also that they don’t always feel terribly confident about things or on

top of things, there's almost this feeling that as Deputy Director and above, Senior civil servants, you can't admit that actually that you are finding a particular area quite tough, not even toughness, but that confidence thing, about that you might lack a bit of confidence, so, yeah I found that really really helpful, be able to have the space to have an open dialogue with other people as well." *PP4, female senior civil servant, post programme interview.*

The participant explains how, just having a conversation about people's experiences of stress, helpfully changes the way she views her own experience. Making visible difficult emotions within the group acts as an effective emotion regulation technique, if this becomes a norm it takes the responsibility away from the individual to manage their own emotions and instead develops a new culture where emotional expression and re-appraisal is normalised, which might also help change bias. This participant also expresses how people are usually not able to discuss that they are finding work tough, supporting earlier discussions which showed weakness and mistakes are not acceptable in Welsh Government Culture, giving an environment in the programme where people can explore this belief together potentially helps shift the culture. In Chapter 3, I discussed science showing how suppressing emotions increases a person's heart rate and the heart rate of people around them, negatively effecting both their own and their colleague's health. Emotional suppression also inhibits clear thinking, with even slight changes in mood shown to bias action plans and subsequent organisational behaviours (Forgas and George, 2001). If people name emotions it has a positive effect on their ability to think more clearly, (Van't Wout, Chang et al. 2010). Creating cultures where emotions can be discussed in order to reduce bias and create cultural shifts also addresses some of the critiques offered by Purser and others as it moves both stress and bias away from being an individual responsibility, (Purser, 2019) (Forbes, 2016) (Stanley, 2019).

In this section I have discussed how participants looked at stress and overwhelm differently after participating in the programme. How they experienced it as relevant to their decision making, bias and relationships and more of a technical part of their job rather than purely a wellbeing issue. I discussed how government short courses, tip sheets and booklets attempt to offer some education in these areas, but how they are forced to dilute and oversimplify complex science making them sub optimal and ineffective. I also discussed how, counter-intuitively, the civil servants experienced more effective and quicker meetings through slowing down, relaxing and paying attention in different ways, how this caused less stress, resulting in more positive feelings. These outcomes suggested there are ways they might understand their minds as a “technical part of their job” improving how they do their work, decreasing bias, improving decision making and feeling more positive. This approach effectively addresses the causes of stress negating the need for well-being programmes that deal with stress as an outcome of poor uses of attention, ineffective decision-making and strained relationships.

7.5 Working with organisational resistance

In Chapter 5 I used examples from both UK and Welsh Government training programmes, to show how Civil Service’s attempts to innovate and build new capacities, are themselves resistant to change because of their bureaucracy and lack of innovation capacity. Due to the bureaucracy which biases training procurement, the only way people could see this innovative training being used was “subversively”. As the person below describes, despite the fact he believes programme would be hugely beneficial to the organisations (and he is a senior leader), he thinks the bureaucracy and hierarchy is resistant to change, making it difficult:

“So I can see that these approaches would be hugely beneficial to you know, people based organisations, but I think it has to be within the context

and I don't see that context here, I see just bureaucracy, hierarchical, very formal. I'm talking about at an organisational level, so I am not sure that the climate is right in this organisation for it to be, for the leadership to want to turn it into a mindful organisation I could see bits doing it, almost subversively, teams of individuals, perhaps that's the way to do it, to grow it organically, I can see huge benefit in this. *PP2, male senior civil servant, post programme interview.*

In many ways the programme was subversive, taking place outside the normal procurement systems as PhD research, made it possible to prototype and trial different ways of teaching on the topic of mind, bias and emotion, such prototyping is not used to develop training initiatives, which are largely procured as developed packages and delivered in transactional ways to staff. It took place both out of and inside the workplace, over an extended period, bringing together a peer group to share learning and experiences. The length and location of the programme allowed the group to build trust which meant, as time went on, participants felt able to reveal their vulnerabilities and uncertainties, significantly contributing to their learning. The format also allowed them to, as a group, explore the effects of the organisational culture on how they understand themselves and interact with others, including the effects of working within a hierarchy, where people work in fear of making mistakes. They reflected how rare it was for them to sit in a room together and reflect on their job in this way, as one participant noted:

"What was good was that I find it useful to engage and find out what others are doing and also some of the content was enlightening" *PP8, female senior civil servant, post programme interview.*

The way the programme was introduced into the organisation aligned with the internal “enthusiasts” approach to change and innovation, described by UK HR staff in Chapter 5, where enthusiastic staff seek opportunities to advance personal agendas and interests the organisation isn’t able, due to the nature of its bureaucratic procurement systems, which procures training in a way that is “defendable” rather than the most innovative and best, (Sutherland, 2018, p.3).

A number of participants described the length of the course as unusual, as people at their level don’t normally do a programme over this amount of time, as noted by this participant:

“So that’s what I think, I don’t think I have ever been part of a course that is this long, so I think that we need to commit to how we might be change agents for some of that.” *PP4, female senior civil servant, post programme interview.*

This participant believes the group need to act as champions, become enthusiasts themselves, to scale the effects of the training. They also give the sense that it would impossible for everyone to take part in such a long programme, so they need to find other ways to scale it. Others were also curious about how the learning from the programme could be scaled and developed, this participant believed it should be longer, to better teach the complex information it covered:

“Part of my reflection would be that you could easily make this a two or three episode programme and just have the same content spread out, if that makes sense. Whether you would get the same level of engagement in the longer programme. If you could break it up you would want people to go through all the stages of that and it might be difficult to get people to do that

if it lasts a year and its three episodes of three months. So that's the dilemma isn't it, you are more likely to get the engagement in a shorter programme but in a shorter programme you are really trying to cram in a lot of complex and deep stuff." *PP1, male senior civil servant, post programme interview.*

This suggestion, that the programme could be longer to really achieve optimal learning, further points to the limitations of the existing tip sheets, information booklets and short courses (Bethan Johnson 2018, Learning unspecified) (Learning, 2018). This person believed that rather than change the length of the programme it somehow needed to be normalised, or as he describes it, it needed to get into "the DNA of the organisation":

"I definitely want to pursue this, get this more into the DNA of the organisation, as a normal thing to be doing as part of Welsh Government."
PP1, male senior civil servant, post programme interview.

Another participant agreed, also suggesting it should be normalised, particularly the behavioural insights:

"I'd quite like to see it as more accepted, not accepted that's the wrong word, more normalised, as something that people do." *PP3, female senior civil servant, post programme interview.*

She went on to say why, stating that if people developed an awareness of themselves it would encourage a "common culture" and embed a different understanding of humans and how they think into the organisation, the behavioural science itself, she argued, would do this as it is "actually quite powerful":

"Because I think self-awareness is really important, awareness of others, understanding of others because it potentially encourages a common culture, common set of values. I would say that, even if you don't do the practice and don't buy into the practice, the science bit is actually quite powerful and should give anyone sort of just pause for thought about how, as individuals we respond and react to situations. And in understanding ourselves understanding others better, whether you think the meditation does anything on top, that the science bit is just a helpful frame of reference." *PP3, female senior civil servant, post programme interview.*

Whilst these participants thought the programme should be longer and/or normalised as part of working practice within the Welsh Government, another person reflected on how difficult it was to do the programme, because its length was prohibitory:

"I know that some have found it useful, but I suspect others, like me, have found it difficult to fit it in, which is a message in itself, which is why I think the dedicated time is really key." *PP8, female senior civil servant, post programme interview.*

This person changed jobs towards the beginning of the programme and also had a commitment on the day the sessions ran, making it difficult for her to attend. The difficulty of running a programme in an organisation where people regularly change jobs and can be called on by a Government Minister at any moment, also contributes to the organisation's structural resistance to change.

7.6 How mindfulness based behavioural insights changed behaviour change

So far in this section I have discussed how, on completion of the programme, people changed how they understood and used their attention

and how they related to each other in more collaborative ways, starting to change the way they understood their own behaviours and the nature and effects of their biases. I have also discussed how the programme came into the organisation not through their training strategy, but via subversive means, that internal bureaucracy and bias is a barrier to innovation. I have shown how participation in the programme enabled people to work more effectively, saving time, creating less stress, generating better thinking and working more collaboratively with colleagues. I have begun to demonstrate, and will continue in Chapter 8, how the programme changed the way the Civil Service saw themselves psychologically and behaviourally, leading to different ways of working.

Part of the research question was interested in how issues relating to cognition, emotion and perception hindered Welsh Government as they deal with wicked problems, such as climate change. In this section I will look at indications of how the programme influenced the delivery of behaviour change policy externally. A small number of participants were using behavioural economics directly in their work during the time they attended the programme, one person was working on regenerating a deprived area of Wales and also on delivering on the Well Being and Future Generations Act (WBFGA), she described how her combined interest in mindfulness and behavioural insights had attracted her to the course:

"I was interested in it because I have a really busy mind, that never stops thinking about stuff doesn't often reflect sometimes reflects but not in a very thoughtful way so I thought it would be a good practice. [.....]. I am just interested in behavioural insights anyway, I didn't have a huge amount of knowledge but I have picked up stuff just because I am interested. [.....] I am interested in psychology generally. So that was another reason I wanted to join the group." *PP4, female senior civil servant, post programme interview.*

She describes finding the behavioural insight interesting, and something she would like to study more. This is particularly interesting as she is using behaviour change in her work:

"I found it really really interesting, all the behavioural insight stuff, in fact I'd like to spend more time looking at it, in fact I am off next week, you know I am really interested in that so I want to go back and look at the videos and the materials." *PP4, female senior civil servant, post programme interview.*

Her comment is an indicator that, even though behavioural economics is central to her current work, it is reliant on her to largely train herself in the topic. Following the programme this person went on to chair a group looking at integrating the programme into Welsh Government and the public sector more widely. She also invited me to attend a policy capability review meeting, showing she was interested in ways it could further support the organisation to better design and deliver policy, and help support the delivery of the Well Being and Future Generations Act 2015 (WBFGA) (Government, 2015).

This participant's manager, who also attended the programme, works on the WBFGA (ibid), in community regeneration and uses behavioural insights in her work also described how the programme deepened her understanding of the topic:

"There's a whole literature on change and how you create the conditions for change and we are trying to change things all the time in terms of out there, it's reinforced some of the stuff I suppose to some extent we already know, or we think we know about how we promote engagement with change and how we overcome people's reluctance and fear of change, so I think in terms of our

policy making process, irrespective of the specific policy that we are talking about it's made me think a lot more about how we engage with others in it." *PP3, female senior civil servant, post programme interview.*

The programme explored whether personal understandings of mind could also inform someone's understandings of their team, the organisation and cascade through to how they delivered behaviourally informed policy. This participant describes how it did just that:

"I found it fascinating in terms of giving me a framework to understand some of my own behaviours, giving me a framework to think about the reactions of others around me in my team and actually, from the point of view of the policy work that we do, the broader question of how you create behaviour change sort of out there." *PP3, female senior civil servant, post programme interview.*

Part of the research question was to consider how an intervention melding Behavioural insights and mindfulness (as well as going beyond the two) might help address and resolve organisational and individual level issues and support more ethical and effective behaviourally informed policy. This quote indicates the intervention was successful, at least in some part in achieving this aim.

Following the intervention discussed in this thesis, the Welsh Government commissioned a repeat of the programme. The fact they were interested in paying to re-run it was a valuable indication it had been successful, in order to procure it directly they had to demonstrate they could not access it in any other way from any other training provider. They did this, through a series of inquiries, indicating the programme was not only valuable but it was also unique. Following the second programme one participant, during a recorded discussion, described how he had found the programme

useful, that the behavioural economics and mindfulness had worked well together to build capacities for organisational systemic changes and more distributed leadership, as called for by First Minister, Mark Drakeford:

"It helped me understand why my brain might, in a certain situation take a short cut and take me down a path which, had I paused and reflected, I might have taken my brain down a different path, and that seems to me to be fundamental. Mindfulness gives me the practice to take that time, to unstress, ground myself. Give yourself the space, if you like, to unburden the cognitive load, free up your mind start thinking about things in a different way. But it seems to me the behavioural insights, the teaching of, I mean, I read Thinking Fast and Slow, the Chimp Paradox, those sorts of things are really really fundamental to everybody understanding, how do I react the way that I do? How lazy actually is my mind? It takes short cuts that get me to places I don't really want to be, that is the stuff that is going to make a fundamental systemic change that the First Minister is pointing us to. Everyone needs to be taught the Behavioural Insight stuff as well as the mindfulness." *Ethnographic notes, discussion with senior civil servant, zoom conversation, July 2019.*

In Chapter 2 I discussed how, following an initial wave of the use of behaviour economics in policy design, critics pointed back to the policy process itself, stating that the way policy is put together needs to be psychologically informed in order to address the bias that exists in the system in turn to create more effective policy. (Banuri, 2017) (DECC, 2016) (Sutherland, 2018) (Hallsworth, 2018). The comments from the participants above suggests this could be the case, as participants learned about themselves and their processes there was a cascading of the learning towards appreciating bias and emotion/cognition issues in others, organisational structures, and in the consideration of policy design and process.

In the next chapter I will look in more detail at how the programme influenced people's ability to work with their attention, cognition and emotion, having understood theories of mind that challenged their existing "rational" folk psychological view of emotion and cognition. I will consider how the intervention changed their understanding of themselves, influencing how they perceived others and, as described above, how this then influenced how they saw the job of policy making.

Chapter 8 - Finding solutions, decision making - understandings of mind

8.1 Overview

In Chapter 6 I discussed how new understandings of rationality, reasoning and bias create a challenge to the implementation of the Civil Service Code, and its' core values of objectivity, honesty and integrity. I showed how, despite these values being core to the organisation, civil servants spend little time reflecting on understanding them or considering how their individual, group and organisational subjectivities constantly compromise these values. I evidenced how, through their involvement in the programme they became aware of the limitations of their attention, cognition and perception and the fact that bureaucratic processes fail to mitigate human bias. Some participants described becoming aware of the influence of their mood and emotion on their attention and perception, and the sometimes negative effects their internal state had on their ability to rationalise. They realised they use a 'folk' psychology to understand themselves and others and that capacities of attention, reasoning, bias and emotions are not taken seriously by the organisation as technical requirements of their job.

In this chapter I will look at how the MBI programme influenced participants understanding of their subjectivities, developing skills in attention, perception and emotion, and giving them new theories of mind informing how they viewed their own thinking and the thinking of their colleagues. I discuss how participants, with their new knowledge and skills, experimented with different approaches to work, achieving both small and significant changes.

I will evidence how the Senior leaders who participated in the programme started to apply their attention in different ways, using pauses to purposefully direct and hone their focus, whilst also developing their meta cognitive abilities, improving their ability to navigate and manage meetings. Replacing their folk view of mind with a model of predictive inference, changed how they listened to others, suspending their assumptions and having more capacity to notice potential biases. People also became more sensitive to how their internal mood and emotional state influenced their analysis of information and situations. Finally I discuss evidence that people started, as they became more able to understand and see their thinking processes, to become aware of how their previous life experience coloured their current experience and biased their opinions and decisions.

This chapter will offer evidence to show how an intervention combining behavioural insights and mindfulness had a positive impact on people's understandings of themselves and others, suggesting a role for the programme in supporting more behaviourally informed government processes. It will also show how the theory of predictive mind and constructed emotion offered an effective framework to both explain bias and develop a mindfulness practice to surface and spot these cognitive shortcuts which get in the way of clear thinking. It is less easy to evidence how these changes impacted policy itself in the longer term, this is something future research could tackle, and I will reflect on it more in the conclusion. It seems likely that

changing the way people process information, navigate meetings and understand and relate to each would have some influence on choices and decisions and therefore influence the policy process and outcomes, but this needs further research.

8.1 The potential of Attention

Chapter 6 looked at the types of issues which came from people's knowledge of the nature and limitations of human attention. Prior to the programme only one had studied any science of how minds attend to and make sense of the world, despite the fact that paying attention makes up a significant part of their job. None had learned skills in, or practiced ways of working with, their attention to better maintain focus or explore the filters which bias what we pay attention to. Chapter 6 also explored how, these skills could be seen to be fundamental, given that objectivity is a essential to creating objective, honest and transparent governance, included in both the Civil Service code and their internal competency frameworks (Commons updated, 2015, p.3) (Wales, 2017). Attention is also key to behaviour change, as discussed in Behavioural Government and Paul Dolan's work (Hallsworth et al, 2018, p.20) (Dolan, 2014) (Dolan, 2010). One of the folk belief's participants discussed was an assumption they could effectively pay attention to multiple tasks at once, and organisational processes and structures were designed in ways that expected them to do this. Through being involved with the programme they realised this shared belief was not supported by science and that the organisation needed to appreciate this and change its processes and expectations. I discussed this finding in the context of research on attention in the workplace from Bazerman, Weick, Langer, Dolan and the Behavioural Insights Team, who all argue a lack of attention to attention negatively impacts the workplace (Bazerman, 2014) (Langer, 1989) (Weick, 2006) (Dolan, 2014) (Hallsworth, 2018, p.08). According to Dolan "the misallocation of attention is our fundamental problem" in our workplaces (Dolan, 2014, p.69)

and the “reallocation of attention must be the fundamental solution.” (Ibid, p.99). Like Langer, Weick and Bazerman, Dolan advocate training the “conscious reorientation of attention”. During the programme participants explored theories of attention, whilst also doing interactive exercises and mindful attention practices. They moved from knowing nothing about their attention to appreciating it as contingent, contextual, biased and effected by mood, social relationships and environment. They also shifted from understanding attention as something which ‘just happens’ to something that is variable and trainable, appreciating the influences of personal and cultural filters. Through exploring understandings of the mind as more extended (Clark, 1998) and socially, culturally and contextually emergent (Barrett, 2016) (Choudhury, 2013), participants were able to appreciate that attention is linked to our relationships, our environment and organisational processes, structures and resources.

8.1.a The revolutionary potential of focussing

Participants explored the limits of multi-tasking through studying theory, practicing interactive dialogue practices and individual focussing and attention exercises. A number described the insights gained from their study as “revolutionary” and “an eye opener”, including participants who, for various reasons, were only able to attend a few sessions. This participant expresses a common theme:

“I loved evidence about multi-tasking: I think I can multi task but the evidence and practical example have really stuck with me about how you can only focus and give your attention to one thing well.” *PP8, female senior civil servant, post programme interview.*

She states here the evidence “really stuck with me” implying it has continued to positively influence her working practice. I met this person two years later

at a meeting with the First Minister of Wales and, when discussing the programme, she was still positive about its benefits, even though she admitted she didn't "invest every day in doing the exercises." *PP8, female senior civil servant, post programme interview.*

Others, as described in Chapter 6, stopped attempts to multi task and many started to add intentional pauses into their day reporting they were "more reflective" and "thoughtful" as a result, this changed the affective tone of their interactions and meetings, as described by the person below:

"The practice has helped in that I do find it easier to get into that mode for a minute than I would have done before. I think in meetings the same, just pausing before I make an interjection and waiting until further on in the meeting and planning what I am saying more, so just more reflective, more thoughtful. Even in a meeting, just slightly zoning out for 30 seconds. Particularly if I am getting uptight. Just to calm down a bit and yeah, just reflect a bit, breathe, not even reflect but breathe and clear my mind and feel a bit more positive about it." *PP4, female senior civil servant, post programme interview.*

Research on mindfulness in the workplace is limited, and mostly linked to its effects on stress and well-being (Rupprecht, Falke et al. 2019, p.1081). Some papers suggest the practice has the potential to disrupt automatic thought patterns and habits and enable the filtering of perceptions driven by emotions and schemas from the past.(Glomb, 2011, p.126) which would support the idea it may help mitigate the effects of biases based on people's previous experience. In this quote the person is describing using a pause, a practice developed during the programme, to "clear my mind and feel a bit more positive" indicating it shifted them from a more uncomfortable state of

mind to one more relaxed and positive, the effects of this would be, based on research from Forgas and others discussed in Chapter 3, she might see different, more positive, information compared to when she felt less positive (Forgas, 1995).

8.1.b Making visible the generation of predictions through simply pausing

In Chapter 6 I discussed how a predictive model of mind, when used to underpin a practice of mindfulness, could make visible: “the priors which inform people’s predictions and “lead to a weakening of the usual processes of framing experience through habitual lenses.” (Pagnoni, 2019, p.7). Through pausing a person can “re-perceive” what is happening enabling them to see something differently, as this person describes:

“I think when you pause, if you pause something, you are talking and you then you just think is this going where I want it to go? Or, am I getting my point over? I think when you pause, it just gives you that second to reflect and re-think what you are saying and I think it enables you to get your point across, if it’s not working in one way you can try and do it in a different way, so I think it enables you to, in some ways it enables you to negotiate better with someone, you know if this strategy isn’t working then if you pause, then you think oh, I will get on to the second strategy, to get your point over. You know it just gives you that little second to stop where you are at and re-gather your thoughts and move on.” *PP7, male senior civil servant, post programme interview.*

This participant previously said (Chapter 5) they had found the evidence offered on the course compelling but had not had the time or resources to do much mindfulness practice. The combination of the theory offered, group discussions and some small practices of mindfulness were

enough for him to start to experiment with his interactions and meetings, which, as he states, improved his capacity to navigate meetings. Others became somewhat discombobulated as they became less automatic and more uncertain about their perception:

"In a weird sort of way, reflecting on it, you can be over analytical can't you? So I would normally be extremely, not extremely, but perfectly at ease talking in those groups I have just been aware of being slightly hesitant and less at ease so I think for me I probably need to keep an eye on not overanalysing, but stopping and pausing and clearing your mind." *PP3, female senior civil servant, post programme interview.*

This person described the programme as a positive experience, but here describes how it was also challenging as she was used to being, "being perfectly at ease" and now, because she is questioning more, she is more "hesitant". This unease could be seen as a negative effect of the programme, making this person uncomfortable in a way that makes her feel less competent. It also offers an opportunity for her to suspend her assumptions to see novelty and become more aware of her unhelpful filtering and predicting as suggested by Langer (Langer, 1987) and Pagnoni (Pagnoni, 2019, p.7). As she notes, she needs to be able to balance her 'over analysis' against the other, potentially positive effect of seeing things differently. Other people described as positive an improvement in their ability to focus and a change in the quality of their attention. In the quote below the participant describes noticing more where his attention is when he is speaking to someone, making it more possible to engage and hear them properly, rather than just "going through the motions":

"I think, the danger is, you think you're listening, when actually you've either floated off elsewhere or you are just listening because you know you have to tolerate it. So there is something about a bit more actually engaging and listening rather than going through the motions." *PP5, male senior civil servant, post programme interview.*

This example aligns with Langer and Bazerman's view of the effects of poor attention in the workplace and how being in touch with a lack of awareness, or as Langer calls it, 'mindlessness' will improve a person's performance (Bazerman, 2014) (Langer, 1987). This person went on to describe how, by becoming more engaged with the people they were listening to, they found they were no longer 'pretend listening' and had stopped 'cutting people off', so were much more engaged with what the other person was saying:

"For me, being less ready to kind of, you know, the butting in and the cutting off and so on. I'd like to think I am doing a lot more of that, rather than, either kind of, not pretend listening you know, either being elsewhere or thinking, well I am going to let you have your opportunity, but I disagree with you and then I'm going to get off. I think I am more active, more actively engaged." *PP5, male senior civil servant, post interview.*

Through being more actively engaged with the person they are speaking to they describe listening in a way that hears everything the other person has to say, which suggests more of a shared, collaborative way of working and the potential for less individual biased thinking. The narrative from SenseMaker below suggests the practices and theory led people to stop multi-tasking and instead focus "entirely on the person talking" with the aim of "not seeking to

impose my own interpretation as much" and therefore not imposing their own bias:

"I often multitask when trying to listen (e.g. writing notes thinking about something else even using my phone) and also have a habit of anticipating what the person is going to say or trying to jump to the conclusion they might be reaching. My practice involves trying to focus entirely on the person talking focus on the words (not what they are going to say next or how I might intervene) making eye contact where appropriate etc. I find it difficult at the moment, but it is quite rewarding. I am transforming the purpose of the interaction, so I am receiving more not distracting myself so much and not seeking to impose my own interpretation as much." *SenseMaker narrative*
Percent x 0.5185 Percent y: 0.0504

Most mindfulness training, such as Mindfulness Based Stress Relief Programmes (MBSR), focus on 'being in the present moment' to avoid stress in the workplace (Glomb, 2011). This programme was more interested in addressing the biased nature of our attention and pioneered a predictive processing theory of mind to explain the practice of mindfulness to participants and support the programmes focus on cognitive bias and behavioural economics rather than addressing stress. Stress based MBSR programmes would use a very basic, oversimplified stimulus-response model of the brain, explaining the practice of mindfulness as a technique to regulate inappropriate reactions. In the MBSR approach I see a person frowning at me, feel angry or anxious, then notice my anger or anxiety and relax my body so that I don't respond in a way that is unhelpful to me or the other person. The predictive mind model is used to explain how we create our world through inference, and the mindfulness is used to attempt to make that process more visible such that there is some space to reflect on our inference. With the

frowning person example, I see I am inferring their facial expression as criticism towards me when the person may just have been concentrating, as a result I become a little defended, which might lead to the person frowning more, as they wonder what my defended response is about, further confirming to me that I am being criticised. This is a real example which has come up in one of the follow-on programmes, where a manager realised their team thought they were being critical, when they had just been concentrating. Once all parties see this mistaken co-construction, based on wrong assumptions queued by context, there is potential to be open to other interpretations to check for further information to find out what is really happening. Such an approach addresses the confirmation biases which some see as intrinsic to a predictive mind (Hinton, 2017). It also gives the policy makers an insight into the complexity of their own, their colleagues and the general public's human perception, disrupting any view they have of thinking as being linear and simple. Participants described the importance of understanding the mind science directly in the context of their work, rather than through, as is more widely available, a wellbeing context:

"The practice, the theory and the importance of going through how the mind works and the practical application in the work context, about thinking about some of these things.... bring it to life in a practical sense " rather than, as he described other mindfulness for wellbeing courses: "thinking that it's all about sitting in a dark corner for 10 minutes and thinking about your spine as a pile of golden coins and all that." *PP5, male senior civil servant, post interview.*

In the next section I will look in more detail at how the understanding of a different theory of mind influenced how people understood their work and the biases they bring to it.

8.2 Exploring new theories of mind - No common sense to common sense psychology

Developments in the mind sciences have, as already discussed, moved towards seeing the mind as more predictive than reactive and emotions and cognition more as one system rather than two. Both behaviour change approaches and mindfulness programmes are underpinned with theories of mind that would be challenged by these research developments. The mindfulness based behavioural insights programme (MBBI) used research and practices from mindfulness and behavioural insights but replaced the theories of cognition and emotion with a theory that both explained cognitive bias and gave a framework to understand and operationalise mindfulness in a more transformative way.

Nick Chater, a behavioural economics academic with an interest in human rationality, from Warwick University contests the idea we are, as Kahneman argues, dual system thinkers (Chater, 2018, p.121). Instead, he argues humans are “relentless and compelling improvisers” (Chater, 2018, pp.14&15), and that: “Almost everything we think we know about our minds is a hoax, played on us by our own brains.” The programme taught a predictive processing model, hereafter called (PP) of mind (Clark, 2015) (Seth, 2013) (Hohwy, 2016). PP offers a unifying framework for perception, action challenging classical theories of sensory processing that the brain is a passive, stimulus driven device. PP suggests there is no objective reality, but rather our experiences of the world are “controlled hallucinations”, (Frith, 2013). This idea was introduced through discussion and a clip from a BBC documentary on the Mind (Trackman, 2016) showing the mind as a multi-level prediction machine, encased in a skull, with no direct connection to the world, and forced to ‘best guess’ what is ‘out there’ based on previous experience of similar situations and stored knowledge of the world. We see and hear the things that we have already started to prepare to see and hear or launch behaviours that we have already started to organize. Learning takes place as we notice all is not as we

expected, and we update our prediction based on the new information. Life happens quickly and often we are unable, for whatever reason, to update our predictions, but rather continue to see what we expect to see this has been described as active inference (Seth, 2013). As suggested in Chapter 3, this PP and 'active inference' theory offers an alternative take on the simplistic model of Kahneman's dual process theory and cognitive bias.

The data during and post the programme evidenced that participants understanding of the PP framework had influenced how they understood their minds which in turn had influenced their interactions with others. In the quote below, the participant describes how, since the programme he has changed his approach, and is 'reflecting rather than predicting':

"I think I have changed my approach a lot in that sense. So, I tend to be more receptive to what people have got to say, I still have an idea of what I want to achieve obviously, but I'm perhaps a bit more prepared to listen, reflect rather than predict and kind of fit everything into a pre-determined channel. Which is quite interesting I think for me." *PP1, male senior civil servant, post programme interview.*

He described how previous to this he would have decided what the outcome of an interaction or meeting would be before it even started:

"I think my normal approach is to, before the interaction or meeting, decide what I want the outcome to be, and I am going to channel everything towards that and if I don't get that then that will be a bad outcome or I will have to come back to it again or whatever." *PP1, male senior civil servant, post programme interview.*

He now tries not to 'fit everything into a pre-determined channel' inferring he is aware of how his expectations, assumptions and biases will influence a discussion He then reflected on whether this improved outcomes, acknowledging it is not always straightforward:

"You know it's nice to have an outcome to get to where you want to get to at the start, you start to think that's what you want to achieve, but actually there are possibilities here that you haven't thought about. For me that's a very positive thing. But sometimes it means I don't necessarily get the outcome I thought I was going to get at the start and sometimes that feels a bit adverse, if that makes sense. But it's interesting at the same time, so there are two slightly conflicting things going on here. My normal mode and tendency is still there in me, but there's this other thing I am experimenting with which is a different set of interactions, but it's something I can feel I can tap into now in a way which I wasn't able to before for some reason." *PP1, male senior civil servant, post programme interview.*

This person describes "experimenting" with new ways of working, which he finds both interesting and unsettling. He has to let go of his expectations in ways where he may feel like a loss of control, he has to be open to decisions he may not agree with, which is resulting in both positive "possibilities I haven't thought about" and negative "sometimes I don't get the outcome I thought I was going to get" with adverse outcomes. In Chapter 7 I quoted a SenseMaker narrative which suggested not deciding the outcome of a meeting and allowing the team to talk first had ended up saving time and energy:

"I listened to their views first and decided that their approach was better than mine, so I didn't need to intervene. This saves energy for me and them

because they don't have to push back against the position I had reached."

SenseMaker narrative Percent x 0.626 Percent y: 0.2556

In contrast the participant PP1, who had seen positive results of not predicting meetings, also described how listening to others was less effective, people don't always, in his view, have better ideas than him, rather they will 'just want to talk in inconsequential ways':

"It does mean meetings go very differently. I don't know, sometimes it doesn't go so well, if you don't chair them in a certain way they'll just not get anywhere and people just want to talk in an inconsequential way and if that happens then it's my role to channel things a bit. I have to find a way of employing the right mode at the right time if that makes sense. That's the advanced level I think when you have different modes that you can adopt and you adopt the right role for the right situation as opposed to only having one and you use that every time (laughs)." *PP1, male senior civil servant, post programme interview.*

This person's comment suggests a new way of working is likely to take time to embed, needing practice and experimentation and is perhaps a limitation of this programme. It also points to the need to investigate a whole organisational approach to understanding mind, attention and cognition and exploring them in new ways. It further suggests that the tip sheets, and half day workshops currently being used in training on these topics is likely to have limited success. If a programme of this length and depth only begins the process of people being sensitive to the effects of their assumptions, listening a little more and noticing how expectations influence outcomes, what is the likelihood that small amounts of simplified research communicated through tip sheets and booklets might change ways of working?

8.2.a Discovering a unifying model of mind for mindfulness, behavioural economics and cognitive bias

During a presentation at the International Conference of Mindfulness Research in Amsterdam in 2018, Neuroscientists Helen Slagter validated the hypothesis I had already attempted to test through the MBBi programme, that mindfulness could function to disrupt the predictive process. This represented a significant and seminal moment in my research. Slagter proposed that mindfulness practices, if taught in the frame of PP, could function to "jam the predictive processing machinery." (Helen Slagter, Amsterdam conference ICM July 2018). Prior to this, whilst there are numerous papers on the PP model and cognition, there had been no research literature to suggest any links between the PP model and mindfulness practice. Slagter suggested that this could be a fruitful path for research at a time when I had already used the model with, positive effects in the MBBi programme, not only seeing it as interesting in terms of mindfulness practice, but also as a unifying model to bring together mindfulness and unconscious bias. The testing of this unifying model effectively contributes to the beginnings of a new theoretical understanding which supports a mindfulness based approach to behavioural economics and cognitive bias and a behavioural economics approach to mindfulness and bias and decision making.

Given this was an entirely new approach, not tested anywhere previously, prior to teaching the programme, I discussed my hypothesis with Sam Wilkinson, a post-doctoral fellow working, at the time, on an ESRC funded project: Xpecting Ourselves: Embodied Prediction and the Construction of Conscious Experience (XSPECT) at Edinburgh University. I discussed whether mindfulness might, if taught alongside a predictive mind model and in the context of bias and behavioural economics, support meta-cognitive insights into the generative models that inform our predictions and by doing so

challenge the negative effects of bias. Wilkinson agreed that PP would account for both confirmation bias and implicit, unconscious bias (previously understood as ethnic, class, gender, sexuality prejudice):

"I think the Predictive Processing (PP) picture has a hell of a lot to add about confirmation bias and implicit bias. In the PP model they are both the same in that you have your predictive model of the world that becomes this self-evident hypothesis. If you buy into the predictive processing account, the young, the white American police person who sees a black man pull a phone out of his pocket, there is a sense in which he will literally see that phone as a gun, you know, in a way that a standard account (of cognition and perception) can't/won't generate that theoretical hypothesis." *Sam Wilkinson, Post-doctoral fellow, to Andy Clark, Predictive Processing theory scoping interview.*

Having agreed the predictive processing model would work well to explain bias, he then considered how training, using theories of PP, together with the practice of mindfulness might help address the effects of bias. He suggested that most training on behavioural economics starts from the point that we are all rational and that our cognitive biases are anomalies needing correction, a PP theory of mind would suggest bias is the mind's default approach to making sense of the world:

"I think predictive processing accounts could be really useful for thinking about biases, for thinking about confirmation biases, so unifying all of these different biases under one model and also for understanding why these biases come about and the sorts of ways that you could overcome them. A lot of these theories say, well here's this rational creature that receives information from the world and you know acts accordingly and judges accordingly, oh no there are biases, so what kind of bolt-ons can I put on this to accommodate

for the biases, and it's not, and so what you end up with is you know, the irrational human being is just the rational human being 2.0. Whereas what you actually want is that, if you had a nervous system that did this, it would be biased, yes of course it would. Does that make sense?" *Sam Wilkinson, Post-Doctoral Fellow, to Andy Clark, Predictive Processing Theory, Scoping Interview.*

That then if this was used as a framework for learning mindfulness it might be an effective way to frame this attention and awareness practice to make our predictions more visible, making us more sensitive to the fragility of our views and assumptions:

"When you engage in mindfulness you use an understanding of your mind, your brain, your nervous system and using the theory of predictive processing when you are doing mindfulness is going to be helpful." *Sam Wilkinson, Post-doctoral fellow, to Andy Clark, Predictive Processing theory scoping interview.*

This effect is evident in descriptions from participants, such as the one below, which described how the programme changed his view of his own and others' ways of thinking and how as a result he now works on the basis, informed by the PP model, that: "people create their own worlds". He described how, if the whole organisation understood this, it would "challenge rigidity" in their ways of working:

"(if I was talking to someone else about the programme) I would be wanting to make the linkages between that sort of reflective practice, the letting go of distractions, the understanding of how people work in the world, about how people create their own worlds and about how we could use that to challenge

the rigidity that exists in terms of how the organisation often works." *PP2, male senior civil servant, post programme interview.*

This realisation that people's worlds are constructed and therefore more arbitrary appeared to open up the possibility for challenge, if we all have our own view of the world, based on our own individual and varied experience then the world is not fixed, we create multiple worlds with our multiple views. This insight led him to consider ways the organisation could fundamentally change to accommodate more of a predictive view of cognition and behaviour which is less fixed. He believes this would lead to an enabling culture with: "more trust, less bureaucracy and fewer rules":

"I would be trying to link the benefits, perhaps some of the benefits of organisational letting go and being more trusting and needing less bureaucracy and fewer rules but more of a high trust, enabling environment for people to thrive in." *PP2, male senior civil servant, post programme interview.*

This is the same participant, who, in Chapter 6 described himself as previously being proud to be known amongst colleagues as a "rottweiler", using a 'targets and threat' approach to manage people's performance, now moving to a "high trust, enabling" environment. Previously he had assumed we all think more or less the same and therefore people who did not agree with him must be either lazy or stupid. When this 'common sense' view of reality was challenged, (quoted in Chapter 6), he realised other people see things completely differently, based on their own experiences which inform their own expectations and then reality. This change of perspective led to him become more forgiving of others, realising they were doing their best, and like

him wanted to do a good job, informed by their own individual understanding emerging from their particular context:

“So why would I assume that other people need to be controlled? Why can’t I assume that other people have the same view of their work as I do of mine, which is the desire to do a good job, to be trusted, to be given space to be offered support, be allowed to fail a little bit as long as I learn from it, to be allowed to develop key relationships.” *PP2, male senior civil servant, post programme interview.*

In this quote the participant states a need to “trust” people and give them “space to be offered support”. This is a long way from his quote in Chapter 5 where he described himself as previously “straight talking” someone who, “says it as it is,” “hard-edged” and “sent in to sort things out” knowing that “the next steps are obvious.” Post the programme he is using a very different, much more collaborative, approach, informed by new theories of cognition and reflective practices. He describes how he has been challenging his own biases and assumptions about others. Now he is “much more putting myself in the other person’s shoes”, being less judgemental, implying he is aware of the need to suspend his assumptions:

“What I have found I have been doing since the programme, I have much more been putting myself in the other person’s shoes and trying to see the world through their eyes and understand why they find these things difficult and why they or their organisations find these things difficult and then trying to be much more empathetic rather than judgemental I suppose. I have been trying much more to be more empathetic and understand the difficulties others have and allow that they are as ambitious and keen to succeed as I am, so that it is not that they are lazy and idle and unbothered, it’s that they are

facing genuine difficulties. So, I find it has shifted my perspective quite considerably." *PP2, male senior civil servant, post programme interview.*

He is unsure whether this is leading to better results, but senses that it is an improvement and leads to 'better understanding':

"It hasn't necessarily led to better results, but it has led to better understanding and a more open minded view about what might then be necessary to move things along." *PP2, male senior civil servant, post programme interview.*

In this section I have looked at how new understandings of mind changed the way people work together, how they started to listen more to others perspectives, make less assumptions and as such started to open up interesting avenues for addressing the negative effective of cognitive bias. It also shows how people become more collaborative, open to new ideas, able to constructively challenge each other. Finally I discussed how, as people grappled with new ways of working, it created uncertainty, more work, as people also came up with ideas which the manager didn't agree with, evidencing that change takes time and work, there are no silver bullets creating instant positive transformation. In the next chapter I will move on to look at, not only how our minds are predictive and contribute to cognitive bias, but our human internal felt states and emotions are also constructed and predictive, influencing our attention, the perspectives we take, how we see others and the cognitive bias we employ to make sense of the world. By the end of the next section I will have shown how our predictive mind is made up of both mental and emotional aspects working together to construct our world, that mindfulness practices, together with theoretical study and reflection, can start to positively influence and change the potential negative

outcomes of when we re-produce our world in unhelpful ways through prediction.

8.3 Intelligence of the emotion/cognition axis

Anurag Gupta, in his paper on bias and our internal felt state, argues our feelings are the foundation for our bias, the subtle physical manifestations of our likes and dislikes cause us to make choices we are largely unaware of: "bias in these circumstances is the affective tone that stirs the mind to dictate words, actions, behaviours and decisions that are erroneous from the professional decision making perspective." (Gupta, 2018, p.1-15). Gupta argues that meditative practices can help us see through this by giving a reflective tool that offers us more access, via interoception, to our felt sense. In the last section I described how during the MBI programme, participants started to experiment with different ways of working, based on their understanding of a predictive processing (PP) theory of mind. This had impacts on their perception of others, and meant they were more likely to suspend their views and assumptions and were sensitive to some of their biases. I talked mainly of the predictive nature of mind, but the PP framework includes a theory of emotions as also predictive, constructed from internal state and context as discussed in Chapter 3 (Barrett, 2016). Barrett's theory of constructed emotion challenged Paul Ekman's theory of Universal emotions which dominated emotion science for many years. (Ekman, 1992). Ekman believed emotions were like fingerprints or maps of felt states and responses that were true for everyone, no matter what culture they are from, anger would feel and look the same in the UK, China and the Amazon, despite the very different cultures and contexts. Emotion and cognition have typically been thought of as: "Sitting on opposite sides of a divide between passion and reason, the hot and the cold" (Wilkinson, Deane et al. 2019 p. 101). Most people's common sense (or folk) psychology sees emotional states and thoughts as fundamentally different, and this belief is widespread. Thinkers

now consider emotion and cognition as inseparable (Pessoa, 2013) with cognitive and internal felt states generating signals to inform the prediction process as described by neuroscientist Anil Seth: "The close interplay between interoceptive and exteroceptive inference implies that emotional responses are inevitably shaped by cognitive and exteroceptive context, and that perceptual scenes that evoke interoceptive predictions will always be affectively coloured." (Seth, 2013)

In this section I will show how participants, having been through the programme, applied their learning on emotion and cognition, together with the capacities they built through mindfulness to see information in different ways, with interesting outcomes. In an example discussed in Chapter 6, a participant described becoming aware of how her emotional state influenced her attention when reading an email:

"And another one was an email somebody sent to me and I really dislike this person and I know I dislike this person and I was about to reply with a really really nasty email back, and I stopped myself and I re-read the email, in fact I re-read it about two or three times and realised that I had completely misread it and had I instinctively replied I would have caused myself and others no end of grief and I would have looked an idiot so that was helpful." *PP3, female senior civil servant, post programme interview.*

This person described how receiving an email, from someone she did not like, making her, as she states below, feel "agitated". What surprised her was how her internal felt state directly affected what she saw in the email, she picked out the negative information that confirmed her existing view, aligning with her negative state, and failed to see other relevant information:

"So, I've found, particularly with this email I received, I was kind of in an agitated state because this person had sent me something and I was reading it so fast and I was looking for things to find fault with, I wanted to find things that were wrong in it and it was only in the second, third read where I kind of brought my agitation levels down that I actually read it properly." *PP3, female senior civil servant, post programme interview.*

In Chapter 3 I discussed research on the link between emotion and attention (Schwarz, 2002) and how different internal felt states can make people interpret information in particular ways (Wormwood, 2017, Siegel, 2018, Niedenthal and Setterlund, 1994). Research has shown that fear, in a particular context, can evoke a gun being pulled from a pocket rather than a phone, with tragic results, (Baumann, 2010). The participant above, feeling agitation and dislike, then sees difficulty in the email, expecting disagreement, she sees disagreement, enacting a confirmation bias. Having been on the programme she is alert to her agitated felt state and that it might be influencing her perception. She reads the email a number of times and: "brings her agitation levels down" allowing her to read it "properly" and discovering the person is not saying what she initially thought. She describes this revelation as an 'eye opener', realising this situation could have happened numerous times in the past, that she would have been 'deceived' without her realising:

"So that was a bit of an eye opener in terms of how we deceive ourselves. I'm thinking god how often have I done that,? How often have I not read something and then drawn a conclusion that's completely wrong?" *PP3, female senior civil servant, post programme interview.*

Through the programme, this participant became more reflective, more aware of the potential for and mechanisms of bias, and able to use practices of pausing to self-challenge. She describes how, since the programme, she had been thinking a lot more about the emotion/cognition link and the influence this has on her analysis of situations. Below she discusses how previously she did not think about how emotion influenced her ability to “analyse a situation” and how she believes this was “like a lot of civil servants”:

“Yes, so I’ve been thinking a lot more about, I’ve always been, like a lot of civil servants, the basis of my career has been my ability to analyse a situation to problem solve etc, so I’ve been thinking a lot more about my ability in that sense, to get the best out of the people I am working with by having my emotion antennae a bit more tuned.” *PP3, female senior civil servant, post programme interview.*

Comments from other participants also revealed a culture where emotions are seen as irrelevant to decision making, needing to be “driven out” of “work interactions” As described by this participant who says they found it “a revelation” that science was now saying the opposite:

“So it is trying to be a bit less linear about it, particularly this emotional component and decision making. It really did surprise me, they are something I spent 35 years trying to drive out of my decision making and my work interactions, so that was quite a revelation.” *PP2, male senior civil servant, post programme interview.*

Another participant noted how, as a result of her participation in the programme she takes more seriously emotions in herself and others and their influence on thoughts and behaviours, particularly when there is difficulty. Rather than seeing emotions as something irrelevant she has come to see them as relevant to the policy process:

"We've had a lot of political turbulence and changes in Ministers wanting things done differently and people have invested a lot of emotional time, in doing things and then they get knocked back, [...] when a new Minister comes along and says, 'no I don't want to do that' that can be quite devastating in that situation, so the work we did on emotions, you can't help these things. And actually, in the last 12 months, we've had a lot more of that than we've had in the past, you know it's been quite turbulent so the work that we did on emotions and in that field has helped quite a lot." *PP6, female senior civil servant, post programme interview.*

Other participants reported a change in the way they related to their emotions, in the example below this person says instead of their previous norm of failing to suppress their emotions they are now more relaxed with themselves and able to simply observe what is going on, moving their energy from suppression to observation and an attempt 'to understand the system'. In the example they give this changes their relationship to the meeting in positive ways:

"I am working with two individuals whom I see every 2-3 months. I have found it frustrating at times because one of them has been quite slow to get going in terms of contributing to the project between meetings. This situation has only slightly improved, but my reaction has changed substantially, and I

think for the better. Rather than failing to fully suppress my frustration with the lack of action, as I was two meetings back, I am now much more relaxed (failing to join in is your own loss) and focused on observing what is going on and attempting to understand the system that is creating this lack of practical enthusiasm on the part for my colleague. We are not out of the woods yet but small steps are at least being made. (I suspect that if I had remained grumpy it would have taken even longer to get this far!)" *SenseMaker Narrative, Percent x 0.4956 Percent y: 0.2895*

The predictive processing model suggests that emotions are part of an integrated processing system which help to minimise prediction error and uncertainty. (Wilkinson, Deane et al. 2019 p.115). Experiments have shown how a person's mood influences which words they picked out in a test, choosing words reflecting their felt sense (Bower, 1981). In the quote above these can be seen in action with the person describes changing their predictions as they change their felt sense from frustrated to relaxed. This results in them seeing different information, to one which is more curious about what is creating a lack of "practical enthusiasm" in colleagues. This differs from previously, where, as they acknowledge, if they had remained "grumpy", they would not have "got this far".

Another participant described how, as a result of their learning, they also attempted to stop suppressing their emotions, instead integrating them into how they understand their behaviours in work:

"I think I have always been able to do that better (*put my emotions in perspective*), but I feel a lot better at it now than I have been, I know what's going on in a more sophisticated way, I have a narrative that enables me to understand what's going and not suppress my emotions but notice them and

decide whether I want to behave in line with them or choose some other form of behaviour. I think I went with the emotional suppression before, but now it's about noticing it, understanding what it is, and deciding whether you want to go with it or do something differently." *PP1, male senior civil servant, post programme interview.*

This shift towards integrating emotions rather than suppressing them is a significant positive result from the programme which a number of participants expressed in different ways. In the description below the person describes how being able to see and name her emotions, rather than suppress them, enabled her to work more effectively with a nervous state:

"I was in a meeting and I suddenly realised that I felt nervous, and I am not sure that before I would have acknowledged that that was how I was feeling, to myself, but by acknowledging it I was then able to sort of take a sip of water, take a deep breath and then when I spoke, rather than my voice being squeaky or crackling, or betraying my nerves, actually I was able to speak normally. It's very rare that I am nervous and I am in a relatively senior position so kind of don't expect myself to feel nervous, but I did, and I said: 'Oh that's interesting, I'm nervous, well I am going to take a deep breath and I am going to have a glass of water and I am just going to get through it and it's fine.'" *PP3, female senior civil servant, post programme workshop*

Reappraising emotion by naming them is an effective regulation technique, as discussed in Chapter 3 (Gross, 2014) helping address anxiety in ourselves and others, also effecting what information we see, how we deal with others (Van't Wout, Chang et al., 2010) and improving our decision making (Heilman, Crişan et al., 2010). The fact this person who "is in a relatively senior position" became more aware of her emotional state, means

she is less subject to the bias and generative thinking that a mood she is in, but is unaware of, might create. That she is now able to deal with her anxiety in a constructive way might also mean she makes a more effective assessment of her situation and better decisions.

8.3.a Positive approaches to negative emotions

A significant number of the SenseMaker narratives discussed how they often needed to deal with negative emotions. Barrett discusses how negative emotions have an important role in directing attention in decision making (Barrett 2002 p.2) with low mood states supporting adaptive ways of thinking which are functional in different contexts. (Parrott 2002). Previously I described how negative emotions were avoided or suppressed by civil servants, as a result of the programme people explored new ways of working with negativity that was neither avoiding or suppressing them, in this narrative the person describes how the information they learnt in the sessions helped them deal with the anxiety of being excluded at work:

“A meeting was being held and it became clear that I was not expected to attend. Although I knew it would involve more senior people than me this made me feel anxious because it implied that my contribution was not needed. I found our recent session on human behaviour and how much we are social animals who hate being excluded very helpful in dealing with this. It helped me understand how I was reacting. I also found it helpful to try to reappraise the situation in a more positive way. I wondered about naming the experience by telling my boss how I felt but I felt this would make me seem insecure so I decided not to. I find these kinds of things hard to deal with in work but understanding the psychology does help in making me realise that my reactions are probably not unusual. SenseMaker narrative Percent x 0.6204 Percent y: 0.2388

This person describes how understanding the psychology of their experience helped them normalise it. They were able to re-appraise the situation in a more “positive” way, and not merely suppress the difficulty. As discussed in Chapter 3, the programme avoided over valuing positive emotions and demonising negative emotions, an approach taken by much positive psychology and emotional intelligence training available in the workplace (Goleman, 1998). The aims of this approach was not to cover up poor working conditions or negate appropriate responses to dysfunctional organisations. Instead it encouraged inquiry into negative emotions, giving people capacities to be with them and explore their function (George and Dane, 2016). This person is able to re-frame their negative response as “not unusual” , a response which makes sense given we are social animals and not because they are unusual or failing, this helped them usefully make sense of it.

Another participant describes how the practices of pausing and mindfulness had made them more sensitised to their feelings during a conference this made them aware of what was being avoided and ‘remaining unmentioned’ at the event, making them feel exposed and anxious. Having understood and worked with negative emotions, instead of pushing them away or avoiding them, they were able to stay with their feelings whilst also effectively engaging with the conference, they were surprised by how they had enough capacity to do both and that this led (perhaps counter intuitively) to a successful contribution to the conference:

“I used a series of pauses to bring myself back to where I was. These pauses made me increasingly aware of the dislocations in the conference talks (in the room?) aware of what was apparently being avoided and remaining unmentioned. Rather than feeling more relaxed I actually felt more exposed; I felt this as a very physical flight or fight response. Instead of changing tack I

continued to pause and stay with the feelings. I was surprised that I could do this at the same time as taking on the conference content, the two seemed to be one seamless action. Staying with the feelings and (surprising myself by) having enough capacity to hold them seemed to naturally lead to decisions such as what to have to eat and who to talk to next. I spoke to various colleagues re-wrote my contribution on the fly, felt successful, better and exhausted by the end of the day." *SenseMaker narrative, Percent x 0.8889 Percent y: 0.0733*

Implicit in this comment is that this person would not previously have been as aware of the difficult emotion in the room, or that such feelings and sensitivity would have been suppressed. A different understanding of their emotions and rationality enabled them to notice more and stay with a feeling of being uncomfortable, finding that decision making became easier, fitting with the theory discussed in Chapter 5 that we think more clearly when we don't suppress emotions. In another example a participant described how naming her negative emotions has helped her think more clearly.

"I was going through a really lengthy memo from a lawyer they had written on a piece of legislation that we are going to make and, you know that, in the past I have got quite wound up about some of these things and angry and frustrated and that kind of thing. But this time, I've been actually thinking just name the emotion – I'm angry, I'm frustrated, and just actually saying those things to myself out loud has been really helpful in just helping my own frame of mind." *PP6, female senior civil servant, post programme interview.*

This person describes moving from a frustrated, to a calm state through naming her emotion as anger. As she names it the negative state she is

experiencing becomes less overwhelming, according to research discussed previously negative emotions can be useful in helping people see a problem as it is, with less bias (Goel and Vartanian, 2011) as opposed to positive emotions which induce increased risk taking and creativity. (Parrott, 2002). The person above describes using emotion reappraisal not to negate the emotion, but to move to a state where she is better able to deal with the situation. Emotion regulation is something which supports our social and cultural processes (Mendonça and Sàágua, 2019 p.128) (Gross, 2014), so that we can perform our jobs and work effectively with others (Larson and Yao, 2005). Relative to emotional intelligence approaches, which advocate a more controlling approach to the “illogical, emotional mind” (Goleman, 1998 p.8), potentially negating any dysfunctional external or organisational elements the MBBI programme attempted to put forward a “deeper understanding of how cognition incorporates and interacts with emotion” (Mendonça and Sàágua, 2019 p.122). This was designed to support participants to recognise the function of all types of feelings in different contexts, including the function of negativity as an appropriate response to a difficult environment or situation, or useful in helping to see detail. The comment below shows how this senior civil servant neither blamed their colleague, nor avoided the negative emotion, but rather worked effectively with negativity towards a positive resolution:

“So the interactions are more positive, particularly, now I have a particularly difficult meeting with someone who was extremely defensive and actually was about to walk out, because something had gone wrong. You know I don’t work in a blame culture sort of way at all. So it was positive the fact that I was reflecting, and I think had taken time to think about that, I just think helped me deal with it better, because I was very calm, calmed him down, then we were able to resolve it rather than him flying out of the meeting, so that was

an example of where it was really helpful I think." *PP4, female senior civil servant, post programme interview.*

This participant summarises how the programme enabled him to change from a more mechanistic way of working like a "cog in the machine", "setting protocols" to someone who has the capacity to see and work with, what he describes as the "emotional component" :

"People are expected to become cogs in the machine that are run to set protocols and life isn't like that. I never thought it was, but I think I have really appreciated, in this recent period, that it very definitely isn't and that actually you can get better results for yourself and for the organisation if you can adopt a better approach. That's the benefit of this programme to have that, the ability to slow down and to switch off and to create a calmer and more reflective environment which I have found more helpful which allows you to see things in perspective and to identify other areas to work on, particularly for me that emotional component." *PP2, senior civil servant, post programme interview.*

Not only does this person believe this would be better internally for the organisation, but he goes on to say that there is a business case to be made for an "emotionally intelligent organisation" because he is convinced it would create better outcomes for citizens, to some extent validating the hypothesis in my research question, that a more psychologically informed organisation would design and deliver better policy.

8.4 Adult development - for learning and deliberately developmental orgs capable of addressing wicked problems.

In the final section in this chapter I will discuss how some participants through their participation in the programme experienced what Robert Kegan would describe as indications of adult development, which went beyond a different engagement with attention, perception, emotion and bias and suggested deeper insights into how people created meaning and the wider influences that had on them, their decisions, behaviours and interpretations of the world.

Adult development is a concept which aligns with Deliberately Developmental Organisations (DDO) and learning organisations discussed in previous chapters. DDO's were used during the programme as case studies and examples of organisations which used mindfulness to build capabilities to support collaborative and learning cultures, such as in Bridgewater Finance discussed in Chapters 5 and 6. The concept of a DDO was developed by Robert Kegan as part of a constructive developmental theory (Eriksen, 2006). Kegan argues that human development doesn't stop in our mid 20s, as child development theory had previously suggested, but continues throughout our adult lives. This also fits with the finding in neuroscience of the brain's capacity for neuroplasticity its ability to learn throughout our lifetime, discussed in Chapter 6. Adult Development theory "concerns itself with regular, progressive changes in how individuals make meaning or "know" (Kegan, 1994, p. 29) (Eriksen, 2006 p.290). According to Kegan, as adults develop, their thinking and meaning-making evolves, and they are able not just to reason better, but also to deal with systems and increased complexity. Their thinking becomes less rigid, exclusive, simple, and dogmatic and more flexible, open, complex, and tolerant of differences. (Kegan, 1994) they are able to be more adaptive and incorporate multiple meaning-making options (Eriksen, 2006 p.290). The following quotes from participants, suggests indicators of adult development such as in the following SenseMaker narrative which describes an insight in a

difficult meeting where they were able to see the specific detail of how their history and previous experience was influencing (and biasing) their view. Through noticing this, they gained insight into their usual 'self-protective' response, aware that the interaction was in some way reminding them of negative experiences in their childhood. Through seeing this more clearly they were able to deal with a difficult situation, where they had made a mistake, without getting annoyed with the other person, indicating the meeting was more successful than it might have been previously:

"The nature of my noticing seems to be changing. I had a difficult meeting this week in which it became apparent that I (as the most senior person involved) had made a mistake. A fixable not really drastic mistake but the sort of thing where I would previously have been annoyed with the person who was pointing it out or angry with myself about my own failing. What I noticed this time was how similar the actual feeling was to feeling like a child - hence I guess the discrepancy with my current position and my usual self-protective or self-critical response. Using the mindfulness I could just notice this strange more, raw child-like feeling while continuing to manage the meeting." *SenseMaker, Percent x 0.7089 Percent y: 0.2828*

The development of attention and reflective skills means the person is now noticing how her feelings of being a child previously influenced her interactions. Previously this lack of insight might have meant suppressed anger towards the other person or themselves, leading to poorer thinking and decision making. Writing on mindfulness and Adult Development Wilensky, states that mindfulness could support adult development and the change process because it allows people to be with discomfort and see through their current emotional experience as representational of something which "harken(s) back to the past" without this reflective practice, which enables

people to be with difficulty, she argues “many individuals are likely to abandon change efforts.” (Wilensky, 2016, p.243). Through having self-reflective capacities and gaining insights into the historical schemas which are influencing their perception, people do not just improve their decision making, but also develop themselves. As this person describes:

“It has been personal growth, it has been hugely important for me, quite staggeringly actually. I thought I was too old to grow but obviously not.”
PP2, male senior civil servant, post programme interview.

Another Sense maker narrative shows a person noticing a felt sense of a “weight shifting” in their midriff and becoming aware of an associated “feeling of rejection” which is likely to be rooted in their history. Being able to see this and hold it enabled them to better assess a situation with their boss, mitigating the effects of panic on their perception:

“I have noticed that I occasionally have a sudden feeling of panic during our interactions. This week I spotted that it occurred as he said something about moving across to the new boss 'in the Autumn'. Part of me was immediately wondering; is he in a rush to get rid of me? If so does he really mean all the good things he's been saying about the programme? This time I was able to spot the emotion; it felt like a weight shifting somewhere in my midriff and I would call it a feeling of rejection. Being able to notice this allowed me to better assess the potential difference between my reality and my bosses.” SenseMaker Percent x 0.5711 Percent y: 0.2889

As a result of their insight they describe being able to continue the conversation with their boss without the feeling of rejection interfering with or colouring the interaction. Another example, below, shows how reflective

practices can help people gain personal insights in ways which then deepen relationships and allow people to deal with difficulty in more constructive ways. .

“At the start of the course my colleague was very highly stressed. She responded aggressively to a couple of my contributions and was almost in tears at one point. My natural response would historically have been to believe I was at fault had caused her pain in some way (which I had in fact) and to try and overcompensate or put it right. However I think my mindfulness kicked in I realise I had triggered her emotion but also that that emotion belonged to her (while my feelings of rejection belonged to me). I was really pleased with how I managed to hold an accepting space which allowed us to deepen our relationship despite or perhaps because of (indirectly) addressing this difficulty together.” SenseMaker

According to Abigail Lynam, an expert in complexity leadership, wicked nature problems such as climate change benefit from adult development by helping people “work more effectively to weave together different voices and perspectives, finding goals and strategies that transcend and include a diversity of perspectives, while addressing conflict and misunderstanding as it arises.” (Lynam, 2012 #202 p. 8). There are some indications of adult development in the quotes from participants, and increased ability to deal with conflict and misunderstandings. It would be interesting to look at this in more detail in future research.

8.5 Summary

In this Chapter I have discussed how different understandings of mind, together with the reflective practice of mindfulness changed the way people worked with and listened to each other. I have described managers becoming more collaborative, allowing others to share their idea first before the manager imposed their pre-meeting conclusion, being open to other’s ideas and more willing to question their

own assumptions and biases. Many became more aware of their attention and the role it played in their perception, including how it was influenced by their emotions and mood directly influencing what they see. Through this experience people started to be more questioning of their own and other's 'rationality' aware of how theories of mind state that we create our reality rather than respond to a fixed, objective world out there. This understanding of the link between individual perception and the creation of reality, could, according to one participant lead to a less fixed and rigid structure if embedded in the culture of the organisation, where everyone is more open to challenge. In the last section I considered how some participants discussed changes which supported their own adult development, increasing their awareness of how their own historical schemas influence their perception and interactions in ways that enabled them to transcend unhelpful habits of relating.

Chapter 9 – Reflections, Contributions and Impact

Through this research I set out to discover if issues relating to a lack of understanding of mind hindered the ability of the Welsh Government (WG) to address wicked problems, such as climate change. With this research I investigate whether a mindfulness based behavioural insights intervention (MBBI) could usefully address and even resolve that lack.

As I finish writing up my results, I am also delivering two MBBI Programmes in WG to 40 members of staff, including 40 Government Lawyers and Deputy Directors. Prior to these two, and following the initial course, I taught another programme to 20 Government Directors, bringing the total to four interventions. The demand from WG for more programmes indicates my research did succeed in identifying and responding to a need and created practical impact and value. The latest iterations have been updated and trimmed down, using knowledge from the data presented in these chapters. Feedback from individuals attending the current sessions indicates positive impact on their understanding of emotion and cognition, their navigation of difficult decisions and their effective management of meetings and relationships. One participant described how, despite being in a high stress environment, dealing with Brexit, significant flooding events and a constant lack of resources, he was, due to the programme, not broken (as he had been previously) but 'constantly learning' and able to put things into perspective. Such comments are welcome, but how far do they indicate the kind of change needed to successfully address wicked problems?

The follow up programmes are running because participants from the initial sessions championed the course to the Training Director and the Permanent Secretary, both through personal approaches and by organising a presentation to the WG Board. In addition to the training, a podcast has been produced discussing themes from the sessions and the work has been presented to the First Minister of Wales, Mark Drakeford. In a recent

conference Drakeford described the research as “radical”, saying he wanted to see insights coming out of it: “contribute to the kind of leadership I want to see in public service in Wales”. I find this response encouraging, and evidence supporting the main question of the research, that there are issues impacting the work of WG, relating to cognition, emotion and perception in governments and that the MBBi Programme in some way contributed to addressing a lack. In addition to the work continuing in WG, it is also being used in a community regeneration project as part of a whole systems approach to Public Health in the East Riding of Yorkshire County Council. The MBBi material has been adapted to develop engagement skills in community facilitators (understanding how they perceive others, filter and bias information and the role of emotions in perception), preparing them to effectively engage with local people.

In this final chapter I will explore the impact of the research in more detail, I will also reflect on the original hypotheses and questions, considering both the strengths and the weaknesses of the research, its design, methods and results. Finally I will summarise the potential practical and theoretical contributions this research offers, in terms of how governments understand themselves and build policy capability. I will consider contributions made to the research fields of mindfulness and behavioural economics and look at avenues for further inquiry. First, I will give an overview of the chapters, summarising key points from the literature and methods and reflecting briefly on the results presented in the empirics.

9.1 Summary

9.1.a Behaviour change, bias, decision making and government

In Chapter 2 I describe how government met the mind sciences in the 2000s with the introduction of behavioural economics, popularised through Nudge (Sunstein, 2008). The Government explored behavioural approaches to

government, creating a Behavioural Insights Team to test neuro informed interventions to “hard to solve problems”(Halpern, 2015). I describe the history of behavioural economics, it’s introduction to policy processes by UK Prime Minister David Cameron and present a number of critiques, starting with the ethics of governments using psychological means to direct behaviours of others without citizen permissions.

The second part of Chapter 2 focusses on critiques calling for government to deal with its own ‘flawed’ rationality and biased decision-making. Research shows how subjectivities in policy and political processes negatively influence the way government issues are prioritised and data is analysed (Baekgaard, 2017) (Banuri, 2017). Biases, including group effects, attention biases, an illusion of control and false optimism have all been shown to hinder good decision making in government (Hallsworth et al, 2018), despite a Civil Service Code stating their work embeds values of “objectivity, honesty and integrity”. According to critics, much of their decision making is focussed on maintaining the organisation and their identities and as such is not “remotely objective” (Sutherland, 2018 p. 2). Finally, I discuss the ‘wicked’ and complex nature of contemporary government issues. Climate change has been described as a ‘super wicked problem’, like all complex issues it is, “hard to solve”, with no well-defined set of solutions, any solutions being neither true nor false and policy interventions likely to have both negative and positive results. (Levin, 2012, p. 125-129). Such problems require high quality, psychologically informed, decision making, able to address bias, and with an awareness of how individual and groups themselves will hinder or accelerate the development of solutions (Spencer, 2018, p. 232).

While Chapter 2 assessed behavioural economics and rationality in government to inform the research and the MBBI approach, Chapter 3 focussed on theoretical debates in emotion, cognition, attention and decision making, and which theory can best underpin MBBI. It looked at recent

research into the neural and biological mechanisms of rationality and cognition, such as attention, emotion, perception and reasoning. Emotion and decision making science has been slower to develop than other areas, hindered by views in evolutionary and philosophical thinking that emotions prevent good thinking and are an evolutionary remnant of our 'animal inclinations' (Darwin, 1872). Recent re-engagement with emotions by psychology and neuroscience has led to an overturning of these early Darwinian and Decartian views. Neuroscientists, such as Antonio Damasio, through studying people with brain damage, that emotions are essential to decision making, when brain areas related to emoting are damaged, people become incapable of making rational choices. (Damasio 1999 p. 38) (Oatley, Keltner et al. 2006). Neither can emotions be suppressed, as they are constantly part of our perceptive state acting in tandem with our cognitive function to direct attention and assign value to choices, acting as decision short cuts (Oatley, Keltner et al. 2006) and influencing (mediated by a positive or negative mood) what information we see in any one moment, sometimes with tragic results (Baumann and DeSteno, 2010).

As well as a paradigm shift in emotion science, I discussed promising theories from neuroscience and philosophy which suggest neural and biological mechanisms to explain how bias is, to some extent a default mechanism in the mind (Hinton, 2017 p.5). The Predictive processing view of mind (Clark, 2013) and the constructed emotion theory of emotions (Barrett, 2016) believe, rather than reacting to a fixed external world, we generate cognitive and feeling based expectations and predictions of our reality. Rather than seeing what is 'out there' in the world, we seek to confirm expectations, pre-existing mental schemas, based on previous experiences of similar social and physical contexts. Such theories would account for confirmation and implicit biases, (Hinton, 2017 p.5) and can also be used to inform how reflective practices, like mindfulness, might address some of the negative

impacts of such biases (Pagnoni, 2019). At an international research conference on mindfulness in 2018, neuroscientist and mindfulness academic Helen Slagter presented unpublished early stage research on the links between the mechanisms of mindfulness practices and predictive processing, suggesting mindfulness could help 'jam' the predictive process machinery". This points to mindfulness, if taught in the context of predictive processing, having the potential to suspend generative assumptions, going some way to address our (in terms of rational actor models) perceptive flaws. This hypothesis was used to inform the MBBi content, according to extensive scoping, it has not previously been tested as part of any mindfulness or behavioural insight programme. I designed materials and practices into the MBBi programme testing if and how they might be effective in surfacing and addressing bias.

Chapter 3 finished with an assessment of current welsh government and Civil Service attempts at building capacities and processes which improve decision making and collaboration and address cognitive bias, showing how many approaches currently used have been scientifically discredited (Emre, 2018) (Barrett, 2002) (Kahneman and Klein, 2009 p.520). Meanwhile, attention have successfully been used to enable people to see new and novel information Weick argues by 'broadening our attention' we "forestall misleading simplifications' (Weick and Sutcliffe, 2007 p.37) whilst Behavioural Economist, Paul Dolan describes attention as a foundational capacity for behaviour change and "the glue that holds your life together." (Dolan, 2014 p.69). Mindfulness is currently being used in organisations to develop attention practices, largely informed by therapeutic frameworks, critics argue we need to "broaden our understanding of mindfulness in organisations" to optimise the practice in a workplace environment (Rupprecht, Koole et al., 2018) (Purser, 2019). The literatures from Chapter 3 were used to inform the content of the MBBi Programme:

- Using Predictive Processing theories of mind and emotion to explain the mechanism of bias in decision making and the practice of mindfulness to address bias.

- Developing skills of interoception and meta cognition to build awareness of feelings and thoughts giving people practical insight into their own processes of prediction. Testing to what extent this helps them suspend assumptions and improve decision making

- To develop an interactive, experiential programme, which trains people in theory and skills, rather than only informing them via one off short workshops.. Testing the extent such an approach challenges the default use of folk psychology currently used to navigate the everyday work of policy making.

9.1.b Methodologies

The methods used in this research combine semi-structured interviews, widely used in social science, with an innovative distributed ethnographic data collection system called SenseMaker and a 'deep hanging out' ethnographic approach. Together they constitute an action based Real World Research approach seeking to 'shape the world as well as explaining to us why the world is the shape it is" (Robson, 2016, p.3). The Mindfulness Based Behavioural Insights Intervention (MBBI) formed a central part of the research, resulting from my engagement with civil servants early on in the PhD, and also out of previous work, the programme allowed me to engage with the organisation and staff over a long period, creating a relationship where ethnography and deep hanging out were possible. The MBBI programme created a focus for reflection and discussion, surfacing the problem I was investigating, at the same time prototyping a solution. The potential danger of this approach is that, through creating close relationships with WG staff, it made both them as the participants and me as the researcher less objective,

creating a reciprocity bias which interfered with the analysis of the experience. The research was designed to mitigate these effects, using multiple methods, quantitative and qualitative with opportunities for participants and others to input as both known and anonymous sources.

Through using multiple and mixed methods I threw a wide research net, gathering data in ways that allowed civil servants to voice their experiences and views in a number of ways. The SenseMaker data was developed further through an end of programme workshop reinforcing a participative approach to data analysis using group reflection and debate. Semi Structured interviews gave an opportunity for a deeper investigation into both the issues senior civil servants experience at work and the effects and outcomes of the programme. Attending events and meetings enabled me to gather data through both the observation of the event itself and the interactions it facilitated with individual people, attending a Mindfulness in Politics event resulted in the vignette used in Chapter 1, and also connected me to Anthony Seldon, biographer of every UK prime minister since Margaret Thatcher. Seldon was able to correlate desk research with a personal insight into the frenetic nature of no 10 and its negative effects on decision making. Gathering data across contexts using different methods allowed me to identify common and repeating themes in the Civil Service. The number of methods was ambitious, whilst strengthening the research, there inevitably were also weaknesses. Each method created large amounts of data, much of which I didn't use, but which could have written a number of slightly different PhD's. I opted to focus on the data related to the programme and the Welsh Government as the most effective representation of the research, combining both theoretical and practical contributions to research. Because the research net was wide, focussing on a particular area towards the end, potentially it might have led to less depth, had I started with the intention of looking only at this one area, I may, for example, have spent more time solely in Welsh Government scoping issues, as

it was, the scoping was done more generally in the arena of mindfulness and in organisations using behaviour change and reflective practices to support development and change. Identifying issues in Welsh Government came mainly, but not wholly, from the data gathered whilst people were either doing or had done, the programme, at times potentially muddling the two. Since finishing the initial programme I have continued to work with the Welsh government in ways which indicate the assessment of the 'problem' of a lack of understanding mind is a real one. As I have delivered follow up programmes, in various meetings and discussions, I have shared the findings and offered opportunities for critiques, generally the senior leaders have both agreed with and offered further insights that support the results presented here. The next stage would be to set out to both investigate the problem in more detail and also to find ways to investigate the programmes impact on policy over the longer term.

9.1.c The results

The data in the empirics' chapters is divided into two, first I identified recurrent failings due to a lack of understanding of emotion and mind in government, and second I discussed the potential of the Mindfulness Based Behavioural Insights (MBBI) programme to address and resolve issues. Both the problem and solution sections are further divided into considering first the organisational elements causing failings, and how they might be addressed, and second issues related to understandings of mind and how they might be resolved through the programme or in other ways. This categorisation is useful, but not perfect, insights into government failings were only seen as participants explored potential solutions through the MBBI course, making the divide between the sections sometimes a little blurred. Despite an occasional lack of distinction, the data showed clear examples of failings, related to the topic of mind, emotions, decision making and

organisational and individual understandings of human rationality. Hierarchical systems, as one example, take no account of individual and group based cognitive biases caused by a model of top down expertise, participants discussed their experiences of how the grading system in the Civil Service colours and informs their analysis of each other and information. Desires to address this through more collaborative working are apparent in all UK Governments (Manzoni, 2018) (Welsh Government, 2015)(Sharp, 2018) including Mark Drakeford's expression of the need for people to work as 'co-equal' experts, using distributed leadership. Despite these calls from leaders for people to work more inclusively and collaboratively, the research data suggested hierarchical decision making prevails, in part because civil servants feel unprepared, untrained and unable to work in any other way, left to use folk psychologies to make sense of what others say and how they behave. Without, as participants described, technical skills in cognition, perception, emotion and decision making, they are left defaulting to existing top down structures and habitual ways of working. Without changes in both structures and the development of new skills, it seems unlikely government aspirations for more shared and collaborative leadership, will be achieved. Meanwhile staff describe experiencing a negative cycle of increased volumes of work and complexity, leading to more stress, in turn negatively effecting decision making, leading to additional stress. Current training and competency requirements related to decision making, emotions, behaviour change and bias are evident in frameworks, booklets, leaflets and short online programmes, failing to address the nature of issues which are habitual, deeply embedded in identities, roles, organisational cultures and wider societal systems.

Training interventions on emotions, relationships and how people understand themselves and others can be found as part of internal "wellbeing" strategies, addressing problems once a person has experienced the negative

outcomes of poor working. The data in my research suggested that training people at the source of the problem, supporting them to engage with others, their emotions, decisions and biases, itself mitigates stress, building positive relationships and a greater satisfaction with decision processes and outcomes. This finding aligns with, and potentially starts to address, critiques discussed previously, that by ignoring the wider organisational and social systems responsible for causing stress, stress based interventions misattribute the problem of anxiety as a failure of people, rather than systems (Purser,2019) (Forbes, 2019, Stanley, 2019, Tomassini, 2016).

Following the programme, participants reported a number of positive outcomes. Their understanding of the nature and limits of attention was much improved. Some described this insight as 'revolutionary' resulting in them making changes to task management, leading to less stress and higher quality work. People also reported understanding human attention as a team, organisational, and structural issue. They changed how they participated in and navigated meetings, reporting that this reduced the time spent in meetings, leaving them less frazzled, and reducing the need for additional emails, or sessions, to deal with the issues the meeting had failed to resolve. A number reported their surprise that working more slowly seemed to make meetings faster and more effective. They discussed the difficulty they had in explaining this to colleagues, as it was so culturally counter-cultural, asking for more research to better measure, quantify and understand how being slower could made work faster. Given, according to the data in this research, they spend some 70—90 percent of their time in meetings, this is a significant outcome that could not only free up time and resource, leading to better decisions and less stress. As an aside, it may also contribute to a reduced carbon footprint, given every meeting and email will contribute to rising CO₂ emissions. Recent attempts by energy company OVO to measure the CO₂ of emails suggested that if each UK adult sent just 1 less email a day, it would

reduce our carbon output by over 16,433 tonnes a year - the equivalent of 81,152 flights to Madrid or taking 3,334 diesel cars off the road (Ovo Newsroom, 2019). This is an interesting future line of inquiry, considering how improved decision making may help the wicked problem of climate change by reducing the carbon emissions of unnecessary emails and meetings. Another outcome, sometimes, though not always linked to more effective meetings, was participants describing experimenting with a more collaborative approaches, giving voice to others by letting people further down the hierarchy speak first, resisting the tendency of managers to decide meeting outcomes before the meeting began, participants aware of, and sensitive to, how their assumptions, biases and predictions colour how they listened to and interpreted the views, opinions and information shared by others. Participants described how these changes in work practices meant they ended up talking about 'what is really going on' or heard ideas 'better than mine' with staff feeling less defensive, with less of a need for them to protect themselves by editing what they say. Some managers discussed how being more open was also frustrating, some meetings became longer, and some felt they had started overthinking things, negatively impacting their role as a leader. These effects would all benefit from further research.

9.2 Contributions to practice and theory

Senior civil servants, working together with politicians, interact, reason and make multiple decisions daily. Many of these decisions will impact the general public in the short or long term. As I write this conclusion the World Health Organisation has stated Covid-19 is at pandemic levels, requiring people in the public sector to make fast decisions, under pressure, to protect vulnerable members of the general public, in the face of conflicting information with high levels of uncertainty and risk. They are operating at an elite level, attempting to optimise their decision making, for the medium and long term good of

whole populations. However, unlike elite footballers who have whole teams supporting their physical and mental health creating the best conditions for them to operate optimally under pressure with the least likelihood of injury, (Thelwell, Greenlees et al. 2005)(Meyer, Wegmann et al.,2014), politicians and civil servants receive no training in optimal decision making under pressure. This lack of skills and capacities makes it more likely their decisions will be poor, whilst also making them susceptible to the negative personal effects of stress and mental health issues. This research showed a significant number of civil servants ($n=8$ in the programme and another $n=50$ in consequent programmes), in the absence of any training or support, operate on the basis of an inadequate 'folk' psychology to deal with the complex and wicked challenges of our time. Features of this folk, or common sense psychology are evident from expressions of beliefs such as:

- they are mostly 'rational' and 'objective',
- emotions get in the way of decision making and should be suppressed,
- mood states, whilst unhelpful, do not influence the very facts we see,
- 'busy minds' and 'fixed minds' are default states of mind, there is nothing we can do to change them.
- we react to an objective reality, rather than predict and co-create our reality.
- expertise and responsibility are best managed through meritocracy and hierarchy and not distributed equally throughout it, although this is a belief being contested by government leaders.

Through this research I have shown that training senior civil servants, using individual reflective practice and the study of theories based on behavioural economics and related research changed the beliefs leading to changed action of participants, new beliefs included:

- People are neither rational (in the classic economic sense) or objective (as stated by the Civil Service Code)
- Suppressing emotions interferes with good thinking, both in the individual, and the group they are working with.
- Mood states dictate the world we see
- Busy minds can be made visible, allowing us to see how they influence our thinking, people experience this as making them clearer and calmer
- Minds are not fixed, but constantly changing. Influenced by our use of attention and the structures and environments we are in
- Reality is far less objective than most of us assume it to be, we don't react to it, but instead we predict and expect the world in ways that are biased
- Expertise is distributed more widely across the system

In Box 3 I describe being part of a policy capability meeting, a session organised following an internal scoping exercise which had uncovered concerns about capacities in policy makers for making policy. I was invited by two of the MBBi participants working on both the Well Being of future Generations Act and Behaviour Change initiatives. As far as I am aware it is rare for a mindfulness teacher to be asked to take part in a policy capability meeting, being more likely to be asked to discuss improvements in organisational wellbeing. Similarly, behavioural economists are usually invited in as consultants or to deliver short workshops on how designing and delivering policy and understanding the general public, rather than how to understand themselves and build policy capability. This is an indication the research re-positioned both mindfulness and behavioural economics as relevant to the policy process and internal staff skills development, rather than something to either deal with the negative outcomes of dysfunctional working (mindfulness) or correct the behaviours of irrational citizens (behavioural economics).

Box 3 - a contribution to policy capability?

In Chapter 7 I discussed being invited to a meeting in Welsh Government on quality improvement and 'policy capacity'. Two of the civil servants involved in the MBBi Programme have invited me along following the programme and the conversations we have had together.

I am sitting in a meeting room in the government building in Cardiff where I also delivered the programme. This room, which I have seen before, is called the "innovation suite" and, unlike any other meeting room in the building, it has movable multi-coloured desks surrounded by bright sofas with cushions covered in Welsh designer fabrics. The room is flooded with natural light from numerous windows and on one side, pasted over the standard matt painted stud dividing wall, is fake brick wallpaper, evoking a look of an on-trend rustic, shabby-chic coffee shop.

I am with six other academics and four civil servants discussing the need to improve policy capability in Welsh Government. The Director leading the meeting, who attended the intervention, seems a little nervous and tweaks her ring as she introduces the meeting topic. They have recently surveyed the staff to see whether or not they feel they have the capacities they need for their jobs in policy making, as a result of the survey, they have recognised a need to improve how they gather, analyse and use evidence to create policy. It quickly becomes obvious from the following conversation that the academics around the table have been involved in similar discussions before and are feeling forced to repeat things said previously. There has, for example, been discussions about a Government training School, to address this very issue, but no one quite knows what happened to that.

Others discuss bits of work they had been doing to encourage more innovation in the public sector, with some frustration that it is quite limited.

When it is my turn to speak I discuss the research presented in this thesis. To help put my point across I reflect on the room we are in, and suggest it represents a view that humans think differently in different environments and spaces and that bright colours and novel seating arrangements change how we relate to each other and creates different types of conversations.

Box 3 Continued.....

However, despite believing this, interventions that use different understandings of psychology and humans exist only in small corners . Meeting rooms in the rest of the building are mostly windowless, with grey walls and brown tables fixed in boardroom style squares, creating defences

to hide behind and distancing people from each other in ways that mitigates easy, relaxed conversation. As I talk, I become more aware of the tables in this room, multi-coloured and bright as they are, they have been pushed together into a large boardroom table, where we all sit very much at a distance. I also feel my own vulnerability as I present my PhD thinking in front of others, many of whom have had years of these conversations.

I am faced with the dichotomy of being invited to present my research, looking at more psychologically informed government in a room that represents a shift in how governments want to work, at the same time experiencing the elements that create resistance and limitations that prevent transformative change happening. The academics around the table agree that Welsh Government creates good policy, the problem, they say, is about policy delivery. They point to the Well-being and Future Generations Act, an innovative sustainability policy that includes radically changing ways of working so that the public sector is more “inclusive” and “collaborative”. One person notes how these aspirations are great, but they are not backed up with concrete route maps that are likely to actually create the radical change outlined in the policy. The Director, to her credit perhaps, notes that creating policy that cannot be delivered is, perhaps, not good policy.

An achievement of the programme, and a potential contribution to theory, was the application and testing of predictive and constructed theories of mind and emotions in decision making to both explain the mechanisms of cognitive bias and the function of a mindfulness practice. In the initial course I introduced these theories after three sessions, in more recent courses, based on data from the first programme, I taught predictive theories of mind from the beginning. In the most recent programmes I have also put in some basic research elements to evaluate outcomes. Participants are being asked to reflect on the impact of the programme as it progresses alongside regular check-ins with a member of staff who is also consulting with colleagues. This information is supporting the development of an Impact case study, based on, and likely to be used by Aberystwyth University in support of its ref submission in 2021. Initial indications show within four weeks people are reaping benefits from the course, changing how they navigate meetings and relate to others, discussing their emotions as part of their interactions and integrating emotions more effectively into the decision making process. They also report being more aware of group biases and taking time to make decisions when previously they would have valued speed over reflection, cognisant of the fact that stress will influence what choices they make and actions they take.

Finally, perhaps as a contribution to both theory and practice, the data pointed to a reduction in meeting duration, due to a development of, the technical skills of attention, meta cognition and interoception, significant, given meetings take up 70-90 percent of their time. Participants also recognised that individual skill development was not the only answer, but that group processes and structures, could be used including: recognising how and where attention is in a meeting, instigating breaks when people are tired,

having meetings in different contexts and formats, checking in with people's internal felt state as part of the process in the sessions.

9.2.a Implications - Behaviour Change

Behaviour change is an indicator of a lack of understanding of human nature in policy making, it is also at an early stage of development. As it matures it needs to incorporate insights into all humans, not just citizens, but also the policy maker, the policy organisation and the politician, and the links between them. Indicators, in the small number of MBBI participants directly working on behaviour change during the course, were that they made interesting links between their own individual behaviour, the behaviour of their teams and the behaviour change they are attempting to achieve through policy interventions.

Academics have been quick to critique behaviour change as a worrying dance with the "mind science" devil pointing to the misuse of psychology and behavioural science as potentially manipulative, limiting freedom of choice. My research suggests that it is still early days for behaviour change theory and practice, academic critiques have usefully highlighted efficacy and ethical issues, but practice in government is piecemeal and not fully embedded in ways some writers suggest, there is the potential for it to develop in both positive and negative ways. This research contributes to the field of behavioural economics and its use in the public sector:

- Through the use of an intervention and multiple methods, offered detailed qualitative evidence that Government is not psychologically informed, but wishes to be. By developing their own capacities they may be able to deliver a more ethical and effective form of behavioural government.
- Demonstrating a need for policy makers to understand who and what

their individual, group and organisational 'self' or 'human nature' is.

This research tested out the use of more up to date cognitive/behavioural/emotion science together with the development of attention, meta cognition and interoceptive skills with positive outcomes.

- Given the above behavioural government may need to address its own status quo and availability biases, questioning its continued use of dual process theory and lack of practical consideration of its own 'irrationality'.

9.2.b Implications the theory and practice of Mindfulness - addressing the system

Anthropologist Jo Cooke, during a talk at SOAS University in London in December 2018 entitled "If mindfulness is the solution, what is the problem?" suggested mindfulness courses get caught up in analysing the improvements they make to people's lives and fail to look in detail at the actual problems they are being called on to address. This, Cooke believes, is due to a legacy of romanticism, which believed people should learn to self-regulate and change their "quality of awareness" rather than seek to change any dysfunction in the external world. In her talk Cooke argued this legacy has led to an unhealthy focus on working on our minds rather than changing our situation. (Cooke, 2019). Meanwhile social scientist Steven Stanley suggests that mindfulness programmes were influenced by the 1960's human potential movement which advocated growth and development, feeding into positive psychology, which again places the responsibility on the individual for self-care and positivity rather than systemic issues. (Stanley, 2019)

This research suggests mindfulness can be adapted in ways that address, not just the individual, but wider systemic issues by identifying the problem interventions are seeking to resolve and designing the format, content and approach using relevant theory to support, not just individual, but systemic shifts. There are also anecdotal indications that by tailoring and contextualising the practice, it makes it relevant to people in ways which make them more likely to engage with it. In this research I attempted to understand the problems of mind, emotion, relationship and reasoning mindfulness may contribute to resolving. This is in contrast to general therapeutically or Buddhist informed programmes which offer answers and then overstate their success (Goldberg, 2017). The standard mindfulness approach takes little account of the problems which caused the practice to be used in the first place, without reflecting on the nature and resolution of the issues at source, mindfulness may be supporting the perpetuation of dysfunctional systems (Purser, 2019).

9.2.c Implications - programme design and delivery

The design and delivery of the programme has contributed to the practice of capacity building in both mindfulness and behavioural economics. It is informed by both mindfulness and behavioural economics training programmes but goes beyond both by combining the two. The course was tailored to the workplace, using an eight session format, over a three month period, starting with an all-day session and followed by seven two hour sessions. This format allowed people to learn theory and practices, then apply their new understandings directly in their contexts, embedding their learning through reflection with peers. Through their sharing of experience they re-imagined their workplace together, understanding it in new ways and influencing, not only their individual area of work, but the wider culture of the organisation. There is evidence the effects of the programme have lasted over time and spread within departments. A staff member who attended a training

event in North Wales said they were interested because a senior manager had, the previous year, participated in the course in South Wales, and the positive effects were being experienced across the department at a number of levels. It may also be that, given the current forms through which most training is delivered in government, the format itself influenced some of the positive outcomes of the programme. Giving peers the opportunity to come together over time, practice self-reflection in a group, being able to reveal some of their vulnerabilities is rare in government. Researching this aspect further would be a useful future avenue to explore.

9.2.d - Implications wicked problems

Complex and wicked problems need wicked solutions. In many ways the outcomes of my research are wickedly simple, decision makers use their minds day in and day out to do the job of government, but do not understand the neural or biological mechanisms of decision making. My research suggests such an education could help civil servants work more effectively. Numerous times I have quizzed civil servants to check whether this hypothesis fits with their experiences within the organisation, whilst this is not rigorous research, all have so far agreed. There has also been a general agreement that people need new skills and capacities to deal with the complexity of modern government. These two areas could be looked at in more detail, ethnographic research recording and analysing meetings, interactions and decisions could shed more light on both of these areas. This could include looking at whether the skills and theories learned through the MBBi programme, or something similar, make a difference to policy design and delivery, and how this might develop over an extended period.

9.3. Impact

I have already discussed some of the impact which has come out of the research so far. Impact can be 'conceptual', bringing about changes in

understanding or 'instrumental', bringing about changes in practice and policy making. Activities which create impact can include, dissemination, educational interventions, influencing opinion leaders, collaboration (Walter, Nutley et al., 2003). As a real world research approach impact has been both a goal and a method. Presentations and involvement in groups and events has been used to disseminate findings, to seek feedback from stakeholders and to gather data. Below I have listed some of the ways the research has collaborated with others to share knowledge, disseminated information and educated people.

Collaboration:

- Learning from the programme has been used as part of a regeneration and public health project using a systems approach to address health behaviours in a deprived community in East Yorkshire UK. The project consists of developing the capacities of local facilitators to better engage with their community, including developing an awareness of cognitive bias.

- Three programmes have been run in WG since the initial intervention in 2017. A podcast has also been produced sharing some of the outcomes of the programme and including interviews with me and with MBBi participants. The podcast was the first available on a recently developed virtual learning platform, the WG Learning Hub.

- Providing an advisory role to government, on the UK Civil Service committee on mindfulness. Providing input into reports and documents such as the Welsh Government leadership competency framework (Welsh Government, 2017) and the European Research Hub Report, Understanding our Political Nature (Mair D et al, 2019).

- Advisory role to Mindfulness Initiative (administrating organisation to All Party Parliamentary Group on Mindfulness).

Dissemination:

- The work has been featured in a set of articles looking at the McMindfulness critique and initiatives which attempt to address the over simplification and commodification of the practice - Open Democracy - <https://www.opendemocracy.net/en/transformation/does-mindfulness-politics-make-any-difference/>

- The programme was included in Building the case for Mindfulness in the workplace, produced by the Mindfulness Initiative and launched at HSBC offices in Canary Wharf to businesses seeking to use mindfulness in the workplace. <https://www.themindfulnessinitiative.org/building-the-case-for-mindfulness-in-the-workplace>

Presentations of work to decision makers and influencers in government including the First Minister of Wales and Permanent Secretary, Welsh Government Board -

<https://www.dropbox.com/sh/p2x5c8q20pnpv7k/AADcFVAy-jn71CwogQDIzguya?dl=0> from 3.47 mins.

Educational:

- Presentation at SOAS event exploring Mindfulness for Social Change to one hundred mindfulness practitioners and researchers

<https://www.youtube.com/watch?v=mwMw-xSGAWY>

- Presentation at the Meaning Conference to 500 people interested in creating more ethical and purposeful business , Meaning Conference

<https://meaningconference.co.uk/videos/rachel-lilley>

- Behaviour change and mindfulness masterclass at Oxford Centre for Mindfulness, a one day workshop, based on my research.

9.4 Final comments

In this thesis I have shown that leaders, academics and staff believe, in order to deliver better policy and more effective governance there needs to be changes in how policy makers and politicians understand mind, emotion,

cognition and perception. This needs to inform policy and organisational processes, and the politicians that govern policy making, but as it stands there is no clear route map of how this might happen. There are examples of where experimentation is happening, but it is often ill informed, tokenistic and struggling against resistant cultures. During one of the first taster sessions delivered in WG introducing the programme to potential participants, in response one of the Directors attending noted: "If that's true of mind" referring to the presentation "then we would have to change everything!" They then turned to the group and asked: "How would we do that?'. Another Director looking around, replied: "Well, we are the senior managers". His comment was followed by silence. It seemed the people around the table did not feel they had the capacity to change anything.

This research would suggest that capacities can be built, and the rise of psychologically informed governance can mature and develop in ways that might well be effective in changing government in order to change policy making. Whilst Initiatives, such as the MBBi programme, make it into small corners of the organisation, creating cracks where innovation might slip in, much government capability work remains unchanged, following its own status quo bias. According to Dave Snowden, designer of the SenseMaker method used in this research, in complex systems the trick is to see the unexpected places where there is movement and change, to both make visible and amplify where there is agency. This research has not created wholesale transformative change in government, but it has created impact and perhaps succeeded in achieving what Snowden suggests, making visible what was previously invisible and providing starting points for potential solutions which, if developed further, could usefully contribute to transformative change. It is March 2020, Covid-19 sweeps the globe, and the Behavioural Insights team advise the UK Government Strategy, with a 'herd immunity' approach, starkly

different to other countries in Europe and Asia (Yates, 2020). Yesterday I received an email from an MBBi participant working on the pandemic saying:

"I am in no doubt that the way in which I am dealing with this situation (both at home and in the office) is a big stretch forward from what would have been possible for me before I worked with you. I feel as though my capacity to work with the physically present facts and emotions (inside me, inside others and between us) in any given conversation has increased many fold." *WG civil servant, email correspondence, March 2020.*

In uncertain and difficult times behavioural insights are significantly informing and supporting strategy and ways of working in government. We have to acknowledge that psychologically, and 'neuro' informed approaches are here to stay and endeavour to develop them, making them as effective and ethical as possible. I will finish where I started, with a quote from Greta Thunberg which reflects the voices of some of the people I worked with during my research, as they spoke of dealing with complex and wicked challenges, frustrated by bureaucracy, hierarchies and a lack of awareness:

"We can't save the world by playing by the rules, because the rules have to be changed. Everything needs to change - and it has to start today." *Greta Thunberg TEDx Stockholm, December 2018.*

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