

Mindfulness, Behaviour Change and Decision Making

Pykett, Jessica; Lilley, Rachel; Whitehead, Mark; Howell, Rachel; Jones, Rhys

Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Pykett, J, Lilley, R, Whitehead, M, Howell, R & Jones, R 2016, *Mindfulness, Behaviour Change and Decision Making: An experimental trial*. University of Birmingham.
<http://www.sps.ed.ac.uk/staff/sociology/rachel_howell/Mindfulness_Behaviour_Change_and_Decision_Making_Final_Report.pdf>

[Link to publication on Research at Birmingham portal](#)

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

Mindfulness, Behaviour Change and Decision Making

An Experimental Trial

Jessica Pykett

Rachel Lilley

Mark Whitehead

Rachel Howell

Rhys Jones

January 2016



Contents

Executive Summary	1
1 Project overview	7
1.1 Partner organizations.....	8
1.2 Introducing Mindfulness and Behaviour Change. Making the connections.....	9
1.3 Rationale for the Mindfulness, Behaviour Change and Decision Making Programme.....	16
1.4 Ethical Standards.....	18
1.5 The Mindfulness, Behaviour Change and Decision Making 8 week programme	19
2 Workplace mindfulness: understanding the context.....	21
2.1 Research gaps in workplace mindfulness research	22
2.2 Research directions in workplace mindfulness.....	23
3 Research and evaluation methods	24
4 Research results	26
4.1 Increasing understanding of behavioural insights	26
4.2 The Five Facets of Mindfulness and the impacts of mindfulness training.....	28
4.3 Mindfulness and behaviour change.....	31
4.4 Decision making	33
4.5 Organizational context.....	35
4.6 The body and emotions	38
4.7 Ethics and empowerment	40
5 Evaluating mindfulness interventions: lessons learnt	42
6 Future research agendas	45

Acknowledgements

This research would not have been possible without the support of the organizations involved. We thank in particular Diana Reynolds, Emma Small and James Woodbine from the Welsh Government, Tom Veitch and Sonja Graham from Global Action Plan, and Rory Sutherland, Jez Groom and Pete Dyson from Ogilvy & Mather for the interest in and dedication to the project.

We would like to thank all the programme participants who have attended the programme between 2014 and 2016, and who gave their time generously in order to contribute to the programme evaluations, research and development.

We gratefully acknowledge the financial support of the Economic and Social Research Council (ESRC) for the grant: “Negotiating Neuroliberalism: Changing Behaviours, Values and Beliefs” (ES/L003082/1), an ESRC Impact Acceleration Account Grant at the University of Birmingham, and Global Action Plan, Welsh Government and Ogilvy & Mather.

Executive Summary

Introduction

This report provides an overview of an experimental trial conducted on mindfulness and behaviour change in the workplace from 2014 - 2016 by Aberystwyth University and the University of Birmingham. The research involved the development and delivery of a Mindfulness, Behaviour Change and Decision Making Programme in 3 partner organizations: the Welsh Government, Global Action Pan and Ogilvy & Mather. The programme was delivered in a non-clinical setting by Rachel Lilley, a mindfulness, yoga and trained (PGCE) teacher, to a total of 96 participants.

The programme was designed to explore the extent to which mindfulness could provide an effective practice through which to learn about the emerging insights of the behavioural sciences and to consider how these insights could be applied in specific workplaces. The programme should therefore be distinguished from those which are aimed at workplace wellbeing.

The programme contributes to an emerging body of research on applications of mindfulness in the workplace at the same time as addressing some of the concerns which have been voiced in relation to the widespread enthusiasm for such initiatives. It adopts an approach to mindfulness which is context-specific, non-therapeutic, and maintains specific ethical standards. It is based on the idea that when combined with learning about behaviour change, mindfulness training can enable people to take greater control of their own behavioural systems and lead more empowered lives.

The report has four primary goals:

1. It demonstrates how mindfulness practices can be used as to help **people inquire into and engage with behavioural insights** and decision making in a range of different workplace contexts within the public, voluntary and commercial sectors.
2. It provides a synopsis of the **design and delivery of the Mindfulness, Behaviour Change and Decision Making Programme** and the thinking that informed its development.
3. It summarises the **research and evaluation** carried out as part of the programme, highlighting key findings, exploring the potential future impact of workplace based adapted mindfulness programmes and establishing shared principles for future evaluative research.
4. It considers the **potential role of mindfulness** in behavioural, organizational and social change, and outlines emergent **research priorities and challenges** for researchers, practitioners and policy makers interested in using mindfulness and behavioural insights for transformational change.

The research undertaken foregrounds the voices and experiences of the people at the heart of workplaces, in relation to their specific organizational contexts, working practices, occupational remits and personal lives.

Key findings

Increased knowledge of behavioural insights

- Our survey results showed statistically significant increases in participants' knowledge about behavioural insights on completing the programme.
- The combination of behavioural insights training (in the context of decision making) and mindfulness was one of the motivators for participants attending the programme. This indicates an interest in other than 'therapeutic' applications of mindfulness.
- Behavioural insights were associated with changing participants' understandings of the role of people in organizations, stakeholder engagement, the remit of policy making and the potential effectiveness of both policy implementation and wider behaviour change design interventions in the private, public and third sector.
- Interviews with participants indicated an increased ability to be able to pay attention to unconscious bias. Mindfulness also appeared to create conditions for an openness to and acceptance of unconscious bias. This supports other emerging work in this area¹
- Mindfulness enabled an understanding of behaviour change that is more personally orientated. Participant feedback suggests that it provides practical insight into human behavioural tendencies that more theoretically oriented approaches to behavioural learning may be unable to achieve. Some participant feedback indicated a more "us" rather than "them"

approach to developing and working with behaviour change interventions.

- Whilst more in-depth and longitudinal studies are needed, a training approach like this could contribute to the emergence of new forms of more empowering and potentially effective behaviour changing policies. Participants felt they were more likely to deliver policies or services that reflect an understanding of the unconscious and embodied components of other people's behaviour.

Increases in specific mindfulness traits and difficulties with others

- There was much variation between programme presentations in the increases in mindfulness traits as measured in the pre- and post-programme survey. This may be related to the length of the programmes. Statistically significant increases were found in two out of three of the programme presentations, with 'awareness' being the most significant trait reported by participants as improved. The shorter programme (4 weeks) indicated no shift in the quantitative evaluation, but some shift in the qualitative evaluation.
- The survey highlighted that after the programme, participants actually re-evaluated their pre-programme mindfulness traits (having over-estimated them), suggesting a better understanding of the possibilities of change after completion of the programme.
- Overall in the qualitative feedback many participants reported feeling calmer, more focused, more relaxed, noticing more, and reporting more enjoyment of simple tasks.

¹ Lueke, A. and Gibson, A. (2015) "Mindfulness Meditation Reduces Implicit Age and Race Bias" *Social Psychological and Personality Science*, Vol. 6 (3), pp284-291.

- Several participants were able to articulate how the programme had enabled them to approach various work and personal situations in a non-reactive and non-judgmental manner, and that they were now more able to act effectively within difficult situations.
- Participants sometimes recounted the difficulties that they had with describing their behaviours and thought processes, suggesting that, as previous research suggests, mindfulness cannot be achieved quickly but requires sustained practice and reflection.
- Participants reported being able to better avoid the escalation of negative spirals of thoughts, and more able to be non-judgmental and non-reactive to inner experience, which also seemed to enable them to pause and think before reacting to external events. For some they were expressly applying this to their decision making.

Combining mindfulness and behaviour change provided a connection between theory and practice

- Participants reported that the mindfulness practice helped them develop an awareness of the automatic/emotional prompts to their own action, including unconscious biases. They suggested that it was effective in personalising behaviour change theories in ways which could effect genuine change.
- The programme was also seen to be a useful framework for relating to client groups and communities in new ways, and potentially a collective field technique for delivering behaviour change interventions with particular groups, clients, service users or stakeholders.

- The focus on cognitive biases was seen as the most useful aspect of combining mindfulness and behaviour change, with many participants also reporting the value of a focus on the role of emotions in decision making and designing behavioural interventions.

The programme as a whole helped some participants reconsider the mechanics of decision making

- Participants reported that they had increased insight into the role of emotions and cognitive biases in decision making. This prompted them to reconsider the dominant forms that decision making took in their organizations and to challenge the basis on which these forms had become dominant.
- Participants felt the programme enabled a more positive decision making approach, in light of the circumstances in which they found themselves. In the civil service they stated that their new insights on decision making and their own subjectivity had improved their ability to meet organizational requirements for objective and evidence-based decision making programme
- Sometimes participants described their difficulties in calling up a state of mindfulness or unconscious bias awareness when it was most needed in the moment of decision making. They described instead the benefits of mindfulness and behavioural insights in post-rationalising situations, and having both more acceptance and more agency in relation to an event. This suggests that additional practice and embedding may be needed for these new skills to come into play in more stressful situations, requiring more longitudinal research to fully investigate.

Mindfulness and the workplace: context and buy-in are key

- Organizational pressures, styles of working, hierarchies and inertia were reported as significant determining factors in the success and potential impact of the programme. If participants did not have a perceived (or real) organizational, team or line-manager support for their participation in the programme, the potential impact for the individual (and for teams) was reduced.
- Participants described the benefit of having a mindfulness ‘buddy’ or mentor within their teams, and self-organised groups to devote collective time to mindfulness practice.
- In some cases the programme seemed to enable participants to challenge the values and working practices of their organization. In other cases, they reported a certain realignment of their personal values and strategic goals with those of their organization.
- As well as feeling calmer, participants also reported increased capacity in effectively single tasking rather than ineffectively multi-tasking. They also reported an increased capacity for more creative and open minded thinking including possibilities they hadn’t considered before

Mindfulness and behaviour change support a more embodied and emotional workplace

- The programme was reported as a powerful context within which it became possible to be collectively more open and accepting of the presence of emotions and vulnerability in the workplace, both as an individual and a team. Some participants became much

more aware of the connections between the felt senses of the body, thinking and emotions.

- Since the programme, there was a greater willingness within working teams to acknowledge and address different manifestations of emotional response to particular situations and projects and see them as relevant. This was potentially supported by both the mindfulness and the behavioural insights training.
- The physical arrangements, embodied positions and bodily practices adopted in the programme sessions were important in terms of what was comfortable or not in a workplace context. Considerations relating to lying, sitting on blocks, or sitting in circles in normal workplace settings need to be managed sensitively.

Shaping ethical and empowering practices in the workplace

- For participants who had existing knowledge of behaviour change, the programme helped them to consider how mindfulness could support the development of more ethically oriented forms of behaviour change initiative.
- A number of participants considered that it is important to incorporate discussion of values and resilience-building into behaviour change interventions.
- Few participants had considered or were concerned about the potential ethical dilemmas posed by behaviour change interventions.
- Several participants noted the relationship between feeling calmer and more in control, as well as reducing stress as a pre-cursor to feeling more capable and thus empowered.

Key recommendations and future research challenges

Our experimental trial points towards some of the potential that mindfulness poses as a workplace based intervention, looking beyond therapeutic and workplace wellbeing goals and towards establishing alternative ways to work on engagement and change (for staff, their clients, service users, stakeholders, and their organizations). This is particularly useful when organizations are dealing with complex long term problems such as climate change, sustainability and health.

The research findings demonstrate that our programme could provide an effective, empowering and ethical means through which to explore behavioural insights with staff in ways which engage personal understandings as well as approaches with and for others.

Current research gaps on workplace mindfulness

- There is limited research on the use of mindfulness for workplace learning, decision making, productivity, organizational culture, adaptability, values, behavioural and organizational change.
- There lacks a substantial body of evidence on mindfulness and leadership, creativity, work engagement, job satisfaction, emotional exhaustion and employees' cognitive skills.
- There is a wide range of evidential standards present within existing studies on mindfulness. The activities of control groups are not always thorough, and there is often an over-reliance on self-report questionnaire methods which are not uncontested in field of psychology.

- Studies often lack independence in terms of funding sources and the private interests of the research teams.
- Compounding and/or contradictory variables can make it difficult to discern the actual and potential effects of mindfulness in the workplace.

Evaluating mindfulness based workplace interventions should be context based and use mixed methods

- Interventions should consider the wider social, political, economic and cultural context of the workplace in which they are delivered and the effects this has on understandings of mindfulness itself, individual learning, organizational change and service delivery.
- Evaluations should relate specifically to the aims and rationale for the intervention, and be appropriate to assess whether these aims have been realised.
- That said, it is important however to be open to other potential impacts of such programmes, looking beyond the original aims of the programme and allowing other impacts to become evident.
- Mixed methods should be used to shed light on different aspects of the programme and participants' experiences. Surveys and RCTs provide useful research evidence but qualitative research can provide additional insight, particularly in relation to research participants' own understandings, values and principles.
- Efforts should be made to evaluate the impact of the programme not just on the participants themselves, but on work teams,

organizations, relationships with clients, service users or stakeholders. This could be achieved through delivering the programme to specific teams, conducting 360 degree research interviews in the workplace, follow up interviews with clients, service users and/or stakeholders, longitudinal research, research diaries.

Future Research Challenges

- There is a need for systematic and synthetic reviews of existing research evidence, research trials, pilots, experiments and explorations of existing workplace initiatives.
- There should be more concerted efforts within the policy, academic and practitioner communities to engage in research based partnerships which can demonstrate a high degree of independence.

Future research should investigate:

- At a basic level, whether workplace based mindfulness interventions are effective in achieving their aims.
- What works in workplace based mindfulness interventions in different sectors and whether programmes need to be adapted to different contexts.
- What opportunities and limitations workplace based mindfulness interventions have, in terms of the range of effects that such interventions can have on organizations, employees, stakeholders.
- What the significance of workplace based mindfulness interventions might be in terms of changing working cultures, employee-employer relations, the wider economy and social relations.

In relation to combining mindfulness practice with behaviour change knowledge, future research could usefully investigate:

- How mindfulness practice could help participants to be more open to understandings of unconscious biases and behavioural understandings that potentially re-position the human in relation to themselves, each other, the workplace and the delivery of their work.
- How mindfulness could be used to understand organizational-level unconscious biases, habits, ways of working and established decision making which might usefully be challenged. How mindfulness and behavioural insights might be better integrated in order to address local, national and global social challenges (particularly complex contemporary problems such as social inequality and climate change) in ways which are effective, sustainable, and with due regard to wellbeing inequalities in the future as well as in the present, supporting other work in this area.²
- How a mindfulness, behaviour change and decision making programme might be developed to maximize its potential impact beyond the organization, amongst a wider constituency of stakeholders such as service users, clients, consumers, citizens and within communities?
- The wider picture relating to better understanding what the popularity of mindfulness based interventions in the workplace signifies in terms of the changing demands made on employees in different sectors and their capacity to respond to these demands without personal detriment?

² Halpern, D. (2016) "Applying behavioural insights to improve life chances" 22/01/16, at: <http://www.behaviouralinsights.co.uk/education-and-skills/applying-behavioural-insights-to-improve-life-chances/>

1 Project overview

“Mindfulness is incredibly important to organizations because organizations are like organisms; they are alive, they are made up of people and if you are not aware of the various ways in which people’s mind expresses itself, then the organization can really get into some kind of mental space where no one is talking to anyone else and no one is really listening” (Kabat-Zinn, 2008)

This report provides an overview of an experimental trial conducted on mindfulness and behaviour change in the workplace between 2014-2016 by Aberystwyth University and the University of Birmingham. The research involved the development and delivery of a Mindfulness, Behaviour Change and Decision Making Programme with non-vulnerable participants in our partner organizations: the Welsh Government (in Aberystwyth, Cardiff and Llandudno), Global Action Plan (London) and Ogilvy Mather (London). Over this period, the programme has been delivered to 96 participants.

The programme was designed to explore the extent to which mindfulness could provide an effective practice through which to learn about the emerging insights of the behavioural sciences and to consider how these insights could be applied in specific workplaces. It aimed to provide participants with a basic understanding of contemporary accounts of human behaviour informed by behavioural economics, psychology and neuroscience, and used the practice of mindfulness to consider how behaviour might be shaped, sustained and/or transformed.

How can mindfulness provide an effective practice through which to learn about the emerging insights of the behavioural sciences within workplaces?

The premise of the programme was to build participants’ skills and capacities to pay attention to thoughts and experiences (the practice of mindfulness), whilst introducing relevant information from the psychological and behavioural sciences on behaviour change (particularly relating to behavioural biases, the nature of rationality, habit formation, emotions and heuristics). It integrated behavioural insights and mindfulness in order to improve decision making within public policy, environmental action and the commercial marketing and behaviour change sector.

The programme was delivered in a non-clinical setting by Rachel Lilley, a mindfulness, yoga and trained (PGCE) teacher with 20 years’ experience. She followed the UK Network for Mindfulness-Based Teacher Trainers’ Good Practice Guidance³, and was supervised by a

³ <http://www.mindfulnessteachersuk.org.uk/>

recognised Mindfulness Network Supervisor and a Meditation Mentor. Her current PhD research based at Aberystwyth University investigates the potential application of mindfulness techniques for promoting pro-climate behaviours. Professor Mark Whitehead (Aberystwyth University) and Dr Jessica Pykett (University of Birmingham) provided input into the development of the programme, and Diana Reynolds (Welsh Government) and Mark helped to facilitate taster sessions and a feedback/feed-forward workshop at Welsh Government and Global Action Plan respectively.

This report is based in part on separate reports covering each programme delivery. These reports can be found at: <https://changingbehaviours.wordpress.com/>

1.1 Partner organizations

The research aimed to investigate the value of a cross-sector approach to mindfulness, behaviour change and decision making. We therefore selected partner organizations from the public sector, third sector and commercial sector respectively in order to examine these different contexts. Over the programme of the research, the programme delivered was tailored to each organization. This approach also allowed us to explore the effectiveness of the programme in light of participants' prior understandings of behaviour change and behavioural insights. organization

The **Welsh Government** is the devolved government of Wales with responsibility for health, education, the environment, language and culture and public services. Here the emphasis of our programme was on understanding behavioural insights through mindfulness in order to improve public policy, knowledge of citizen behaviour and civil service work practices. Participants held many different roles from a number of directorates and departments, including Natural Resources Wales, Digital Business Support, Education,

Transport, Youth Work, Housing, Energy Policy, Equality and Diversity, Finance and Performance and Leadership Policy. Our programme was commissioned as part of a wider suite of change management initiatives led as part of the Natural Resources Wales Continuous Improvement Programme, which includes coaching, mindfulness and co-production. It was delivered 3 separate times to the Welsh Government.

Global Action Plan is a UK based independent charity which uses behaviour change principles to inspire people to take practical environmental action, primarily through work with businesses, schools and the NHS, locally, nationally and globally. Working with this organization, our focus was on addressing understandings and applications of behaviour change theories in relation to their environmental remit, and involved participants across all levels of the organization, from partners to more junior members of staff. In this case we delivered a shorted 4 week programme to fit in with the organization's schedule and requirements.

Ogilvy & Mather is an international advertising, marketing and PR agency. In recent years they have developed Ogilvy Change, a specific team who provide services to global clients both in the public and commercial sector. Their team of 'choice architects' draw on behavioural economics and cognitive psychology along with expertise in communications and advertising (as part of the global Ogilvy Group) in order to change behaviour. In developing our programme for this context, we focussed on decision making processes, meeting situations and client relationships of relevance in this sector. Participants included choice architects from Ogilvy Change as well as staff from the wider Ogilvy & Mather Group UK who work as Project Managers, in Talent Management and HR, Global Brand Strategy and Account Management. A number of participants work on medical and health accounts and were involved with both mindfulness and behavioural in their work.

1.2 Introducing Mindfulness and Behaviour Change.

Making the connections

Mindfulness

As a practice of present-centred awareness, mindfulness in its initial stages involves the training of attention so that we start to change our relationship with our everyday experience, and potentially meet it more fully. Mindfulness practices (including body scans, breath, body and thought meditations, and mindful movements) focus on guiding a dispersed consciousness back to the present, by focussing attention on the breath, the body or the processes of thoughts and feelings.

Through the practice an individual becomes more aware of their awareness (meta-awareness). They can notice when they are ruminating on past or future events, they can become more aware of the reality of multiple task processing, and of how emotions affect their decisions and behaviours.

Mindfulness can be developed and can also include what Cortland Dahl and colleagues have called “constructive” or “deconstructive” practices⁴. A combination of behavioural insights and mindfulness may support the development of a more deconstructive practice inquiring into the nature of the processes of mind.

The non-judgmental dimension of mindfulness supports people to be more accepting of the mental, embodied and environmental forces that shape their experiences, and less reactive or overwhelmed by them. In this way

mindfulness supports an awareness of the feelings which co-arise with and influence thoughts. The non-judgmental nature of mindfulness is important because it works against the normative analysis of experience as good or bad, or right or wrong. It thus shifts our habitual relationships with our experience and observations, and opens up different options in thoughts and behaviour.

Simply put, mindfulness is moment-to-moment non-judgmental awareness⁵.

Mindfulness in practice

At a practical level, mindfulness involves meditation techniques that can be carried out in group or individual settings. These practices are conducted sitting down, lying on the floor, walking or simply pausing and paying attention during the working day. Mindfulness training programmes are often organized around standard 8-week programmes, drawing on the highly evidenced MBSR (Mindfulness Based Stress Reduction) and MBCT (Mindfulness Based Cognitive Therapy) programmes. The development and maintenance of a long-term mindfulness practice is seen to be vital for the benefits to be felt.

Beyond its therapeutic applications, mindfulness training is now associated with a range of beneficial impacts including improvements in physical health, supporting social relationships, enhanced work-place performance and leadership, advances in learning capacities, and general increases in measurable forms of

⁴ Dahl, C.J., Lutz, A., and Davidson, R.J. (2015) “Reconstructing and deconstructing the self: cognitive mechanisms in meditation practices” *Trends in Cognitive Science*, Vol 19 (9), pp515-523.

⁵ Jon Kabat-Zinn, Full Catastrophe Living (Revised Edition): Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness. Piatkus, London.

wellbeing⁶. Programmes are increasingly being adapted for the workplace and other contexts.

The practice of mindfulness has a history that stretches back over two and a half thousand years. Mindfulness was originally a Buddhist practice that was recorded in the *Satipatthāna Sutta* (the Discourse of Establishing Mindfulness, found in the Pali Canon).

The development of MBSR (which was introduced by Jon Kabat-Zinn as a practice for pain management), and MBCT (which has been used to alleviate certain mental illnesses) are perhaps the most well-known secular applications of mindfulness⁷.

Mindfulness is now entering the social and political mainstream⁸, and has been widely adopted as a workplace wellbeing programme in the global corporate sector, in the UK civil service in particular and within schools and the NHS. Recent years have seen a proliferation of books, mobile apps and consultancies offering mindfulness guidance, training and services.

In 2015 the Mindfulness All Party Parliamentary Group reported on evidence and practice of the benefits of mindfulness in public policy to improve people's health and enable them to flourish.

⁶ Rowson, J. (2014) 'Mindfulness: more than a fad, less than a revolution' RSA Blogs 30/4/14, at: <http://www.rsablogs.org.uk/2014/socialbrain/mindfulness/>

⁷ Williams, J.M.G. and Kabat-Zinn, J. (2011) "Mindfulness: diverse perspectives on its meaning, origins, and multiple applications at the intersection of science and dharma", *Contemporary Buddhism*, Vo 12 (1), pp1-18

⁸ Bunting, M. (2014) 'Why we will come to see Mindfulness as mandatory' *The Guardian* 6/5/14, at: <http://www.theguardian.com/commentisfree/2014/may/06/mindfulness-hospitals-schools>

Policy interest in mindfulness in the UK

In the UK there has been a growing interest in the potential application of mindfulness within society. In 2015 the UK Parliament reported on hearings and findings from the Mindfulness All Party Parliamentary Group⁹ which explored evidence and practice relating to the benefits of bringing mindfulness into public policy to improve people's health and enable them to flourish.

The Mindfulness APPG, supported by the Mindfulness Initiative, a coalition of research centres at the Universities of Oxford, Exeter, Bangor and Sussex, as well as the Mental Health Foundation, has collated evidence on the use of mindfulness in health, education, the workplace and the criminal justice system. They have made a number of key recommendations for making mindfulness more available in these spheres.

Within the **health** sector, recommendations include the expansion of MBCT programmes for adults at risk of recurrent depression, improved access for those with long term health conditions, formal reviews of medical evidence and funding to train more MBCT teachers. Within **education**, they recommend establishing pioneering teaching schools to test and develop mindfulness teaching and Challenge Funds to be made available for teacher training.

In relation to **workplaces**, the MAPPG report recommends the promotion of mindfulness by the Department for Business, Innovation and Skills (BIS), pilot research on workplace mindfulness for stress and organizational effectiveness, and as an occupational health intervention, and increased availability of mindfulness programmes for civil service staff.

Finally within the **criminal justice** system, there are recommendations for making MBCT

⁹ Mindfulness All Party Parliamentary Group (2015) *Mindful Nation UK*. The Mindfulness Initiative.

available to offender populations and funding for a Randomised Control Trial for such programmes.

Beyond the therapeutic

Despite the proven and potential benefits of mindfulness as a health and therapeutic intervention, it is also important to acknowledge a series of questions that have been raised about its current popularity¹⁰. These relate both to the general use of mindfulness and to the ways it is being applied in secular, non-therapeutic contexts.

Concerns have been raised that mindfulness is being too quickly adopted as a panacea-like solution to a range of social problems¹¹. Long-term mindfulness practitioners and teachers have claimed that care needs to be taken to insure that as mindfulness is adapted and applied within new contexts, that its core messages and values are not forgotten.

Recent enthusiasm for mindfulness both in the public sector and corporate worlds has provoked not insubstantial criticism from detractors who regard it as naïve, navel-gazing and in some senses a dangerous distraction from ‘real world problems’. Critics have warned against the idea that some kind of ‘Buddha Pill’ can straightforwardly make us happy, efficient and compassionate¹².

When pursued as a form of ‘therapeutization’, there is a real risk that mindfulness is mobilized as a way of ‘fixing the person’ rather than addressing the need for wider social and

structural changes which would make people’s lives easier and more peaceful.

Emergence of behaviour change in public policy

The last decade or so has witnessed a transformation in the ways in which governments and policy makers understand human decision making and behaviour. This transformation is often referred to as the *Behaviour Change Agenda*, and within the UK this describes the relatively recent promotion of behavioural science to inform public policy emerging in the late 1990s.

This agenda has been developed over time through initiatives based in government departments such as DEFRA and the DWP, and since 2010 has been co-ordinated by the Behavioural Insights Team (BIT) formerly within the Cabinet Office. The BIT have applied insights from the behavioural sciences to policy areas as diverse as charitable giving, energy conservation, tax compliance, police recruitment, adult education and doctor-patient interactions.

Global expansion of behaviour change

Over the past few years, Behaviour Change has become a global policy imperative. Behaviourally informed public policy initiatives can be found in Australia, Denmark, Singapore, the UK, USA, and the Netherlands, amongst others. International organizations such the World Bank, OECD, European Commission and the World Economic Forum have all promoted behaviour change. A more commercially oriented behaviour change industry has emerged, including organizations and start-ups such as The Behavioural Edge, Mind Lab, Behavioural Architects, Change Lab, Corporate

¹⁰ Halliwell, E. (2014) ‘7 Questions About Mindfulness That Still Need An Answer’ *Mindful*, 11/4/14 (<http://www.mindful.org/mindful-voices/the-examined-life/7-questions-about-mindfulness-that-still-need-an-answer>)

¹¹ Furedi, F. (2014) ‘Mindfulness is a fad, not a revolution’ *TES Magazine*, 18/4/14.

¹² Farias, M. and Wikholm, C. (2015) *The Buddha Pill: Can Meditation Change You?* Watkins Publishing Ltd.

Culture, and Ogilvy Change. New social enterprises and longer established charities have developed their remits and working practices to take behavioural evidence into account in their communications, engagement and social marketing (e.g. the National Social Marketing Centre, Global Action Plan, Collaborative Change).

Key principles of behaviour change

At the heart of the Behaviour Change Agenda are three principal insights:

1. That although changing human behaviour remains a fundamental goal of government policy, public policy makers have found it difficult to change long-term behavioural patterns (particularly in relation to healthy living, sustainable lifestyles, and financial responsibility).
2. That human behaviour is more emotionally complex, subject to cognitive biases, and more error prone than traditional (economic) theories suggest.
3. That behavioural insights therefore provide an essential set of tools and rationales for public policy making which can not only design policies around real people but can do so in more cost-effective ways.

A significant portion of human behaviour is actually shaped by unconscious, seemingly 'irrational', prompts.

Primarily, recent behaviour change policies have been informed by the insights of the behavioural sciences (and in particular behavioural psychology and behavioural economics). New behavioural insights have challenged the idea that humans make decisions that are based

upon independent deliberation and consistent forms of self-interested preference. Evidence suggests that in addition to deliberative behaviours humans also depend on rapid forms of decision making that are shaped by our unconscious habits, emotional responses, the environmental contexts within we find ourselves, and the actions of those around us.

The behavioural sciences suggest that while government policies have traditionally focused on the rational dimensions of human decision making, which are triggered by the provision of information, regulation, or financial incentives (these forms of more deliberate decision making are often referred to as System 2 thinking), a significant portion of human behaviour is actually shaped by unconscious, seemingly 'irrational', prompts (these forms of more intuitive decision making are often referred to as System 1 thinking).

These prompts include our emotional aversion to loss, our tendency to prioritise short-term gain over long-term needs, humans' propensity to 'blend-in' with what others are doing, and our collective preference for supporting the status quo over change¹³. These behavioural tendencies not only result in people making habitual decisions that are not in their own long-term interests, but, perhaps more worryingly, they are behavioural triggers of which we are often unaware.

Key debates in behaviour change

It is important to be aware of two popular misconceptions concerning the Behaviour Change Agenda. First, there is a tendency to equate behaviour change policies (and in particular the work of prominent groups such as the Behavioural Insights Team) with the popular

¹³ John, P. Cotterill, S. Moseley, A Richardson, L. Smith, G. Stoker, G. and Wales, C. (2011) *Nudge, Nudge, Think, Think* Bloomsbury, London.

notion of *nudge*. Nudges are behaviour change policies 'that alter[s] people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives'¹⁴. A key characteristic of nudges is that they tend to target the behaviour of individuals and to focus on unconscious prompts to action.

While nudge is clearly a prominent behaviour change strategy it is also apparent that the governments, NGOs, international organizations, corporations, and consultancies that advocate the insights decision making of the behavioural sciences use a varied pallet of policy tools which adapt and develop behavioural insights in a more nuanced way. Examples of models which attempt to do this in policy contexts include the UCL Behaviour Change Wheel¹⁵ and the ISM Model¹⁶. There are also other behaviourally informed policy tools which are being piloted and developed as more participatory methodologies. These include values-based approaches, co-design, connected conversations, and steering techniques, which demonstrate a common thread of recognising the emotional aspect of human decision making, but attempting to change behaviour through more consciously-oriented techniques¹⁷.

A second misconception that surrounds the Behaviour Change Agenda is the relationship between System 1 and System 2 within decision making. At one level, people often assume that more psychologically oriented theories of

decision making suggest that human behaviour is reducible to more intuitive, System 1 action. At another level, it is also assumed that in targeting System 1 decision making behaviour change policies are trying to correct the inherent pathologies of automatic forms of behaviour.

In the first instance behaviour change policies often involve developing policies that reflect human tendencies to respond to both rational and more automatic prompts to action. In the second instance, there is widespread acknowledgement that both System 1 and System 2 are vital (and inseparable) within effective forms of decision making, and that policies should simply enable people to engage the system that is most effective in a given situation.

Mindfulness and behaviour change

For some time there has been an intuitive assumption that mindfulness practices and the insights of the Behaviour Change Agenda could be creatively combined¹⁸. At the simplest of levels, it has been suggested that the present-centred non-judgmental awareness associated with mindfulness could help people to develop new relationships with forms of emotional, intuitively based System 1 behaviours of which we are often unaware.

The hypothesis is that mindfulness training can support the development of forms of **neurological reflexivity** through which people can begin to identify and understand the prompts that cause less than useful behaviours and potentially establish new behavioural patterns¹⁹.

¹⁴ Thaler, R. and Sunstein, C. (2008) *Nudge. Improving Decisions about health, wealth and happiness*. New Haven, CT: Yale University Press., p6).

¹⁵ Michie, S., van Stralen, M.M. and West, R. (2011) "The behaviour change wheel: A new method for characterising and designing behaviour change interventions" *Implementation Science* Vol 6(42).

¹⁶ Darnton, A. and Horne, J. (2013) *Influencing Behaviours: Moving Beyond the Individual: A User Guide to the ISM Tool*. Scottish Executive.

¹⁷ Crompton, T. (2010) *Common Cause: The Case for Working with our Cultural Values*. WWF; nef (2011) *Connected Conversations. Tackling big issues by linking small conversations*. nef, London; <http://www.carbonconversations.org/about/history>

¹⁸ Rowson, J. (2011) *Transforming Behaviour Change: Beyond Nudge and Neuromania*. RSA, London.

¹⁹ Rowson, 2011; Lea, J., Philo, C., Cadman, L.(2015). "Changing the habits of a lifetime? mindfulness meditation and habitual geographies" *Cultural Geographies* vol. 22 no. 1, pp 49-65.

Mindfulness could be used to address ethical concerns which have been voiced around the application of behavioural insights in public policy.

In order to understand better the potential utility of the programme it is important to reflect upon some of the concerns that have been raised with the Behaviour Change Agenda²⁰. These concerns can be summarised through the three E's of **ethics, empowerment, and efficacy**²¹.

Strengthening ethics, empowerment and efficacy in behaviour change initiatives

Ethical concerns have frequently been raised about the Behaviour Change Agenda. The uses of new psychological insights, which often target sub- (or semi-) conscious processes, to change the behaviour of individuals are always going to be open to charges of manipulation. In its Behaviour Change report of 2011, the House of Lords Science and Technology Select Committee argued that behaviour change interventions needed to be transparent so that they could be subject to appropriate forms of public scrutiny²².

Related ethical concerns have been raised regarding whether the Behaviour Change

Agenda reflects an unwarranted intrusion by the state into the private lives of its citizens²³.

Connected to these ethical questions have been discussions about the relationship between behaviour change policies and **empowerment**. Some commentators have argued that in attempting to correct the behavioural errors generated by System 1 thinking, policy-makers are acting in ways that are disempowering to citizens. It is claimed that by subtly changing choice architectures in order to nudge people towards more favourable behaviours, policy-makers are depriving individuals of the chance of understanding and shaping their own behavioural destinies²⁴.

Related critiques claim that the Behaviour Change Agenda actively undermines people's autonomy not only because they are often not aware that they are being nudged, but because they lose the opportunity to make *warranted mistakes* and to subsequently enhance their own behavioural learning and sense of moral independence²⁵.

The final group of critiques surrounding the Behaviour Change Agenda questions its **efficacy**. These critiques suggest that while nudge-type policies are successful in changing simple behaviours over short periods of time, they are a lot less successful at transforming more complex habits over people's life cycles²⁶.

Those questioning the efficacy of behaviour changing policies often point out that related policies seek to change the behaviours of individuals but not the individuals and the societies they inhabit²⁷.

²⁰ Halliwell, 2014; Pykett, J. and Johnson, S. (2015) Silver bullets need a careful aim. Dilemmas in applying behavioural insights. Collaborative Change, Preston and University of Birmingham.

²¹ Jones, R. Pykett, J. and Whitehead, M. (2013) *Changing Behaviours: On the Rise of Psychological State* Edward Elgar, Cheltenham.

²² House of Lords (2011) The Select Committee on Science and Technology: Subcommittee 1: Inquiry on behaviour change: 2nd report of session 2010–12, The Stationery Office London, pp108-109.

²³ House of Lords, 2011: para.2.19.

²⁴ Furedi, F. (2011) *On Tolerance: A Defence of Moral Independence*. Continuum, London.

²⁵ Furedi, 2011: 135

²⁶ Jones et al., 2013

²⁷ Crompton, T., 2010

Role of mindfulness in strengthening ethics, empowerment and efficacy

In developing the programme we were interested to see the extent to which mindfulness training could help to address the questions of ethics, empowerment, and efficacy that have been levelled at behaviour changing policies.

As regards ethics, we conjectured that the participatory nature of mindfulness training would help to ensure that attempts to change behaviour through the programme would be open and transparent. In addition, we felt that attempting to achieve behaviour change through mindfulness training would ensure that related interventions would be carried out with due concern for the particular circumstances and experiences of participants.

In relation to questions of empowerment, we were keen to explore whether learning about behaviour change through mindfulness practice could enhance participant's understanding of their own behaviours, and thus enable them to shape their own behaviours more effectively in the future. We were particularly interested to see the extent to which mindfulness training could enable people to become more aware not only of the impact of the intuitive and emotional dimensions of System 1 processes, but also of the role of System 2 thinking in their behaviour.

In this way, we were keen to explore the extent to which participants on the programme become more aware of the complex ways in which System 1 and System 2 thinking interact and the positive and negative impacts which these systems have on their actions.

In relation to efficacy, it is our intention in the future to explore the impact of mindfulness-based behaviour change training on long-term, complex behavioural patterns (although this is a project that is beyond the scope of the programme outlined here). In particular we are interested in the extent to which mindfulness

may provide a context within which to engage with deep values that appear to be so important to sustaining a commitment to behaviour change over longer periods of time.

In attempting to explore some of the critiques that have been associated with the Behaviour Change Agenda, the programme ultimately addresses an issue that lies at the very centre of the contemporary behaviour change debate. This issue concerns whether the behavioural biases and heuristics that often lead to harmful behaviours, are an unavoidable part of the human condition or can be changed, at least insofar as becoming less automatic and thus more able to be changed.

When combined with learning about behaviour change, mindfulness training can enable people to take greater control of their own behavioural systems and lead more empowered lives.

On one side of the debate is the Nobel Prize winning scholar Daniel Kahneman, who suggests that we cannot simply learn to switch of the behavioural biases that emerge out of System 1 thinking and intuition²⁸. There are others, such as the eminent psychologist Gerd Gigerenzer, who conversely argues that humans have the capacity to become more behaviourally "savvy" and to control their automatic selves²⁹.

The programme we have developed is predicated on the hypothesis that when combined with learning about behaviour change, mindfulness training can enable people to loosen their own habituated responses and behavioural systems and to lead more empowered lives.

²⁸ Kahneman, D. (2012) *Thinking Fast Thinking Slow*. Penguin, London.

²⁹ Gigerenzer, G. (2014) *Risk Savvy: How to make good decisions*. Allen Lane, London.

1.3 Rationale for the Mindfulness, Behaviour Change and Decision Making Programme

The programme developed through this research is premised on the assumption that mindfulness can offer an *effective and practical* context within which to foster more *empowering and ethical* understandings of emerging insights into the nature of human behaviour.

The programme differs from other workplace-based mindfulness and wellbeing interventions in four principal ways:

1. It is not specifically aimed at stress-reduction or worker productivity but at professional development and decision making – and in the longer term – potential organizational change.
2. It considers behavioural biases as a necessary, often valuable, part of our decision making practices. They are proposed as a form of rationality which we need to work positively with as opposed to an undesired irrational relic of our evolutionary past to be ‘overcome’ or bypassed.
3. It brings mindfulness and behaviour change together through a focus on the role of habits and heuristics in embodied action as opposed to splitting System 1 and System 2 thinking.
4. It embeds mindfulness and behaviour change in a wider organizational and social context, attentive to existing inequalities in the resources required and opportunities afforded to make specific decisions and take particular courses of action. This builds in

specific insights from research on decision making and scarcity³⁰.

Beyond the therapeutic approach

While the programme may provide many of the therapeutic benefits that are typically associated with mindfulness training (including stress relief and general reported increases in wellbeing), its primary focus is on professional development and decision making.

As a professional development programme, the programme utilizes mindfulness to inquire into the nature of behavioural insights and how they play out in working practices and approaches in a range of contexts (ranging from team work, engagement with stakeholders, the actual design and implementation of policy and projects, to communication strategies).

The primary focus of the programme is on professional development and decision making.

Behavioural biases as essential to decision making

As noted above, while Daniel Kahneman recognizes the important and beneficial role that System 1 thinking has in our lives, his work is focused upon exploring how we can correct our cognitive biases. The second distinct feature of our programme is its *rethinking of the hierarchical ordering of irrational and rational behaviour*, addressing Gigerenzer’s contention that System 1 thinking has an adaptive quality

³⁰ Mullainathan, S. and Shafir, E. (2013) *Scarcity. The True Cost of Not Having Enough*. Penguin, London.

that supports effective decision making. We argue that automatic thinking, and the cognitive biases on which it is based, are a vital and creative part of our behavioural capacities and should be supported rather than corrected. That they may potentially limit our potential to act differently but that this can be worked with.

Sustaining effective change through habits and embodied action

A crucial area where mindfulness and behavioural science are now converging is around the issue of ***habits and heuristics and how they manifest in embodied action***. Habits are behaviourally interesting because they represent a way in which we are able to package often quite complex decisions and actions into the automatic forms of response that require minimal cognitive effort.

The programme's third main innovation is that it uses mindfulness and the insights of the behavioural sciences to enable you think about habits and the body in new ways. One of the most interesting things about habits is that over time they involve the transfer of deliberative decisions (originating in System 2 thinking) into the realms of automatic actions (System 1 thinking)³¹. The processes by which this happens and the link to the cognitive bases of affect are explored by Antonio Damasio, whose work is brought into the programme³².

As an example, the first time you buy a coffee from a particular café may involve some cognitive effort (involving the calculation of the café's location, the cost of the coffee, and the taste of the drink). Overtime, however, that initial reasoning will tend to give way to your automatic choice of that particular coffee shop (perhaps triggered by your body's need for

caffeine, or the subtle smell of coffee that greets you on the pavement).

Mindfulness and the insights of the behavioural sciences can be combined to enable people to think about habits and the body in new ways.

Changing our habits involves a process whereby we have to bring behaviours that are embedded in our unconscious (or at least semi-conscious) lives into consciousness. In the terms of behavioural sciences, shifting habits involves interactions between System 1 and System 2 thinking, through which we can deliberately assess the relative merit and value of our behaviours before re-embedding them into unconscious habit forms. Many secular uses of mindfulness focus on paying greater attention to habits (both within our thoughts and behaviours) and exploring ways in which they can be changed and 'released'³³.

Addressing cognitive scarcity and the role of context

Finally our programme aimed to prioritise better understandings of the ***resources required to make particular choices*** or take specific programmes of action within particular contexts. Recent research by behavioural economists has argued that in situations of poverty or scarcity, people are constrained in their cognitive functioning³⁴. To be clear, their position is not that living in poverty makes people less intelligent, nor that their

³¹ Duhigg, C. (2013) *The Power of Habit: Why We Do What We Do and How to Change*. Random House, London.

³² Damasio, A. (1995) *Descartes Error: Emotion, Reason and the Human Brain*. Picador, London.

³³ Williams, M. and Penman, D. (2011) *Mindfulness: A Practical Guide to Finding Peace in a Frantic World*. Piaktus, London.

³⁴ Mullainathan, S. and Shafir, E., 2013

psychological character renders them incapable of making decisions in their own best interests. Rather, their core argument was that having less money, resources, social support than you need limits people's 'mental bandwidth'; resource scarcity does not leave people with enough mental space to make effective and appropriate decisions. Scarcity does not only apply to money, it can also refer to time. People whose time is limited with high demands on their time will also have limits to their bandwidth and capacity to make decisions.

Crucially, it is this concern about scarcity itself, rather than lack of nutrition or a sense of stress which limits cognitive performance. In drawing attention to these arguments, the programme seeks to highlight the way in which inequality of resource, different contexts and wider structural forces shape decision making and behaviour. This approach lends itself to socially engaged forms of mindfulness, prioritizing knowledge of the world in place of introspection.

The programme is designed to empower people to make better decisions in a way that is sensitive to the contexts in which they find themselves and existing inequalities in the resources required to make particular choices.

Furthermore it points to the **need to embed behavioural insights and programmes of change in wider organizational and social contexts**. Buddhist scholars and critical psychologists alike have warned against decoupling mindfulness from both its historical and philosophical roots (Stanley, 2013). Many are troubled by the way in which many contemporary forms of mindfulness practice have been led down a route of 'brain training' and self-awareness, and away from the deep

ethical consideration, awareness of suffering and radical disavowal of the self-associated with early Buddhist practice. Others claim that the origins and purpose of mindfulness have been misunderstood, and linking meditation and mental health is a contemporary western construct³⁵.

The approach we take in this programme is therefore one which is sensitive to this history and aims to re-contextualise mindfulness and decision making in the real world situations in which we find ourselves. Our approach has some affinity with an existing cadre of work and activism known as 'socially engaged Buddhism' which highlights the political struggles pursued through Buddhist practice in response to specific world events, conflicts and injustices³⁶.

In combining mindfulness practice with knowledge of new insights on decision making, we therefore aim to give due attention not only to the immediate situations in which System 1 and 2 thinking are enacted, but also to the wider contexts which shape people's behaviour, habits, responses and reflections in specific ways.

1.4 Ethical Standards

In developing the programme we have identified a number of ethical standards we consider necessary in the application of behavioural insights and the use of mindfulness in a workplace environment (the latter is, after all, a form of behavioural intervention in and of itself). The programmes follow the Good Practice Guidelines for teaching mindfulness based programmes³⁷ insofar as they apply to the

³⁵ Sharf, R H (2015) "Is mindfulness Buddhist? (and why it matters)" *Transcultural Psychiatry*, 52(4), pp470-84.

³⁶ King, S.B. (2009) *Socially Engaged Buddhism*. University of Hawai'i Press.

³⁷ <http://mindfulnessteachersuk.org.uk/pdf/teacher-guidelines.pdf>

particular contexts in which we are teaching. There are currently initiatives underway to re-draft these guidelines for a clearer fit with the workplace. In terms of behaviour change we have taken into account the following ethical considerations:

1. The programme should provide a forum which is open, transparent and allows for individual and group deliberation.
2. It should retain scepticism towards the status of the 'behavioural expert' and, through utilising the mindfulness and reflective practices, enable people to develop their own expertise.
3. It should highlight the importance of the contexts and unequal situations in which people make decisions and encourages considers alternative ways of defining apparently 'behavioural' problems.
4. It should encourage reflection on the scientific validity of behavioural insights and the methods used to arrive at them and the methods and means by which they are applied.

1.5 The Mindfulness, Behaviour Change and Decision Making ³⁸ 8 week programme

Over the past two years and working with the range of partner organizations identified above, the experimental trial was designed, refined and developed iteratively in response to feedback and research interviews with participants, and to suit the organizations' requirements and timescales.

Each group session lasted two hours and included:

- A check in
- A Practice (e.g. body scan, sitting, walking meditation, breath, body, sounds and thoughts meditations)
- Pair and group reflection
- Theoretical reflection (e.g. exploring habit formation, the nature of System 1 and System 2 thinking, and heuristics)
- Close

Between sessions, participants received support information via email and interactive course material. This included recommendations for practice at home and work, links to online video and written resources on behavioural insights topics covered in the programme as well as signposting to relevant sections of the guide to mindfulness provided in Williams, M. and Penman, D. (2011), *Mindfulness. A practical guide to finding peace in a frantic world* (Piatkus, London).

Later programmes included individual coaching sessions at the beginning, middle and end of the programme to help accelerate the learning and ensure its relevance and applicability.

The table below provides a brief overview of the final iteration of the programme (delivered at Ogilvy & Mather in Autumn 2015), and the ways in which the group and individual sessions were structured.

³⁸ At GAP the programme was delivered over 4 weeks

Programme Outline

Lesson	Format	Mindfulness	Behaviour change	Additional Comments
	Taster session	Raisin practice, reflection, questions	Overview of behaviour change and mindfulness	Giving taster of practices and inquiry methods and theoretical background
1	Individual coaching session	Check in – establishing any issues and challenges which may be relevant to the programme. Introduction to body scan in preparation for the first session.	Introduces rationale and ethical standards for programme, and connections between behaviour change and mindfulness	Check in session as recommended as good practice.
2	Group session	Repeat body scan/extend breath practice practise of habit breaking and pauses during the day.	System 1 and 2 thinking, reflection versus fast response; Introduction to Cognitive biases and effects such as inattentional blindness.	Kahneman/Gigerenzer debate on the role of cognitive biases in shaping behaviour and the role of attention.
3	Group session	The mind, body, breath meditation; extend breath practice and add sound and development of pause and breathing space	Focus on cognitive biases including such as confirmation bias and loss aversion	Noticing our decisions/choices; implications for the work/workplace
4	Group session	Continue sitting meditation, building the pause into everyday life, mindful habit and habit breaker	Role of emotions in behaviour, the push of environmental context, relation between embodied, feelings, emotions and thoughts	Focus on bodily sensations and awareness; understanding role of aversion and desire and how that manifests in felt sense.
5	Individual coaching session and 1 hour group session	Developing practice—extending practice into dealing with difficulty in practice	Check-in with progress re practices and theoretical understandings	Tailored support to help apply learning and answer questions, looking at any work or home related constraints on practice
6	Group session	Mindfulness of body, breath, sound and thought; mindfulness in movement; extending length of practice to incorporate breath/body/thoughts	Considering social norms; choice architectures; soft infrastructures;	Explore relevance to pro-social/environmental behaviours.
7	Group session	Integrating befriending/compassion meditation; develop length of session – embedding practice;	Consolidation session and further consideration of the role of positive in behaviours.	Introduce biological and sociological accounts of compassion and empathy and the parasympathetic nervous system
8	Individual coaching session	Embedding practice, achieving perspective and insight,	Reviewing and applying ideas relating to habits/emotions/social influence/behaviours	Clarify any on-going goals and support

2 Workplace mindfulness: understanding the context

Workplace based mindfulness interventions have been notable in their growth in popularity in recent years. High profile media reports³⁹ have highlighted several global corporations who have enthusiastically engaged with mindfulness principles and programmes, such as Google, Procter & Gamble, General Mills, Carlsburg Group, SAP, Sony, Goldman Sachs, Accenture, Nike, Microsoft, JP Morgan, Pfizer and American Express. In the UK, schools and hospitals have been amongst the pioneers of workplace based mindfulness interventions, though in the case of schools this is more often aimed at school students rather than teachers.

Research studies in workplaces have primarily emphasised the role of mindfulness programmes on staff wellbeing, mental health and stress-reduction – tackling problems of sickness absence, presenteeism, high staff turnover, depression and anxiety. Largely these therapeutic initiatives build in some way on the established status of the MBCT and MBSR programmes which by now have amassed convincing scientific evidence of their efficacy⁴⁰.

In one study⁴¹, for example, occupational health researchers conducted a large (239 participants) randomized control pilot over 12 weeks at an

insurance carrier company in the USA. This study compared 1 yoga-based stress reduction programme, 2 therapeutic mindfulness based programmes (one face-to-face and one online) and 1 control group who received information on wellbeing resources provided by the employer. They measured participants' self-assessments of stress using the 'Perceived Stress Scale' before and after the programme delivery. They measured sleep quality, mood and pain, productivity, and mindfulness through questionnaires. In addition they collected physiological data on blood pressure (BP), breathing rate, and heart rate variability before the programme, and conducted a stress preparation test post-trial, asking participants to use the skills learnt on the programme.

Research and commentary has also explored the business role of mindfulness in terms of improving employee performance, resilience and social relationships in the workplace⁴², work engagement⁴³ and in reducing emotional exhaustion and improving job satisfaction⁴⁴. Further elements of the workplace such as leadership⁴⁵, organizational culture⁴⁶,

³⁹ <http://blogs.wsj.com/atwork/2015/03/16/why-companies-are-promoting-mindfulness-at-the-office/>

⁴⁰ McCraty, R., Atkinson, M., & Tomasino, D. (2003) "Impact of a workplace stress reduction program on blood pressure and emotional health in hypertensive employees". *Journal of Alternative and Complementary Medicine*, 9, 355–369; Mino, Y., Babazono, A., Tsuda, T., & Yasuda, N. (2006) "Can stress management at the workplace prevent depression? A randomized controlled trial." *Psychotherapy and Psychosomatics*, 75, pp177–182.

⁴¹ Wolever, R., Bobinet, K., McCabe, K., Mackenzie, E., Fekete, E., Kusnick, C. and Baime, M. (2021) "Effective and Viable Mind-Body Stress Reduction in the Workplace: A Randomized Controlled Trial" *Journal of Occupational Health Psychology* Vol 17(2), pp246–258.

⁴² Glomb, T.M., Duffy, M.K. Bono, J.E. and Yang, T. (2011) "Mindfulness at Work", in Aparna Joshi, Hui Liao, Joseph J. Martocchio (eds.) *Research in Personnel and Human Resources Management* Volume 30. Emerald Group Publishing Limited, pp115 – 157.

⁴³ Leroya, H., Anseel, F., Dimitrov, N. and Selsa, L. (2013) "Mindfulness, authentic functioning, and work engagement: A growth modeling approach" *Journal of Vocational Behavior* Vol 82 (3), pp238–247.

⁴⁴ Hülsheger, U.R. Alberts, H.J. E. M., Feinholdt, A., Lang, J. W. B. (2013) "Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction." *Journal of Applied Psychology*, Vol 98 (2), pp310–325.

⁴⁵ Wasylikiw, L. (2015) "The impact of mindfulness on leadership effectiveness in a health care setting: a pilot study" *Journal of health organization and management* Vol 29 (7) pp893 – 911.

creativity/problem solving⁴⁷ and cognitive skills⁴⁸ have also been discussed in academic literature. In one study in Canada, researchers examined the effects of a mindfulness programme on 11 healthcare managers, measuring the effects of a weekend retreat and online webinar on participants' self-reported leadership effectiveness, through the Authentic Leadership Questionnaire. The mindfulness group was compared with a control group of 10 survey respondents, assessments of participants' leadership were provided by colleagues and follow up interviews undertaken with 8 participants 12-16 weeks post-intervention. The researchers found that significant positive changes in leadership were reported by the retreat participants and that this was confirmed by their colleagues. The aspects of leadership which showed statistically significant improvements were 'leadership effectiveness' and 'balanced processing', whilst there were no significant improvements for 'transparency', 'ethical/moral subscale' or 'self-awareness'.

From these brief profiles of workplace based research studies on mindfulness, it is however clear that there are still significant research gaps – particularly in the case of programmes with non-therapeutic goals.

2.1 Research gaps in workplace mindfulness research

- There is limited research on the use of mindfulness for workplace learning, decision

making, productivity, organizational culture, adaptability, values, behavioural, social and organizational change.

- There lacks a substantial body of evidence on mindfulness and leadership, creativity, work engagement, job satisfaction, emotional exhaustion and employees' cognitive skills.
- There is a wide range of evidential standards present within existing studies on mindfulness. The activities of control groups are not always thorough, and there is often an over-reliance on self-report questionnaire methods which are not uncontested in field of psychology.
- Studies often lack independence in terms of funding sources and the private interests of the research teams.
- Compounding and/or contradictory variables can make it difficult to discern the actual and potential effects of mindfulness in the workplace.

Thus, concerns have been raised about the motivations and potential unintended consequences of workplace based mindfulness interventions. Their apparent ubiquity and perceived lack of quality control is – like many other therapeutic interventions – sometimes regarded as a source of ridicule, earning them the term 'McMindfulness'⁴⁹. The potential for workplace wellbeing programmes in general to undermine more substantive efforts to improve working terms and conditions, organizational cultures and to question the overall goals of the business sector has also been scrutinised⁵⁰.

⁴⁶ Michael Chaskalson, M. (2011) *The Mindful Workplace: Developing Resilient Individuals and Resonant Organizations with MBSR*, Wiley-Blackwell, Oxford.

⁴⁷ Ostafin, B.D. and Kassman, K.T. (2012) "Stepping out of history: Mindfulness improves insight problem solving" *Consciousness and Cognition* Vol. 21 (2), pp1031-1036.

⁴⁸ Zeidan, F., Johnson, S.K., Diamond, B.J., David, Z., and Goolkasian, P. (2010) "Mindfulness meditation improves cognition: Evidence of brief mental training" *Consciousness and Cognition*, Vol 19 (2), pp597-605.

⁴⁹ Purser, R. and Loy, D. (2013) "Beyond McMindfulness" *Huffington Post* 01/07/2013, at: http://www.huffingtonpost.com/ron-purser/beyond-mcmindfulness_b_3519289.html

⁵⁰ Pykett, J. and Enright, B. (2016) "Geographies of brain culture. optimism and optimisation in workplace training programmes" *Cultural Geographies*, Vol. 23 (1), pp51-68.

2.2 Research directions in workplace mindfulness

Whilst workplace based mindfulness interventions have attracted research interest, there remains disagreement amongst supporters of mindfulness applications in policy and practice as to the quality and coherence of this research (MAPPG, 2015: 76).

This suggests a need for systematic *and* synthetic reviews of existing research evidence, research trials, pilots, experiments and explorations of existing workplace initiatives, as well as more concerted efforts within the policy, academic and practitioner communities to engage in research based partnerships which can demonstrate a high degree of independence. These should investigate:

1. *Whether* workplace based mindfulness interventions are effective in achieving their aims.
2. *What* works in workplace based mindfulness interventions and what conditions are required for workplace mindfulness to work.
3. *What can* workplace based mindfulness interventions *do*, in terms of the range of effects that such interventions can have on organizations, employees, stakeholders?
4. *What is the significance* of workplace based mindfulness interventions in terms of changing working cultures, employee-employer relations, the wider economy and social relations?

Clearly the workplace is a very specific social, political, economic and cultural context in which to teach and learn mindfulness practice. Different workplaces have different missions, client relations, goals, orientations and decision making systems. The size and remit of the organization will shape its ability and propensity for investing in staff wellbeing, and the capacity

for staff to shape organizational cultures is also variable.

At different tiers of a particular organization, in different departments, teams and divisions, there will be distinct variations not only in sickness absence and mental health problems but also in staff autonomy, representation and capacity to change behaviour. In different sectors, as our research has demonstrated, different kinds of pressures affect staff, and the workplace itself may be more or may be less appropriate a context in which to provide a form of training focussed on attention, awareness, emotions, the process of thoughts and the body.

For these reasons, the workplace still remains a challenging and largely under-researched sphere within which to study the potential role of mindfulness in practice⁵¹.

In developing our programme we have sought to move beyond research emphasising therapeutic stress reduction and those programmes focussed on business interests of leadership, skills and profitability. Instead, we have built on emerging calls to more closely investigate the role of mindfulness in working practices, behavioural insights and unconscious biases⁵². We evidence some interesting potential for mindfulness in understanding the role of attention in behaviour change, and the potential for mindfulness and behavioural insights to deliver a more deconstructive approach to mindfulness.

⁵¹However, useful reviews of mindfulness used in the workplace include: Vich, M. (2015) "The Emerging Role of Mindfulness Research in the Workplace and its Challenges" *Central European Business Review* Vol 4 (3), pp35- 47; Dhiman, S. (2009) "Mindfulness in Life and Leadership: An Exploratory Survey" *Interbeing* Vol 3 (1), pp55-80.

⁵² Magee, R.V. (forthcoming) "The way of ColorInsight: Understanding Race and Law effectively through mindfulness-based ColorInsight practices", *The Georgetown Law Journal of Modern Critical Race Perspectives*, Spring 2016; Choi, E. and Tobias, J. (2015) "Mind the Gap: The Link Between Mindfulness and Performance at Work Needs More Attention" *Industrial and Organizational Psychology* Vol 8 (4), pp 629-633.

3 Research and evaluation methods

In order to evaluate the impacts of the programme we developed a mixed methodology approach comprising three components:

1. An online survey that all participants were invited to complete
2. In-depth semi-structured interviews with a sample participants
3. Feedback/feed-forward workshop convened at the end of the programme

Online survey

We developed an online survey (using Qualtrics software) to evaluate the impacts of the programme. Participants completed the survey before the programme began, and immediately after the programme was complete. The pre-programme survey combined a self-assessment of participants' knowledge of the principles of behaviour change (including topics such as habit formation, heuristics, and the role of emotion in decision making) with the 39-point Five Facets of Mindfulness Questionnaire, which measures (1) observing, (2) describing, (3) acting with awareness, (4) non-judging of inner experience, and (5) non-reactivity to inner experience⁵³. In addition to the 49 questions contained in the survey that was completed by participants before they took the programme, the post-programme questionnaire also contained questions that enabled participants to reflect on the impact of the programme. Inferential statistics were used to analyse the data from the presentations of the programme at Welsh Government (Aberystwyth, Cardiff) and GAP. We are awaiting quantitative analysis of the data from the programme presentations at Welsh Government (Llandudno) and Ogilvy

Change as a result of staff changes in the original research team.

In-depth interviews

Although the online survey provided some important quantitative measure of the impacts of the programme, we recognised that much of the impact of the programme could be missed by a series of pre-set questions with standard response formats. For each presentation of the programme, we carried out a series of between 3 and 10 in-depth interviews with a purposive sample of participants. We selected participants to be interviewed on the basis of their attendance rates on the programme and their gender. The interviews were carried out via phone or in person, and lasted between 20 and 60 minutes. The interviews explored various aspects of the programme and its impacts on the working and private lives of participants. Particular emphasis was given in the interviews to the level of success the programme was able to achieve in bringing together mindfulness and behaviour change insights. The interviews were carried out by the research team, except for the case of Ogilvy Change where a larger sample was carried out by the programme leader, partly in lieu of a feedback/feed-forward workshop. The notes and transcriptions of the interviews were coded with in categories derived from within the interviews, including; behaviour change knowledge; mindfulness traits; combining behaviour change knowledge and mindfulness; decision making; organizational context; body and emotions; ethics and empowerment; applications at work; and overall evaluation.

Feedback/feed-forward workshop

For the first 3 presentations of the programme (Welsh Government and GAP) feedback/"feed-forward" workshops were convened. These workshops, facilitated by the partner

⁵³ Baer, R., Smith, G., Hopkins, J., Krietemeyer, J. and Toney, L. (2006) "Using self-report assessment methods to explore facets of mindfulness. *Assessment*, Vol 13(1), pp.27-45.

organizations, involved the programme participants, along with the programme leader and a researcher from Aberystwyth University. The workshops provided a small and whole group context for discussing the strengths and weaknesses of the programme and its impacts. It enabled qualitative feedback to be gained from participants who had not been interviewed. In terms of feed-forward, the session also involved discussion of how the insights of the programme could be integrated into the wider working of the partner organization and future development of the programme. Three note takers recorded the conversations that were held during this workshop. These notes were typed-up and observations from these workshops have been included in the evaluation of the programme.

Summary of programme and research participation

The following table outlines participation in the programme and evaluation for each presentation of the programme.

Programme presentation	Number of programme participants	Number of responses to online survey (matched data for pre- and post-programme survey)	Number of in-depth interviews	Feedback/ feed forward workshop held?
1. Welsh Government I (Cardiff)	15	15	5 (2 male, 3 female)	yes
2. Welsh Government II (Aberystwyth and Cardiff)	27	10	4 (1 male, 3 female)	yes
3. Welsh Government III (Llandudno)	15	11 (awaiting results)	6 (3 male, 3 female)	yes
4. Global Action Plan	25	17	3 (2 male, 1 female)	yes
5. Ogilvy Change	16	Awaiting results	10 (5 male, 5 female)	no

4 Research results

At the time of publication, all the programme presentations have been completed. We have a full set of results for the qualitative research and survey results for Welsh Government I (Cardiff), Welsh Government II (Aberystwyth and Cardiff) and Global Action Plan (London). We are awaiting survey results for Welsh Government III (Llandudno) and Ogilvy & Mather (London).

4.1 Increasing understanding of behavioural insights

The online survey asked respondents to reflect upon their knowledge and awareness of 10 key behaviour change themes:

1. I am aware of how I create habits
2. I am aware of how I can change my habits
3. I am aware that my mind often works on 'automatic pilot'
4. I am aware of how the surrounding environment can affect my behaviour
5. I am aware of how different emotions can affect my behaviour
6. I am aware of how mental shortcuts (such as confirmation bias and future discounting) can affect my behaviour
7. I am aware of how my values and beliefs can affect my behaviour
8. I am aware of how social norms can affect my behaviour
9. I understand why others find changing their behaviour difficult
10. I empathise with the difficulties others experience when trying to change behaviour

Programme presentation	Statistically significant increase (at the 95% confidence level) between the start of the programme and its end in their agreement with:
1. Welsh Government I (Cardiff)	10 out of 10 behaviour change knowledge statements
2. Welsh Government II (Aberystwyth and Cardiff)	8 out of 10 behaviour change knowledge statements
3. Welsh Government III (Llandudno)	Awaiting results
4. Global Action Plan	5 out of 10 behaviour change knowledge statements
5. Ogilvy & Mather	Awaiting results

Our survey revealed that at Welsh Government I (Aberystwyth), participants experienced a statistically significant increase (at the 95% confidence level) in their agreement with each of the above statements following completion of the programme. This finding is significant given the fact that some of the participants who completed an in-depth interview reported that they already had a working knowledge of behaviour change concepts before they began the programme. At the Welsh Government II (Aberystwyth and Cardiff) presentation of the programme, this was slightly lower, with statistically significant increases in 8 out of the 10 statements.

At GAP, where a shorter version of the programme was delivered over 4 weeks rather than 8, participants only reported a statistically significant increase (at the 95% confidence level)

between the start of the programme and its end in their agreement with half of the statements:

- I am aware that my mind often works on 'automatic pilot'
- I am aware of how different emotions can affect my behaviour
- I am aware of how mental shortcuts (such as confirmation bias and future discounting) can affect my behaviour
- I am aware of how my values and beliefs can affect my behaviour
- I am aware of how social norms can affect my behaviour

On the basis of these results, it appears that the extra training time is particularly important in relation to translating the insights that participants have gained in to their own behaviour into an appreciation of the challenges facing others attempting to change their behaviour. Indeed feedback received both within the group feedback/feed-forward session and the in-depth interviews suggested that participants felt that they would have benefited from both longer individual training sessions and a longer overall programme. In a workplace context, however, the duration of the programme offered was relatively long, particularly given that many training programmes including mindfulness initiatives are often only offered as taster sessions or require only short-term commitment.

In-depth interviews revealed that the behaviour change component of the programme was one of the main reasons they were attracted to the programme. One participant described how they were driven by a desire to better understand the role of people in business in general, noting that behaviour change has become crucial for the public sector because in the current financial climate, there is a need to work with a variety of stakeholders (business, third sector etc.) to get the same results. They remarked that skills of influence are now needed to make collaborative decisions, rather than following the top-down processes that went before (Welsh Government

III Llandudno, participant 3). This sentiment was repeated by others in the Welsh Government who felt that the policy making environment was at a critical juncture:

“

if we are going to be working in an environment where we have less resources to do things then we need to come up with cleverer ways of doing them and this is one of those things which is a cleverer way of getting about the change that we're looking to get (Welsh Government III, Llandudno participant 1).

More specifically, the interviews at Welsh Government also revealed that the behavioural insight elements of the programme provided a fresh insight into the nature and purpose of policy making and behavioural change, highlighting an extended range of effective and more human-centred policy and behavioural tools available to them:

“

We are so obsessed with process, and the way we do policy and legislation it seems that our mantra is that people will just do it because we say. They have just got to do it! And even if you use a law, it's not always effective because people resent it or people only do the bare minimum [...] It just seems that we need to be more sensitive and it's more complex than we think (Welsh Government I, Cardiff participant 1).

Participants across the programme presentations indicated that it would have been helpful to devote more time for more detailed

discussion of the behavioural insights and their applications, and would have liked to have time to follow up the related resources in the programme material. Seeing behaviour change theories in action was seen as more valuable than discussing them (Ogilvy participant 1). Those who already had a good knowledge of such theories felt that the programme made them think more about it in relation to their behaviour and in relation to how they acted (Ogilvy participant 2).

4.2 The Five Facets of Mindfulness and the impacts of mindfulness training

Programme presentation	Statistically significant increase in mean scores in mindfulness trait (at the 95% confidence level) from before to after the programme in mindfulness trait
1. Welsh Government I (Cardiff)	'awareness', 'describing'
2. Welsh Government II (Aberystwyth and Cardiff)	'observing', 'awareness', and 'non-judging'
3. Welsh Government III (Llandudno)	Awaiting results
4. Global Action Plan	none
5. Ogilvy & Mather	Awaiting results

For some participants, the main motivation for attending the programme was to learn about behavioural theories. But for others, it was some prior experience of meditation or a curiosity about mindfulness which had led them to participate. One participant described how they

had heard a fellow participant describe how they simply wanted to "live with more grace" (Welsh Government III, Llandudno participant 1).

This section describes in detail participants' specific responses to the mindfulness practices followed through the programme.

At Welsh Government I (Cardiff), our survey of the Five Facets of Mindfulness indicated that the facets that showed a statistically significant increase (at the 95% confidence level) from before to after the programme were 'awareness' and 'describing'. At Welsh Government II (Aberystwyth and Cardiff), we identified a statistically significant increase in mean scores (at 95% confidence level) for 'observing', 'awareness', and 'non-judging' skills. At GAP, the survey indicated that participants did not experience a statistically significant increase in their mindfulness traits (at the 95% confidence level), suggesting that the 4 week programme delivery was less effective in terms of establishing habits and traits of mindfulness.

Yet when we asked participants at GAP to directly assess the extent to which they felt they had seen an increase in mindfulness traits within themselves following the programme (i.e. to reconsider their original self-assessments made before the programme), the responses showed they experienced moderate increases in the traits of 'non-reacting', 'awareness', and 'non-judging'. The survey revealed that participants reported that the programme had a beneficial impact on their personal and working life, and how they engaged with colleagues.

Again, qualitative evaluation of the programme was able to explore these impacts in greater depth. At the most fundamental of levels, participants suggested that the mindfulness training they had received as part of this programme had contributed to overall enjoyment of life and wellbeing:

“

I am able to focus on things much better and it helps you feel much calmer about the things that you have to do. I think you get much more enjoyment as well when you apply that to anything. You get much more enjoyment from even carrying out quite simple tasks (Welsh Government I, Cardiff participant 3).

The most frequently commented benefit that participants identified in relation to the programme was the way in which it enhanced their ability to cope with stress and difficult situations at work. As one participant observed (while reflecting on the programme session on ‘difficulties’):

“

One of the things I found quite uncomfortable when I did the practice [was] the dealing with difficulties [...] And I think that is something that you kind of know. You know that you react and your body tells you. You know there is a physiological spot, you can feel it. But I think that the mindfulness practice would just confirm what I kind of knew would happen to me when I’m in a difficult situation. But I think the real benefit was that actually doing the practice shows you how things just come and go and it’s transitory and things dissipate. I think that for me that was just really powerful, and I think that it is really useful. You put yourself in that position rather than avoid it (Welsh Government I, Cardiff participant 1).

In this context, it appears that the programme did not lead participants to avoid the working pressures and difficult situations that can lead to workplace stress, but that it enabled them to develop new, non-judgemental relations with these stressful feelings and responses. This observation would indicate that the programme did have some impact on **the non-reacting and non-judging** behavioural traits that are associated with being more mindful.

Others described the benefits of the programme in terms of their personal lives. Several remarked on feeling calmer, less “frazzled” and better able to shift between work and home life or to avoid “negative spirals” of emotions (Welsh Government III, Llandudno participant 3):

“

Yeah, I mean, I’m a much more calmer person, my children have always said to me that the ‘angry bear’ is no longer around! (Welsh Government III, Llandudno participant 1).

Another was unambiguous in describing the effects of the mindfulness that he engaged in at home and in work in relation to managing their emotional responses to situations:

“

I definitely feel the benefits every day. Not to be too superlative, I feel like a different person than how I felt previously. I feel so totally relaxed all the time and the way that I can approach situations at work, I just don’t get wound up like I would have done maybe six months ago (Ogilvy participant 4).

With specific regard to the five mindfulness traits described by the online survey, participants described the various ways in which they had developed skills of **observing**:

“

I'm noticing things, you know, sort of, walking through Cardiff wanting to get the train back to north Wales the other day and I was noticing the colours of the flowers, which if I'd have done that, been making that journey three months ago all I'd have been thinking about was getting the train (Welsh Government III, Llandudno participant 2).

“

That's normally just taking a moment at my desk during the day if I notice things are getting really frantic, I'll just take a pause. Again I'll just focus on my breath for 30 seconds or something and just sort of try and stop (Ogilvy participant 6).

Participants sometimes recounted the difficulties that they had with **describing** their behaviours and thought processes, suggesting that mindfulness cannot be achieved quickly but requires sustained practice and perhaps a new vocabulary for relating to oneself:

“

I don't think I've quite got there yet, yeah, I think in the last session I tried to explain that my understanding that it's

like learning a language, you learn the language about yourself which is helpful to at least you then have a language or an understanding of your own felt senses, which you can then supplant onto other people, so at least you have a language to use, at the moment I don't think I have a language! (Ogilvy participant 3).

In terms of **acting with awareness**, several participants noted a change in their own behaviour. One described a situation in which they used the technique of ‘the pause’ in order to re-assess a difficult meeting situation regarding the removal of a board and the use of statutory powers with far reaching consequences. As part of the process of taking a pause, this participant discussed with colleagues the confirmation bias and optimism bias of the board and a careful decision was made to remove the board (Welsh Government III, Llandudno participant 3). Others described bringing back to conscious awareness the thoughts that were going on at particular moments:

“

I think there were still definitely moments where my mind would start to escalate and I would make a conscious effort to not let my mind do that, which I think doesn't come from [working with] the different team. I think it's my approach to things, I think my approach has changed from the course (Ogilvy participant 7).

The programme was seen to improve the **non-judging of inner experience** to the extent that participants reported more of a sense of acceptance of thought processes and some sense of felt liberation at the acceptance of what is going on both internally and externally –

particularly in relating to others or the perceived cultural norms of the organization:

“

I think for sure you find ways to seek control in other aspects so you try and control your diary more even though that might not change anything, try and control people you work with more, might be more frustrating when people display behaviours that aren't going to their plan so you're then judgemental and you overemphasise the qualities of control above other things [...]Yeah, it's just in the bit in the whole building you then get a culture of urgency and control so it then becomes more of a culture that's valued I guess (Ogilvy participant 3).

“

I'm now in a place because of my counselling and because of my mindfulness that I go 'I can't change what other people do, I can explain it to them, I can assist and support them, if they want to do it that's up to them' (Welsh Government III, Llandudno participant 1).

This sense of acceptance also seemed to be present in relation to **non-reactivity to inner experience**:

“

the mindfulness has, again not as much as I want it to be [...]but there have been occasions where I have been able to recognise what's happening to take that step back and approach it mindfully (Welsh Government III, Llandudno participant 2).

“

it just makes you a bit more thoughtful in a way, to actually think about stuff and not reacting, because I am quite a stressful person and I kind of react quite emotionally to things quite quickly so it has made me stop and think before I react (Ogilvy participant 2).

4.3 Mindfulness and behaviour change

One thing that the online survey was not able to measure was the extent to which mindfulness practice had a direct impact on participants' understandings of behaviour change ideas, or whether this was just a result of the programme's discussion of behaviour change ideas. Therefore we used qualitative methods to assess the links between understanding the principles of behaviour change and mindfulness practice – the most distinctive rationale for the programme.

Participants reported that the mindfulness practice had helped them develop an awareness of the automatic/emotional prompts to their own action. While **automatic prompts** to actions are emphasised within behaviour change theories, policy-makers can sometimes overlook them and welcomed the fact that the

programme made these processes more visible. As one participant observed:

“

you know, I have just got so much more awareness. You know now, you know how we are? [...] I just think that it is really helpful. I was just amazed at how unconscious we are really and we are just set up to do certain things (Welsh Government I, Cardiff participant 1).

It is interesting to note that participants felt that **learning about behaviour change through a practice of self-reflection facilitated by mindfulness** was beneficial. It appears that the programme was able to move learning about behaviour change from the abstract and impersonal, to the practical and personal. As participants observed:

“

I think that it gave me a different perspective. I think that was useful because you always consider things as helping other people [...] I think it gives you a different perspective about it, going through the course yourself (Welsh Government I, Cardiff participant 3).

“A lot of the behaviour change stuff, I might have dealt with is quite theoretically, and I might have looked at unconscious biases and gone, “oh yes I can see them out there and over there”, whereas I feel much more able to go, “oh, I can see them in here in this group of which I am a part of”, so it has shifted my perspective [...] so rather than thinking it’s them with the problem, I now know it is us with the

challenge” (Welsh Government II, Aberystwyth/Cardiff participant 1).

“

I think there was a logical link there in the sense that very often the mindfulness was enabling us as individuals to sort of get a better understanding of the way that all this sort of extra sort of thought, or all these extra thoughts and biases etc. would come into the mind. So I think mindfulness was excellent in almost putting us in a position where we could actually reflect and see what they would be thinking and then it would allow us then to understand, to get an understanding about behaviour and so on, yeah (Welsh Government III, Llandudno participant 5).

“

I guess it looks at how you can, both meet in the middle so that you understand how your emotions will guide your decision making and that we have emotional biases that exist, kind of, permanently and behavioural science shows what general biases we have but mindfulness is strongest in looking at the context and the moods that you're in and so a particular state that you're in (Ogilvy participant 3).

From a practitioner perspective it appears that mindfulness can provide a technique for developing awareness of the various dimensions of human existence that are relevant for behaviour change (including automatic mind functions, biases, emotions, physical feelings, environments, social context etc.); a framework for relating to client groups and communities in

new ways; and a collective field technique for delivering behaviour change interventions with particular groups.

One group at GAP suggested that, in work delivering behaviour change, mindfulness and behavioural insights could be connected in four contexts – addressing the automatic pilot; a tool to improve listening and non-reactivity; a tool for engagement; considering the felt sense and emotions:

“

1. How much of human behaviour is driven by autopilots and how mindfulness can help us understand these;

2. Just “Being” with other people’s situations/reactions/feedback and perspectives rather than reacting to them can help increase connection with the people whose behaviour we seek to change;

3. Creating the right atmosphere for change and the intentional use of silences as tools for changing behaviour particularly in youth work where environments can be very cluttered and noisy – informally enforcing mini-mindful sections of a course?

4. Understanding the impact of personal physical feeling (body scan/check-in), environment, time of day, social context, food, drink etc. on propensity to carry out different behaviours all have an impact – mindfulness makes us more aware of them and their relative importance (Correspondence received following feedback/feed-forward session at GAP).

It was clear from the interviews across the different organizations that participants felt that 8 weeks was not enough time to develop a substantive knowledge of behavioural insights and behaviour change theories, and that few had had the time to do any follow up reading beyond the programme material. It was for these reasons that the programme was adapted, simplified and became more focused on understanding cognitive biases rather than a wider range of behaviour change theories over the course of the research. By the fourth and fifth presentation of the programme, several participants were noting **satisfaction with the extent of their learning about cognitive biases** in particular, and considered that integrating mindfulness practice with these behavioural insights was a valuable means to improve their capacity to notice such biases in action, to collectively inquire into them in a group setting, and in the development of attention skills to help deal with the difficulties that non-awareness towards these biases sometimes poses.

4.4 Decision making

Some participants were particularly focused on making the links between behavioural insights and mindfulness in order to affect specific decision making processes. Given that one of the rationales for the programme was as a professional development course aimed at improving decision making in the workplace, it was important to investigate how successful the programme was in meeting this aim. In different organizational contexts, decision making was seen to be hampered either by bureaucracy and inertia or by the fast pace of work which prioritised fast and sometimes aggressive and controlling forms of decision making.

As one participant described, an extremely practical aspect of the programme was how it

had enabled her to control decision making, be calmer, do less rushing between meetings and being confident to push back against pressure to make decisions off the cuff or without sufficient consideration – this she considered as a characteristic of the “macho, winging it culture that can prevail in the workplace” (Welsh Government III, Llandudno participant 3). This participant noted how she now makes a concerted effort to ask people to step back to make decisions rather than make them off the cuff. She deemed this crucial because big decisions need to be the best decisions that you could make at the time. Even if that decision turns out to be wrong, you should be able to say that it **was the best decision that could have been made**, complemented by an appropriate audit trail.

So too, some participants felt that the programme was beneficial in meeting the commitments of the civil service to evidence-based decision making:

“

Our Permanent Secretary talks about which is the need for evidenced based decision making, the need to be actually more rational and objective in our decision making is a requirement in the civil service code, we are supposed to be honest, we are supposed to be objective, and actually you can't do that without understanding the emotions and the biases and all that as part of the picture, if you haven't got that feel for the other things you are working in a very narrow zone, which looks terribly logical and actually isn't at all rational [...] so [this programme is] a means of helping the civil servant to become more objective in the way they are giving advice and as a means of improving our relations with stakeholders as a way of understanding

where we are and where they are [...]”
(Welsh Government II, Aberystwyth/Cardiff participant 1).

One of the most commonly voiced difficulties faced by participants however, was putting the behavioural insights and mindfulness training into practice in relation to decision making. Not least there were the more obvious barriers of finding the time to attend all the programme sessions, read the programme material and undertake suggested practice at home and at work. But further there was the **difficulty of calling up a state of mindfulness when it was most needed**. Participants described for instance that the most they had achieved was a post-hoc rationalisation of their decisions and behaviour; an ability to reframe their reactions to particular circumstances:

“

I can look back retrospectively and look back and see why I made a decision and what influences affected the way I acted in the moment, I didn't consider that. It's really hard to consider these things because.... I know mindfulness is about slowing down but I'm not sure how often I did slow down in those moments of decision making and again so I can be aware of the biases but I don't think it affected, it just made me think about it and post-rationalize quite a lot or think about, analyse my thinking process a lot more as opposed to in the moment, or being more aware (Ogilvy Participant 2).

Reaching this point in understanding can of course be considered a significant step in learning the skills of mindfulness, even though participants may not have always been able to apply their learning to the most stressful situations.

Interestingly, there was sometimes evidence of an apparent misconception of the rationales for mindfulness in informing decision making processes, as if emotions could and should be taken out of the process entirely:

“

I understand by taking these pauses and by taking these times out and connecting with the senses you are able to make better decisions or more rational decisions, less emotional decisions? But I am not sure I put that into practice though (Ogilvy Participant 2).

4.5 Organizational context

From the outset of designing the programme, we were keen to move away from an established therapeutic approach and instead to embed the programme in specific organizational contexts, with a view to better understanding either the constraining or enabling factors that such contexts imply.

It was important for us to recognise the diversity of working experience, varying degrees of autonomy, resources and pre-existing, often hierarchical working **relations which shape people's capacity to be mindful or which influence decision making processes**. Again the particular organizational pressures and styles of working facing the Welsh Government as with many civil service bodies at the present time, were highlighted as significant factors:

“

We are, you know, as a government bureaucracy we do what we've done all the time, we have reinforcement biases, we put a lot of money into things and then we will stick by them 'til the end and beyond because that's how it was done in the past so that's how we're doing it in the future and a lot of the people at the top of the tree have been there a long time and aren't possibly the most open-minded people when it comes to different ways of doing things (Welsh Government III, Llandudno participant 1).

“

There's a lot of people who were under a lot of stress because of what they have to deliver and cuts in resources, staff cuts. You know, more and more we are expected to do more and more with less resources. So I think that the course can help people to just entitle them to a general sort of health and wellbeing. I think that it can help people to manage their stress levels and how they manage things generally (Welsh Government I, Cardiff participant 3).

“

There is a need to encourage Directors to take up such a course. There is currently massive re-organization at director level. They are thinly stretched,

working under stress, and a largely homogenous group – ‘Male, Pale and Stale’ as Theresa May has put it. Their view on life is one largely of middle-aged men with wives who look after their households and children. They therefore have a limited understanding of how more diverse people actually behave. Their leadership capacity has been constrained, and they need to manage their stress and improve their decision making in a time of financial austerity. Everyone is worried about how the public sector will look after the next budget announcement in December, when it is felt the further cuts will be horrendous. There is a need to remain sane in this kind of environment (Welsh Government III, Llandudno participant 3).

But equally, perhaps one of the most significant findings of our qualitative research was the particular utility that mindfulness training appeared to have for civil servants working in the public sector. At one level, a participant suggested that the programme enabled them to **align their work with the forms of public service values** that had led them into the civil service in the first place:

“

We get told that we should act in this way, we should strive for excellence, we should be efficient. You know all of those kinds of mantras come out in terms of a corporate sort of approach. And I just, I don't think people connect with them at all. And I've made myself connect with them because I've always felt, 'but they want us all to be close and us all to do x, y and z the same'. And it always feels like that. But I just think that as a way of connecting with the vision of an organization, I think

there's a lot more in the mindfulness theory that can help us to be better and more sensitive and listen more and be better connected to stakeholders [...] (Welsh Government I, Cardiff participant 1).

It appears that the practice of mindfulness enabled this participant to see a vision of the civil service that was less oriented to corporate goals and strategies and more geared towards deep public service. This participant went on to state that:

“

you feel 'oh hang on a minute' you know, 'I'm here to, I wanted to do a public service. This is what I want to do'. And I don't think we are sensitive enough to the public and the public's need [...] *What we should be doing is investing in relationships and we should be talking to people, and we should be out there really getting to grips and understanding what people are going through. They are not tangible things that you can put it on a desk and show them [managers] what you have done* (Welsh Government I, Cardiff participant 1).

Related to this, participants stated that the programme had confirmed the importance they attached to being more open about the policy-making process and to acknowledge more freely the limitations and failings of public policy.

Both at Ogilvy and in the Welsh Government, it was **the fast pace of decision making** which was seen to be a constraining factor on deploying the skills and traits of mindfulness practiced in the programme. At Ogilvy there was a sense of dissonance at slowing down for the Monday morning mindfulness programme sessions:

“

Yes, there is a balance to be struck, because you are trying to slow things down a bit, but then, when people are coming in in a very busy state, it can feel like quite a jolt and quite unpleasant to become slower. .. Yes, because you are going at such a fast pace in the office, then you go and it just feels weird just being in this slow, taking the time to talk about stuff, that's such a luxury. I mean it's the biggest luxury, for people living in London is time, so yeah I think sometimes it's just that shock of the slower pace (Ogilvy participant 1).

At one of the taster sessions which ran as part of this programme participants discussed a “testosterone fuelled decision making culture” where fast and quick decisions were valued above slow reflective decision making. Whilst this is sometimes necessary, participants viewed it as potentially limiting. This is also an interesting consideration in light of recent concerns expressed about fast decision making within government⁵⁴

For others at Ogilvy, the combination of mindfulness practice and behavioural insights shed new light on working practices which have become the norm but, with time for reflection and analysis, start to look less rational, in particular **working relationships with and service provision for clients:**

“

There are a couple of projects this year which we have sunk a lot of effort into and we probably should have given up.

(Interviewer: So that's sunk cost bias) Sunk cost – that's it. So it's been like [...] It's a little bit harder for us to pull the rug on something, if you have clients then you have to follow it through, but sometimes you think the amount of effort it's not necessarily worth – optimism bias just with the deadlines and things like that. So there's a lot of underestimation of how long things will take I think (Ogilvy participant 6).

Achieving manager buy-in at all levels was crucial for participants' attendance and engagement with the programme. There was a notable difference, as was the case in Welsh Government, between participants who had the explicit and ongoing support of their line manager to attend the programme (and their team members), and those who felt they were being judged as taking time off work, which had a tendency to internalise guilt within the participant.

For these reasons, **working with already existing discrete teams could not only create a more successful training outcome, but also address more systemic change.** Certainly working with the express ‘permission’ from the team and their managers is key. In some of the programmes run as part of this research participants described, for instance, the benefit of having a mindfulness ‘buddy’ or mentor within their teams, and self-organised groups to devote collective time to mindfulness practice.

At GAP, participants noted that the group sessions provided a valuable context for team sharing and getting to know work colleagues in a different (potentially deeper) way. One participant observed,

“

⁵⁴ “Deciding Fast and Slow”, Radio 4, broadcast 18/1/16

The group discussions we had with colleagues [...] it gives you a different side to people, because you don't normally talk about how your brain is working, about the internal dialogue that you have, how you found this bit easy, but this bit tough (GAP participant 1).

In general it was felt that carrying out a programme like this in the workplace provided participants with a shared set of experiences and understandings upon which the programme and related discussions could be based. It was also noted that the programme was helpful in supporting innovation in the workplace and giving legitimacy to out-of-the-box thinking and approaches to problems (GAP participant 1).

It is important to note, however, that despite the workplace benefits associated with the programme, one participant at GAP observed that these benefits could, in part, be a product of the fit between the programme and the working culture in this organization. As a relatively small organization, characterised by close working relations between employees and partners, it was felt that **the programme was able to successfully build on and support existing working practices** in GAP.

4.6 The body and emotions

The programme provided a context within which it became possible for collective **openness and acceptance of the presence of emotions and vulnerability in the workplace**. The programme content on behavioural theories covered cognitive biases, and included the affect bias and the emotional content which steers biases, also drawing from emotion science and psychological research on the integral non-cognitive drivers of decision making. A resulting collective acknowledgment of emotions expressed by participants appears to have

emerged from, the mindfulness practices themselves, the behavioural insight work and the particular dynamic that emerged from participating in the programme as part of a working team. As one participant reflected:

“

as a bringing together of staff and from a strategic people point of view and having space to express vulnerability [...] talking about what kind of weather we were or having silence together, I thought [the sessions] were quite powerful (GAP Participant 1).

It also appears that mindfulness training enabled participants to become much more aware of the interconnection between the felt senses of the body, their processes of thought and emotions. As participants observed:

“

The connection between the physical manifestations of the body and then what is going on in the mind and the tie between the two has been really important, and observing that (GAP participant 1).

In the group feedback/feed-forward sessions at GAP, participants reported that following the programme there had been a greater willingness within working teams to acknowledge and address different manifestations of emotional response to particular situations and projects. One Welsh Government participant made a clear link between understanding behaviour change theoretically relative to understanding it emotionally:

“

I think that is irrespective of the depth of your understanding or the breadth of your knowledge of behaviour change [...] there is a tendency if you know it in your head it is very easy to know it in your head and think that it is someone else. Whereas what mindfulness does it forces you to not just know it in your head but to feel it in your gut, and then you go you know actually it is me, if I keep behaving like that this it will happen (Welsh Government li, Aberystwyth/Cardiff participant 1)

At Ogilvy, participants reported a better awareness of their emotional states and levels of reactivity situations which is a step towards emotion regulation.

“

Since we last talked I did notice, yeah, an improvement in my own awareness of mood and emotional state, yeah, just slightly separated out from a rational assessment of the day because then I could tell getting several flights in a day had an element of stress removed from the, I was overly stressed relative to what seemed to be any like danger or problem with travel [...] Yeah, I suppose prior to that I would label stress or emotion and explain it away as being well this is a stressful situation therefore I should be feeling this whereas maybe now it's more open to the thought of thinking well maybe this reaction is disproportionate (Ogilvy participant 3).

Several participants at Ogilvy noted in particular **their embodied responses to situations** and to the practice of mindfulness itself rather than their emotional response. This was not always a comfortable experience, however:

“

I think that's why I struggle with the breathing exercises, my breath is quite shallow and I didn't realise that before I went on the course. I found it panicked me doing the long and the deep breathing – so I don't know, it's obviously something I need to work on, I don't know whether that's just my lung capacity or my stress [...] Yeah, so you told me to start on something else, so I started to focus on my hands which has really helped. But then it does take effort, then I slip back and then I really have to think about it. (what do you mean slip back) about my breathing, so yeah there is a kind of a bit of an argument with what my brain is thinking and what I am trying to practice (Ogilvy participant 1).

This is a common issue for some people who find focussing on their breath can increase their anxiety. Through working with an experienced trainer the participant was able to find other ways to find an embodied presence. Discovering how the mindfulness practices can be used to explore embodiment and presence in a comfortable way in a workplace is a continuous challenge and a cause for much discussion for workplace mindfulness trainers. Our experience showed that responses vary depending on the organization itself, the room and the individual. Some found lying down psychologically uncomfortable (though choice was always offered), others found it a useful way to ‘get into their own space’. The trainer introduced yoga blocks to allow people to sit more comfortably for the sitting practices, some found this

revolutionary and described it as a “turning point” in their practice. Others preferred sitting on chairs.

“

The first thing, it felt very awkward, but you become very familiar, you get to know the people you are with. The [yoga] blocks certainly is like a much easier transition, to go from chair to blocks as opposed to chair to lying. For me, for some people the blocks weren't comfortable at all, but for me the blocks were incredibly comfortable, so I, you know, you take your shoes off and you just feel, for me it's the in between from a business norm, where you are sitting down in chairs with shoes on, to lying down and feeling like you are on a retreat. The middle is definitely the blocks and sitting slightly differently and I preferred it to lying [down]. In a business setting it felt acceptable and not too crazy (Ogilvy participant 2).

Participants' relationship to their bodies and in attending to the felt present was improved from being on the programme and a number reported that they saw and felt more as they went through the day:

“

Previously on this walk [from the car to the office], especially in bad weather, I may have shrugged my shoulders, hunched down and tried to get into the office quickly, but now I feel the rain on my skin, look at the clouds, focus on my breathing, feel the bracing weather, relax my jaw and shoulders, feel alive and in the moment, and face the weather. I am someone who likes the

outdoors anyway, but was not previously taking advantage of these moments. This is especially important when during the whole day I am in an office environment with central heating etc. (Welsh Government III, Llandudno participant 3).

4.7 Ethics and empowerment

Participants who entered the programme with an existing knowledge of behaviour change were able to perceive how mindfulness could support the development of more ethically oriented forms of behaviour change initiative. Some participants described how mindfulness provided an alternative approach to behaviour change:

“

You can obviously help people to change by using the dark arts of persuasion science, where they don't actually know that you are doing anything or nudge [...] [but] you are not being completely honest with people [...] whereas mindfulness and linking it with values more I think gives it a more potentially ethical approach (GAP participant 2).

“

We could call ourselves post-nudge. So we realize that there are issues of practicality and ethics with nudge and so therefore we are looking at the different things we can do hence obviously then the connections with

mindfulness is a fairly straight forward next step because that gives the possibility of building resilience (Welsh Government II, Aberystwyth/Cardiff participant 1).

Few participants expressed any doubts about the ethics of behaviour change or the combination of behaviour change and mindfulness. One participant's views reflected the position of proponents of nudge, in that we are always making decisions within choice environments that have already been shaped by others:

“

I would say, well you see my unethical bit is saying 'well this has been applied to you for all your life by private companies so we are just possibly trying to play catch up with it' or actually doing something that is scientifically based that actually results in a better outcome, you know, for example resetting the default on donor transplants in Wales (Welsh Government III, Llandudno participant 1).

Future research could usefully consider whether mindfulness could enable people to become more aware of already existing choice architectures within decision making landscapes, why they are sometimes unwilling to change certain behaviours and to question the basis of related forms of intentional behavioural inertia.

In terms of empowerment, several participants noted the relationship between feeling calmer and more in control, as well as reducing stress, as a pre-cursor to feeling more capable:

“

It helps you to understand parts of your mind that you wouldn't otherwise be thinking about, and understanding can't be unethical. It is also very empowering, because it encourages control and calmness. I have certainly found it to be personally very empowering (Welsh Government III, Llandudno participant 3).

This participant described how empowering the programme could be especially for women with executive jobs, or women who are balancing home and work life. She surmised that such a programme enables them to bring their “business brain” to work and arrive in a calmer and more controlled state. Personally, she had been disciplined in pursuing the mindfulness practice at home and work, and determined to “be the best at being present”. She reported that she was no longer “beating herself up about things”. As such she had found a level of acceptance, and felt much more “aligned with her inner voice” (Welsh Government III, Llandudno participant 3).

5 Evaluating mindfulness interventions: lessons learnt

Over the past two years, in the spirit of experimental trial and following good practice in both professional training and mindfulness interventions, the programme we have developed has changed and adapted in response to interim evaluations, findings from the online survey, feedback/feed-forward workshops, qualitative interviews and discussions with our partner organizations. There have been changes in programme length, content, emphasis and delivery methods, and the programme has been tailored to specific organizational and personal needs of the participants. The final programme thus reflects several stages of research and development, and future iterations of the programme will similarly build on the evaluation provided here.

This section outlines the principal methodological and evaluation lessons we have taken from the project which we hope will be of value to other researchers in the field of workplace mindfulness.

Research methods appropriate to programme aims

Our aim was not to solely to establish scientifically whether the Mindfulness, Behaviour Change and Decision Making programme *works* in increasing participants' mindfulness traits and behaviour change knowledge. In this sense, the research was not a straightforward evaluation of the programme but an agile means through which to improve it.

Furthermore we were interested in establishing *what work* the programme could do in addressing existing concerns about the ethics of

behavioural change in public policy, whether mindfulness could provide a more empowering and efficient means to sustain habits of (individual and organizational) change, as well as whether it could be a useful means through which to provide participants with a working knowledge of behavioural theories of use in their working lives.

At a basic level, the principal consideration for any research on workplace based mindfulness interventions is that the evaluative methods should set out to meet the research and programme aims. In our case, this was to investigate the success of combining mindfulness practice with knowledge of behavioural theories, within a programme aimed at professional development and decision making rather than workplace wellbeing.

Being open to novel insights

With this in mind, it is important however to be open to other potential impacts of such programmes, **looking beyond the original aims of the programme**. For instance, whilst we did not focus on stress, many of our participants discussed stress in the workplace and their personal lives and reported on the benefits of the programme in relation to specific sources of stress.

Our approach was to try to unpack those sources of stress in specific contexts rather than to offer a therapeutic programme aimed at developing coping mechanisms. We were primarily interested in the effects of stress on decision making processes. As such, being careful to contextualize the research findings

within the specific **organizational cultures** and **wider social, economic and political constraints** which shape workplaces is a crucial element of a successful evaluation.

Mixing methods

It was also instructive to adopt research and evaluation methods which could shed light on different aspects of the programme and participants' experiences. A simple online survey provided some basic detail including self-reported assessments of participants' mindfulness traits and knowledge of behavioural insights. Whilst we did start to uncover interesting routes for inquiry in relation to mindfulness, unconscious bias and an openness to behavioural insights, it was not possible to dig very deeply into assessing the value or otherwise of combining these aspects of the programme, nor to uncover how and why particular sessions, focal points, practices or the biographical circumstances of participants themselves shaped their experiences. The qualitative interviews and feedback/feed-forward sessions, where used, provided additional insight which was more deliberative in nature and able to provide a space for reflection on the organizational and group experiences of the programme.

Evaluating impact

Given that one of our main rationales for the programme was to understand its impact in terms of the working practices and decision making within the specific partner organizations, there remains significant room for expanding the methods which could be used to assess these impacts.

First, this would involve **delivering the programme within specific teams** or departments or at least with compliance within a whole team, in which staff at all levels have a shared work focus and performance indicators, and work together on specific projects.

Providing the programme in this way would provide more concerted insights into how it could potentially shape organizational cultures and feed into change management programmes. A simple means to begin this kind of investigation would be through **360 degree research interviews** with participants' colleagues.

It would also be enlightening to establish what kind of impacts staff participation in the programme has on client relationships, service users or stakeholders. **Follow up interviews with clients, service users and stakeholders** would be one way to explore these relationships and a **longitudinal study** over the programme of a year or more, following a limited number of programme participants would be a fruitful exercise.

An additional source of data would be to establish from the outset precise performance indicators or desired project outcomes of a work team/department and to ask participants to keep a **research diary** documenting their experiences of key decisions and pivotal moments in the progress towards these indicators. There could also be analysis of any (un)expected changes to achieving these indicators, though any claims of causation would have to be taken with due caution. **Randomised control trials** have become one way in which causation can be said to be established, and there are several studies which take this approach⁵⁵, albeit in ways which remain

⁵⁵ Fjorback, L.O., Arendt, M., Ørnbøl, E., Fink, P. and Walach, H. (2011) "Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy – a systematic review of randomized controlled trials" *Acta Psychiatrica Scandinavica* Vol 124 (2), pp102–119.

contested in wider methodological debates across the social sciences⁵⁶.

Other considerations

Having explored both **researcher-led and trainer-led interviewing**, it is evident that there are advantages and disadvantages of each approach. One advantage of having the trainer both deliver the programme and conduct the research interviews is the rapport of trust that has been established between participants and trainer is often strong. In this case, qualitative interviews can be expected to provide a greater depth of personal insight than might otherwise be possible. On the other hand it is important to note that the degree of independence afforded by researcher led interviewing might provide the critical distance necessary to identify key processes at work, to establish how successful the programme has been for participants and to uncover more wide-ranging and potentially negative appraisals of the programme.

It would also be useful to gather evidence from participants who dropped out of the programme early or who attended taster sessions but chose not to take part. Having come across potential participants within our partner organizations who were very keen to attend the sessions but felt ‘too stressed’ to do mindfulness, or unable to ‘find the time’, it is necessary to be attentive to potential value of conducting **research interviews with non-participants**; something which is often overlooked in workplace wellbeing programmes, and especially important where participants are self-selecting.

⁵⁶ Cartwright, N. (2007) “Are RCTs the Gold Standard” *Biosocieties* 2 (1), pp 11-20; Hammersley, M. (2008) “Paradigm War Revived? On the Diagnosis of Resistance to Randomized Controlled Trials and Systematic Review in Education” *International Journal of Research & Method in Education*, 31 (1), pp 3-10.

6 Future research agendas

“...training in workplace settings has erred towards goal-orientated, institutionally-favoured ends, rather than focusing on addressing the causes of individual and collective distress”¹

Sensitivity to context and understanding the ‘problem’: widening the scope of research

The Mindfulness APPG reported on many of the existing gaps and challenges facing the implementation of mindfulness-based interventions in workplace (and other) settings. As the quotation above highlights, sensitivity to the context of programme delivery and a wider appreciation of participants’ and organizations’ perceived need for mindfulness practice should be at the forefront of programme delivery and the teacher’s orientation. Put simply, mindfulness based interventions cannot be seen as a quick fix for individuals in distress. Rather, **we need more research into mindfulness as a social and cultural phenomena itself**, which also considers how particular problems in society become framed as psychological or individual in the first place.

Furthermore, care needs to be taken with issues of access to mindfulness-based interventions, to ensure that such programmes reflect the wider diversity of the population and that potential barriers to access are addressed. This is particularly important if mindfulness is to play a

more mainstream role in workplaces and other settings, potentially shaping social relationships in novel ways. Where there is government support for mindfulness at a population level or for individuals, the intended and potentially unintended effects of this support for shaping citizenship ideals and governmental relationships should also be subject to research scrutiny.

Evidence standards appropriate to the context and nature of the programme delivered

One of the main concerns of the MAPPG is that there should be increased capacity for clinically training mindfulness teachers in university-based MBSR/MBCT programmes – to address concern over the number of mindfulness teachers and organizations offering workplace based programmes who have different levels and types of training. Similar debates rage in related areas such as yoga, fitness, counselling and other well-being activities. The recommendations of the MAPPG include the strengthening of regulation and governance of mindfulness teacher training by sharing best practice, benchmarking standards and formalising supervision procedures.

Related to this is a concern that courses derived from the evidence-based MBSR/MBCT should be approached with caution, particularly where they involve much shorter meditation times or are focused on attention training at the expense of integral aspects of mindfulness such as “compassion, non-judgment and non-striving”⁵⁷. As such there remains much debate as to which aspects and practices are essential to mindfulness initiatives.

Here, however, it is important to distinguish between courses which make spurious claims to scientific evidence and those which are not intended for clinical or mental health settings, and whose participants do not include vulnerable groups. **Further research evidence is still needed in non-clinical contexts such as workplaces, but medically-oriented research methods may not always be the most appropriate** to understanding the potential effects and value of mindfulness-based interventions in these cases.

Social science research methods are long established within human resource, organizational and management studies as well as education, training and learning, and the delimitation of medical research standards is likely to hamper innovation, experimentation and delivery in these fields. As such, **transparency is needed over programme content, the kinds of evaluative methods that have been used, and the kinds of claims to effectiveness** that can therefore be made by practitioners. It is crucial to scrutinise claims to efficacy, to consider the demographic make-up of programme participants, and to better understand what aspects of the programme might be having the most important effects.

Specific research gaps for mindfulness in workplace settings

Given the extent, diversity and number of workplace based mindfulness initiatives being delivered globally, it is important that the research literature reflects this diversity rather than focusing only on the clinical effectiveness of MBSR/MBCT programmes delivered in the workplace for therapeutic goals, despite the important role that such programmes play in reducing suffering and improving wellbeing. Whilst there is an emerging body of research which investigates specific work-based skills and institutional goals, this too tends to narrow the scope of evidence required, and in an important sense re-imagines the rationales for mindfulness itself without due regard to its broader history and its potentially transformative role.

For these reasons, **further research which both widens the potential uses of mindfulness and the nature of the evidence base which can be investigated is needed**. This may take the form of pilot research projects in workplaces, comparative research in different organizational settings, with different demographic groups, at different levels of an organization and/or working with different kinds of employees or teams. We understand that various groups, linked to the Mindfulness Initiative, are currently taking this work forward.

In terms of **researching the connections between mindfulness and behavioural insights**, there is still clearly much work to be done in order to understand the role that mindfulness practice could play in establishing non-coercive, empowering and effective means to support behavioural change. There needs to be concerted effort within the academic community to investigate the ethical dilemmas such an alliance would pose, and to consider how these dilemmas might shift between different kinds of workplaces, organizational settings and between the public, commercial and third sectors.

⁵⁷ MAPPG, 2015: 80; Kabat-Zinn (2013) *Full Catastrophe Living*. Revised edition. Random House, London.

Whilst it is important not to underplay the role that mindfulness can play in improving working life and tackling stress and anxiety for particular individuals and groups, there is also significant potential to **expand the scope of workplace based mindfulness research beyond workplace wellbeing**. By further developing the links between mindfulness and behavioural insights, theoretically, institutionally and in grounded practice, there is potential to investigate some of the following underexplored questions:

- How can mindfulness work with behavioural insights to support a greater openness to some of the theories and new knowledge around 'rationality' that underpin behaviour change in policy and change settings?
- How can mindfulness be used to understand organizational-level unconscious biases, habits, ways of working and established decision making which might usefully be challenged?
- How could mindfulness practice help participants to overcome and address barriers to change?
- What might be the consequences of opening up ingrained organizational biases to scrutiny within the workplace, in terms of developing employee agency and status, and setting the groundwork for more co-productive working practices?
- How might mindfulness and behavioural insights be better integrated in order to address local, national and global social challenges in ways which are effective, sustainable and with due regard to wellbeing in the future as well as in the present?
- How can a mindfulness, behaviour change and decision making programme be developed to maximize its potential impact beyond the organization, amongst a wider

constituency of stakeholders such as service users, clients, consumers, citizens and within communities?

- What does the popularity of mindfulness based interventions in the workplace signify in terms of the changing demands made on employees in different sectors and their capacity to respond to these demands without personal detriment, and how does this link to behaviour change?

Mindfulness for social change: future possibilities

Amidst the widespread enthusiasm for mindfulness courses, apps, books, resources, speakers and trainers, there is equal caution expressed about the quality, efficacy, evidence, stated rationales and potential harms of mindfulness in society. Such caution is of course entirely sensible and measured, and we support existing recommendations to both promote the evidence-based benefits of mindfulness and to address these kinds of concerns.

In light of this, future research should take at least two distinct forms. First, there is a need to understand *what works* in terms of mindfulness based interventions, in different sectors, for different goals, for different kinds of population groups and individuals. There should be ongoing debate around the kinds of evidence which can be used to establish what works and transparency about evaluative methods used in such research.

But secondly, in order to open up dialogue about the future possibilities of mindfulness in society, we also need research which explores *what work mindfulness can do* in society more broadly. Hence research should seek to trace the emergence and mainstreaming of mindfulness practice in particular national contexts, in order to investigate the sociological circumstances in

which mindfulness is posited as a solution to particular problems.

In response to the aforementioned alignment of mindfulness with ideas, policies and interventions informed by behavioural insights, research should also consider how decision making, attention and habits are shaped through such programmes, and should consider the political and ethical stakes surrounding the ideas of change established by such interventions.

In rediscovering and highlighting some of the background thinking and historically and geographically specific grounds for the emergence and development of diverse mindfulness practices, we might also be better placed to consider both the potential and limitations of mindfulness in addressing already existing social inequalities in wellbeing widely evident in contemporary society. As such, whilst mindfulness might seem posited on establishing new kinds of self-understanding, a more socially engaged form of mindfulness would foreground its transformative potential. For instance, Mindful leadership could also be used to deconstruct 'leadership' as a normative value.

It is arguably only by engaging with the historical routes, the ethical imperatives and contemporary understandings of cognition and mindfulness⁵⁸ – in policy and practice – that we can start to claim we have gained any real insight into its societal potential.

In a context where so many contemporary global challenges are said to stem from behavioural habits, biases and errors, properly adapted and tested mindfulness interventions might offer an alternative approach to social change which is beyond anything that has currently been imagined.

⁵⁸ Dahl et al., 2015