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Being With Difficult Experiences From Climate Change – Enabling a Healthier Response

A dissertation presented in partial fulfilment of the requirements for the degree of MSc
Studies in Mindfulness at the School of Education, University of Aberdeen

I declare that this dissertation has been composed by myself, that it has not been accepted in any previous application for a degree, that the work of which it is a record has been done by myself, and that all quotations have been distinguished appropriately and the source of information specifically acknowledged.

A handwritten signature in black ink, appearing to read 'Andrew Bruce', with a large, sweeping flourish extending to the right.

Andrew Bruce

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ABSTRACT :

Despite overwhelming evidence that our actions are causing a rapid warming of the planet, the human race is doing little to address the issue of climate change. A lack of knowledge or technology does not appear to be the explanation. Instead it appears to be a reluctance to pay sustained attention to the problem, as doing so appears to be considered a threat by many to individual mental health and wellbeing.

There is little evidence as to whether mindfulness and compassion practices, alongside climate change specific emotional practices, might allow society to go towards the issue in a healthier way and hence encourage an appropriate response.

This qualitative hermeneutic study worked with a group of climate activists. As a group who are paying attention to the crisis, they are a proxy for wider society when they, either voluntarily or not, pay sustained attention.

This study showed some positive results that these practices might promote a healthier attitude towards difficult thoughts and emotions, connect us to each other and enable an appropriate response. However it is difficult to say from this short term intervention whether these results would be sustained and even deepen over time.

More detailed research needs to be carried out to understand climate change psychology and its implications for mitigating actions and supporting people with dealing with its effects. It is striking how little research there is on this compared to many scientific studies calibrating the progression, extent and effects of global temperature rise.

Keywords : climate change, mindfulness, compassion, wellbeing, avoidant coping, approach coping.

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I dedicate this dissertation to Oliver and Alex. May you both forge your own unique paths to happiness and purpose in a troubled world.

'I used to think the top environmental problems were biodiversity loss, ecosystem collapse and climate change. I thought with 30 years of good science we could address those problems. But I was wrong. The top environmental problems are selfishness, greed and apathy... And to deal with these we need a spiritual and cultural transformation - and we scientists don't know how to do that.' - James Gustave Speth quoted in Ives et al. (2020 p208).

The central premise is that at this time in history our chief task is not to save the Earth. It is to save ourselves from ourselves (Doppelt, 2016 Loc 352)

How I Became A Warrior by Jeff Foster – (abridged)

*Once, I ran from fear
so fear controlled me.
Until I learned to hold fear like a newborn.
Listen to it, but not give in.
Honor it, but not worship it.
Fear could not stop me anymore.
I walked with courage into the storm.
I still have fear,
but it does not have me.*

*Once, I had great sadness
buried deep inside.
I invited it to come out and play.
I wept oceans. My tear ducts ran dry.
And I found joy right there.
Right at the core of my sorrow.
It was heartbreak that taught me how to love.*

*Once, I had anxiety.
A mind that wouldn't stop.
Thoughts that wouldn't be silent.
So I stopped trying to silence them.
And I dropped out of the mind,
and into the Earth.
Into the mud.
Where I was held strong
like a tree, unshakeable, safe.*

*Once, I ran from difficult feelings.
Now, they are my advisors, confidants, friends,
and they all have a home in me,
and they all belong and have dignity.
I am sensitive, soft, fragile,
my arms wrapped around all my inner children.*

*And in my sensitivity, power.
In my fragility, an unshakeable Presence.
In the depths of my wounds,
in what I had named "darkness",
I found a blazing Light
that guides me now in battle.*

*I became a warrior
when I turned towards myself.
And started listening.*

(Mindfulness Association, n.d.-a)

1.0 Introduction

It seems to be the key question of our time – why are we doing so little to address climate change? The scientists have been telling us for several decades about the severe threat posed to our only home, the Earth, if we do not stop the warming of the planet (IPCC, 2022) – yet global emissions are still rising quickly (Ibid). Societally the lack of action does not appear to be due to a lack of technology or economic resources (Ives et al., 2020), albeit that a minority (those on higher incomes, mostly in the Global North) are considerably better placed than others to take the necessary action and also have a higher carbon footprint (Oxfam, 2015). Therefore we may need to look to psychology and our inner world as an explanation. Indeed the ‘inner transition’ towards sustainable behaviours was referenced explicitly in a recent report from the UN Intergovernmental Panel on Climate Change (IPCC) (Bristow et al., 2022).

The main hypothesis behind this research is that we are not taking action because we have not found the collective capacity to look at it and accept the suffering already being caused and being stored up for the future – we find it too challenging cognitively and emotionally and therefore are avoidant. This seems to be combined with a Western culture of individualism (and hence disconnection from other beings) which tends to see climate change as someone else’s problem unless its effects are felt close to home (Tolle, 2005). Mindfulness and compassion might have a role in alleviating this situation by helping us understand and see our thoughts and emotions more clearly and develop the kindness for ourselves and others to be with them, thereby re-connecting with other beings and responding more appropriately to the urgency of the situation.

Given this hypothesis, this thesis looks at whether mindfulness and compassion could assist climate activists, who appear to be one of few groups in society who are paying sustained attention to the crisis. Therefore they appear to be a good proxy for anyone (now or in the future) that chooses or is forced to turn towards this difficult issue. It appears that doing this is taking its personal toll on some activists given issues of burn out in the movement (Butts et al., 2019). There is also evidence of psychological distress amongst climate scientists, another societal group who spend sustained time thinking about environmental destruction (Wallace-Wells, 2019). The distress of these two groups might be indicative of the difficulty of continuing to look at the issue (and perhaps why much of Western society appears to be avoiding it) and a ‘canary in the coal mine’ (Ibid) for mental health issues for wider society when many more of us are forced to look at the issue as our planet warms

further. Might mindfulness and compassion provide part of the answer to this otherwise bleak assessment?

Therefore this research will consider whether mindfulness and compassion could play a role in mitigating or alleviating psychological distress amongst this group and hence help sustain engagement with climate change (in whatever form, not necessarily activism). Many authors claim that in Western society we are disconnected from each other and the natural world and are driven by extrinsic values of our separate self and sometimes measure success by how many resources we consume compared to our peers – a focus that makes us unhappy or even depressed (Tolle, 2005, Hari, 2018, Snibbe, 2020, Spira, 2022). Mindfulness practice is considered to enable clearer seeing of our inner experience and emotions and to allow a more effective form of response (Kabat-Zinn, 2013). Compassion practices may be able to break down this cultural conditioning and bring a realisation of our sense of connectedness with fellow humans, nature and all beings (Nairn et al., 2011). This may in turn allow a different attitude to the suffering of others - to understand that it is the same as our own suffering (Chodron, 2005). No longer having to use subconscious energy to resist this reality, may also bring both relief and greater energy to relieve the suffering where appropriate (Ibid). It may even foster a sense that joy and happiness can be found in following intrinsic values, helping other beings wherever possible and accepting the suffering of ourselves and others when it is not possible (Dalai Lama & Tutu, 2016, Doppelt, 2016).

One other area of interest is any differences of effectiveness of mindfulness and compassion between individuals who have 'chosen' (or been 'pulled in ') to pay sustained attention to climate change and those that have been 'forced' (or pushed into') into it. For the participants in this study, this distinction may be between those that have gone towards activism from an emotional understanding of the suffering caused by climate change (i.e. this has pulled them in). And those participants that may have become activists as a response to a conceptual understanding (such as a scientific training) of the problem of climate change but who may still be shutting out the bodily or emotional response to the suffering (i.e. they have felt pushed into it). The hypothesis is that being pulled in may allow a participant to process difficult emotions through mindfulness and compassion more easily and be resilient; whereas those that are pushed into it may be more vulnerable to burn out.

Throughout this dissertation, the Buddhist origins of mindfulness and compassion are recognised and drawn from (Maex, 2011). Whilst there have been significant efforts made to secularise these

approaches (with one early important secular definition of mindfulness being *'Paying attention in a particular way : on purpose, in the present moment, and non-judgmentally'*(Kabat-Zinn, 2004)), many have argued that it is not possible to divorce them from their roots (Purser, 2019). Importantly this research will use the Buddhist definition of compassion as defined by the Dalai Lama *'sensitivity to the suffering of self and others with a deep commitment to try to relieve it'* (Mindfulness Association, 2009). It is sometimes misunderstood / defined differently in the West with one quite common definition being *'a feeling of pity, sympathy and understanding for someone who is suffering'* (Collins-dictionary, n.d.).

2.0 A Buddhist Approach to Suffering – A Literature Review

A thorough research has been carried out of the literature regarding the psychological difficulties of facing climate change and ways (especially through Buddhist techniques of mindfulness and compassion) this suffering can be faced whilst preserving or even enhancing personal wellbeing and vitality. Research has been centred around the key themes that emerged from the pre-intervention and post-intervention interviews. These were (i) emotional reflexivity and cognitive reframing, (ii) compassion (or lack thereof) for self and others (iii) avoidant coping vs approach coping (iv) alienation and isolation (v) motivation (for responding to climate change) and (vi) resilience (in responding to climate change). The findings from the literature are structured around these themes below.

Method

An extensive review has been carried out of grey literature and scientific papers across multiple disciplines (identified using Scopus, Web of Science, Google Scholar and the University Library's Primo tool) that look at the links between mindfulness, compassion and attitudes to climate change. For mindfulness and compassion the search string has included the following terms – mindfulness OR mindful*, empathy OR empath*, kindness, connectedness, self oriented motivation and other oriented motivation. For attitude to suffering of climate change the search string has included sustainab*, environmental*, climat*, apathy, pro environmental behaviour, inaction, despair, hope. For the response to the suffering of climate change the search included resilien*, grief, isolation, motivation.

Buddhist practitioners believe that many people have misunderstood their true nature due to being caught up in their experience, are therefore cut off from their natural kindness and connection to all beings, resist what is difficult in their lives thereby creating unnecessary suffering for themselves and others and hence do not realise their full potential to be happy and do good in the world (Tolle, 2005; Brach, 2012; Spira, 2022;). All of these aspects are relevant to working with the suffering of climate change and will be covered below - starting with the cultivating the ability distance oneself from thoughts and understand ones emotions.

2.1 Cognitive Reframing & Emotional Reflexivity

It appears that an important resource to cultivate in facing the climate crisis are the skills to be able to see the thoughts that are coming up, without getting lost in them and from this place of detachment, develop a different attitude (so called 'cognitive reframing'). It can also allow a 'seeing' of our emotional response to these thoughts, such that there is greater understanding of what is happening to us and how we should respond (so called 'emotional reflexivity'). Indeed Brown (2021) argues that the more granularity we have to see and label our emotional experience, the greater our emotional regulation and psychosocial wellbeing.

Mindfulness training can give people this capacity to develop both cognitive reframing and emotional reflexivity. *'Simply put, are we able to use our feelings or do they use us? Are we able to regulate them and use them creatively or are we going to be at their mercy?'* (Andrews & Hoggett, 2019 p6). For example this may give the capacity to become aware of maladaptive responses as they arise within us and offers the possibility of a different response (more on this below around avoidant vs approach coping).

A practice of mindfulness can bring both calmness and, in time, an ability to see things clearly (Wellings, 2015). The idea being that once we are able to concentrate on one thing, the mind may become still and from this place of stillness, can look deeply and see things as they really are (Ibid). Such calmness has been shown to reduce anxiety and mood disturbance and improve other indicators of psychological wellbeing (K. W. Brown & Ryan, 2003, Weinstein et al. 2009). Anxiety or stress comes from an (often subconscious) cognitive process by which an individual feels unable to cope with the expectations placed upon them by themselves or others (Ibid). Mindfulness can lead to a cognitive change by reducing the negative appraisal of such events (Ibid). Core to this is *'bringing what was operating in the dark into the light where it is visible and can be examined, reflected upon, contained and regulated'* Fonagy et al. (2002) cited in (Andrews & Hoggett, 2019 p16). Otherwise those that are facing climate change may not be consciously aware of how it is affecting them and therefore how it could impact on their health or lead to a sudden burn out. However there has also been research on the possible adverse effects of mindfulness for those that have trauma in their bodies (Treleaven, 2018) and even suggestions that mindfulness has been overhyped in the West and taken out of context from its Buddhist roots to justify the continuation of the worst elements of the capitalist system (Purser, 2019).

This seeing clearly may show how the mind works and its tendency to grab hold of what it likes, push away what it does not like and be bored / ignoring of what is neutral – these are sometimes called the ‘*three root poisons*’ (Wellings, 2015). Such insight, particularly when combined with self compassion can provide the basis for the transformation in the way people live their lives and relate to others. This is summed up by Olendzki (2011 p11) as ‘*mindfulness is not just heightened attention, but is attention that has become confident, benevolent, balanced and fundamentally wholesome*’. This capability appears very relevant in relation to the suffering caused by climate change, in being able to be with the difficult emotions associated and to find some way of working with those with kindness and equanimity.

Furthermore mindfulness may allow us to see our emotional experience and work out more wisely what to do with these emotions. The possible range of emotions associated with climate change appears to be wide and varied and are set out in (Antadze et al., 2022). The authors set out academic sources for the following list of broad emotional categories: surprise related emotions (including trauma), threat related (including fear), sadness related (including grief), strong anxiety related (including powerlessness), strong depression related (including hopelessness), guilt & shame related, indignation related, disgust related, anger related, hostility related and many kinds of ‘positive’ emotions (including joy, hope, gratitude, love and compassion) (Ibid).

It may at first glance seem odd that there could be a list of positive emotions associated with climate change. However there is evidence to suggest that the outcome from moving towards the more difficult suppressed emotions can be a transformation (or alchemy) into something more joyful. Seligman (2011) describes negative emotions as about preparation for win-loss situations and positive emotions as preparations for win-win situations. The win-win here may come from a deep sense of connection with nature and other people and the relief of allowing in what is already there. The Active Hope practices (Macy & Johnstone, 2012), which were part of the intervention for this study, appear to be seeking to move negative emotions associated with climate change towards positive ones.

Emotional reflexivity has been defined as to be consciously aware of emotions, of paying attention to them (individually and collectively) and to incorporate their skilful self-management (G. Brown & Pickerill, 2009). Or ‘*an embodied and relational awareness of and attention to the ways that people engage with and feel about issues, how this influences the actions they take, the stories they inhabit and their perceptions of individual and collective agency*’ (Hamilton, 2020 p47).

Hamilton (2020) found three ways in which emotional reflexivity enabled participants to access the information contained within emotions and contributed to feedback and connections between the dimensions of engagement and forms of agency. This also contributed to active engagement with climate change by enabling a move away from emotions in tension which impeded active engagement.

- (i) Movement into consciousness through acknowledging emotions
- (ii) Transformation of one emotion to another through expressing emotions (e.g. alchemising grief), and
- (iii) A changed relationship to painful emotions.

Some emotions are now considered that appear particularly relevant to thinking about climate change and the powerful side effects to the individual and wider society if these remain in the subconscious rather than being fully experienced and processed.

Fear



Figure 1 - (Shutterstock, n.d.)

Fear is so central to the human experience that if we do not bring it into our awareness, then it will rule our lives and cut us off from so much that is important (Sogyal Rinpoche, 2008). Whereas if we can go towards the fear with vulnerability and acceptance then we can transform our attitude towards ourselves, other beings and our role in the world (as suggested by the poem on page 4) (B. Brown, 2021). O'Neill & Nicholson-Cole (2009) have suggested that fear inducing images of climate change are unlikely to be an effective way of engaging the public in changing behaviours / taking action, as they can lead to denial, apathy and avoidance – see more on avoidant coping below.

Fear can significantly impact how we relate to the suffering caused by climate change. If we look at our fellow man or other beings that are being killed (or their lives substantially disrupted) from a place of fear, our response to someone's pain can become pity (and hence an associated superiority and disconnectedness) (Sogyal Rinpoche, 2008). However if we go towards that from a place of kindness and love, it can become compassion (Ibid) and thereby giving us greater energy to respond (Chodron, 2005).

Subconscious fear may therefore also be blocking the most appropriate response from climate activists to their concern for the climate. Fear may prevent the letting go of past personal difficult experiences and therefore blocking freedom to respond in a different way (Wellings, 2015) and instead can lead to avoidant coping, paralysis and defence mechanisms (Lertzman 2015a cited in (Hamilton, 2020)). The Western poet Rainer Maria Rilke has said that our deepest fears are like dragons guarding our deepest treasure (Sogyal Rinpoche, 2008). Therefore it is an interesting question whether activists have gone into activism from being aware of their fear or whether subconscious fear may have taken them there as some form of denial.

There also appears to be a link between our suppression of fear towards our own death and climate change. Sogyal Rinpoche (2008 p8) writes *'I have come to realize that the disastrous effects of the denial of death go far beyond the individual: They affect the whole planet. Believing fundamentally that this life is the only one, modern people have developed no long-term vision. So there is nothing to restrain them from plundering the planet for their own immediate ends and from living in a selfish way that could prove fatal for the future.'*

Sadness / Grief



Figure 2 - (Shutterstock, n.d.)

Perhaps the most prevalent emotion around climate change after fear is sadness and grief. Whilst together here, they are not quite the same thing. Sadness is a normal response to loss or defeat, whereas grief, in addition to those feelings, appears to also relate to longing and feeling lost (B. Brown, 2021). All three legs of grief are relevant when considering climate change.

We sometimes wish to push away sadness because it is perceived as a 'negative' emotion and is associated with depression. However processing sadness, particularly when connecting to others, can be a necessary step to finding our way back to our authentic selves, makes us less prone to judgmental errors and to feel 'moved' which can lead to enjoyment. (Ibid)

Processing and finding meaning from grief is often more complicated but critical in moving on from it and perhaps even alchemising it into a new positive energy (Randall, 2009). *'We fear that, once acknowledged, grief will bowl us over. The truth is that grief experienced does dissolve. Grief unexpressed is grief that lasts indefinitely* (Tsoknyi Rinpoche, 2012 p316). Undissolved grief can lead

to harmful behaviour such as avoidant coping or for activists into manic over activity (Randall, 2009). *“Grief,” Rumi wrote, “can be the garden of compassion.” If you keep your heart open through everything, your pain can become your greatest ally in your life’s search for love and wisdom’* (Tsoknyi Rinpoche, 2012 p320).

The Work That Reconnects (TWTR) (Macy & Johnstone, 2012), that was part of the intervention carried out in this research, is a process of feeling grief (and other difficult emotions) from a place of support and gratitude, reframing it and alchemising it into a new energy. Hamilton (2020), in her study of TWTR, commented as follows *‘The theme of sharing the grief demonstrated how the safety to be vulnerable and open was experienced as a source of connection, strength and power’*. In contrast, a failure to process grief for the planet / climate change by society can lead to collective depression or melancholia (Ibid). Environmental melancholia has been identified by Lertzman (2015) (cited in Antadze et al., 2022) where the causes of mourning are not understood by the person experiencing it.

Anger



Figure 3 - (Shutterstock, n.d.)

The final emotion explicitly considered here is anger which can be a natural response when people (especially the young) realise how little is being done. Anger can be defined as *‘an emotion that we feel when something gets in the way of a desired outcome or when we believe there’s a violation of the way things should be’* (B. Brown, 2021 p220). Anger experienced sub-consciously has the

potential to be destructive, to the person experiencing it (particularly if suppressed) and / or to those they come into contact with. Whereas if it can be brought into consciousness and combined with compassion, then it can provide the energy to see clearly what needs to be done and to take action to protect ourselves or others and / or right the wrong that has been done (Goleman, 2014). Therefore developing reflexivity with anger appears relevant to responding to climate change with an appropriate response – possibly through activism or something else.

Unprocessed anger is considered to be one of the 5 main ‘mind poisons’ in Buddhism and it is seen as limiting our true potential. Left unchecked, it can reinforce the idea of a reified self raging at others and the outside world, leading to destructive actions. Whereas if the antidote of loving kindness is brought in, it can result in mirror like wisdom to see clearly how to respond (Choden, 2011). The Dalai Lama makes the distinction between ‘shedang’ (sometimes translated from the Tibetan as hatred) which is a felt sense of injustice against the self (which is destructive) and ‘khongdro’ (sometimes translated as anger) when aroused by compassion for others which is described as ‘accurate anger’ which may manifest in compassionate action (Goleman, 2014).

Anger can often be a prime motivator for activists (or others responding to climate change) and working with kindness does not prevent the expression of anger but rather provides a clearer seeing about *‘whether or not the level of anger is appropriate in the moment’* (King, 2005). This in turn may help in sustaining non violent activism which is inclusive of others (i.e. does not repel them) and being resilient when acting on behalf of others and from a place of kindness (Ibid). G. Brown & Pickerill (2009) therefore recommend that activist organisations create the space for such emotional reflexivity and start to consider individual’s burn out as a *‘collective failure of activist situations’*.

This concludes the section on cognitive reframing and emotional reflexivity and suggests that changing one’s attitude towards difficult thoughts and processing difficult emotions may be important to staying with the suffering of climate change. However this may not be enough and we may also need to meet the associated suffering with compassion for ourselves and others.

2.2 Compassion to Self & Others

‘Over time, I began to see that considering the welfare of other beings was essential in discovering my own peace of mind’ (Mingyur, 2010 loc 2426).

In the literature, compassion appears to be critical to responding to our own and others suffering in a positive and healthy way. If the noble aim to feel and act on others suffering comes from a sense of separate reified (even superior) self (often defined as empathy), there is evidence to suggest that humans can only take on so much before feeling personally threatened and turning away – known in the Western literature as ‘compassion fade’ (Butts et al., 2019). Whilst dealing emotionally with climate change requires us to take on and accept the potential suffering of billions of people. Brach (2020) suggests that empathy activates parts of the brain linked to emotion, self awareness and pain; whilst compassion stimulates areas associated with care and nurturing and also those parts connected to learning, decision making and the brain’s reward system – promoting the secretion of the feel good hormone oxytocin.

This accords with the Buddhist perspective, who believe it is a delusion to deny our inter-connectedness with others which only leads to our own suffering and also robs us of the energy to respond (Chodron, 2005). Hanh (2015) suggests that without compassion we are utterly alone and cut off. Therefore moving from ‘separate self’ or ego to one of deep connection to other beings appears to be a key part of transforming and protecting ourselves and therefore being able to be with the suffering of climate change in a resilient and even joyful way (Dalai Lama & Tutu, 2016) (Doppelt, 2016). The Buddhist practice of ‘tonglen’, which is often translated from Tibetan as “giving and receiving”, is considered a powerful way of destroying the ‘*self grasping, self cherishing and self absorption of the ego*’ (Sogyal Rinpoche, 2008) and therefore increasing the strength of compassion. Canty (2014) describes participants letting their former selves die and a new self emerge as a start of ecological healing.

Therefore developing a reduced sense of ego, a greater sense of connection with others and an increased level of compassion for ourselves and the suffering caused to all beings by climate change appears to be relevant to how we respond. A lack of compassion seems to be a feature of avoidant coping and therefore compassion could lead to being able to think about climate change more frequently and hence possibly change behaviours. For those that are already paying attention (such as activists), it could lead to greater resilience and even joy and enhanced wellbeing. This is encapsulated in the quote ‘*when you love the world, the world loves you back*’ (Mingyur, 2021 loc 3396).

Suppressing or not processing emotions and resisting what is difficult in our lives has been mentioned several times to the sections above. We now turn to this avoidance directly.

2.3 Avoidant vs Approach Coping

'The very danger signals that should rivet our attention, summon up the blood, and bond us in collective action' instead 'make us want to pull down the blinds and busy ourselves with other things'
(Macy & Brown, 1998, p. 26)

Avoidant coping is considered to be the suppression of 'negative' emotion through denial, distortion and disengagement. It can be associated with self-deception, shifting responsibility, apathy and distorting the facts or even active catastrophism (Andrews & Hoggett, 2019). Whilst it may relieve stress in the short term, if prolonged it may become maladaptive, block psychological adjustment to reality and is associated with poorer health (Weinstein & Ryan, 2011). The ecologically maladaptive responses that may be relevant to climate change are shifting of responsibility or projection, non-action (passivity or lazy catastrophism) and self deception (including unrealistic optimism) (Andrews & Hoggett, 2019). Rust (cited in (Andrews, 2017 p463) says *'when we block out our feelings we lose touch with the urgency of the crisis'*.

Approach coping is considered to have three forms - (i) active coping – taking direct action to deal with stressful situations (ii) acceptance (cognitive and emotional acknowledgement of stressful realities) and (iii) cognitive reinterpretation involving learning and positive reframing (Andrews & Hoggett, 2019). All of these are relevant to the discussion on cognitive reframing and emotional reflexivity above. Approach coping is considered to be adaptive as effort is directed towards containing and overcoming stress and anxiety and stimulating appropriate and proportionate action. Ecologically adaptive responses that seem relevant to dealing with climate change include (i) connecting with nature, (ii) regulating associated feelings (e.g. through mindfulness) (iii) compassion and self transcendence (iv) collaborative problem solving (Ibid).

Avoidant coping is often a deeply ingrained behaviour from our personal lives, as the mind has a tendency to push away difficult events from our past (e.g. childhood trauma, bullying, verbal, physical or sexual abuse, death of loved ones etc) and instead cling to things it likes – seeking to create the illusion that by pushing away reality we somehow make this go away (Brach, 2012). Therefore it is the instinct of the mind to employ the same method to difficult external threats such

as climate change. Therefore forming an accepting attitude towards climate change may need to start with acceptance of what is difficult in our personal history and lives.

Indeed acceptance is a fundamental theme within mindfulness practice and has been defined as '*a conscious choice to experience our sensations, feelings and thoughts just as they are, moment to moment*' (Germer, 2009). Acceptance is therefore an important strand of the Mindfulness Based Living Course used in this research – primarily through the practice of RAIN (standing for Recognise, Allow, Investigate and Non-Identification). Having the means to support oneself in what initially may feel a challenging practice is important and this can come by deliberately being kind to oneself, from which an energy to respond may emerge. This is summed up by the phrase '*When the sunlight of loving-kindness shines on the tears of suffering, the rainbow of compassion emerges*' (Regan-Addis & Choden, 2017 p145). Tolle (2005) suggests that unprocessed difficult emotions (what he calls the 'pain body') can lead some individuals to become activists and whilst there may be some success, the negative energy and the unconscious need for enemies and conflict may generate increasing opposition to the cause.

Hence those paying attention may be unaware of how they are coping with the stress of climate change and may instead be pushing away difficult thoughts. Therefore the first step may be to get some distance from the difficulty without disassociating from the feelings and in so doing get some perspective and be able to reframe the experience. Therefore this clearly links with emotional reflexivity discussed above and a mindfulness practice therefore may be useful in disentangling how someone (such as an activist) is relating to climate change. From this place, self-transcendence and connection, both with nature and with others, also appears to be important in moving towards adaptive coping which may bring more active and sustained engagement (Hamilton, 2020).

Unfortunately, in a society in which most people appear to be avoidant to this issue, finding support through the connection with others is often difficult, as discussed in the next section.

2.4 Alienation and Isolation

There is some evidence that, faced with groups of family, friends or work colleagues that may be employing avoidant coping, many individuals who are seeking to face their emotions around this difficult topic, may end up feeling alienated or isolated. Hajek & König (2022) have carried out an initial study of possible links between climate anxiety and loneliness and found some positive association between the two in all age groups apart from 65-74 year olds amongst n=3,091 of individuals residing in Germany. For some faced with this, the response may be denial of or distraction from these emotions in order to 'fit in', given the fear of disconnection from others that runs very deep in human psychology. There may also be a fear of seeming 'preachy' and losing friends by arousing negative feelings in them – this leads to the suppression of discussion on climate change (Hamilton, 2020). Some may feel a pressure to conform to the denialism of those about them even if they know that is harmful – similar to the parable of the Crazy King (Fabrizio, n.d.).

Those that continue to face the issue may instead seek out other people who feel the same way they do. Indeed this could be or is already an important role for climate activist organisations to help alleviate feelings of isolation by providing fora for the sharing of emotions and creating friendships and connections with others that feel the same way. However there is some evidence that sometimes activist organisations are too driven and focused on 'actions' to spend time on sharing emotions (Hamilton, 2020).

Without this connection, the resultant social isolation can be a significant barrier in developing resilience (see more below) and hence remaining with approach coping. There is a sense that thinking about and focusing on climate change is too difficult for the separate self to deal with and therefore it is safer to avoid the subject and this will in some way prevent stress incursion. The climate crisis therefore seems wrapped up in a Western culture of individualism – based on a belief system that we are entirely separate from other beings and from nature. This goes against General System Theory which describes how we are all intimately interconnected (Macy, 2003). This sense of isolation appears to be the root cause of an epidemic of depression across the Western world, which may not be treatable with anti-depressants but instead may be alleviated by restoring our sense of connection with other humans and with nature (Hari, 2018). Climate change may be seen as just another threat to wellbeing on top of many other personal difficulties and therefore to be avoided.

At a time when many people remain avoidant to the issues of climate change and are therefore not a source of support to those around them, considering how those that do approach the issue remain healthy is critical and this is what we turn to next.

2.5 Resilience

Doppelt (2016 Loc 186) defines ‘transformational resilience’ in people having *‘the ability to alter the stories they tell about the world and themselves and make decisions that actually increase their sense of **wellbeing above previous levels** by caring for other people and/ or improving the condition of the natural environment and climate’*. (emphasis added)

Dalai Lama & Tutu (2016) set out in *The Book of Joy* their views on how to find joy amidst suffering. This appears to be to find inner peace by accepting all that is difficult in your life that you cannot change, realise your deep connection with other beings and by serving them you are serving yourself and gratefully head towards, not away from, the suffering of others. *‘Joy is the happiness that does not depend on what happens. It is the grateful response to the opportunity that life offers you at this moment’* (Ibid Loc 2843).

Whilst mitigating climate change remains possible, then there are actions to be taken to alleviate the suffering of others and hope for the future. Dalai Lama & Tutu (2016) draw a clear distinction between optimism and hope – optimism depends on feelings and faced with difficult events, there is a risk that optimism turns to despair. Whilst *‘hope is deeper and very, very close to unshakeable. It’s in the pit of your tummy. It’s not in your head’* (Ibid Loc 1435). Macy and Johnstone (2012) use the concept of “active hope” not as blind optimism of hoping for an outcome, but as an active orientation of hope as process. Christopher Lasch, a social critic (cited in Andrews and Hoggett, 2019) said that the worst is what the hopeful are always prepared for and this is an enduring hope not *‘built upon a scaffolding of illusion and wishful thinking’*

This seems to accord with the findings from other authors. Wamsler & Bristow (2022) indicate that actions that move the individual to accept the position on climate change and in so doing connect themselves to others achieve higher levels of wellbeing and flourishing – (the virtuous cycle set out

in Figure 4 below). Doppelt (2016) indicates that transformational resilience can be achieved by combining ‘presencing’ – defined as ‘*deliberately calming our emotions and thoughts and connecting with people who offer emotional support and practical assistance*’ (Ibid Loc 154) and ‘purposing’ – defined as people shifting ‘*their field of focus to something greater than themselves such as helping the broader community and/ or improving the condition of the natural environment*’ which ‘*can provide invaluable sources of meaning, purpose and hope*’ (Ibid Loc 178).

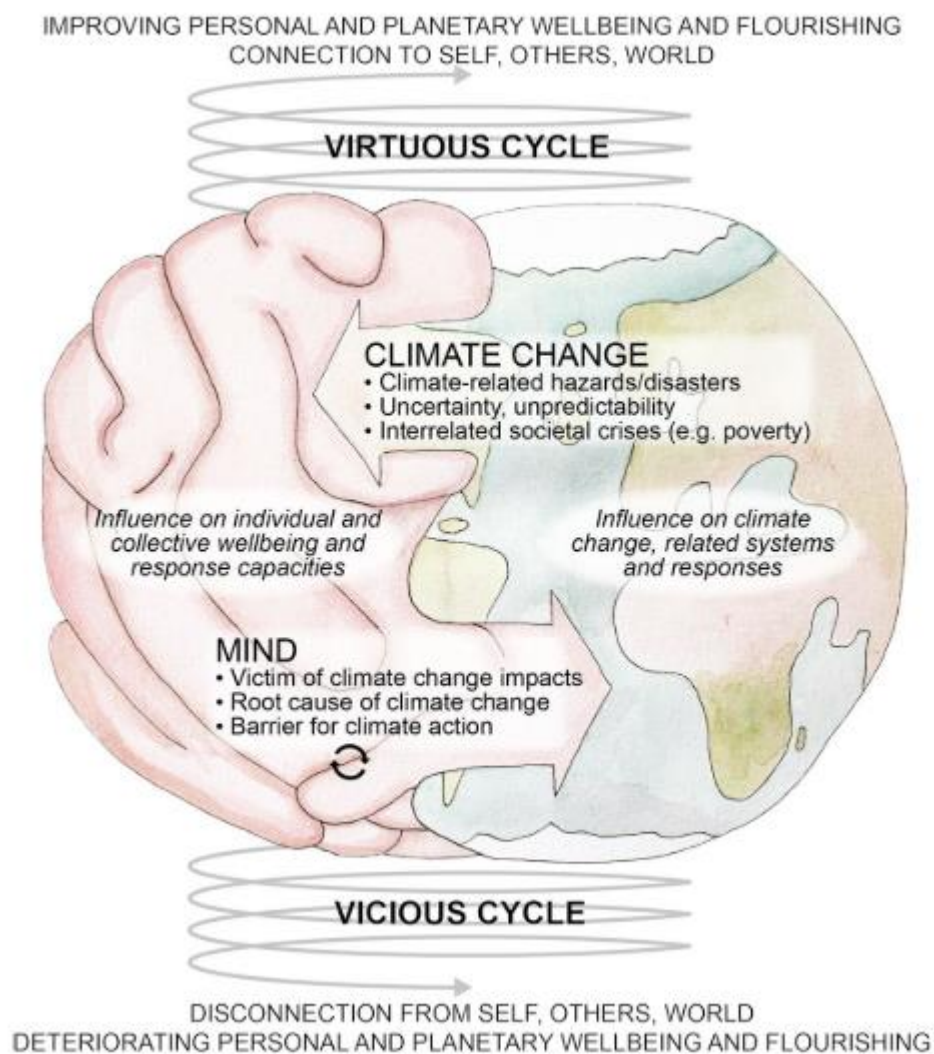


Figure 4 - Wamsler and Bristow (2022)

What appears to matter a great deal for one’s ongoing levels of energy and resilience, is the reason why we are taking action on climate change and therefore we consider motivation next. ‘*Those who have a ‘why’ to live, can bear with almost any ‘how’*’ (Frankl, 2013)

2.6 Motivation

There is a significant body of literature around self determination theory which suggests that if a human's three basic psychological needs are met, they experience greater wellbeing and sustained motivation (Weinstein and Ryan, 2011). Those 3 psychological needs are considered to be as follows and the thwarting of any one of these is by contrast considered damaging to motivation and wellbeing and can lead to increased stress:

- Autonomy - concerns a sense of initiative and ownership in one's actions – a sense that one's behaviour is self-congruent and volitional.
- Competence (or effectance) - concerns the feeling of mastery, a sense that one can succeed and grow. That one is capable of influencing the situation in desirable ways.
- Relatedness (or belongingness) - concerns a sense of belonging and connection. It is facilitated by conveyance of respect and caring. (Ryan and Deci, 2020)

Ryan & Deci (2020) distinguish between extrinsic motivation – coming from an external reward or punishment (e.g. compliance with rules, approval of others, gaining wealth or fame) and intrinsic motivation that satisfy internal psychological needs and hence are satisfying to pursue in and of themselves (e.g. personal growth, enjoyment, interest, community). Intrinsic motivation is much more closely linked with autonomy and hence associated with less stress and greater wellbeing. Mindfulness may be able to assist activists in engaging with climate change whilst sustaining wellbeing and reducing stress. Some activists may have subconsciously been drawn into activism (or pursuing activism in a certain way) without understanding why. Mindfulness is considered, by fostering a fuller awareness of what is happening, to be conducive to behaviours that are more congruent with values and hence autonomous (Brown and Ryan, 2003). The same authors showed that *'those higher in trait mindfulness engaged in more volitional, or self-endorsed activities on a day-to-day basis that were related to higher emotional well-being.'*

Therefore it may be possible for activist organisations to reduce the level of burnout experienced by activists by helping them to attend to their basic psychological needs (Gerber & Anaki, 2020).

Mindfulness may have a role in helping activists find roles within the wider effort that is congruent with their values. Self-kindness and compassion may reduce the inner response to perceived

personal incompetence and / or feelings that ones personal contribution is small relative to the scale of societal transformation required. Self-compassion may also increase the sense of connectedness with others (Ibid) – see more on this in the section on compassion above.

Activism can be seen as just one possible form of pro environmental behaviour and self determination theory may be relevant in being clearer about how those going towards climate change respond in an appropriate way for them. Pelletier et al. (1998) have sought to map these behaviours against the basis psychological needs mentioned above which they call the Motivation Towards the Environmental Scale. Hence the optimum mix for any individual both between roles within an activist organisation (e.g. supporting others versus more conflictual campaigning) and roles outside activism – i.e. other pro environmental actions (e.g. recycling, tree planting, advocacy work) may be different. Some may decide that activism is not the most appropriate response for them.

It seems possible that some forms of activist response to climate change might be counterproductive, if the aim is to persuade the inactive to engage. The challenge appears to be to find a form of protest that does not trigger fight – flight – freeze as this tends to reduce empathy, and increases a sense of self / other polarisation (Wamsler and Bristow, 2022). Roszak (1995) (cited in (Hathaway, 2017) criticised environmentalists for using fear, guilt, or shame to motivate ecological action. Shame, in particular, has always *“been among the most unpredictable motivations in politics; it too easily slides into resentment. Call someone’s entire way of life into question, and what you are apt to produce is defensive rigidity”* (Ibid pp. 15–16). Ultimately, shame undermines trust—including our trust in ourselves—as well as the solidarity needed for effective transformative action (Ibid).

This concludes the review of literature. This research suggests that the Buddhist practices of mindfulness and compassion may have important multiple roles in helping us do more about climate change. It appears that these practices might help us understand our own experience, go towards the issue by the strength of understanding of our deep interconnectedness with other beings, face the reality of the situation from a place where we might support ourselves and others and find an appropriate response using our own unique blend of skills, values and purpose that helps engage society in this struggle from a place of kindness. In so doing, there may even be the potential to discover ones true nature and be joyous independent from ones experiences

Research Question

Therefore the research question is :

Can mindfulness and compassion assist those that have chosen or are forced to pay sustained attention to climate change?

3.0 Lived Experience of Facing Climate Change - Research Approach and Methodology

This chapter sets out the methodology adopted, how the research was carried out and reflects on the ethical implications.

3.1 Background to Methodology

The method used is almost entirely a qualitative inquiry into participants' inner experience of and attitude to the suffering caused by climate change. This experience did not appear like something that would reveal itself through quantitative testing as it was seeking to explore a '*social or human problem*' (Cresswell, 1998 p15). Having conducted a pilot quantitative and qualitative study on this topic during the Professional Enquiry module of the MSc, it was clear that, whilst qualitative data collection might produce subjective and sometimes ambiguous results, this was still likely to provide better data than asking participants to fill in a questionnaire. This research draws upon climate psychology to seek to understand the human mind's reaction to what many perceive as such a threatening issue and this area of work tends to draw upon qualitative techniques as summed up in the following quote.

'Climate psychology uses qualitative methods and proceeds from the premise that when it comes to understanding humans it is precisely what can't be counted that really counts' (Andrews and Hoggett, 2019 p3).

To gather data, an approach of interpretive (or hermeneutic) phenomenology has been employed as the research has sought to enter deeply into the subjective lived experience of participants, even where this has seemed confusing, difficult for them to put into words or even below the level of conscious awareness. This is summed up well by Gilbert (2005) cited in (Kellock, 2018 p98) :

"If we want to know how a person feels, we must begin by acknowledging the fact that there is only one observer stationed at the critical point of view. She may not always remember what she felt before, and she may not always be aware of what she is feeling right now. We may be puzzled by her reports, sceptical of her memory, and worried about her ability to use language as we do. But when all our hand-wringing is over, we must admit that she is the only person who has even the slightest

chance of describing the “view from in here”, which is why her claims serve as the gold standard against which all other measures are measured.”

Strong links have also been suggested between this approach and both Buddhism and mindfulness (Kellock, 2018). Phenomenology has been described as seeking meaning of the lived experience of a phenomenon amongst a group of participants (Cresswell, 1998). It is suggested that such an approach (according to Husserl) seeks to set aside researcher judgement and rely on intuition and imagination in distilling data into meaning and hence themes (Ibid). Although, as Dahlberg (2006) sets out, it is important for the researcher to understand how difficult it is to set aside their pre conceived understanding of the world. This author recommends ‘bridling’ defined as *“actively waiting” for the phenomenon and its meaning(s), to show itself and is an activity characterized by a kind of “non-willing” or “dwelling” with the phenomenon’* (Ibid p16) as a middle way between that of Husserl (above) and Heidegger’s view of the self as embedded in the experience of conscious awareness (Langdridge, 2007).

The phenomenon being looked at here is the individual’s experience of climate change and their response to it (before and after a training in mindfulness and compassion) and is essentially subjective (therefore following a relativist ontology). As all the participants were climate activists, it was felt that they all would have an experience of the phenomenon. It seems, initially at least, very difficult to separate out a person’s views of climate change from their own context, background and values – therefore data was also collected about their attitude to their thoughts and how they related to themselves.

Given the suggested overlap identified in the literature between phenomenology and mindfulness *‘at the level of philosophical worldview and in practical application’* (Kellock, 2018), the researcher has sought to exploit their training during the MSc in mindfulness, compassion and insight to be open to being influenced and transformed by the perceptions of the participant (i.e. the ‘bridling’ described above), as well as demonstrating a researcher understanding at the other two levels suggested by Rehorick and Bentz 2009 cited in (Kellock, 2018) - namely of universal characteristics and interpretive feedback from participants.

3.2 General Procedure

Pre intervention semi structured interview took place with 7 climate activists (see appendix for the interview structure). They then undertook mindfulness training – both a 10 week Mindfulness Based Living Course (MBLC) (Regan-Addis and Choden, 2017) and a one day experiential training focused on The Work That Reconnects (TWTR) (Macy and Johnstone, 2012) – also known as Active Hope. Post intervention semi structured interviews took place following this training – asking whether they felt the same or different on a number of areas covered in the first interview and also to get their experience of TWTR. The researcher felt that some of the questions were deeply personal so all the interviews were done on an individual basis.

The nature of the interview was somewhere between exploratory and hypothesis testing (Kvale & Brinkmann, 2009). There are some key areas of data gathering and comparison but space was also left for what else came up for participants. Therefore the pre intervention interviews were semi structured - an open first question (numbered bullets) which was always asked; with a number of supplementary questions (lettered sub bullets) that might be asked depending upon where the interviewee took the interview. For the second interviews, the questions were developed more from what interviewees mentioned in their first interviews (albeit covering similar ground with each individual). These interviews sought to continue a balance between exploration and hypothesis testing (Ibid).

Interviews were audio recorded and transcribed using software called Otter.ai. The transcripts were shared with the participants with a request to point out inaccuracies. Each transcript was coded with sub themes then identified where these were applicable across most of the participants (and collated in spreadsheet form); before then grouping the sub themes into themes. Issues and implications have been sought rather than conclusions, given the subjective nature of the approach and the small sample size.

Most of the participants did not have a significant experience of mindfulness at the start of the study and none reported having an ongoing meditation practice. Therefore some may have struggled in the initial interview (and to some extent in the second interview) to identify how they were feeling and fell back on conceptual models and interpretations of how they 'should' be feeling about climate change and their activism. They may have struggled to understand what was meant by some

of the pre intervention interview questions. Therefore initial interviews may rely to a greater extent upon interpretive phenomenology. Following 10 weeks of mindfulness and compassion practice some were still in this place whilst others were able to understand the questions in a different way and even be able to step outside their biases into 'a pure consciousness' (i.e. a more descriptive Husserlian phenomenology) – Rehorick and Bentz cited in (Kellock, 2018).

The researcher sought throughout (described as 'bridling' above) to remain aware of his own biases, worldview and conceptual models and sought to mitigate their impact on the research during both interviews and in interpreting the results. Husserl describes the idea of the 'phenomenological reduction' in which we come to the world with no knowledge or pre-conceptions in hand (*The Phenomenological Reduction*, n.d.). This is similar to the model of insight taught during the MSc of observing the observer, allowing the undercurrent to self arise, self display and self-liberate. (Kellock, 2018). The researcher sought to retain reflexivity and remain aware of his own embodied experience during interviews in order to retain an empathetic listening. Depraz (cited in (Kellock, 2018)) suggests three cyclical phases:

- Suspension of habitual thought and judgement
- Attention shifts from the exterior to the interior
- The quality of attention changes

Some time was set aside after some of the interviews to record what the researcher had learned and also what his own emotions and thoughts were. It is suggested that this provides useful context when it comes to transcribing and analysing interviews. (Kvale and Brinkmann, 2009)

Participants

The participants consisted of seven individuals, five female, one male and one non binary who all lived in Central Scotland. Their ages varied from an 18-25 range to 75-85 range, but most were in the range 35-45 or 45-55 (using the midpoint of these ranges $M = 45.9$ $SD = 17.0$). They had a diverse range of occupations and lived experience from student, to software developer, marketing manager, college lecturer, retired professor, post doctoral research fellow and environmental sustainability

consultant. Four participants were British nationals, two from continental Europe and one North American. The European participants both had a very strong command of English.

Recruitment

A group of environmental activists were recruited by responding to an invitation through social media to join an MSc study to work with '*climate activists*' to '*participate in a course of mindfulness to assess whether this improves resilience and reduces burn out*'. The invitation made clear that the mindfulness course would take place in person in Edinburgh, therefore limiting participation to those able to travel to the city centre for a weekly evening practice.

The initial invitation was directly distributed to a social media chat group for one activist organisation in Edinburgh and Lothians with about 140 members at the time. The invitation (and Full Proposal) was also sent to individuals with responsibility for coordinating activity in Scotland for this group and following this the invitation was posted on the Facebook pages in both Glasgow and Dundee. It was also requested that the invitation be shared with other activists that recipients thought might '*be interested / benefit*' from the research and thereby the invitation might reach a wider group of activists and activist organisations.

Respondents were then contacted by the researcher and were asked to review a Participant Information Sheet (see Appendix C) and indicate whether they would like to take part.

Quantitative Measures

As indicated above, the overwhelming focus to the methodology was qualitative through hermeneutic enquiry. Nevertheless the researcher wanted to assess where the participants felt they were with regard to self-compassion prior to and following the intervention. Therefore they were asked to fill in Neff's 26 question Self Compassion questionnaire (Neff, n.d.) both before and after the course in mindfulness. This test is a self report instrument that uses a 5 point Likert scale with six subscales – Self Kindness, Self Judgement, Common Humanity, Isolation, Mindfulness and Over Identification which combine to provide an overall score for Self-Compassion. The test appears to be widely used by academics researching self-compassion and has demonstrated good reliability and validity (Neff et al., 2018).

Qualitative Measures

Qualitative data was collected from a series of two individual interviews with each participant; one taking place prior to the intervention and one afterwards. Thirteen of these interviews took place face to face and one took place online (due to the participant being overseas at that time). The pre-intervention interviews took place in the 6 weeks leading up to the start of the Mindfulness Based Living Course. The post-intervention interviews took place within 2 weeks of the course finishing.

The interviews took between 45-60 minutes each and followed a semi structured format. Attempts were made to ask open ended questions, to go slowly within and between the questions and hence to give space to the interviewee to develop how they were feeling and to lead the interview to where they felt best. The researcher also occasionally gave their own views on the question and shared some vulnerability around working with the emotions associated with climate change where this felt appropriate and to seek to conduct the interview in a compassionate way. Each interview was preceded by a short settling meditation guided by the researcher in order to seek to ground both interviewer and interviewee and establish an authentic conversation.

Intervention

The purposes of the intervention were to find out if

- The Mindfulness Based Living Course (MBLC) (Regan-Addis and Choden, 2017) could assist in reframing the attitude towards the suffering caused by climate change and increase compassion.
- This same course combined with a one day intervention of The Work That Reconnects (TWTR) (Macy and Johnstone, 2012) might change the motivation or improve the resilience of climate activists and hence mitigate the risk of burn out.

The MBLC took place in person in the city centre of Edinburgh over 9 weeks – consisting of 9 x 2 hour evening practices and separately one full day of practice (in silence for the participants). As usual with the MBLC, participants were encouraged to practice meditation and mindfulness for 45 minutes on a daily basis between meetings. The researcher co-guided the practices – having been given a Certificate of Readiness to Teach the MBLC course by the Mindfulness Association following teacher training in 2021 and 2022. The course was also co-guided by Angela McCusker who graduated from the Aberdeen MSc in Mindfulness Studies in 2013 and is an experienced mindfulness teacher and leadership coach. Angela is also a Trustee of the Mindfulness Initiative.

Considerable evidence has built up from academia around the effectiveness of mindfulness based programmes (MBP) as summarized in this meta analytic review (Hofmann et al., 2010). These authors analysed 39 studies (it appears that all were either Mindfulness Based Stress Reduction (MBSR) or Mindfulness Based Cognitive Therapy (MBCT) interventions) and concluded that mindfulness based therapy improved symptoms of anxiety and depression across a wide range of severity, as well as improving other medical problems and *'may address processes that occur in multiple disorders by changing a range of emotional and evaluative dimensions that underlie general aspects of wellbeing'*. Crane et al. (2017) set out what are the essential parts ('warp') of MBPs and what are the flexible ('weft') elements. The MBLC appears to fulfil all the essential parts. What appears to distinguish the MBLC from the likes of MBSR and MBCT is its incorporation of self kindness and self compassion. There are specific practices and programmes that do focus in this area such as Compassion Focused Therapy (Gilbert 2009 cited in (Crane *et al.*, 2017) and Mindful Self Compassion (Neff, Kristin; Germer, 2018) but the MBLC is perhaps unusual in seeking to draw upon some of the elements of these programmes within an MBP. There appears to be less research on the effectiveness of MBLC specifically but this is starting to emerge. Laura Pellegrini is carrying out a PhD study looking at the (inter alia) 2 cohorts (N=74 and N=78) that have completed an MBLC course and the quantitative results of this data have been published (Mindfulness Association, 2017) (Hughes, 2018). This data shows a highly significant effect on improving wellbeing, reducing perceived stress and increasing mindful attentional awareness. Mindfulness Association (n.d.- b) also publish research on the impact of the MBLC and related MBPs.

The Work That Reconnects (also known as Active Hope) intervention took place in person over one full day in Perthshire, immediately prior to the conclusion of the MBLC. It was guided by Kristine Janson who is both a tutor with the Mindfulness Association and a trained facilitator in TWTR. The four elements of the 'spiral' (Gratitude, Honouring Our Pain for the World, Seeing with New Eyes and Going Forth) were incorporated into the day. The first half of the day took place outside and the second half inside. See Figure 5 below which sets out what Active Hope / TWTR is seeking to achieve.



Figure 5 (Macy, n.d.)

There appears to be relatively little research on the effectiveness of The Work That Reconnects. (Hamilton, 2020) found some evidence that TWTR participants articulated a form of active hope that was related to active engagement as a collective scale and located in relationship to self and others. TWTR allowed acknowledgement of the emotions associated with climate change which initiated a process of emotional reflexivity – enabling a turning towards emotions and ‘alchemising’ them into new energy to respond – one example being sharing grief and this being a source of connection with others feeling the same (Ibid). Similarly anger could be changed into energy for reparative action and fear to be seen and hence not impede active engagement (Ibid).

3.3 Ethical Considerations

The researcher sought to be conscious of ethical considerations throughout the research project, from planning, through the data collection and reporting in accordance with British Educational Research Association (BERA) guidelines (BERA, 2018). These guidelines set out the responsibilities towards participants (inter alia) around consent, transparency, right to withdraw, harm arising, and privacy and disclosure. Ethical approval was received from the University of Aberdeen prior to commencing the recruitment process and the intervention (see Appendix A).

The researcher relied on their mindfulness training to try to keep in consciousness the importance of protecting the participants and the privileged trusted position held – from conducting interviews, co-guiding mindfulness practices and drawing conclusions in the reporting. It was clear to them the responsibility being taken when asking participants to drop into their difficult emotions around climate change. They were conscious of what Hallett (2013) calls ‘ethically important moments’ such as the apparent power imbalance between researcher and participant at times during interviews – at such times they sought to share some of their own vulnerability.

Explicit consent was sought and received prior to the intervention. The Participant Information Sheet (PIS) (See Appendix C), which was reviewed by each participant prior to proceeding, sought to set out the risks and benefits of participation in a transparent way. Participants all reviewed and signed a Consent Form (See Appendix D) prior to taking part in the pre intervention interview and intervention. Separately, and as recommended by the Mindfulness Association, participants also signed a Registration Form at the start of the MBLC which gives some warnings about mental health and the circumstances in which undertaking the MBLC may not be beneficial (See Appendix E). It was made clear both during the interviews and during the MBLC that participants should feel at ease to withdraw at any time if it did not feel right for them to carry on.

The design of the intervention was done in a way to seek to minimise the risk of harm to participants and maximise the potential benefit. The researcher sought to set up and run the MLBC in a way that was safe and felt safe to the participants. They were conscious that some of the participants could have trauma in their body without necessarily being aware of it. Therefore it was possible that they had given consent to participate from a conceptual perspective without a bodily understanding of what this might entail. Treleaven (2018) sets out how mindfulness training can be damaging if there is unintegrated trauma (i.e. thoughts not connected to feeling and emotions in the body) and therefore that teachers need to both make it clear that participants should only go as far as the body feels ready for and be looking out for any signs from individuals to seek to prevent re-traumatisation. In addition the researcher felt it might feel safer to some participants if there were two teachers and perhaps that one was male and the other female. Participants were given the contact details of both teachers, with the invitation to contact either of them outside of the formal practices if they experienced any distress or had any questions. Finally the teachers sought to establish ground rules for the practices including confidentiality around anything shared and a suggestion that participants resisted any urge to jump in and ‘fix’ any issues raised by others.

It was made clear to participants that every effort would be made to protect their confidentiality in the reporting of the research. Each participant was assigned a pseudonym and it was checked with them that they were content with this name. The audio files and transcripts have been retained on a password protected cloud platform, with no references made in these files to the real names of participants. It was discussed with the group that the pseudonyms would be used in the thesis and therefore this was likely to compromise confidentiality within the group. Efforts have been made to find a balance in providing sufficient biographical detail to be useful to the reader (see Appendix F) but not too much that might risk identification – therefore no links have been made to employers, academic courses, activist organisations, scientific research specialisms etc.

4.0 Start Where You Are – A Presentation of Findings

4.1 Introduction

This chapter presents the findings of the question as to whether mindfulness and compassion may assist those that choose to or are forced to pay sustained attention to climate change – looked at through the proxy of climate activists. This was researched almost entirely by a qualitative approach, by interviewing activist participants prior to an intervention, guiding them through 10 weeks of mindfulness training and interviewing them again after this intervention. In addition participants also completed Neff’s Self Compassion Test (Neff, no date) before and after taking part in the mindfulness training. These scores are set out in the table below:

Participant Name	Pre Intervention Score	Post Intervention Score
Bella	2.94	3.33
Beth	2.09	3.30
Dani	3.26	3.83
Diana	2.25	2.38
Jane	4.71	5.00
Ken	3.69	4.19
Mary	2.61	2.54
Average	3.08	3.51

4.2 Pre-Intervention Themes

- Lack of Emotional Reflexivity
- Lack of Self Compassion
- Avoidant vs Approach Coping
- Alienation and Isolation
- Motivation

- Finding Ways to Support Oneself

Lack of Emotional Reflexivity

Participants were asked the extent they felt in touch with emotions on a day to day basis. There was a roughly even split between those that felt in touch and not in touch. Of those able to bring their emotions into consciousness, there appeared to be only one participant that was able to at times detach from emotions at the time and reflect upon how to respond to that emotion, although there were two others that talked about being able to reflect afterwards on the experience.

'It is hard to give a consistent answer there. I think some days I'm probably better than others' – Ken

'The body's very good, it's what's going on out there actually (is the) big problem' – Jane

'I am not sure how often I stop and check in with how I'm feeling' – Mary

'I know that my emotions are not really gonna go against me. They're gonna try and help me or protect me' – Dani

Lack of Self Compassion

Participants were asked how they treated themselves if they made a significant mistake. Most participants appeared to treat themselves relatively harshly and hence showed a relatively low level of self kindness and compassion. This was partly borne out by the self compassion questionnaire where the average score was 3.1 which is considered to display moderate levels of self compassion (Neff, no date)

'it will probably run through my mind over and over and over again' – Mary

'I do get quite significant negative emotions, at least for a day or two' – Dani

'I add another sack to the donkey' and *'makes you feel faulty'* – Bella

'I keep telling people not to do that, but I'm not that good at not doing that myself' and *'Usually blaming myself'* - Beth

Avoidant Coping vs Approach Coping

Those individuals that demonstrated greater emotional awareness (and even reflexivity) were also more likely to report signs of approach coping and vice versa for avoidant coping. See section on

avoidant and approach coping in the literature review for more on the signs considered of each form of coping.

Examples of avoidant coping :

'Doom, too much doom isn't very healthy' – Mary

'I actually just don't want to know, it's too, too depressing' – Diana

Examples of approach coping:

(I think about climate change) 'nine times a day' it 'affects how I kind of interact in life' and 'before it was once or twice a day' – Dani

'I'm reading the news as much as I can. And sometimes I need to take a break' - Beth

Alienation and Isolation

Most of the participants related having to deal with their anxieties and other difficult emotions associated with climate change on their own or amongst a small group – some related tension with partners, being careful not to burden their children too much and a concern that that they might be rejected by friends or work colleagues if they shared their feelings too much. Some also related a sense of being excluded or mistreated by society and / or institutions due to their activism.

'I don't want to overload other people' and 'I don't want to bring other people down with me' - Diana

'I am never quite sure how much to talk about it to my children because I don't want to terrify them. And then my husband gets a bit narky' – Mary

'It felt like it was potentially taking me down a road that could endanger my relationship with my husband' – Bella

'For uni, I can't get an extension (essay) for being in jail or for doing an action, but I could get an extension for having debilitating climate anxiety' – Dani

Motivation

There appeared to be a difference amongst the participants as to why they had decided to respond to the suffering of climate change by becoming an activist. For some it seemed to be a reaction to understanding the science and perhaps a subconscious decision that they should do something with this knowledge (so perhaps pushed into it or an 'extrinsic motivation'). For those displaying greater emotional awareness, it had perhaps been a more conscious decision to engage with activism as an appropriate response to how they were feeling even if they were not always aware of the impact such activity was having upon them (so perhaps pulled in voluntarily or with an 'intrinsic motivation').

Examples of Extrinsic Motivation:

'I think maybe some people just have a stronger sense of injustice' and 'I got into activism to help me not feel useless' and 'I guess it eases guilt or eases future guilt' – Mary
'maybe I switch off slightly but still want to do something about it. And then maybe that helps me deal with it' – Ken

Examples of Intrinsic Motivation:

'And this is like, crisis, crisis, crisis. And I'm gonna see it and I'm gonna ram it in front of your face, and I'm gonna put myself in danger. And I will do all of these things. Because it's a crisis. And you don't see it, but I see it. So I have to kind of believe and embody the crisis' – Bella

'I think we don't have a choice, we need to do something' and 'I would prefer to do it full time, every day' – Beth

Finding Ways to Support Oneself

Most of the participants seemed to need to look beyond the support of other people (linking to other activists being one exception) to support themselves – for example taking time out to replenish oneself and time in nature. There also appears to be an example of burn out from one participants. No one directly related being kind to themselves or any form of self compassion practice, but rather that the participants were looking to external support.

'Okay, that's fine. Take a few weeks and don't do anything. That's alright' – Mary

'I think what helps me is being by myself, not having anyone asking me to do things or wanting any decisions from me or anything, that I think helps. I like playing harp. And what also helps is actually crochet, because it can be quite meditative...' – Beth

'I've got friends in [activist organisation] that obviously really do' (support me) – Dani

'I felt emotionally drained, physically drained. And I just couldn't, I was trying to cram too many things in not enough hours. And I was cheating my own wellbeing.' – Bella

4.3 Post Intervention Themes

The post intervention themes that were identified were:

- Some Cognitive Reframing and Greater Emotional Reflexivity
- Greater Compassion for Self and Others
- Greater Approach Coping
- Greater Resilience
- Increased Motivation Towards A Climate Change Response

Some Cognitive Reframing and Greater Emotional Reflexivity

Almost all participants related an improved ability to 'see' their thoughts / emotions and / or a greater agency over if / when to engage with them. About half of the participants also related to have a better relationship with difficult emotions – being able to see them more clearly, have greater distance from them and more accepting of them.

- *'I think some of the issues that I have always, I am aware of them but I have kind of tried to push down. I think mindfulness has kind of been this kind of encouragement to live with those or be present with them'* – Bella
- *'I think I am a little bit more aware that I was before' and 'So something happened this week and I was feeling a bit down about it and was able to kind of put a label on it, and just kind of leave it there. Just be okay with that'* – Diana

- *'if I am stressed, I think I will be like why am I stressed? Is it something I actually need to be stressed about?'* – Mary
- *'I am being a bit more in touch with it (emotions and sensations) in the last couple of weeks' and 'I could navigate or identify maybe the emotions I was feeling' and for acceptance practices 'I feel like it definitely helped me process things quicker than I might have. If I didn't use it, it .. took emotional capacity'* – Dani
- *'I feel like I can recognise it a bit faster. And then I'm not so upset about it. Like I'm not staying within it. It's more like, Oh, this is going on. Okay, that's interesting'* – Beth

Greater Compassion for Self and Others

Almost all of the participants related a greater intention to be kind to themselves and feeling a greater kindness towards others. A few participants also related actually being kinder to themselves. This change in self compassion was backed up by the increase in the average score from the post intervention Self Compassion Test to 3.51 (from 3.08 previously) which is very narrowly into the range that is regarded as 'high' in the interpretation of the test (i.e. 3.5-5). (Neff, no date)

- *'maybe more so now I feel like I'm treating myself with a bit more compassion and being aware, when I am maybe being a bit negative in my head' and 'I definitely felt connection and warmth' (towards strangers)* – Ken
- *'So just that conscious, I'm going to do something nice for me' and 'I was watching all the people filter in ... And I did think that's really nice. Everybody's here, they all want to see the concert. They've all got their own lives. Not to get annoyed with them blocking my view'* – Diana
- *'I did something stupid the other day and I was like, ah, Stupid me. And then I was like hang on. I would never say that to someone else' and 'So I think I am being a bit more*

yeah, a bit kinder' and 'But at the same time, I couldn't do it ... in thatwholehearted way that I would for someone else' – Mary

- *'my intention definitely is to be kind to myself and to have self compassion' and ' I think I have some of the tools to soothe myself' – Bella*
- *The self compassion practices 'very much made me realise that I need to get back on the self love train. That is quite nice' - Dani*

Greater Levels of Approach Coping

Almost all the participants reported a more accepting attitude to thinking about climate change, with greater distance from thoughts and greater agency as to when to do it (e.g. choosing when to look at social media relating to climate change) and more accepting of the thoughts that come up. About half the participants also related an improved relationship with the emotions associated with climate change, with an improved ability to accept these emotions. However for many there were still limits to how much they could take on and therefore there could still be sudden moves from approach coping to avoidance.

- *'I do feel when I'm in a bad headspace, I find it easier to think about. I don't really know why. It's just like, not so overwhelmingly hopeless' – Dani*
- *'I have that feeling of empathy and wonder and delight and all of tremendous sadness for the suffering and the destruction . But it comes to the point where I have to retrieve myself' and 'I am fascinated by the science of it.. the charts, the projections there. I seek it' but emotionally relating 'is very hard. It's that sense of fear and despair. And sometimes I don't know, I can also feel like sometimes the brain just kind of flips and almost goes kind of nihilistic' – Bella*

- *'I think I kind of accepted now that climate change is going to happen. And now it's kind of not about stopping it happening. It's about I guess every 10th of a degree counts' - Mary*
- *'So I say my initial reactions are still there's a general flinch, but I feel a bit better, just moving on or putting it to the side' and 'I feel a little bit more accepting of it' (thinking about climate change) and 'I think I am a bit better at catching it' – Diana*
- *'I don't feel the completely overwhelming or hopeless or something. So I feel it's something I can deal with' - Beth*

Greater Resilience

The majority of the participants appeared to report feeling more connected to other people and less judgemental and more understanding about those that are not taking action or changing their behaviours. Inter alia, this seems to have had the effect for some of turning anger or even doubts as to personal sanity into sadness and acceptance. For others there was little change from before.

- *'I think my mindset has changed as a result of doing a course - that it is not that people don't care, it's that they can't face up to it. ...I feel less angry and frustrated that I did. Or most just kind of sad, I suppose. Which is a bit easier to deal with.'* – Mary
- *'I think this mindfulness group has been really helpful because it was with a bunch of people who experienced similar feelings. So that is that feeling of "I'm not crazy. Other people feel the same way" and 'I feel like now I'm just more accepting of whatever it is I do feel and that's okay to feel that, give myself permission to feel that and that other people think that and they do care and I have a right to feel like that. And just a bit more respectful, I suppose of myself' - Diana*
- *'Wow, all these people have their full lives' and 'like the humanity and everyone' – Dani*

- *'I feel the same as before. I feel empathy.'* And *'there are times when that empathy is very costly emotionally'* and *'What I don't know is if I can go a little further now than I could before'* – Bella

Increased Motivation Towards A Climate Change Response

For some, there appeared to be a greater sense of purpose of what action to take in response to climate change. Some found TWTR practice helpful in changing their emotions towards climate change (e.g. alchemising grief into greater meaning and hope for the future) and from this being clearer about pursuing activism is a way that was kind to them (and perhaps kinder to others who are not engaged) and in line with their values rather than punishing themselves possibly due to subconscious guilt. For those that displayed less emotional awareness and reflexivity, they found it more difficult to connect with TWTR practices and hence to take positive actions / changes for the future from it. The following were comments specifically about TWTR:

- With grief *'The first encounter of a disaster or death of a loved one or something is just kind of completely and irredeemable despair but then a funeral is always there is something about kind of being together and share emotions that you do celebrate the love you do relive the love. So there is always a sense of soothing ...it's sad, but there is a sense of ease, soothing as well is an exercise of soothing that grief.'* And *'related to the work we did about Joanna Macy. And how there's kind of the idea of the positive changes, the things that you can do, rather than protesting. Rather I'm kind of getting involved in some of those things, in acts of love. Towards nature – I find those more nourishing than the protesting and telling people what not to do. And just be angry about stuff. I find that very draining'* – Bella
- *'I found it deeply relaxing. It was like I think in some way I made some connections with people at that point that I haven't done before'* and *'they care'* and seeing *'what they're worried about'* and *'seeing that in a circle of people who understand .. can feel very .. liberating'* Before *'I remember quite clearly that I felt like everything I do just feels like a drop on a hot stone, so it just evaporates'* Now *'I'm still doing the same things, some*

different things as well. But I know that in connection with what others do, that this is not just ... nothing, there is lots and lots of continuous little bits that people do that, on the whole, makes a big change' – Beth

- *'I do feel like I feel sad in my head. I'm like, Oh, that's such a shame, whatever. But like, sometimes I just have this just kind of barrier that I can't feel stuff inside me. And as I said, I don't know. I don't know whether that's useful, because it means that I can just get on with stuff. Or if, you know, that's what then leads to burnout later on.'* – Mary
- *'Yeah. It was interesting. I felt interested. I don't think I felt any great emotion about it. No, I didn't.'* – Jane

4.4 Summary of Findings

All the participants appeared to feel some personal benefit from taking part in the 10 weeks of mindfulness training. Most understood their own experience better, were kinder towards themselves and less judgemental towards others. Almost all reported a more accepting attitude towards the reality of climate change (known as approach coping), feeling more connected to other people (and hence more resilient). Finally there were mixed results around the engagement with TWTR practice and a change in the motivation as to how to respond to climate change.

5.0 Discussion

Introduction

In this chapter the most important findings from the research will be discussed in response to the research question and the existing literature.

Mindfulness Based Living Course Intervention

Training in mindfulness and compassion through the MBLC was hypothesized to allow participants to stay with the suffering of climate change without getting lost in it (i.e. increasing mindful attentional awareness) and thereby improve wellbeing and reduce stress. From this place and by developing compassion for themselves and for others, participants might also be able to increase their capacity to face this suffering and with these greater emotional resources, increase their levels of energy to respond to this suffering in a way that was kind to themselves and others and hence capable of being sustained over time. The findings partially supported these expectations with participants showing significant signs of cognitive reframing and more mixed experiences of developing self compassion. A longer course or intervention (or a sustained personal meditation practice) may have been required for even more substantial change to have taken place.

Mindful Attentional Awareness

The studies that have been carried out on the MBLC in this area appears to have been mainly quantitative. Two studies used the Mindful Attention Awareness Scale (MAAS) questionnaire pre and post an MBLC intervention and showed a highly significant increase in score from 45.1 to 54.4 in one study of N=69 (Mindfulness Association, 2017) and 44.2 to 55.3 for a second study of N=181 (Hughes, 2018). These findings appear to align with the qualitative data from this study which showed almost all participants relating an improved ability to see their thoughts / emotions and / or a greater agency over if / when to engage with them.

Greater Compassion for Self and Others

Studies have not been found that look specifically at the effectiveness of the MBLC for increasing levels of compassion. The two studies mentioned above looked at wellbeing (using WHO-5 questionnaire) and reducing stress levels (using the Perceived Stress Scale or PSS) in addition to mindful attentional awareness. However the MBLC appears to fall under the wider definition of a mindfulness based programme (MBP) in (Crane *et al.*, 2017) – that is that (inter alia) the MBLC draws from ‘*a confluence of contemplative traditions*’, supports the development of greater attentional, emotional and behavioural self regulation and the teacher embodies the qualities and attitudes of mindfulness.

One such MBP is called mindful self-compassion (MSC) developed by Germer and Neff (cited in (Neff, 2022)). This same study sets out the significant research that has been done on the effectiveness of MSC (inter alia) in increasing self-compassion, mindfulness and compassion for others. The MBLC draws upon some of the same meditation techniques as MSC in developing self-compassion such as kindness for self and the 5 minute self-compassion break. The findings of this study show that almost all participants related at least a greater intention to be kind to themselves and feeling greater kindness towards others; whilst some reported being kinder to themselves. This appears to be consistent with this wider body of research.

Greater Levels of Approach Coping

There is a wide body of research evidencing the link between MBPs and acceptance of difficult emotions (Crane *et al.*, 2017). Whilst studies have not been found linking MBP specifically with approach coping towards climate change, an adaptive approach such as this can be seen as a process of acceptance of difficult emotions experienced in relation to climate change. This is in accordance with the findings of this study where almost all participants reported an improved attitude towards thinking about climate change and greater acceptance of the thoughts that come up.

Greater Resilience

There is evidence to suggest that people are better able to cope with the adversity from the suffering of climate change if they are able to lessen the feeling of being a separate self, increase their connection with others (and nature) and to develop compassion – particularly if they can find a clearer sense of purpose in helping other beings (Canty, 2014, Doppelt, 2016). There is some evidence from these findings that accords with this, as the majority of participants reported a greater connection with others and a changed attitude - less hopeless and greater understanding of

their contribution to a wider effort. It was not possible to directly test whether greater resilience might be sustained over time.

Increased Motivation Towards a Climate Change Response

The hypothesis regarding the Works That Reconnects (TWTR) intervention was that it would move participants from emotional defensiveness or paralysis to a stance marked by a realistic, active hope that serves to motivate action (Hathaway, 2017).

There is relatively little academic research regarding the effectiveness of TWTR. Hamilton (2020) references evidence of participants in TWTR :

- **developing agency:** - *'bringing the intellectual understandings together with the ... emotionality', 'to connect their inner resources' and 'resourcing yourself to do what you feel called to do'.*
- **active engagement with climate change:** - enabling personal and collective action.
- **resourcing and sustaining active engagement and agency** – the expression of emotions helped participants to develop resilience against burn out and exhaustion amongst those actively engaged. This included re-appraising their activism (e.g. it's OK to take some time out') - changing how they worked, their degree of intensity of engagement to support a longer term and healthier relationship to engagement.

This research appears to accord with the findings here for some of the participants who reported a changed relationship with their activism and being called to engage in a way that was in line with their values and their wellbeing.

However other participants reported feeling very little from TWTR. This might be because these participants were less in touch with their emotions and the key reason why they were involved in environmental activism appeared to be from a conceptual understanding of the damage being done through climate change (i.e. often from a scientific background). There is some evidence to suggest that it is usually only those that take an emotional approach to things that are attracted to TWTR practices Hamilton (2020). Whereas for the purposes of this research many of the participants were not aware of the TWTR and had mainly volunteered for a course in mindfulness not TWTR. Hamilton (2020) also references the need to incrementally build safer spaces for TWTR which encourages a

deeper exploration of emotions – it is possible that on a single day there was not the time for some participants to build that safety and fully drop into their emotions.

There appear to be few academic studies that explicitly combine a MBP with the TWTR, but the hypothesis was that they should be complementary in the MBLC giving participants the ability to be with their emotions and the TWTR potentially giving them a way of processing these emotions. One of Hamilton's (2020 p131) findings was that mindfulness gave a good foundation for experiencing the depth of emotions experienced through TWTR, with one interviewee commenting that such participants *'were able to go soooo deep. it was very do-able because of that underlying mindfulness practice, and because of their ability to self soothe. To work with their own distress'*. Whilst the participants in this study were generally relatively new to mindfulness, there was still some evidence of the same phenomenon from some participants.

6.0 Reflections and Conclusions

This final chapter seeks to draw conclusions from the research. From this it sets out the implications including thoughts on dissemination and recommendations. After looking at the limitations of the study, it moves to thoughts for future research.

6.1 Conclusions

Climate change appears to be considered both a threat to the mental health of individuals who give the issue sustained attention (particularly given the isolation this can currently engender) and by the end of the century an existential threat to humanity because so many are looking away. Given some tantalising evidence from the literature that Buddhist practices of mindfulness and compassion might help to address these massive issues, this study sought, in a small way, to test the validity of this hypothesis by working with a group of climate activists.

It appears from this research that a relatively short intervention of mindfulness and compassion training might assist all those that have chosen or are forced to pay sustained attention to climate change. The data suggests the whole group were able to change their attitude to difficult thoughts and emotions, have at least the intention to be kinder to themselves and to be kinder and less judgemental of others who are disengaged.

A secondary hypothesis of the research was that those that had 'chosen' to pay sustained attention might benefit more from the practices compared to those that were 'forced' to. There is some evidence from the data to support this - to the extent that those going towards the suffering of climate change from a stronger emotional connection can be characterised as 'choosing' to pay attention; versus those going towards it from a more dominant conceptual scientific understanding being characterised as being 'forced' to.

Four of the participants seemed to fall into the former category. The mindfulness and compassion practices seemed to assist them in making greater sense of their emotions and to move forward with greater love and kindness. It was also clear that it was this group that took away most meaning from The Work That Reconnects practices in moving towards more positive emotions. Therefore overall they seemed to have found a healthier way to respond to the crisis. They reported a shift in the way they wished to respond to this crisis – to go forward with greater connection with nature

and with other people. Such an approach may afford them greater resilience and might also help them engage wider society more skilfully in climate change.

Whereas three of the participants seem to fall into the latter group. This group appeared to benefit from cognitive reframing and greater compassion, but reported no significant change in the way they would respond in future. Being less in touch with their emotions, they appeared unable to use The Work That Reconnects to transform win – loss type emotions (fear, anxiety, grief) into something more positive (see page 16). It is likely that a longer experience of mindfulness and compassion would have allowed this group to re-establish a greater connection with their emotions and hence start to experience the wider benefits of the former group.

6.2 Implications & Recommendations

Extending these conclusions out to society at large, it appears important that mindfulness and compassion techniques, where possible, be made available proactively to enable and support people to pay sustained attention to climate change, ahead of a time when they may be forced to do so. Not only might this lead to greater action being taken to mitigate climate change now but could lead to greater resilience and fewer mental health issues if / when rising temperatures impact directly on people's lives. This appears to be a key finding from Doppelt's (2016) work *'Transformational Resilience – How Building Human Resilience to Climate Disruption Can Safeguard Society and Increase Wellbeing'*. However moving towards mindfulness and compassion is made more difficult if individuals or groups are already traumatised in their personal lives. Unfortunately (*National Council of Mental Wellbeing*, n.d.) estimates that 70% of the US population has experienced some form of traumatic event in their lives.

However, first there needs to be a far wider societal understanding that that the underlying cause of climate change is psychological. There have now been 6 IPCC Assessment Reports since 1990 and it is only in the most recent one published in 2022 that there has been mention of human psychology – referencing 'inner transition' (Bristow et al., 2022). *"IPCC reports, going back to 1990, have not been heeded. Where is the report on that? Because that's the one we really need. Where is the report with IPCC level rigour and authority that explains the gap between what we know and what we do at scale?"* Jonathan Rowson quoted in (Ibid p52). It therefore seems urgent that the emerging evidence

of the link between psychology and climate change is put before all the leading grant giving research bodies such that they can fund more work in this area.

The outcome of this study also raises some important questions for climate activist organisations. Might they be able to use mindfulness and compassion techniques to protect some activists against the risk of burn out and hence sustain their engagement? Also might these same techniques also help the organisation communicate with the public in ways that engage people in the cause (i.e. come from a place of kindness and non-judgement) and not repel them (i.e. making them fearful and / or directly confronting them / shaming them with their inaction)? The intention is to send this thesis to activist organisations.

6.3 Limitations & Future Research Suggestions

There are a number of limitations to this study.

The small sample size limits the ability to generalise about the findings, therefore further studies would be required to test the replicability of the findings.

The study was relatively short term in nature – being over 3 months. It is difficult to know whether the results would be sustained over time. A future study could be done on a longitudinal basis both to see if the results are sustained and to see if a longer term mindfulness practice might increase the benefits for those that had come to giving attention on climate change due to a conceptual understanding. TWTR intervention was notably short at one day and it would be interesting to see the impact of a further longer intervention particularly once participants have a longer term mindfulness practice.

The sample was self selecting as all were volunteers from activist organisations. Therefore certain personality characteristics or experiences may have led these individuals to participate and others to turn it down. One aspect of this was that only one male participant came forward and there is much literature to indicate that male conditioning makes it more difficult for this gender to feel their feelings and be vulnerable (B. Brown, 2015) which are important to engage with mindfulness and compassion. It appears difficult for future studies to avoid this drawback given that participants are

required to give up a significant amount of time. A future study could look at a group of participants that expressed significant concern for climate change but were taking little or no action. Or a group that had already directly experienced the effects of climate change and so were forced to pay attention.

The research relied exclusively on self reported outcomes and hence there was no external objective data collected. The data being sought was about internal experience and therefore it would have been difficult to do otherwise, but this comes with an element of subjectivity. It may be possible to use objective questionnaires to test changes in attitude and experience to climate change.

This study involved the researcher in carrying out pre and post intervention interviews as well as co-delivering the mindfulness intervention (but not TWTR intervention). Whilst a request was made prior to the interviews not to do this, it is possible that some participants sought to give responses that they felt were what the researcher was looking for. Future studies could separate the teacher from the researcher.

Given the size of the emerging threat to human mental health (as many millions more people are confronted with the realities of climate change and its threat to their futures and those of the next generations) much more research around simple mindfulness interventions that reduce the barriers to adoption by the general population needs to be carried out. This could include shorter practices and / or calling the intervention a different name (such as climate change resilience training). Two areas of action are often cited when talking about climate change – practical actions that mitigate future temperature rise and those that allow society to adapt to changes in climate that are already on their way. The suggestion by Doppelt (2016) seems a good one, that we urgently need to add a third leg to those actions – that of preparing communities for the mental health effects. Researching simple mindfulness interventions could be an important part of this as many people may be reluctant to sign up to an 8 week course.

The danger we are all in together makes it essential now that we no longer think of spiritual development as a luxury, but as a necessity for survival (Sogyal Rinpoche, 2008 p367).

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Appendix A - Ethical Approval Form & Approval

Committee for Research Ethics & Governance in Arts, Social Sciences & Business

Application Form for Ethical Approval of Research for Undergraduate & Postgraduate Taught Research Projects¹

This form should be completed and submitted to the **appropriate research supervisor**.

Important Note:

Advice on the correct process for obtaining ethical approval of research **must** be sought from researchgovernance@abdn.ac.uk for any research involving:-

- **NHS patients, their tissue or data.** This includes research involving individuals when their status as NHS patients is relevant to the research, even when a medical condition is not the subject of the research; and/or
- **Participants who do not have the capacity to consent to participate;** and/or
- **NHS staff participating by virtue of their profession** (i.e. NHS staff who will carry out study duties on behalf of the research team such as clinical examinations, blood sampling, imaging, etc.); and/or
- **The use of NHS premises, equipment or facilities**

as this **may require you to follow a different process for obtaining ethical approval of your research.** Please **do not** continue with this application until you have sought further guidance on the appropriate ethical approval process.

BEFORE COMPLETING THIS FORM APPLICANTS SHOULD REFER TO:

1. [The Checklist of Good Research Practice](#).
2. [The Research Ethics web pages](#).
3. [Information on Research Data Management](#).
4. [Information on the General Data Protection Regulation and the Data Protection Act 2018 requirements](#).
5. [Information on Academic Research and Data Protection](#) and the [Data Protection checklist for researchers](#).

¹ Applications for ethical approval of staff and PGR research projects should be submitted using the [online application process](#)

Note that compliance with data protection legislation involves a range of requirements which should be considered at the design stage of a research project.

6. Information on University Expectations of researchers can be found in the [University's Research Governance Handbook](#).

WHEN COMPLETING THE FORM APPLICANTS ARE REQUIRED TO:

1. Consider each question carefully and provide details of potential ethical issues which might arise, allowing the reviewer to make an informed decision on whether they have been addressed appropriately. Applicants are expected to provide additional information beyond the initial 'yes'/'no' answer to the questions provided.

Failure to provide enough information to allow the reviewer to provide informed approval of ethical issues within the research might result in the need to restart the review process.

2. For all applications, researchers must provide a brief explanation of the potential ethical issues which might arise when carrying out the research (e.g. justification of the need to use certain research methodologies which might raise potential ethical concerns) and how they are to be addressed. For clearly defined research projects, the project proposal should also be attached. Any other documents relevant to the research (e.g. consent forms) should also be attached to the application.

Project details

Title of Project:

Can mindfulness and compassion assist in looking at the suffering of climate change and sustain the energy to respond in an appropriate way.

Name of Principal Investigator:

Andrew Bruce

Project Start Date:

15th November 2022 (estimate)

Additional Research staff (if applicable):

n/a

Recruitment procedures

IMPORTANT NOTE:

The University has a duty to safeguard all children² and vulnerable (protected) adults at risk³, including visitors attending University events; potential students met off-campus; students, staff and volunteers who are part of the University; or others who come into contact with University staff, representatives or students in the course of their work.

² See Safeguarding Policy, Appendix, section 1.3

³ See Safeguarding Policy, Appendix, section 1.2

If your research involves any of the above-mentioned groups, please provide the following confirmation:

I will comply with the requirements of the [University's Safeguarding Policy](#).

Please tick the box to confirm

		Yes	No	N/A
1	Does your research activity involve persons less than 18 years of age? If yes, please provide further information below.		✓	

		Yes	No	N/A
2	Does your research activity involve people with learning or communication difficulties? (Note: all research involving participants for whom provision is made under the Mental Capacity Act 2005 must be ethically reviewed by NHS NRES). If yes, please provide further information below.		✓	

		Yes	No	N/A
3	Is your research activity likely to involve people involved in illegal activities? If yes, please provide further information below.		✓	

		Yes	No	N/A
4	Does your research activity involve people belonging to a vulnerable group, other than those noted above? If yes, please provide further information below.	✓		
<p>I consider that some participants may be vulnerable as being young adults who have taken up environmental activism without necessarily considering the impact this might have on their health and wellbeing. It is also possible that some may have experienced trauma during their childhood (or at another time) and have not integrated this adverse experience. Therefore I will seek to clearly and truthfully set out the risks (and possible benefits) of participating in order to gain informed consent and make it clear that they can withdraw at any time.</p>				

		Yes	No	N/A
5	Does your research activity involve people who are, or are likely to become your clients or clients of the section in which you work? If yes, please provide further information below.		✓	

		Yes	No	N/A
6	Does your research activity provide for people for whom English is not their first language? If yes, please provide further information below on how this support will be provided, or if it will not be provided, please explain why not.		✓	

		Yes	No	N/A
7	Does your research activity require access to personal information about participants from other parties (e.g. teachers, employers), databanks or files? If yes, please explain below how you will ensure that use of this data complies with data protection legislation.		✓	

		Yes	No	N/A
8	Do you plan to conceal your own identity during the course of the research activity? If yes, please provide further information below (e.g. that this is necessary for the nature of the research, whether subjects will be contacted directly after the period of observation).		✓	

Consent Procedures

9	Please provide details below of the consent procedures that you intend to use for obtaining informed consent from all subjects (including parental consent for children). You should provide details of how you will let subjects know that participation is voluntary and that they can withdraw at any time. You should also provide details of the processes for giving potential subjects adequate time for considering participation and for obtaining written consent. If research is observational, please advise how subjects will provide consent for being observed. If any of these issues are not applicable to your research or if you do not intend to address them for reasons of research methodology, please provide further information.
---	--

Prior to conducting interviews, a Participant Information Sheet (PIS) will be distributed which sets out what the research is trying to achieve, why participation is being sought, what participation involves (duration, nature of interview questions, involvement of others etc) and what the risks and benefits of participation are considered to be. It will make it clear that their name and identity will be kept anonymised as much as possible. It will also set out that a participant can withdraw at any time during the process. Participants will be given at least a week to consider the PIS before being asked to formally sign their consent to participate.

Possible Harm to Researchers/Participants

		Yes	No	N/A
10	Are there any safety issues for you in conducting this research? If so, please provide details below of what these might be and how you intend to address such issues.	✓		
<p>It is possible that discussing issues of climate change with activists may bring up my own feelings of anxiety. My mindfulness and compassion practices should mean that I am able to recognise these feelings are arising and can tend to these feelings with acceptance and kindness.</p>				

		Yes	No	N/A
11	Is there any realistic risk of any subjects experiencing either physical or psychological discomfort or distress? Or any realistic risk of them experiencing a detriment to their interests as a result of participation? If so, please provide details below of what this might be and how you intend to address such issues.	✓		
<p>It is a risk that the interviews and MBLC course may bring up psychological distress / anxiety when asked about their feelings about climate change and to go towards some difficult feelings (not necessarily towards those of climate change). It will be made repeatedly clear that they can withdraw from the research at any time. Also during the MBLC MBI, it will be suggested that participants choose things in their life that are not too difficult when practising acceptance. I am also aware of a number of therapists that I could recommend if individuals are in distress and wish to speaking to someone privately.</p>				

Data Protection and Security

IMPORTANT NOTE:

The General Data Protection Regulation imposes a number of obligations for the use of **personal data** (defined as any information relating to an identified or identifiable living person), or including the use of personal data in research.

If you are using personal data, you should consider whether your research requires a Data Protection Impact Assessment and complies with the University Data Protection policy.

If you are, you now need to see the [Data Protection Checklist for Researchers](#)⁴ for guidance.

If you then feel that a DPIA may be required or you need data protection advice, then you should contact the Data Protection Officer dpa@abdn.ac.uk.

Please provide the following confirmation:

I have read the above guidance and have met the relevant data protection obligations.

Please tick the box to confirm

In addition, you should also check the requirements for a Data Management Plan (DMP) in the [Research Data Management Policy](#) and [Guidance](#).

Once checked, please confirm the requirement by ticking one of the following:

Y No requirement for DMP

DMP required and this is attached

Please see [here](#) for guidance on creating a DMP. For further support, contact digitalresearch@abdn.ac.uk

12	<p>Please provide details below of how you intend to ensure that data is stored securely and in line with the requirements of the Data Protection Act and the General Data Protection Regulations. Please refer to the University's Data Protection guidance for researchers, and in particular, the Data Protection checklist for researchers.</p> <p>Please give specific consideration to whether any non-anonymised and/or personalised data will be generated and/or stored and what precautions you will put in place regarding access you might have to documents containing sensitive data about living individuals that is not publicly available elsewhere? If your research relates to the latter, please consider the consent of the subjects including instances where consent is not sought.</p>
<p>I shall be creating personalised data from primary data collection, which will be anonymised for the purposes of writing up and dissertation purposes. I shall inform participants of their data protection rights in the Participant Information Sheet and seek their consent to my collection and processing of their personal data for the purposes of research only. I intend to store personal data securely on a server with a contractor that has explicit policies around the secure holding and processing of data. I shall ensure that the data is either held on a server within the UK or failing that in one of the countries that are listed as 'adequate' on the University's Data Protection Checklist for researchers.</p>	

⁴ Click on 'Guides' to find the checklist

IMPORTANT NOTE:

Please confirm if your research requires you to **travel outwith the UK?** **NO**

If **YES**, please provide the following confirmation:

I will comply with the requirements of the [University's Overseas Travel Policy](#), including obtaining permission to travel (where required by the policy), completion of a [risk assessment](#) and will obtain [University travel insurance cover](#).

Please tick the box to confirm

It is the responsibility of all researchers to ensure that they follow the University's various policies designed to ensure good research practice. This includes providing appropriate participant information sheets and consent forms and ensuring confidentiality in the storage and use of data. Any significant change in the question, design or conduct over the course of the research activity should be notified to your School Research Ethics Officer and will require a new application for ethics approval.

Please attach the following to this form:

- **Full proposal of relevant research project.** In order to speed up the process of review, applicants are advised to pay particular attention to those areas for which a 'Yes' has been ticked in the following form, either by providing an account of the procedures or training to be employed to ensure ethical practice, or an academic justification for the research strategy employed (or both).
- **Participant information sheet and consent form (where appropriate).** Please note that the Participant information sheet must include a weblink to the '[Privacy Notice for Research Participants](#)'.

Applicant Name:



Signature _____

Date 31/10/22

Supervisor: **Approved/Not approved**

Notes:



Signature _____

Date 14th November 2022

Appendix B – Participant Recruitment Message

I am looking for climate activists to participate in a course of mindfulness to assess whether this improves resilience and reduces burn out. I am a 3rd year student in a part time MSc Studies in Mindfulness course (more [here](#)) and this work is part of my research and dissertation project. I intend to interview participants before and after the mindfulness training – the output from which would remain anonymous. **Please DM me if you are interested to find out more.** Also please pass this message on to other climate activists based in central Scotland who you think might be interested / benefit from this.

Appendix C – Participant Information Sheet

Participant Information Sheet

Research on Whether Mindfulness and Compassion Can Assist with Facing the Suffering of Climate Change and Sustaining the Energy to Respond.

My name is Andrew Bruce and I am in the third year of my MSc in Mindfulness Studies at University of Aberdeen. I am interested in why as a society we are doing so little to address climate change, given that we have the economic means and most of the technology to address this existential threat to humanity. Climate activists are one of few societal groups that appear to be facing climate change and are sacrificing their time, energy and in some cases their health to respond to this. I am interested in two aspects in particular. Firstly are there common themes as to why climate activists are facing the issue, whilst most of society are not? Second, how big an issue / concern is burn out / anxiety / depression for this group and can mindfulness and compassion practice help in alleviating this issue. Given that many more people in the future will be forced to confront the issue, if ways can be found to support activists, this may have more general application to wider society in years to come as well as to sustain activism.

Therefore I am looking to do face to face interviews (more detail below) with a small number of environmental activists (on a one to one basis) who are currently pursuing activism (even if relatively new to this). I will then ask that participants take part in 10 weeks of mindfulness and compassion practices (weekly 2 hour evening class (likely to be mid week) plus 2 separate single days of longer practice (10am-4pm – likely to be at the weekend), with a request that participants do short practices each day on their own between weekly sessions. This will be following the Mindfulness Based Living Course (more detail can be found [here](#)). At the end of this, I plan to do a second round of face to face interviews. It is possible that a greater number of activists will be part of the group following the 10 weeks of practices (maximum number of 15) than take part in the interviews, given the time constraints for interviewing.

The process of interviewing and writing up will be as per the following structure (the second round of interviews will have a shorter phase one seeking verbal consent and will otherwise follow the same process):

Phase one involves an initial conversation (5-10 minutes) planned to share with you, as a prospective participant, information about the study and to obtain informed written

consent. If you, as a prospective participant, are willing to participate in the study then this initial interview will progress to phase two.

Phase two involves a longer conversation (expected to take about 60 minutes) and aims to collect specific information about your lived experience of activism including your emotional response and attitude towards yourself, others and the suffering caused by climate change; your trajectory into activism, any concerns and experience of stress / anxiety associated with your activism and how you deal with this. Each interview will be recorded and a summary transcript prepared (more detail below).

Phase three is a checking activity conducted via email where you are asked to check that what has been transcribed is an accurate account of your responses and approve the final transcript. If not, participants are asked to make any necessary amendments to the transcript prior to approval.

I am conscious that as you tell your story and engage with the mindfulness and compassion practices and focus on the suffering of climate change, you may experience painful moments. We can discuss what support, if any, you might need if you are feeling that anything painful or distressing becomes, or threatens to become, overwhelming.

Participation in any part of this research is entirely voluntary ***and participants are free to withdraw from participation in all or any part of the research at any time.*** During the interview participants will be asked to share their inner emotions as they relate to themselves and issue of climate change. Each interview will be audio recorded to enable an accurate transcript of the conversation to be made (transcription software may be used to assist in this process). In addition, the researcher may take some field notes to augment the interview data.

Participants will not be identified in any transcriptions of recordings or publications arising from this research (including the assignment). All names and identifying information will be changed to protect anonymity and to ensure confidentiality as much as possible. All audio recordings, transcripts, and field notes will be kept entirely confidential and will be accessed only by Andrew Bruce, the researcher. All audio recordings will be destroyed on the conclusion of the project and interview transcripts will be destroyed after an additional period of five years. Participants may request a copy of their interview transcript, any field notes arising from their interview and will be given access to this in keeping with the Data Protection Act (2018) and Freedom of Information Act (2005).

The study has been granted ethical approval by the University of Aberdeen and will be compliant with the University's research standards as well as conducted within the British Educational Research Association (BERA) guidelines. The research will also be overseen by my research supervisor

There is no charge for the any part of the research project including the practices. However, any other costs you incur such as travel cannot be reimbursed. If you are willing to be a participant or would like to find out more and have an introductory chat, I would be keen to connect with you. My contact details are as follows:

Andrew Bruce

Email : andrewdbuce1972@gmail.com

Mobile: 07968 119485

Appendix D – Consent form for interviews

Consent Form

Participation in Interviews and Mindfulness & Compassion Practice

The interviews – pre and post – a Mindfulness Based Intervention forms the key part of a research project to understand whether mindfulness and compassion can assist in looking at the suffering of climate change and sustaining the energy to respond. Responses to the interviews will be used in writing up this research and assessing whether there is any considered change in how participants feel about themselves, how they relate to any difficult emotions associated with climate change and whether they feel they have practices that may help in sustaining their activism.

Agreement to Participate

This section is designed to confirm that the participant has been given all relevant information about the research and their role within it, and how both the researcher and participant are protected. Please read the following statements fully and carefully.

I volunteer to take part in this research – in two interviews which will take place pre and post a period of 10 weeks of mindfulness and compassion practice. I understand that the research aims to collect data on my feelings towards myself and others, how I experience the suffering of climate change and the role of my activism as part of that and finally how I support myself in dealing with any difficult emotions that may come up. The data collected in these interview will be used for the purposes of research.

1. I confirm that I have been given a copy, and read, the Participant Information Sheet and fully understood the information it contained.
2. I understand that my participation in this project is voluntary. I am free to withdraw from the project at any time, without reason.
3. I understand that the interviews will be audio recorded.
4. I understand that the research is being supervised and the supervisor can be contacted at g.nixon@abdn.ac.uk
5. I have read and understood that all data provided will be treated in strict confidence, and that any identifying information will be anonymised as much as possible. I understand that my data will be kept, securely, and destroyed appropriately at end of project, in accordance with the Data Protection Act 1998.

6. I have read and understood the explanation of the research project provided to me. I have had the opportunity to ask any questions and they have been answered to my satisfaction.

.....
Participant Signature

.....
Participant Name

.....
Date

Appendix E – Consent form for MBLC

REGISTRATION FORM

Eight Week Mindfulness Based Living Course (MBLC), starting 23rd January 2023

If you would like to enrol on the course, please fill in and return this form by email to Andrew Bruce at andrewdbruce1972@gmail.com. I will send you confirmation once I have received it. All information will be treated confidentially and enables me to help you as best I can.

Name:

Address:

Phone:

Email:

MENTAL HEALTH - *Mindfulness is proven to be beneficial for mental health and wellbeing in the right circumstances, but please note these mindfulness practice sessions are not a treatment for mental health problems or addiction. If you have recently received or are currently receiving treatment from a psychiatrist, psychotherapist or counsellor for an ongoing mental health problem, it is strongly advised that you obtain advice from your mental health professional before proceeding further with this training at this time. Also, if you have recently or are currently going through a traumatic life event such as a separation from a long term partner, the death of a close family member or friend or redundancy this may not be the best time for you to commence this training. This very much depends on your current psychological health and the support networks that you have around you, such as friends, family and mental health professionals. For anyone withdrawing from the training for these reasons, the option is available to you to take up the training next year or in future years.*

If you are currently taking medication for a mental health condition, then it is recommended that you do not change your medication, other than in close collaboration with your medication prescriber.

If any of these circumstances apply to you, then it is recommended, that if you have not done so already, you contact me to discuss your situation and the support networks you have in place and to explore how we can best support you going forward.

EQUITY, DIVERSITY AND INCLUSION - *Mindfulness Association trained tutors aspire to be inclusive and able to serve people of all ages, genders (including gender identification), sexual orientation, abilities, race (including colour, nationality and ethnic or national origin), class, religion, or belief, as examples. In response to these aspirations, it is important that all participants feel assured they can let me know if there are any special inclusion needs that can be addressed to ensure this training experience is safe and appropriate for you. Please also contact me if you experience any concerns or difficulties relating to exclusion or discrimination during this training.*

INSURANCE - *If you are based outside of the UK, please be aware that this course is based in the UK and that by completing this form you agree that any professional liabilities, professional indemnity or public liability insurance claims you make in relation to this course will fall under UK jurisdiction.*

Please tick this box to indicate that you have read and understood this statement

There is no cost for this course.

Signed.....

Date.....

PRIVACY STATEMENT

The data you provide to Andrew Bruce will be stored securely and will be used for the purposes of administering your attendance on this course in accordance with my data protection policy and is in accordance with the General Data Protection Regulations.

Appendix F - Demographic Details of the Participants

Mary – British female, 35-45, Post doctoral research fellow, identifies as middle class, British – reported practicing for average of 15 minutes per day between 2 hour weekly practice.

Jane – North American female 75-85, Retired University Professor, identified as middle class, reported practicing for an average of an hour a day between 2 hour weekly practice

Dani – British non binary 18-25, student, identifies as working class – reported practicing for an average of 30 minutes per day between the 2 hourly weekly practice.

Ken – British male 35-45, Environmental Sustainability Consultant, identifies as middle class and reported practicing on average for about 15 minutes per day between the 2 hourly weekly practice.

Beth – European female 35-45, Software developer, identifies as middle class. Reported practicing for 15 minutes per day on average between 2 hour weekly practice.

Diana – British female 45-55, College lecturer, identifies as middle class and estimates that she practised about 20 minutes per day between 2 hour weekly practice

Bella – European female – 45-55, marketing manager, middle class – reported practicing for an average of 15 minutes per day between 2 hour weekly practice.

Appendix G – Pre Intervention Interview Structure

Interview Structure

What code name would you like me to use for you when I refer to you in the research?

To be dictated to the audio recorder at the start: This interview is taking place on [date] at [time] in [location] for the purpose of supporting an MSc research project with the title described above.

Researcher's Name: Andrew Bruce

I am a 3rd year student studying with the University of Aberdeen on their 3 year MSc in Mindfulness Studies carrying out research for a dissertation project. As someone that was largely ignoring the issue until 3 years ago, I am interested in why as a society we are doing relatively little to address climate change, given that societally we have the economic means and most of the technology to address this existential threat to humanity.

Participant Name: [name]

Description of the Interview: This interview is expected to take about an hour. It plans to explore your trajectory into and within activism, your attitude to yourself particularly in times of difficulty, to understand how connected you feel to other people, your attitude to the suffering of climate change and finally any concerns or experience of health issues associated with your activism.

As I am interested to explore our psychology and inner world in relating to these issues, I am planning to ask questions about your emotions and feelings on this topic. I hope you will feel comfortable with this – but **please bear in mind that you can opt out of this interview at any time.** Some of the questions are subjective and may be difficult to answer – it is fine to not answer some questions if nothing relevant comes to mind. Feel free to pause and take your time – also feel free to use metaphors or other such devices to explore how you might be feeling. I intend to move quite slowly through the questions, to give time for further reflection. I may ask you at certain stages what you mean by a certain statement or seek to formulate back to you what meaning I have taken from certain statements.

General Questions:

1. Can you tell me about when you last felt a strong emotion?
2. Would you say you are in touch day to day with how you are feeling emotionally and with any sensations in your body (such as stress or tension)?
3. How do you treat yourself if you make a significant mistake, people treat you badly or you have had a bad day?
 - a. Would you say you are kind or harsh or does it depend?
 - b. Do such incidents make you feel more alone or do you reflect that everyone suffers and everyone makes mistakes?
4. Do you feel connected to other people that you do not know ? Hence you look at the average person in the street and think that you are different to them or the same as them.
5. Do you feel connected to the natural world?
 - a. How much time do you spend in nature?
 - b. Would you say you have feelings for the suffering of animals?

More Specific Questions

6. Could you tell me what is alive for you when you consider climate change?
 - a. How often do you think about it? How often do you discuss it with family, friends and work colleagues?
 - b. How informed would you say you are about climate change? Do you actively seek out more information?
7. Can you describe how and why you became involved in environmental activism and your trajectory within this activism?
 - a. How long have you been involved?
 - b. Have there been any periods when you felt you needed to take a prolonged break?
 - c. Are you unusual amongst your family and friendship group in pursuing activism? If yes, do you have any thoughts as to why that might be?
8. Do you relate emotionally to the suffering associated with climate change?
 - a. If yes, can you describe any feelings and any sensation in your body when you think about it?

- b. Do you find the issue threatening – to your sense of yourself and your expectations for the future? If yes, how do you generally respond to that threat?
9. What has been your lived experience of activism?
- a. Do any 'positive' emotions come up and if so which? (e.g. joy, happiness, love, gratitude) If yes, how do you relate to these? If yes, do you take time to absorb / process these and if so how?
 - i. Does your activism help in managing any difficult emotions around climate change?
 - b. Do any 'negative' emotions come up and if so which? (e.g. fear, sadness, anxiety, grief) If yes, how do you relate to these? If yes, do you take time to absorb / process these and if so how?
 - i. Do you feel that your activism has caused levels of stress or anxiety that you have not been able to deal with?
 - ii. Have you suffered burn out ?
 - iii. Do you have ways of supporting yourself (e.g. time in nature, self compassion practices, connecting with friends etc)?
 - iv. Do you tend to turn away from these feelings and go and do something else? Do you handle these feelings on your own and share them with friends and family?
10. Do you feel able to make a difference through your activism? Is your activism supported / encouraged by family, friends, other activists etc ? Do you feel free to pursue your activism in the way you would like? (i.e. something that feels like it is voluntary and is in line with your values)?
11. Is there anything else you would like to add? Do you have any further reflections on any of the questions I have asked during the interview?

Conclusion

Many thanks for agreeing to take part in this interview and sharing your thoughts on feelings on this topic – this is incredibly useful to my research. Your answers will remain anonymous but I may relate your broad age, gender and life circumstances in comparing your responses compared to others and I may use direct anonymised quotes from the interview . I intend to use the data from the interview in writing up my dissertation project for my MSc in Mindfulness Studies, which you are welcome to read. I also intend to share a summary transcript with you of this interview for you to review and provide comment upon.

Appendix H – Post Intervention Interview Structure

To be dictated to the audio recorder at the start: This interview is taking place on [date] at [time] in [location] for the purpose of supporting an MSc Research Project and in particular the research questions described above: This is a follow up and I shall ask quite a bit whether you feel any different from when we chatted before – please feel free to tell me you feel exactly the same, or worse than before (this is not about pleasing me) – that is perfectly valid. Equally you may not recognise what you said the last time anymore – so no need to get caught up in whether what you said the last time is right or wrong. Going to be 3 sections (albeit overlaps between them –

1. How you relate to yourself and other beings, nature.
2. How you relate to the suffering of climate change
3. How you relate to your activism

As before, if you do not want to answer any questions, that is fine and we can stop this interview at any time, so please feel free to do that.

Researcher's Name: Andrew Bruce

Interview Questions for x

Before I put the tape on – some preliminaries:

Ask for demographic detail

Age range 18-25, 25-35, 35-45, 45-55, 55-65, 65-75, 75-85

Profession –

How would you describe your class? Upper, middle, working class?

Could you tell me (and there is no judgement here at all – this is for the purposes of the research) how much on average you think you managed to meditate each day during the weeks between the sessions?

How You Relate to Yourself and Others

12. To what extent would you say that you are in touch generally with how you are feeling emotionally and in touch with any sensations (such as stress or tension) in your body and is it the same or different to the last time? (Last time you reflected that) Any sense of greater connection (or not) between emotions (such as anxiety / stress) and sensations in your body? Can you 'see' your thoughts are more than before?
13. How do you treat yourself if you make a significant mistake, people treat you badly or you have had a bad day? You remarked the last time of being How did you find the kindness practices and the self compassion break? Are you able to give your body what it needs any more than before?
14. How did you find the acceptance practice – RAIN etc. Did you feel able to go towards something difficult in your life – past or future?
15. You indicated the last time that you(relating to empathy and compassion towards others) . – does that feel the same now or any different ?
16. You indicated the last time that you felt (in relation to connection to nature, natural world and the suffering of animals) - do you feel the same as you did before or any difference?

How You Relate to Climate Change

17. What is alive for you when you think about climate change? (Last time you related)
18. You related before about (re thinking about and ruminating about climate change – How do you feel now about thinking about climate change? Is your attitude towards this thinking the same as before or different?
19. How do you relate emotionally to the suffering caused by climate change (e.g. Australian wild fires and floods in Pakistan) – any difference from before or the same? You related before about Can you describe any feelings and any sensation in your body when you think about it now – and any change from before? How did you feel around the cairn in Perthshire ? (part of the Work That Reconnects practice) Do you have a way of supporting yourself when you are experiencing difficult emotions?

20. Any difference in your capacity to go towards the difficult emotions (you related before about(ability to go towards difficult emotions)? Do you notice any change in attitude to these emotions now or just the same?
21. You related before about(alienation from family and friends). Would you say that you feel an alienation by society on this issue - about not being to talk to people about it or enough connections through activism not to feel like this? Do you feel the same now or different?

How Do You Relate to your Activism

22. You spent a day doing the Work that Reconnects practices – how did that feel? Does it change in any way your attitude to activism and / or how you intend to engage with climate change suffering and difficult emotions (i.e. not necessarily as an activist)?
23. You described before (regarding time and commitment to activism). How do you feel about your activism now compared to before – the same or different? Do you feel any more or any less motivated towards it? Can you articulate why you are doing activism?
24. You related before activism (degree to which activism taking a toll physically and emotionally). How do you feel now about the experience you had ? Do you feel you have learned anything that might make you more or less resilient in your activism now? If so, what? Kindness ?
25. Do you feel isolated / alienated in your activism? What is the reaction of the public when you have done actions? How supportive are your close family and friends of your activism? You related before about (sense of isolation, self about and societal reaction when you are doing actions) . Do you feel any differently now? Do you think that the reaction of people is different for female activists vs male activists? If so how? If so, do female activists need to be more resilient than male activists or the same? Do you feel that you have the same rights as men to campaign on the streets and cause disruption? You related a sense of sexism within XR of women being expected to do the administrative roles – is that right? Do you feel any differently now about how activists need to support each other in talking about their emotions around climate change? (i.e. regen?) You related before about not entering into those conversations
26. You related before (attitude towards activist organisation and its impact) – do you feel any different now? What about supporting others emotionally for example?
27. You related that (ability to pursue activism in a way that was autonomous and in line with values) Do you feel any differently about it now?

Conclusion

28. Is there anything else you would like to add? Do you have any further reflections on any of the questions I have asked during the interview?