De-Mystifying Mindfulness

Module Two: Psychology of/& Mindfulness

These readings have been prepared to support students of the MOOC: *De-Mystifying Mindfulness*. They are based on the lectures written for the course; the intention is to develop them into chapters for a comprehensive open-access textbook to support learning in this field.

We invite feedback and suggestions for additional material.

We also invite donations to assist in our mission to make this material available to anyone, anywhere who might benefit from it: *building knowledge for a more a more mindful world.*

Introduction

As we saw in the last module, one of the most important developments in the study of Mindfulness in the contemporary period has been the way in which it has emerged as a field of interest for Psychologists, Psychotherapists, and Neuroscientists. This trend, which has developed exponentially over the last 20 years, has pulled public discourse about Mindfulness away from its traditional associations with religion and spirituality, and augmented this picture with more clinical, technological, and scientific images. When we talk about Mindfulness today, we are increasingly likely to imagine fMRI and EEG brain scans rather than incense-burners and the scent of sandalwood. In this way, Mindfulness shifts (or perhaps expands) from being an art into being a science.

Perhaps it might be worth pausing for a moment here to consider whether you instinctively feel that Mindfulness should be seen as an art or as a science ... and why?

In this module, we're going to take a closer look at some of these contemporary developments in what we might think of as the Science of Mindfulness. In particular, we're going to explore some of the ways in which Mindfulness has been operationalized in Psychology to isolate techniques and technologies, especially those whose effectiveness can (apparently) be measured and quantified. The key areas in our sessions during this module will be the most pervasive (and most studied) Mindfulness-Based Interventions: Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT).

In this context, we're going to pay particular attention to the dominance of so-called 'evidence-based' research, which seeks to test different 'Mindfulness constructs' in controlled conditions. The goal of such tests is to reveal what effects Mindfulness actually has on practitioners, either in terms of therapeutic treatments or in terms of neurological correlates.

For instance, what evidence do we have that Mindfulness alleviates stress or helps to prevent relapse into depression? What evidence do we have that Mindfulness is accompanied by increased recruitment of regulatory regions of the pre-frontal cortext, or reduced reactivity in brain regions responsible for stress cascading, like the amygdala or the anterior cingulate cortex?

In fact, as we'll see in the next session, we have considerable evidence for each of these claims.

Of course, while the Science of Mindfulness yields a great many valuable and interesting findings, this data is not uncontroversial. Criticisms are levelled from many different directions at once. For some, the reliance of scientists on 'self-reports' from mindfulness practitioners undermines the reliability of their findings. This is another way of saying that modern science in general – science as an enterprise – maintains a deep-seated scepticism about the value and validity of subjective knowledge. What we think we experience is apparently less important that what we objectively document about that experience.

In a similar vein, the preoccupation with the brain as the most appropriate (or even exclusive) site to observe Mindfulness might be criticised on at least two fronts: first, it potentially risks confusing activities of consciousness for activities of neurobiology (or confusing the mind for the brain, if you like); second, even prioritising the brain as the exclusive biological locus of thought risks ignoring the role of the rest of the human body (and even its environment) in cognitive processes.

Such concerns as these seek to engage with the problems of 'dualism' in modern science, in which (on the one hand) the immaterial is seen as less important than the material (so consciousness is important largely to the extent that it activates neurobiological correlates), and (on the other hand) the mind is isolated into the brain while the rest of the body acts as a kind of organic machine in its control. Critics will be quick to point out that neither of these dualistic assumptions are features of the Buddhist traditions on which Mindfulness appears (to many) to be based. We'll look at this more closely in the next module.

From entirely the opposite direction, the attempt to treat Mindfulness as an operationalized construct that can be tested in this way seems (to some) to destroy the basic integrity of Mindfulness itself. That is, all these scientific tests might be very interesting (and perhaps even reliable in some sense), but it would be a mistake to claim that they had anything to do with Mindfulness at all. Whatever it is they measure, it is not 'real Mindfulness.' That is, there appears to be clear conceptual and experiential water between 'construct Mindfulness' (as developed for the use of scientists in tests) and 'real Mindfulness' (as experienced by authentic practitioners in life).

Indeed, when you look at the range of practices, activities, and beliefs that seem to fall within the category of Mindfulness, it is difficult to see how they can all count as the same thing. You might like to take a moment to think about all the practices that you associate with Mindfulness already?

As we'll see later in this course, this alleged difference between constructed and authentic Mindfulness is one of the ways in which the Science of Mindfulness becomes entangled in ideological and philosophical conflicts. As soon as we start to deploy the language of 'true Mindfulness' or 'real Mindfulness,' we are making strong

political and ideological claims to ownership of this concept. When only I know what Mindfulness really is, everything you do in its name is illegitimate.

One of the practical stakes in this conflict is the emotive question of what (if anything) is foundational, special, or even unique about Mindfulness? How is it different from (or similar to) other therapeutic instruments (such as Cognitive Behavioural Therapy)? How is it different from (or similar to) other mind-body traditions of well-being (such as yoga or tai-chi)? Through the process of isolating and operationalizing a construct, scientists have been able to learn a great deal about the salient components of Mindfulness, and thus help us to understand how it might relate to (and combine with) other practices.

The idea that Mindfulness is special (or even unique) in some way itself appears to be shared by almost everyone involved in the Science of Mindfulness. With a few important exceptions, most scientists working in this field today are rather self-consciously looking for the 'benefits' of Mindfulness Training as a treatment protocol. As we will see, this can have at least two potentially troubling effects: the first is that scientists can sometimes appear just as evangelical about Mindfulness as more spiritually-oriented practitioners (indeed, the overlap between these categories is noticeable in practice – quite a few scientists in this area are themselves practicing Buddhists and/or experienced meditators); and the second is that the scientific findings tend to privilege beneficial outcomes from Mindfulness Training, and thus risk overlooking or de-privileging any problems or even risks that may emerge from the practices. This tendency can feed (and be fed by) the evangelical atmosphere.

So, in this module, we will see how the emergence of a Science of Mindfulness not only offers new opportunities for our understanding (and use) of this complicated concept but also contributes to the construction of Mindfulness as a site of contestation and conflict in the politics of knowledge today.

In the next two sessions, we will explore the ways in which scientists have developed a form of 'construct Mindfulness' and designed various measures and techniques to quantify it. We'll then move on to consider why scientists are interested in Mindfulness in the first place, which takes us to the so-called

'problem of dis-ease' in contemporary societies. And then we'll take a look at two of the major forms of Mindfulness-Based Interventions today – MBSR and MBCT – before making an attempt to sketch out some of the common principles of these approaches.

This should prepare us for the experience of widening our investigation of Mindfulness in the next module, in which we see how construct Mindfulness relates to (and differs from) other conceptions and practices of Mindfulness in various philosophical traditions.

2.1. Operationalizing Mindfulness

Making sense of Mindfulness in a scientific setting requires us to be as precise as possible about its boundaries and parameters; this is precisely so that we can get a reliable sense of how it might be used in a responsible way. So, in this short session, we're going to take a look at some of the ways in which scientists have tried to delimit (or construct) a concept of Mindfulness that they can defend as measurable and useful. This will set us up nicely for the next session, in which we'll look into some of the ways that

scientists seek to measure how mindful we are (or, more likely perhaps, are not).

Somewhere in the background to this idea of the 'operationalization' of Mindfulness is the fact that, in modern societies, we expect to be able to rely on scientific findings as our closest approximation to Truth. This is because, in our ostensibly secular age, we no longer place so much faith in the proclamations of spiritual or religious authorities. Scientists (not monks) tell us about Truth.

Of course, statements like that can sound quite alarming, so it might be worth taking a moment to think about whether this particular statement feels correct to us? What do you think? When you're looking for Truth, to whom do you turn?

Whatever the case, the explosion of interest in Mindfulness over the last few decades can be mapped rather closely to the development of a scientific, evidentiary basis for its effectiveness. Intriguingly, there is also probably a case to be made that the growing popularity of Buddhism in Western societies today is tied to the impression that some of its insights are scientifically verifiable. That is, in a special way, that Buddhism is actually a kind of science ...

And there's also a rather cynical case to be made that this representation of Buddhism as unusually sympathetic to modern science is the result of a deliberate ideological or political strategy. You might like to think for yourselves about what political interests could be served by this?

Rather than politics, what is most interesting for us today is how scientists go about establishing the boundaries and parameters of Mindfulness for empirical research (and clinical practice). In reality, this process is far from simple.

One approach, which might be on your mind right now, might be to appeal to some form of 'original' concept of Mindfulness as a kind of benchmark for our scientific construct today.

And, in fact, we do see signs of this approach in the field. However, at the very least, this approach generates some interesting historical and some epistemological dilemmas.

We'll look at the historical issues in much more detail in the next module (when we look at the philosophical integrity of Mindfulness), but for now it's important to be aware that it's far from clear that there is any consensus about the possibility of an 'original' meaning of Mindfulness. Even if we are willing to believe that Mindfulness is essentially a Buddhist concept (which is not as cut-and-dry as you might think), and that the word 'Mindfulness' is a translation of the Pali term Sati (or smrti in Sanskrit), it is not clear that Mindfulness and Sati are identical in their meanings and associations. Indeed, it is clear that they are not; the meaning of the English term was only meant as an approximation when it was first used as a translation in this context (probably in the 1880s), and (arguably) it has developed a life of its own since then.

So, just as we saw in the last session – in the introduction to this module – we need to be a little cautious about appeals to the authority of 'original' or sometimes even 'canonical' Mindfulness. Sometimes, such language can serve to smuggle in an attitude of reverence that might not be appropriate and might even undermine the credibility of scientific study. Remember, scientific credibility rests (amongst other things) on the assumption of genuinely open and unbiased inquiry. In this context, even cleverly obscured emotional appeals to the Buddhist canon for original or pure concepts might be problematic.

If we turn now to the epistemological issues – ie. issues in the theory of knowledge – perhaps the most pressing dilemma is in terms of the nature of the knowledge with which Mindfulness is supposed to be concerned.

So, what does this mean? In brief, this means navigating the transformation of one type of knowledge into another. We might think of this as the problem of moving from subjective knowledge to objective knowledge.

In more technical terms, we might see Mindfulness as an introspective heuristic or phenomenological tool (which has been deployed as a means to gain subjective, first-person insight into the nature and behaviour of one's own mind or being) – that is, Mindfulness is a way for you to know about you.

And then we might recognise that its operationalization requires Mindfulness to become instrumentally quantifiable (in terms

constructed for objective, third-person calculations of the (mental) health of somebody other than you).

The work required to affect this transformation is non-trivial, since it involves bridging between radically different methodologies, worldviews, and value systems. One of the most critical divides between these takes the form of the (seemingly irresolvable) confrontation between subjective and objective knowledge in modernity.

So what does this mean? It means, amongst other things, that it is very difficult (or even impossible) for me to observe from the outside what you experience as Mindfulness. And it's very difficult for me to take you seriously when you tell me about it, unless I can verify it from the outside in some impartial way.

We'll look at techniques of measuring Mindfulness in the next session.

Of course, while Clinical Psychologists or Neuroscientists are very interested in constructing an operationalized concept of Mindfulness, this does not mean, in general, that they struggle with it at the level of its philosophical fundamentals. Indeed, with very few exceptions, they don't get research grants for philosophical excavations but for rigorous empirical results.

This tends to mean that the Science of Mindfulness seeks to sidestep these issues of the 'origins' of 'real' Mindfulness as a benchmark for their work. Instead, scientists attempt to construct the parameters of an operational version of Mindfulness from the results of externally verifiable experimental studies.

In effect, this means that (in the context of scientific inquiry), rather than looking back to its alleged 'origins,' the concept of Mindfulness is being constructed and re-constructed all the time based upon empirical evidence gleaned from successive experiments. That is, the Science of Mindfulness is at least partially concerned with creating new conceptions of Mindfulness that are useful and crisply defined in its own terms. Indeed, this is why we often talk about this concept as 'construct Mindfulness.'

Hence, rather than taking the form of elaborate, philosophically sophisticated treatises on the nature and meaning of Mindfulness (as we'll see in the next module, in various spiritual and

philosophical traditions, including Buddhism), definitions of 'construct Mindfulness' are usually reduced to a single sentence containing clear directions. Instead of intricate textual, philological, and philosophical cross-interrogations, comparison of definitions often involves simply drawing a table that lists salient factors.

Interestingly, it is these short, operational definitions of Mindfulness that have entered the public discourse most powerfully. So, my guess is that you've all heard of this one by Jon Kabat-Zinn (1984): mindfulness is paying attention in a particular way: on purpose, in the present moment, and nonjudgementally.

We will return to this in the session on MBSR.

One of the most intriguing consequences of this process of constructing Mindfulness as a scientific variable is that its characteristics are determined by their utility in treatment protocols and not by their conceptual coherence with bodies of spiritual or philosophical texts. In other words, the Science of Mindfulness cannot begin with the assumption that Sati and construct Mindfulness are identical – the scientist (qua scientist) cannot (or should not) have faith in this coincidence.

In reality, of course, scientists are people too, so these divides are not always perfectly maintained.

Instead of revering a particular sense of an 'original' Mindfulness, construct Mindfulness should test various possibilities in order to establish its parameters, and these may (or may not) ultimately converge around a form that resembles Sati. It is important to remember that, from this standpoint, if construct Mindfulness and Sati diverge from each other profoundly, this does not necessarily mean that construct Mindfulness isn't real, or true, or proper Mindfulness ... it just means that it's not Sati.

So, I hope we have developed a bit of a sense of some of the challenges involved in formulating a scientifically useable and useful conception of Mindfulness – which we have called construct Mindfulnes. We have seen, for instance, that we need not confuse this for other conceptions of Mindfulness that we might encounter in (say) Buddhism. Given that the whole point of construct Mindfulness is that we can measure it scientifically, we now need

to take a look at how scientists attempt to measure it in the next session.

2.2. Measuring Mindfulness

Even if we can resolve all the conceptual difficulties we considered in the last session, we are still left with a great many difficulties for the scientific measurement of construct Mindfulness, which is what we'll consider in this short session today. One of these great difficulties is with studying Mindfulness as a condition or activity of other people (rather than of yourself). This is because it is very difficult to observe it. That is, it's not immediately obvious when someone is being mindful. For instance, am I being mindful right now?

Come to that, given that mindfulness and meditation are not identical (but only related) things, can we even tell which of these people are meditating? Perhaps one or the other (or both) are just sitting there, taking a rest, or wondering what they're going to have for dinner?

One of the things that beginners to Mindfulness Training often believe is that the practice consists of sitting in a particular way, and that this is somehow transparent to other people. Hence, we often ask whether we're sitting properly as a coded way of asking whether we are being mindful.

Perhaps you've asked this yourself, either in our meditation labs or in other classes that you've attended?

But, of course, Mindfulness has nothing whatsoever to do with the angle of your spine or the amount of light you allow into your eyes (although there are good reasons for sitting in particular ways, to which we'll return in the next sessions). Mindfulness is concerned with what you're doing in your mind – as we saw in the last session, it is 'paying attention in a particular way.' Or, perhaps better, it's concerned with what you're doing in your being.

In the absence of the ability to look into someone's mind and measure the extent of their Mindfulness with an instrument like a light-meter, we are left with attempting to deduce levels of Mindfulness from external behaviour (which seems to be as impossible as deducing meaning from action), or we might attempt to utilize the most cutting-edge technology available ... we might ask other people whether they feel (or felt) Mindful in particular circumstances.

To make matters worse, there is quite a lot of confusion about what it means to ask someone whether they feel Mindful. For instance, I'm really interested it know whether you feel mindful right now .... So I need to ask you: do you feel Mindful right now?

If your answer to that complex and tricky question was 'yes,' how confident are you that I would agree with your characterization of yourself as Mindful (in that moment) were I able to experience the experiences you had at that moment for myself? In other words, had I been you, would I have been Mindful?

These are difficult questions, and various contemplative traditions have been struggling with them for centuries and millennia. In some Buddhist traditions for instance, a master will certify transmission to a disciple on the basis of a form of mystical intuition that they have reached a certain level of Mindful awareness and awakening. In some others, such certification will follow the successful completion of a particular sequence of koan (logically impossible riddles). However, in no case (that I'm aware of) has any fool-proof test been developed. There are any number of highly lauded Buddhist monks in the world who are probably

less Mindful than you are right now. This is not secret or heretical knowledge, even if it doesn't accord with the current romance of Buddhism in the West.

So, one of the big challenges for modern science has been to develop ways of measuring 'construct Mindfulness' that seem reliable and robust. For those of you who have been wanting to interrupt with a question for the last couple of minutes since I brought it up: yes, we can now look into the neurological activity of individuals in fMRI and EEG scans. A great deal of work is being done with this technology and meditators, and it is becoming clear that Mindfulness Meditation is strongly associated with particular neurobiological changes.

Perhaps the most famous studies in this vein were supervised by Richie Davidson at the University of Wisconsin-Madison about ten years ago. Davidson developed a relationship with the Dalai Lama, who himself was promoting the possibility of an alliance between Buddhism and neuroscience, and welcomed about a dozen experienced Tibetan monks for his studies. The first major breakthrough occurred in 2002 when one such monk – with 128 electrodes attached to his head – was able to generate remarkable amounts of gamma-wave activity (brain waves that oscillate approximately 40 times per second), which indicate intensely focussed thought. In fact the EEG results showed that this monk (with 10,000 hours meditation experience) produced 30 times as much gamma activity as inexperienced students.

In addition, during compassion meditations, Davidson could show that large areas of the monk's brain associated with positive emotions – such as the left pre-frontal cortex – were unusually active.

Davidson's major theoretical contribution, though, was to hypothesise that these kind of changes in the function and structure of the brain could become permanent features with sufficient practice and training. That is, for our purposes today, practicing Mindfulness Meditation (as a discrete activity) could result in neurological changes that transform people into more Mindful and more compassionate people in daily life (not only when they are meditating).

In more technical terms, this means that practicing 'state Mindfulness' (ie. the cultivation of Mindful moments in formal practices like meditation) could generalize into 'trait' or 'dispositional Mindfulness' (ie. the transformation of our personalities in general).

And in rather less technical terms: the more you sit and practice mindfulness meditation, the more mindful you should become in the rest of your activities too.

The work of Davidson and others in this area has done a great deal to convince scientists that meditation is a real activity that has measurable neurobiological consequences, which provides support for arguments that it can be used as a form of treatment for psychological and neurological disorders that are associated with those parts of the brain activated (or de-activated) by the practice.

However, such studies, and Davidson's in particular, have not been universally accepted. One of the major criticisms, which we already considered briefly in the last session, is the appearance of ideological collusion between Buddhism and neuroscience – the atmosphere of the experiments appears to be tinged with a kind of reverence that some find inappropriate.

It is worth noting, however, that a few of the voices protesting this 'alliance of Buddhism and science' (under the guise of defending the value-neutrality of science) are the same as voices protesting that Buddhism should not be allowed into Christian societies. Hence, the protest does not defend science as value-neutral at all, and instead emerges as a form of the clash of civilizations (to which we'll return in the final module of this course).

Other criticisms of using EEG and fMRI scans to measure Mindfulness focus on the way that these technologies require very, very small samples – sometimes just individuals – who are often monks or other people who have devoted their lives to the activities that are apparently being measured. At the same time, scientists running such studies must still rely on asking these individuals to perform certain (invisible) acts of consciousness while they're in the machines, or on asking them what (invisible) events of consciousness they experienced while in there.

In other words, as yet, the Science of Mindfulness cannot escape the need to rely on the age-old technique of asking people about their experiences of Mindfulness. This reliance on self-reports generates all kinds of concerns about the reliability of the results in this field:

- Assuming that Mindfulness is something real that can be measured, do self-reports really measure Mindfulness?

- Can the same Mindfulness scales (and questions) be used to assess the experiences of experienced and novice meditators?

- Is all self-endorsement necessarily biased?

- Can we even assume that the questioner and the questioned share a common understanding of what Mindfulness actually feels like?

Even more profoundly, perhaps, is Mindfulness something that can be expressed in everyday language at all? As we'll see in the next module, many of the contemplative traditions talk about the inexpressibility of these kinds of experiences, as though they occur somewhere prior to the possibility of language itself. This suggests that as soon as we give a name to what we experience in that place, we change it into something else.

One of the major short-comings of EEG and fMRI data studies, however, is that they are necessarily limited to measuring 'state Mindfulness' (ie. the condition of Mindfulness cultivated during moments of formal meditation in the machine). We have seen, though, that Mindfulness and meditation are not identical concepts – Mindfulness also describes a trait or disposition associated with how we live our lives. Of course, studies suggest that there are strong connections between cultivating 'state Mindfulness' and the enhancement of 'trait' or 'dispositional Mindfulness,' but until we develop some form of wearable EEG/fMRI that can monitor us unobtrusively in our everyday lives we are going to rely on self-reports for this. We'll see in the last module of this course that some commercial companies are making great progress in the direction of wearable Mindfulness Monitors.

So, for these reasons and others, by far the most prevalent technology used for measuring construct Mindfulness today is ...

the questionnaire. Some of these are designed to test 'state Mindfulness' immediately after formal practices, while others are designed to monitor 'trait' or 'dispositional Mindfulness' of sample groups. You will find some popular examples of these amongst the course materials, and in the first module of this course you have all already taken the test associated with the influential MAAS (Mindful Attention Awareness Scale – validated by Brown & Ryan, 2003).

So, supposing that we're content (after our previous session) that Mindfulness is something that can be scientifically measured, we now have a bit of a sense of the difficulties of how to go about measuring mindfulness. The next question for us must be why it's the case that scientists have become so interested in mindfulness at all. Is it simply curiosity about a fashion or fad – checking to see whether meditation 'really' does anything to us – or is it the case that Mindfulness seems to address a real (scientifically visible) issue in contemporary societies? These are the questions that will occupy us in the next session.

2.3. The Problem of Dis-Ease

In our last sessions we talked – a lot – about some of the difficulties of conceptualising and operationalizing Mindfulness as a scientific construct, and then we worried – quite a lot – about how to go about measuring this construct once we'd agreed on what it was. Before moving on from those foundations to discuss some of the Mindfulness Interventions that have been developed as therapeutic technologies in the next sessions, it might be worth pausing to ask why it is that modern societies find the idea (and practice) of Mindfulness so interesting in the first place? In other words, even if it's the case that Mindfulness enables us to find some kind of ease of being, what is it about modern life that makes this so attractive or important? Are we really so maladjusted to the conditions of life around us? This is the core of our concern in this session today.

The idea that modern life is characterized by a form of dis-ease – or even that dis-ease is the disease of modernity – dominates the Mindfulness literature. Sometimes this notion of dis-ease is represented by the concept of anxiety or of stress. Sometimes it is glossed by the more generic term distress or even simply suffering, where this latter term is often propped up by reference to the Buddhist notion of dukkha (to which we will return in the next module).

While most of us would freely accept that we encounter stress and anxiety on a regular basis, it's not always clear to us that such encounters need to be represented as problematic. Indeed, there are plenty of situations in life in which stress is our natural response, and in which it might actually be problematic for us not to have a stress reaction. From the standpoint of evolutionary biology, it's relatively clear that there is a kind of adaptive stress or anxiety that has evolved to help us cope with various challenges and threats. Stress reactions ready our bodies for fight or flight, and condition our brains towards aversion – we actively seek to avoid activities and situations that we envision as stressful. The adaptive stress you experienced when stumbling across a wild grizzly bear on a hike in Whistler National Park is itself going to be a factor in your attempts to avoid doing this again.

In general, the problem of dis-ease that Mindfulness seems to confront is not this kind of adaptive response, which is actually a marker of mental health. Instead, Mindfulness Interventions tend to be targeted at mal-adaptive anxiety and stress. That is, stress and anxiety responses that are inappropriate, unnecessary, or debilitating, and hence constitute a form of disorder. Some of the markers of this kind of anxiety disorder include hypervigilance for (or over-sensitivity to) signs of threat in our environment, which narrows our attentional resources and our openness to experiences and choices in the world, leaving us entangled and enmeshed in a net of stressful possibilities – we no longer even see the more positive clues present in our environment or in our self. Some people refer to this as a vicious cycle, and it is often accompanied by physical symptoms (either chronic or acute) such as constriction, tension, heart palpitations, shortness of breath and so on.

Individuals who experience mal-adaptive stress and anxiety of this kind may find they find that these are triggered by particular events, encounters, or feelings. For some, though, these responses feel like general, dispositional issues in their daily lives, colouring the quality, tone, and taste of all their experiences.

One of the intriguing developments in Mindfulness Interventions over the last couple of decades has been the blurring of distinctions between the populations for whom such Interventions appear to be relevant.

In particular, the first (and still the standard) model of a secular Mindfulness Intervention – as developed by John Kabat-Zinn as MBSR – focussed on its utility for populations with diagnosed, clinical needs. That is, these interventions were developed as ways to treat maladaptive responses of various kinds. However, very quickly the practices associated with the MBSR programme of Mindfulness Training spread into non-clinical (sometimes called 'healthy') populations, where they were often seen as ways to lessen stress and anxiety per se. That is, rather than being techniques to treat mal-adaptive stress, Mindfulness Training became concerned with mitigating the sensations and effects of adaptive stress and anxiety as well.

The implications of this, which have been raised by many critics, are that MBSR is being misused like a kind of recreational drug constructed by mad (or perhaps capitalist) scientists – no longer treating people with disorders but instead being purchased and consumed by people in search of a new form of escapism.

This brings us back to the question posed at the start of this session: are we (as basically healthy individuals who experience adaptive responses to our environment) really so maladjusted to the conditions of life around us that we require special techniques and technologies to help us cope with them? Do we (as healthy, well-adjusted individuals) need or even benefit from Mindfulness Training, or is it basically a recreational activity that could risk distracting us from the real demands of life? To paraphrase Marx, is Mindfulness a new Opiate of the People? We will return to this important social and political question in the final module of this course.

Meanwhile, Mindfulness scientists have made various responses to this potentially devastating question. The first is to take the familiar (and contested) step back into Buddhism and to argue that it is a basic characteristic of human life that everyone experiences suffering (dukkha). Hence, the techniques of Mindfulness are not only relevant to people with diagnosed clinical disorders but are also relevant to everyone else as well. The difference between these populations is not one of kind but simply of degree: in the end, clinical and non-clinical populations all participate in the basic problems of humanity to different degrees. The important thing is to realise that nothing can rid human beings of all

suffering, since suffering is essential to the human condition. That is, the end of suffering is simultaneously the end of our humanity.

On the face of it, this Buddhist-inspired defence actually seems to reinforce the notion that Mindfulness Interventions should be envisioned as treatments for mal-adaptive responses rather than opiates to blunt normal, adaptive responses. That is, the Buddha doesn't claim to be able to inoculate all people against all suffering, only to help them alleviate unnecessary suffering by changing the quality of attention that they bring to it. There is a kind of 'zero-level' of suffering with which everyone must deal, even the healthy. Indeed, any technique or technology that could eradicate suffering altogether would simultaneously end (or perhaps transc-end) the human condition itself. For Buddhists, this is the territory of Awakening, Enlightenment, Nirvana and so on.

What this helps us to understand, however, is something that any teacher of 'non-clinical' MBSR will have encountered in nearly every class they've taught: and that is that the distinction between populations with diagnosed clinical needs and populations without diagnosed clinical needs is not determined by those needs but by their diagnoses. That is, in practice, it is simply not the case that so-called 'healthy' populations have no mal-adaptive responses or are free from such suffering – these mal-adaptive responses are simply insufficiently intense to be diagnosed or, even more simply, they're just not diagnosed. The conceptual difference between clinical and non-clinical groups is the difference between ideal types – in practice, everyone (all of us) reside along a spectrum of mal-adaptation to our environment. We all have dis-ease that we could do without, and that's where Mindfulness Training is useful.

In fact, the scientific response to this challenge is even more persuasive than (and perhaps complementary with) this Buddhist-oriented response. From the standpoint of evolutionary biology, for instance, it is relatively clear that the distinction between adaptive and mal-adaptive responses is not clear-cut. In particular, with specific regard to anxiety and stress responses, it seems clear that the human body evolved its reactions to threatening and stressful situations at a time when such threats were more-than-likely physical and violent in nature.

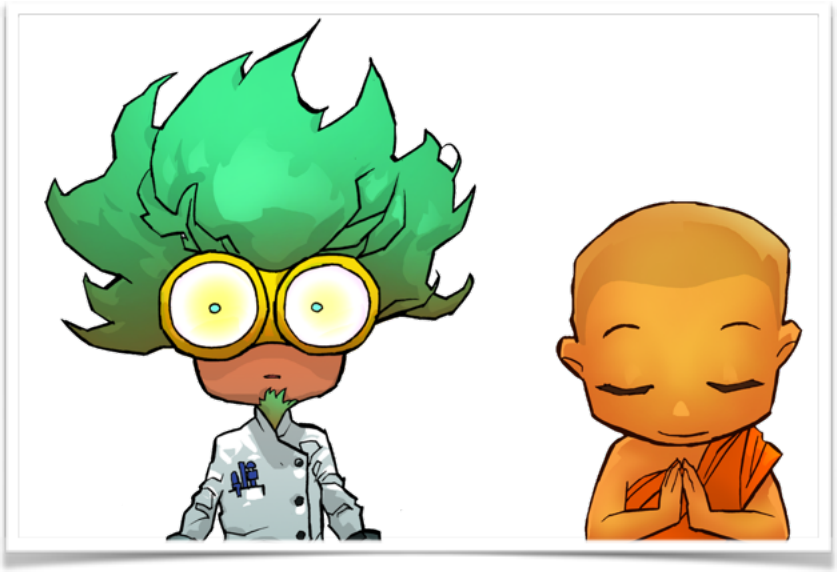
In modern societies, which are defined by the legitimate appropriation of violence by the nation state, we are much less

likely to encounter such threats, hence there is a powerful sense in which even our biologically adaptive responses are actually mal-adapted to contemporary life. The stress we feel about a job-interview, public speaking, or an unpleasant email is real, but our body's subsequent need to run away or fight is not helpful; we have nowhere to go and nothing to fight. Indeed, sometimes the adaptive stress response is itself a cause of stress, since we know that our natural tendency towards tension, shallow breathing, and lashing out is not only unhelpful but actually counter-productive in many circumstances today. Instead of fighting or fleeing, our energy, effort, and attention are all devoted to cognitive planning, scheming, and rumination.

Finally, whilst studying and testing the therapeutic value of MBSR, scientists have uncovered a range of non-therapeutic effects, somewhat in the manner of stumbling across unexpectedly beneficial side-effects in drug-trials. As a result, the MBSR programme in healthy populations, is now also associated with training to enhance positive functions, much like other forms of meditation. Rather than healthy individuals using it to self-medicate against the trials of everyday life, research now shows that Mindfulness Training is associated with enriched quality of life, an enhanced sense of well-being, higher energy levels, more creativity, more reliable decision-making, more fulfilling interpersonal relationships and so on ...

In other words, we don't have to go as far as Marx in one direction or Buddha in the other to make the case for the potential utility of Mindfulness Interventions for 'healthy' populations as well as 'clinical' populations in today's societies.

In our next sessions, we'll take a closer look at the most widely practiced and studied Interventions today – first Mindfulness-Based Stress Reduction (MBSR), and then Mindfulness-Based Cognitive Therapy (MBCT).



2.4. MBSR

For most commentators today, the 'original' secular Mindfulness-Based Intervention is the MBSR programme developed by John Kabat-Zinn in the University of Massachusetts Medical Centre, beginning with his experimental pain clinic in the late 1970s. The seminal statement of this programme was published in 1990 in his book, Full Catastrophe Living, which is rightly regarded as the classic text of the therapeutic tradition of Mindfulness. So, if you haven't read it, read it. Most of the subsequent 'Mindfulness-Based' programmes are at least grounded in (or perhaps spring out of) Kabat-Zinn's work, including the other major therapeutic programme in the field today: MBCT (to which we'll turn in the next session).

In today's session, we're going to take a look at what MBSR is, how it is used, and what some of our concerns about it might be.

The MBSR programme is a rigorous and relatively intense 8-week programme. Participants meet once per week for between 2 and 3 hours in small groups (of around 20 if possible, but no more than about 35). They are also expected to perform 'home practice' for about 45 minutes per day for the 6 days of the week on which they don't meet. Finally, there is often a full 6-hour 'retreat' day

(between weeks 6 and 7), often on a weekend, during which all participants experiment with maintaining silence.

The MBSR programme includes many of the formal practices that are now seen as characteristic of Mindfulness Interventions in general: this includes the legendary raisin exercise, the body scan, sitting meditations, walking meditations, and also experiments with yoga or qi-gong. For those of you who are wondering about this: yes, MBSR is also the basis of the Mindfulness Training that we're doing in this course, so I'm not going to describe all of the practices again here (you can check them out at your leisure in the meditation labs).

The MBSR programme is designed principally for 'adults who perceive themselves as stressed' – hence, the question (we considered in the last section) of what stress might mean objectively is sidestepped: MBSR is for adults who perceive themselves as stressed.

Do you perceive yourself as stressed?

MBSR is the most frequently deployed programme in trials of the efficacy of Mindfulness Interventions (especially for so-called 'Healthy' populations). In general, and perhaps unsurprisingly, the results of the trials (based on self-reports) show that participation in the MBSR programme returns higher scores on trait Mindfulness scales, such as the Mindful Attention Awareness Scale (MAAS) and the Kentucky Inventory of Mindfulness Skills (KIMS).

More interestingly, trials also show that participants who successfully complete the programme report greater positive affect, enhanced quality of life, less exhaustion, and reduced levels of stress and anxiety. Stress reduction in itself (not only through Mindfulness Training) is known to alleviate allied forms of psychological distress, including disrupted personal relationships, poor levels of job satisfaction, impeded decision-making, and burnout.

Some trials also show reports of significant enhancements to what we call 'positive functioning': graduates from the MBSR programme report feeling wiser, more compassionate, more open to learning, more creative, more empathic to others, and enjoy a

richer sense of personal well-being. These are the results that most interest the emerging field of Positive Psychology.

It is important to note here, however, that not everyone who participates in MBSR will realise all (or any) of these outcomes. And one of the big questions for the Science of Mindfulness is: why not? When a Mindfulness Intervention doesn't work, what has gone wrong?

At the moment, the answers to this question are relatively untested. One factor that bears considering is the challenging nature of Mindfulness Training itself. That is, Mindfulness Training requires effort, discipline, and sincerity from participants. This often comes as a surprise to people who see (from the outside) that Mindfulness practices usually involve sitting or lying down with your eyes closed and breathing. Anyone can do that, right? I'm sure you've had no problems with any of the exercises we've been trying our meditation labs ... right?

7 Attitudinal Foundations of Mindfulness practice:

non-judging, patience, beginner's mind, trust, non-striving, acceptance, and letting go.

What is not visible from the outside is the work being done to bring about a certain kind of attention and tone of awareness. Yes, the exercises are extremely simple to understand, but anyone who has tried them will attest to the fact that they are sometimes excruciatingly difficult to perform. Those of you who are trying the meditation labs in this course, for instance, will immediately recognise how difficult it is to bring a form of gentle curiosity to the little toe of your left foot, or how difficult it is to remember to notice when your mind has completely forgotten about your toe and is instead busily planning what you're going to eat for dinner this evening.

In fact, one of the critical tasks for the participant in MBSR is the cultivation of what Jon Kabat-Zinn has called the 7 Attitudinal Foundations of Mindfulness practice: non-judging, patience, beginner's mind, trust, non-striving, acceptance, and letting go. We'll see how these attitudes emerge from Buddhist foundations in the next module.

For now it's enough to see that, while the practices of MBSR are very, very simple, it's not always clear (even to ourselves) when we are actually performing them. And, as we've already seen in an earlier session, it's very difficult for anyone to measure your 'Mindfulness level' from the outside, except by asking you

questions about the quality of your intention, attention, and attitude. One of the ways that MBSR tries to integrate this process of reflection into the programme itself is through the practice of so-called inquiry (or, perhaps better, enquiry) that takes place in each class after each meditation practice. Participants are also encouraged to engage in a similar form of self-reflection by keeping a practice journal throughout the course (and afterwards).

In the 'lab' section of this module, we'll also explore the process of Enquiry – and I know you're being very diligent about keeping your own practice journal already, right?

In other words, while it's unlikely, unlike with a course of drugs, it is possible that somebody could follow the whole MBSR course and emerge after 8 weeks without really having followed the course at all. This actually enables a rather sophistic counter-argument (that I've heard a few times): those who follow the course without participating 'properly' should not expect to see the benefits because they haven't actually participated in the course. This means that the course always works when people follow it, and that if it doesn't seem to work this is actually because the participant didn't really follow it (despite sitting in class each week, and sitting at home very day).

Leaving such sophistry aside, it is clear that participant motivation emerges as a crucial variable in the effectiveness of the programme.

The flip-side of participant motivation is the attitude and manner of the teacher or therapist who is providing the course. Again, unlike a course of drugs, it seems very likely that the identity and persona of the instructor in a Mindfulness class will make a difference to experience of the participants. One of the hot topics in the Science of Mindfulness at the moment is to what extent it matters whether the teacher is an experienced and accomplished meditator in their own right (as required by the protocols for Good Practice in MBCT, for instance), or whether it's just as effective to have someone pretending to be experienced (after all, from the outside, can we really tell?), whether such pretence is even necessary, or whether it's actually ok just to teach yourself from a book ... or an internet-based learning environment ;-)

Likewise, it seems plausible that the ideological (or even the aesthetic) context of a particular course makes a difference. For

many years, for instance, John Kabat-Zinn used to be very careful about not encouraging participants in MBSR courses to associate the practices with Buddhism, in case this kind of association negatively impacted on their motivation. For other participants, an association with Buddhism or Ninja or Hippies or Jedi might actually help.

So, by whom would you rather be taught?

In Buddhism, this tailoring of a message to fit with the ideological and personality features of an audience is known as the deployment of expedient means.

Finally, if we're able to accept that MBSR has various beneficial outcomes, but that these are not necessarily experienced by everyone who attends the course, we also need to consider whether participants might also experience more negative outcomes. As we noted earlier, for various reasons, the science tends to search for either therapeutic benefits or enhancements to positive functioning. Yet, as we will see in the next module, Mindfulness Training (and particularly open-awareness practices) also contains a number of risks for participants ranging from trauma to dissociative disorders. For now it's enough that we are simply aware that there are risks and that these are sufficient for Mindfulness Training to be contraindicated for some people; we might see responsibility for these as one of the reasons for why

Mindfulness Interventions should be led by experienced and qualified teachers.

This emphasis on the responsibility of Mindfulness teachers is a particular feature in our next session, when we consider the protocols of MBCT, which has been developed as a therapeutic tool to help quite vulnerable populations. And so, it is to MBCT that we turn now ...

2.5. MBCT

Other than MBSR, which we considered in the last session, MBCT – Mindfulness-Based Cognitive Therapy – is probably the most widely recognised and practiced Mindfulness Intervention. Pioneered in the work of Segal, Williams, and Teasdale (2002), and now associated closely with the Mindfulness Research Centres in Oxford, Bangor, and Exeter Universities in the UK, MBCT was developed primarily as a treatment protocol to prevent relapse into depression, and it has been shown to be about twice as effective as medication. Indeed, the evidence-base for the effectiveness of MBCT is so compelling that it is now recognised (and codified) as a treatment by various national health services, medical insurance providers, and clinical watchdogs around the world.

In this session today, we're going to look at what MBCT is, how it is used, and whether we should be concerned about aspects of it.

Like MBSR, from which it draws several major elements, MBCT is also structured around an 8-week programme which includes a number of formal meditation practices: the body scan, sitting and walking meditations, and mindful movement exercises like stretching, yoga, or qi gong. Like MBSR, MBCT classes also make use of periods of 'enquiry' – a form of Socratic questioning designed to help participants to reflect on their experiences and to

facilitate meta-awareness and metacognition regarding how they react and respond to the experiences they encounter during meditation practices. We'll look at the idea of a metacognitive standpoint in more detail in the next module

In order to facilitate the generalization of mindfulness skills into everyday life, MBCT also incorporates various informal practices, such as mindful eating, mindfulness of pleasant and unpleasant experiences, and bringing mindful awareness to various routine activities in which we participate everyday – brushing our teeth, tying our shoe-laces and so on.

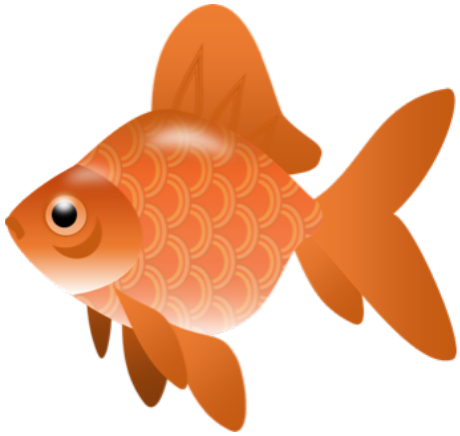
With respect to these generalization practices, MBCT places great emphasis on the importance of recognising our 'automatic pilot.' The phrase auto-pilot is used to label those daily activities that we perform mindlessly. Such activities could include things that we have gradually conditioned ourselves to do without thinking about them – often for good reason (ranging from very rudimentary activities like, say, walking, through to more complex activities like driving a car). In some of these cases, turning off our auto-pilot could be disastrous: learning to drive, for instance, is at least partially a process of programming our auto-pilot to be able to deal with pedals, gears, controls, and steering precisely so that we don't have to think about them, and our attention to freed up to watch the road – as soon as we start thinking about them consciously, we'll have problems driving.

However, MBCT also encourages us to become aware of the ways in which we switch into this kind of auto-pilot on a more ad hoc or reactive basis when we're simply distracted by other things or when we're subconsciously seeking to avoid engaging with something. Here we're not primarily interested in actions of sublimated skill (like driving or trying your shoe-laces), but we're trying to identify moments when our minds are not on where we are or what we're doing (but they're somewhere else instead). The basic insight here is that we spend a surprising amount our time everyday relatively unaware of where we are, what's going on around us, and what we're doing. And, really importantly, we're usually completely unaware that we are unaware these things.

That is, the focus of our awareness is often not the result of our conscious choice and it is not a reflection of what we really want or of what might be good for us, it is just our auto-pilot kicking in

and living our lives for us while we're distracted or averted. It is, quite literally, as though we're not where we are – as though we've been replaced in our daily life by an automaton that happens to look like us.

For instance, almost all of us (even me and you) will have had the experience of making their way home from work or school or the shops lost in concerns about whether someone had insulted us over lunch, what we're going to do about food in the evening, or how we're going to find time to do all our homework before the deadline. And then, when we get home, we can't remember anything at all about the route we took, we didn't see the dazzlingly beautiful sunset, and we didn't notice the three friends who tried to talk to us when we failed to notice them on the street etc. There's a very real sense in which we were not present during our walk home.



This kind of experience always reminds me of the wonderful little parable that David Foster Wallace once told about the meaning of a liberal education:

There are these two young fish swimming along and they happen to meet an older fish swimming the other way, who nods at them and says 'Morning boys. How's the water?' And the two young fish swim on for a bit, and then eventually one of them looks over at the other and goes, 'What the hell is water?'

Of course, the point here is not that auto-pilot (or perhaps day-dreaming) is necessarily evil or even that it is always inappropriate or unhealthy – indeed, day-dreaming is quite often the highlight of my working day.

The point is about cultivating our awareness of where we have placed our attention, and cultivating the discipline to place it where we want it to be; sometimes we're missing something essential (like water for those fish). Just as we saw in MBSR, awareness, attention, and discipline are core to MBCT. One of the basic insights of MBCT is that our attention is often drawn away from where we are without us being aware of this, and that (particularly for people prone to depression) what draws our attention is rumination on problems, regrets, and memories of the past or fears and anxieties about the future. Hence, instead of enjoying the water around us or the glorious sunset on our walk

home (which is really there in front of us), we spend that walk involuntarily plunged into an internal darkness of our own making. Instead of enjoying a delightful evening walk, we are thoroughly miserable and stressed the whole time and exhausted when we get home.

This provokes a basic question: would the quality of your life be better if more of it were spent present in what you were doing and where you were, and less of it were spent entangled in a cycle of worry, anxiety, and stress about things that were not there? If the answer to this question is yes, which probably it is, MBCT aims to provide you with the resources to be more aware of when your auto-pilot kicks in and with the discipline to make more skilful choices about when you choose to engage it and where you choose to put your attention.

To be clear, it's not about throwing your auto-pilot out of the window (since it can be incredibly valuable and useful, which is why plane's have autopilots after all!), but just about becoming able to register experientially when it turns itself on, and being able to make more skilful choices about when being on auto-pilot is nourishing or when it is depleting you.

One of the most characteristic practices of MBCT is the brief, '3-minute (or 3-step) breathing space,' which can be deployed at moments of stress or difficulty during the day to help centre practitioners in the here and now, and thus support their ability to make these skilful choices. If you're participating in the meditation labs for this course, you will become familiar with this simple technique; you'll be doing it a lot.

Just as we saw with MBSR in the last session, while studies demonstrate its general effectiveness, the MBCT programme does not seem to work for everyone. Again, there are all kinds of possible reasons for this. However, given the fact that MBCT usually takes place in clinical settings for populations with particular (diagnosed) needs, great emphasis has been placed on trying to understand the responsibilities and role of the instructor as a variable in the effectiveness of the programme.

In their seminal work on the establishment of MBCT, Segal, Williams, and Teasdale (2002) have outlined the basic requirements for responsible (and accredited) instructors. You can

see the Code of Practice based on their work that is used today in the supporting documents for this module. In brief, they argued that, at the very least, teachers should be properly qualified in psychotherapy and also that they should have completed a full training programme in MBCT (which usually takes two years). Most importantly, though, such teachers should also have an established, long term, ongoing meditation practice of their own.

It is this last criteria that has attracted most interest, since it suggests that the level of Mindfulness attained by a teacher makes a real difference to the experiences of her students and to the efficaciousness of Mindfulness Training itself. For some, this argument might taste a little esoteric, as though it is a way of smuggling Buddhist Mindfulness conventions into a secular, construct Mindfulness programme. However, rather than suggesting that there is some sort of mystical osmosis involved in the transference of Mindfulness from master to disciple, research about MBCT suggests that experienced meditators are better able to embody and model the qualities that the programme seeks to promote, and that this modelling is important to the success of treatment.

would the quality of your life be improved if you spent more of it paying attention to the here and now?

In particular, Mindfulness is often associated with embracing what Mark Williams has called 'being mode' in preference to a more instrumental 'doing mode.' Being mode is related to a capacity to accept the present moment with a non-striving attitude, and to remain in it without judgement. You might notice that this 'mode' seems to resemble the constellation of dispositions that Kabat-Zinn called the 'attitudinal foundations' of Mindfulness in our last session (on MBSR).

On the other hand, doing mode is related to striving for goal-oriented changes to the present moment, judging the present as different from how it might otherwise have been and thus flavouring it with dis-ease and dissatisfaction.

As we see in the meditation labs of this course, there are any number of times in an MBCT class at which a teacher might undermine the value of being mode by abruptly (and inadvertently) shifting into doing mode in order to 'fix' the problems of a participant. The enquiry process in MBCT should provide a space for the embodied compassion and acceptance of the instructor to facilitate the discovery of experiential, first-person knowledge by

the participants; it should not be a directive, didactic, or change-oriented exchange in which the instructor tells people how their experiences should feel.

Research suggests that it is very difficult to fake this therapeutic space of compassionate open-awareness. It also shows that it's very difficult for even experienced therapists (trained in other forms of therapy but relatively inexperienced in mindfulness meditation) to avoid accidently lapsing into the model of directive, didactic counselling. Indeed, one of the great benefits of an established personal practice for therapists is that they become more aware of and more attuned to those moments when their own auto-pilot kicks in during class. There could be few things less appropriate or helpful in an MBCT session than a mindless therapist who isn't authentically present.

It is at least partially for this reason that scientists and other Mindfulness practitioners constantly debate the power and role of 'authenticity' and 'integrity' in the person of the teacher of therapist. It's a hot topic, and we have no definitive answers.

So, having now considered the basics of MBSR and MBCT, the next step for us is to take a bit of a step back and to look at Mindfulness Interventions as a whole, to see whether we can identify some common characteristics and features. And this is what we'll attempt in the next session ....

2.6. Common Principles of Mindfulness Interventions

As we've seen throughout this module, there are quite a few different programmes of secular Mindfulness Intervention designed to address different clinical, therapeutic, or positive psychological needs. They each have their own distinctive characteristics and focus on their own particular populations, but they also share some foundational common principles. In this short session today, by way of summary, we're going to take a moment to clarify what those principles might be. I'd like to acknowledge the help of James Carmody (of the University of Massachusetts Medical School) for some of the work on clarifying these principles, which we might label as:

1. Recognising that our everyday experiences are made up of numerous experiential components;

2. Recognising that we can change the emotional force of an experience by controlling where we place our attention;

3. Recognising the beneficial possibilities of a de-centred, metacognitive standpoint from which to act.

We'll look at each in turn.

So, the first of these principles concerns the nature of experience itself. That is, in our everyday lives we tend to encounter experiences as though their full complexity and multidimensionality are basic to them. In particular, we accept as self-evident that all our experiences involve a unity of sensations, emotional tones, thoughts and so on. So, when someone we know passes us on the street without acknowledging our presence, this experience seems to mean an inextricable combination of weight and gasping, guilt and worry, puzzling for reasons and planning follow-up actions.

But Mindfulness Interventions suggest that this kind of complexity of experience is actually not basic at all. Mindfulness Training is concerned with cultivating an experiential recognition that all our experiences (which we assume to have a unified quality) are actually constructed and conditioned by cycles of association and signification into which we have been immersed for most of our lives. They are not unities but compounds – our everyday experiences should be recognised as comprising multiple components (which we should be able to unpick).

Hence, Mindfulness Interventions invite us to entertain a place of 'bare' or 'direct' or 'pure experience' that lies somewhere prior to that complex constellation of thoughts, emotions, and sensations. This conceit – that there is a pure form of experience that can be felt by any of us at any time, and that this pure experience is importantly unsullied by our preconceptions and preconditioned judgments – is vital to Mindfulness in general. This type of experience is what we usually mean when we use phrases like 'beginners mind,' 'open' or 'non-judgemental awareness,' or when we say things like 'pure experience has no meaning at all.' We'll pick up on these ideas in the next module.

So, instead of allowing ourselves automatically to unify our immediate experience of walking down the street on a sunny afternoon with, perhaps, wandering thoughts about how we might have insulted someone in the past, or, perhaps, how typical it is to discover that this person doesn't like us either, or, perhaps, the heavy, sinking feeling of resignation and sadness that settles into our stomach, Mindfulness Training invites us to recognise that the sensations of the sun on our skin, the street beneath our feet, and

the sight of someone walking past are of a different (and more direct) order than the judgements, explanations, and emotions that follow so rapidly afterwards. Indeed, rather than being part of the direct experience, these experiential modifiers are actually our reactions to that experience – they are our conditioned attempt to construct them into meaningful compounds in our minds.

This brings us neatly to the second basic principle of Mindfulness Interventions, which is something like the insight that the felt emotional quality of an experience is not a feature of the experience itself but instead is a kind of arousal that that emerges from our response to it. The idea that our emotional arousal (whether positive, negative, or neutral) emerges from our interaction with experiences rather than being contained in the experiences themselves, opens a space for us to make some skilful choices about how we might regulate our emotional condition by deliberately bringing our attention to specific sensations and experiences.

3 common principles of Mindfulness practice:

experiences are made up of clusters of components; the emotional force of experience changes depending on where we place our attention; a metacognitive standpoint enables skillful choices.

While we're walking home, how would it be to rest our attention on the sensation of the sun on our skin here and now, rather than on our anger about an insult or offense that took place last week?

In concrete terms, both MBSR and MBCT make use of the process of inviting our attention onto or into our breath, as the site of an experience that is usually arousal-neutral. We might also think of making use of particular postures, places, or even scents in this way. Hence, Mindfulness Interventions train us in the capacity to regulate our emotional state through correctly intentioned and disciplined regulation of our attention. Mindfulness Training enables us to become increasingly skilful in the recognition of rumination, wandering, and negative (or even positive) emotional arousal associated with specific experiences, and then to make a deliberate choice to place our attention elsewhere (such as on our breath) and hence create a greater sense of calm, ease, well-being.

One of the important consequences of this principle is that it works to change the emotional quality of an experience without requiring us to avoid the experience itself and without taking us away from the experience itself. That is, Mindfulness is not aversive but open. We should be able to continue to perform any activities typical of our daily lives, and also take more pleasure in

activities that once caused us stress, anxiety, or pain. Indeed, we remain (or return to being) firmly embedded in the present moment. In other words, this principle works towards the establishment of a more spacious and permissive locus of being.

And this idea of spaciousness leads into the third principle, which we might consider as the cultivation of a metacognitive standpoint, or a stance of meta-awareness. All that is meant by this rather intimidating phrase is that Mindfulness Interventions train us to take a step back from our experiences into a wider space in which we can be more aware of the way we encounter, process, and experience those experiences. In this wider space, we have more room to consider and decide where we would like to place our attention. The more expansive view gives us more information and keeps us open to other (positive) clues in the environment that we might otherwise miss if we remained stuck in a narrower site.

Some people talk about this as the cultivation of the 'observing self' – that is, a version of you who is able to observe how you interact with and experience the world, rather in the manner of a generously compassionate and gently curious friend who might advise you on how to proceed.

Psychologists often refer to this as a process of decentring in order to flag the way that it involves the intention to displace the experiential subject (that is, the you who experiences things in the world) from the centre of the locus of your being. The you who is experiencing debilitating stress or anxiety sitting in a waiting room before a job-interview is not the centre of your being, but just a projection of you that you can watch, advise, and guide from that more spacious position. This de-centred location enables a kind of receptiveness, flexibility, and open awareness that seems impossible to the you who is constricted, narrowed, and rigid with stress and anxiety. Hence, this is a much wiser standpoint from which to deploy your attention, formulate your intentions, and make decisions.

Just as we have noted in the particular cases of MBSR and MBCT, it's also worth noting some concerns about these common principles. In particular, the cultivation of a metacognitive or decentred standpoint for the self can itself be a disturbing or uncomfortable experience for people. For many, the discomfort is temporary as they acclimatise to the training, but in very rare cases

this discomfort can become associated with a form of dissociative disorder, which requires careful and professional therapeutic attention. Again, the risks of this (although relatively small in general populations) are another factor in the consideration of the responsibility of instructors of Mindfulness Interventions. In fact, scientists know rather little about how or why this happens, and very little about what kinds of populations are at greater risk than others. These are amongst the various reasons for ensuring that Mindfulness instructors are suitably experienced and qualified – whatever that turns out to mean.

Conversely, for some this decentred sense of self can actually become a source of pleasure (or even intoxication) in its own right. The feeling of observing ourselves from without can sometimes be accompanied by a sense of euphoria and freedom. These kinds of experiences during secular Mindfulness Interventions often lead participants to make inquiries about more spiritual, philosophical, or existential issues.

So, it is now time to leave the empirical sciences behind us and to move on to the next module, in which we'll explore precisely these spiritual, philosophical, and existential implications of Mindfulness.

2.7. Summary

So, this has been a pretty challenging module. And it's been challenging in lots of different ways at the same time. If you find that it's been a lot to take in and that you're struggling to remember some of it, my advice is not to be too harsh with yourself about it.

It's not the case that this course as a whole (or this module in particular) can just consider one observation or insight per session. Because Mindfulness is such an expansive, contested and (potentially) radical idea, traversing across and between all kinds of fields, disciplines, and regions, we find ourselves having to tackle large architectural questions about the meaning of knowledge itself at the same time as trying to understand very specific questions about, say, gamma waves and treatment protocols.

This constant telescoping process is a lot for anyone to cope with and can be rather dizzying, so, if you've made it this far, well done!

Just to make matters more complicated for you, I know that you've also been making an effort to follow the meditation labs in parallel with all this material. This means that you're not only juggling different academic fields and various specific interrogations within

those fields, but you're also trying to cope with working on yourself in a direct, experiential manner at the same time. I've said this to you before, but I don't think I can say it often enough, so I'll say it again: you should not underestimate the energy and resources required to do all this – so try to be gentle and compassionate with yourself.

If you've forgotten things, you can always go back and check them out again. If things don't make sense to you, it's quite likely that they also don't make sense to other people (ie. it's probably my fault for being unclear or muddle-headed – my apologies), so perhaps take the opportunity to ask questions of your classmates or join discussions.

My most important advice in this course in general is simply that you can and should take your time; be patient. There's no quick fix or short-cut to the experiential knowledge for which you're probably searching. As we've seen in this module, Mindfulness isn't a pill that you can take – it just takes practice, patience, and some persistence.

And one of the most important lessons from this module (for me, at least) concerns the importance and value of our experiential knowledge when it comes to interpreting, understanding, and evaluating the theoretical and more abstract knowledge of scientific inquiry. Your experience of Mindfulness matters. It really matters. And you should not let anyone else (no, not even me) tell you what your experience of Mindfulness feels like. Indeed, as we've seen, exactly to the contrary, scientists should be much more interested in asking you about your experiences than in telling you what they should feel like. I know that I want to know how you're doing with all this ... I hope you're keeping your practice journal.

Anyway, before we move on to the Meditation Labs for this module, let's take a moment to skim back through the material we've covered so far:

First, we considered the rise (and rise) of evidence-based, scientific research into Mindfulness, noting that this has done much to change the image of Mindfulness in contemporary societies.

In particular, we looked in some detail at the challenges of operationalizing Mindfulness into a concept that could be useful and quantifiable for empirical science. And we considered some of the ways in which scientists have indeed tried to measure it.

One of the intriguing things that emerged from this process was the way in which these kinds of pressures on Mindfulness have resulted in the construction of a new category, which we have called 'construct Mindfulness.' It's not immediately obvious or clear how this 'construct Mindfulness' relates to more the traditional forms that we find in, say, Buddhism. But it's also not clear that it really matters if construct Mindfulness is different from, say, the Buddhist idea of Sati.

From these foundations, we moved on to explore the ways in which Mindfulness has been seen as useful and valuable in modern societies, especially in terms of its apparent therapeutic value – helping both clinical and healthy populations to deal with various forms of dis-ease. We looked in particular at the treatment protocols known as Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT). There are many others we could have looked at, but these are usually seen as the foundational programmes. Indeed, as we've seen, the common principles of these interventions appear to establish the foundations of construct Mindfulness itself.

Finally, we asked some questions about other potential effects of these Mindfulness-Based Interventions – noting that the clinical language of 'construct Mindfulness' suggests possibilities of side-effects, positive or negative.

We saw that there is increasing interest in Mindfulness and Positive Psychology, documenting ways in which Mindfulness might enhance positive functioning.

But we also saw that there is concern about potentially negative experiences during (and as a consequence of) Mindfulness practices. The possibility that Mindfulness Interventions might themselves be sources of dis-ease or even trauma led us to consider issues of responsibility and ethical conduct of Mindfulness teachers and therapists. In general, while clinical interventions are regulated and monitored, Mindfulness courses for 'healthy'

populations are not – but we saw that the effective difference between these population groups is (at best) hazy and imprecise.

One of the instrumental reasons for the philosophical content of module 3, to which we will turn next, is precisely to provide coherent contexts, analyses, and responses to the questions of Mindfulness practitioners whose experiences demand more elaborated (and articulated) engagements than construct Mindfulness might provide.

In other words, when the tables are turned and it's no longer the scientist asking the practitioner about his/her experiences in order to study them, but instead it's the practitioner asking the scientist about the meaning of certain experiences in order to help them live with (and benefit) from them, what is the scientist going to say?

When it comes to issues of metaphysical significance, spiritual meaning, and contemplation, we turn to philosophers … which is what we'll be doing next.

These readings have been prepared to support students of the Coursera MOOC: *De-Mystifying Mindfulness*. They are based on the lectures written for the course; the intention is to develop them into chapters for a comprehensive open-access textbook to support learning in this field. The images were conceptualized by Chris Goto-Jones with art by Siku, copyright on the images is reserved, mentalpraxis.com (2016).

We invite feedback and suggestions for additional material for these readings.

We also invite donations to assist in our mission to make this material available to anyone, anywhere who might benefit from it: *building knowledge for a more a more mindful world*.