

## *Mindfulness at the workplace - a lifeline for all of us?*

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## **Abstract**

This paper describes training of mindfulness as a technique to increase stress resilience at the work-place. Stress is an increasingly common companion in our modern life - and the usage of modern technologies does not relieve the pressure on our shoulders.

Ancient Eastern methods are increasingly being rediscovered in modern societies. Some of the most progressive companies (such as Google, Salesforce.com, eBay, Twitter, and Facebook) invite Buddhist monks to train their employees in mindfulness or set up internal training programs to train their employees in mindfulness. Doctors and teachers are discovering trainings the benefits of training in mindfulness in their daily work, both to help patients or pupils to handle their difficulties and to strengthen their own mental well-being in their stressful jobs.

The positive effect of meditation on people's ability to cope with demanding situations is the subject of current research. Prolonged meditation practice leads to changes in the wiring of the brain (neuroplasticity), thus resulting in increased control of one's thoughts, emotions, and reactions. Results show positive effects on decision making, attention, memory, and sleep. Meditation can even replace blood pressure medication and it can also play a role in pain management.

The paper will briefly discuss what mindfulness is, what the effects of training in mindfulness are, and how to apply mindfulness training in our modern work environment.

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## 1. What is mindfulness?

"The mindful revolution" was the title of *Time* magazine on February 3, 2014. Articles about mindfulness can be found in the press every other week. Bookshops at airports provide titles on mindfulness. What is behind this topic?

Mindfulness has its roots in Buddhism and other Asian traditions which go back more than 2,500 years. The idea of mindfulness is to learn to be in the present moment, in the "here and now". It is about training our mind through meditation practice to not constantly be dragged away. It is about taming the mind.

In order to do so, one should learn to detach from thoughts and emotions. This is referred to as "de-attachment". Most of the time our mind runs on auto-pilot, being dragged away by thoughts about the past (often regrets) or the future (often worries, hopes, etc.). Regular mindfulness training helps to disengage from such automatic thoughts, habits, and unhealthy behaviour (Brown and Ryan, 2003).

The effects of mindfulness training through meditation are claimed to be

- deep freedom (in the sense of freeing ourselves from attachments to "toxic" thoughts),
- profound happiness (in the sense of the happiness that is within our calm mind),
- serenity, wisdom, and
- peace within one's mind.

Eventually this will lead to more well-being.

In order to develop mindfulness, one needs to practice mindfulness meditation. Meditation practice is at the heart of the old Asian traditions and religions. The practice of mindfulness means to learn and apply analytical skills. It means to study the nature and attributes of an object with the highest precision possible. This object can be our *breath*, which is often the basis for meditation practice. The breath is always with us (if not, we are dead), it has its own rhythm, it changes when our state of mind or body changes. This approach is quite analytical. Similar self-studies have been performed by philosophers in the West, such as Jean-Jacques Rousseau (e.g. in "Les rêveries du promeneur solitaire", 1782). Without Rousseau calling it "meditation", he describes astonishingly similar experiences as those described by experienced eastern meditators.

There are different ways of practicing mindfulness, but meditation is at its centre. Depending on the origin of the meditation practice, methods differ slightly. A profound misunderstanding in the West is that meditation is in some way mystical or esoteric, which it is not. It is not about giving up all thoughts, about reaching some super-natural state of mind. Rather, it is simply a practice to focus our mind.

The ultimate goal is to *tame our mind*, not to be the slave to our wandering thoughts, feelings, and emotions - but rather to study them, to accept them as they are, to observe how they arise seemingly out of nowhere and all by themselves, and to realize that they also go away by themselves. Through meditation, we can learn not to hang onto them, not to attach ourselves to them, not to identify ourselves with them.

Meditation is not about eliminating our thoughts and feelings. It is rather about understanding their true nature - which is *impermanence*. They come - and they go. They come seemingly spontaneously, and they go spontaneously. By simply recognizing them, without judging them, they lose their power over us. Through this practice, we can learn that we are not identical with these thoughts. Rather they are phenomena in our mind. They are not us, they are not our self. By learning this through practicing meditation, our mind can become free. This kind of freedom has nothing to do with the conventional concept of freedom in the sense of having the ability to do whatever we want. Inner freedom reached by meditation practice and mindfulness is more profound and stable.

One traditional way of practicing meditation is *Zazen*, which is sitting meditation. One sits (usually on a cushion), legs crossed in one of several ways (the lotus, half-lotus or the Burmese way), knees on the ground, so that the lower body forms a stable triangle on the ground. The upper body is straight, with the head stretching slightly towards the ceiling. The eyes should be half closed and looking without focus in a 45 degree angle to the ground or wall in front of us. The hands form an oval, with one hand resting in the other, thumbs slightly touching.

Through this posture, one can be firm and relaxed at the same time. It is supposed to be a natural way of sitting. One can describe it as resembling a mountain, which is firmly anchored in the ground, despite the clouds and winds that might appear around its summit.

One then focuses on the breath, without influencing it. Simply recognizing the natural flow of breathing in and breathing out will have the effect of calming our mind. When our mind wanders off, we simply bring it back to our breath once we realize that it went off.

There are some basic ideas in Buddhism which underpin mindfulness training. These are:

- "life is not fair",
- impermanence,
- de-attachment,
- non-judgement, and
- non-self.

When analysing our lives we have to arrive at the conclusion that *life is not fair*. Not everyone has the same conditions, health, wealth, etc. It does not mean that we simply have to accept the conditions we face, but there will be differences in the way life treats different people.

Everything is *impermanent*, including ourselves, our thoughts and worries, our materialistic wealth, even the entire universe. Everything is in constant flux. Holding on to impermanent "things" creates unhappiness and is in fact the main source of our anxieties.

*De-attachment* from our thoughts, feelings, and emotions are at the heart of meditation practice. It does *not* mean to stop them, not to feel anything anymore - that would be impossible. But we should learn that these occurrences in our mind are not "us". They simply appear, like clouds in the sky, and they disappear again. In meditation we learn to recognize them (such as "I am feeling angry"), but not to identify ourselves with them (such as "I *am* angry").

By recognizing these objects in our mind in a de-attached way, we should also be *non-judgemental*. This means we recognize the nature of a thought or a feeling, but we do not judge it. We can realize that we are having an angry feeling right now, but should refrain from thinking "I should not be angry". We cannot help feeling a certain emotion in a certain moment. However, by practicing de-attachment and non-judgement, we can learn to recognize the feeling and then to decide freely how to react, instead of automatically being dragged to some spontaneous reaction.

In Buddhism one even says that the notion of a separate, in itself existing "self" is an illusion and a cause of suffering ("*non-self*"). This is because since everything is changing, our "self" is non-permanent as well. Another concept is *interconnectedness*. It refers to the observation that everything is connected to something else, that nothing exists in itself.

Meditation practice thus helps to develop a *non-judgemental awareness* and to balance our thinking with awareness. At least we should become aware of how judgemental we are (Kabat-Zinn, 2010).

## **2. Neuroplasticity**

When I went to school (in the 1970s and early 1980s), during the biology class I learned that nerve cells do not grow or change their connectivity once a person is grown up. It was common knowledge at that time that human beings cannot profoundly change once they become adults. The belief was: "You can't teach an old dog new tricks."

This has changed. Researchers now know that the brain is flexible, and that it never stops developing. Even new brain cells can grow through prolonged training, although this seems to be restricted to certain areas of the brain (Singer and Ricard, 2008, p.31). In the prefrontal cortex, the adult brains develops through changes in the synaptic connections of the neurons (ibid., 2008, p.65). This is the area of the brain which seems to play an important role when practicing meditation and mindfulness training.

Buddhism teaches that change is possible, and that it is the most important task for us as human beings to develop further, and that this is our own responsibility. The method to do this is meditation practice.

Studies have shown that meditation practice has an effect on the wiring of our brains (e.g. Davidson, 2008). Researchers now talk about *neuroplasticity*. The notion of neuroplasticity frees us from the slavery of a constant, permanent self. We no longer have to defend this ego: we can rather start a journey of development towards mindfulness.

On the course of this journey, we also have to change our notion of *happiness*. Our conventional idea of happiness is that it is something deriving from materialistic satisfaction, such as a nice vacation, a bigger car, etc. However, by studying the true nature of these things, it becomes apparent that they carry the seed of unhappiness within them. The nice vacation will be over, the bigger car will decay and rust - and one of the neighbours eventually will have an even bigger car. This is true for everything we seem to derive our happiness from. It will not last, it is impermanent. Our conventional idea of happiness is superficial.

Happiness as defined by Eastern philosophy and Buddhism in particular can only be found in the here and now. It will appear naturally when we focus on the present. This is mindfulness. Meditation practice teaches us how to bring our mind back to the here and now, and by doing so, we realize that happiness is just here, naturally, without any effort. It has always been here. In fact - if we take our analysis a step further - we will realize that there *is only* the here and now. We only live in the present moment, which is followed by the next present moment. The past is gone; the future does not exist yet. All phenomena which we experience are happening in this very moment.

Yet, most of the time our mind wanders off into the past and into the future. Thinking about the past, we become caught up in regrets and remorse. However, the past does not exist anymore. It is just a memory in our mind. Or we worry about the future. Or we hope for future events that will provide us with the happiness we crave for. But the future does not exist either. It is just an idea in our mind. The only moment that exists is the present moment. And we usually miss it because we are caught up in thoughts about the past or about the future.

Practicing mindfulness teaches us to value the present moment, and to remain in the present moment as much as possible - not in a tense and cramped way, but in a natural and open way. Being in a mindful state of mind does not mean that there will not be unpleasant and disturbing feelings, thoughts, and emotions; rather, it means that we recognize them as what they really are, and that we see them coming and going. Meditation does not mean to oppressively influence these phenomena in our mind. They come and they go, without leaving traces in our mind - like clouds in the sky.

Our mind has the ability to study itself. Practicing mindfulness is exactly this. We have emotions, but we can learn not to become slaves of our emotions. Through practice we can learn to become

emotionally more stable, not to overreact in situations that - without training - would trigger reactions which might be offensive or which we might later regret. This does not mean that we get rid of our emotions. It means that we stabilize ourselves and stay anchored in the present moment.

### **3. What are the effects of mindfulness training?**

Research has been conducted on *long-term practitioners* of meditation, such as Matthieu Ricard, son of the French philosopher Jean-François Ricard alias Revel. Matthieu Ricard was a molecular biologist with a Ph.D. from the Pasteur Institute in Paris and became a Buddhist monk in the late 1960s. MRI (Magnetic Resonance Imaging) and EEG (electroencephalography) have been used, among other measurement tools.

The results show that meditation has profound effects on the brain. Left-sided anterior activation - which is supposed to be linked to positive emotions and control over one's thoughts - is increased in long-term practitioners (Davidson et al., 2003). Self-induced gamma-band oscillations is also seen in long-term practitioners (Lutz et al., 2004), which is supposed to indicate increased cognitive activities like attention and memory. These activation asymmetries are plastic and can be shaped through training.

Another effect is an increase of gray-matter density in the lower brainstem of long-term practitioners compared to age-matched non-meditators (Verstergaard-Poulsen et al., 2009). This seems to indicate higher resistance to stressful stimuli, increased attentional skills, etc. A whole range of positive effects on the parasympathetic nervous system is detectable. The parasympathetic nervous system is responsible for the unconscious control of our organs, blood stream, heart rate, metabolism, etc. and plays a vital role in stress reduction.

Thus, research has detected strong evidence for positive effects on our nervous system in long-term practitioners. However, positive effects are detectable even after a *short and less intense period of meditation* practice. Studies suggest that structural brain changes are detectable after only three months of meditation (Draganski et al., 2004).

In the late 1970s, Jon Kabat-Zinn developed a training program called Mindfulness-Based Stress Reduction (MBSR) at the University of Massachusetts (and later founded the Center of Mindfulness). MBSR integrates mindfulness meditation into clinical and psychological medicine. It is a clinical, 8- to 10-week structured group program on mindfulness meditation for patients with chronic diseases. The conditions that these patients suffer from include AIDS, cancer, heart disease, chronic pain, hypertension, sleep disorders, and depression.

Results of studies on the effects of MBSR show that it is helpful for stress relaxation in a wide range of patients (e.g. Grossman et al., 2003). MBSR has been successfully applied ever since its introduction and it has found its way into other, non-clinical settings.

Some of the positive effects of mindfulness meditation that have been detected in a variety of studies are:

- an improved immune system (Davidson et al., 2003),
- reduction of anxiety (Miller, 1995),
- increased attention (Verstergaard-Poulsen et al., 2009),
- positive effects on the stress-related cortisol level (Tang et al, 2007), and
- reduction of cognitive decline (Pagnoni/Cekic, 2007).

Brown and Ryan (2003) constructed the Mindfulness Attention Awareness Scale (MAAS) and applied it in five different studies. The results support the role of mindfulness in fostering well-being and in self-regulatory behaviour. Correlation of MAAS measures with other scales is detectable especially regarding well-being.

One of their studies with Zen practitioners showed that in order to achieve the desired results, the duration of practice (years) is more important than the actual amount of time spent meditating.

Another of their studies was conducted in a clinical environment with cancer patients. As a side-effect, the results showed that the baseline MAAS scores (without meditation practice) among these patients were higher than in the average population. The authors speculate that this indicates that the experience of a life-threatening disease might induce personal growth and mindful living in itself.

Thus, mindfulness practice produces positive effects that are measurable even after a relatively short period of training. The effects on the nervous system seem to be scientifically proven. Furthermore, it is not so much the intensity and the amount of time spent practising, but the regularity that is most important. These findings suggest that it should be possible to integrate mindfulness training into our normal everyday life.

#### **4. How can mindfulness be applied at the workplace?**

We live in a stressful world. According to the American Psychological Association, 2007 (cited in Fries, 2009):

- 33% of Americans reported extreme levels of stress
- 48% believed that their stress had increased over the past five years

- 77% experienced physical symptoms, such as fatigue, headache, upset stomach, muscle tension, etc.
- 73% experienced psychological symptoms, such as irritability, anger, nervousness, lack of energy, tearfulness, etc.
- 48% lay awake, losing on average 21 hours of sleep per month
- 43% overate or ate unhealthy food; 36% skipped meals during the last month because of stress, and for 74% work contributed to their level of stress
- 50% reported negative impacts of stress on their personal and professional lives
- 52% considered or made a decision about leaving their job because of workplace stress
- 55% felt less productive at work as a result of stress
- 40% did not use vacation time

According to this study, the leading causes of work stress are low salaries, heavy work load, lack of opportunities, uncertain job expectations, and long hours.

Traditional employee assistance programs focus on employee behavior, assuming that if the employees change their attitudes and behaviors, they will be better able to cope with the stress at work and thus become more productive. Courses on time management add to the pressure in the sense that it seems to be the obligation of the employee to function even more effectively and efficiently.

However, some companies are starting to become aware of the senselessness of this "traditional" approach. They are beginning to realize the positive effects of mindfulness training on the stress level of their employees. These companies include Internet technology firms such as Google, Salesforce, eBay, Twitter, and Facebook - but also more conventional companies such as Target.

Google has introduced a coaching course called "Search Inside Yourself" in which employees can learn meditation practice to better cope with stress. The author of this course has also published a book describing the motivation and the course content (Tan, 2012).

A number of studies have shown the positive effects of mindfulness practice in workplace settings:

- Klatt et al. (2008) studied the effects of a "low-dose" MBSR program on working adults with full-time employees at Ohio State University, which included reductions in perceived stress and improved quality of sleep.
- Walach et al (2007) tested MBSR for personnel development in a service center in Germany, which is a high-stress professional setting indeed: payments depend on the number of calls made or are proportional to the number of contracts following these calls. The employees appreciated MBSR and rated it positively.
- Poulin et al. (2008) found similar effects of a brief MBSR program for nurses compared with a conventional relaxation program.

Studies have been performed on the effects of mindfulness training in education, for example:

- Shapiro et al. (1998) investigated the effects of an MBSR-intervention on stress in premedical and medical students during exam periods. The results show that anxiety was reduced and overall psychological distress (including depression) decreased.
- Chang et al. (2004) performed research on participants in a continuing education course. The effects they discovered included: reduced perceived stress, enhanced positive states of mind, and improvement in non-judgmental awareness.
- Poulin et al. (2008) investigated a mindfulness-based wellness education elective course in a Bachelor of Education (for teachers in training), focusing on stress and burn-out. The latter is a well-known problem in the teaching profession (Montgomery and Rupp, 2005). The results were somewhat inconclusive. Students displayed problems with keeping up with the practice and thus the results were somewhat compromised. They also tended not to keep up with their practice after the course.

## **5. So what?**

Through the successful practice of mindfulness, there seems to be a fair chance that the effects described above would be experienced by the individual. Acting in a group of people - such as a family or a group of colleagues at work - such an individual will have an impact on the interactions with the other group members. Mindfulness should result in higher-quality interactions between the trained person and his or her counterparts. Thus, even a single person will influence the group he or she is in.

Likewise, a person trained in mindfulness will have higher resilience. He or she will be able to better deal with emotional stress, negative feelings, etc., which are quite common when acting with others. Being able to better cope with the negative effects of stressful situations should be beneficial for the individual as well as for the group. Thus, even if only a limited number of employees are trained in mindfulness, this should have an impact on those around them and thus eventually on the whole organization.

Stressful situations are quite common for most of our contemporaries. They stem from factors such as time pressure, 24/7 availability, information overload, decision-making under conditions of uncertainty, constant communication over different channels - many of them synchronous, thus awaiting immediate response -, job insecurity, a constant need to learn and develop, increased competition, and so forth. Most of us have to face these challenges. Basic training in mindfulness can thus help to prepare us for our modern lives. It can equip us with a backpack of useful tools that we can apply right away, every day. Especially challenging situations - such as meetings with your boss, with a difficult customer or employee - are the ones in which the tools

of mindfulness are most useful. Thus, there are endless opportunities to practice mindfulness in our normal daily life, but it needs some training.

One can distinguish between two steps in mindfulness training:

- The first step is the foundation of practicing meditation and integrating this practice in our daily routine.
- The second step is to apply the ability to act mindfully in all aspects of our life, be it during our leisure time, during work, or during travels - whether we are alone or with other people.

The second step does not come by itself. It is based on step 1. Without regular and prolonged daily practice of mindfulness training, our mind will not start to change. It will not learn to become detached from our constant chatter of thoughts. It will not learn to recognize these thoughts without attaching to them. It will not learn that they will disappear by themselves. It will not learn that these thoughts are not identical with us - that they are impermanent. Only by practicing meditation as a daily routine will we lay the foundation for step 2, which is applying mindfulness in our life, and ideally in everything we do.

Since most people have little free time, step 1 seems to be almost impossible to implement. However, it is not necessary to leave our life behind and to become a monk or a hermit. In sports, it is not necessary to become a professional athlete in order to improve our physical condition. What is necessary is to change our daily routine a little. Taking the bicycle to work instead of the car has, when done regularly, a profound impact on our body. It is the same with the practice of meditation. 10 to 15 minutes a day - every day - will have an impact on our mind. If we practice for example in the morning just after getting up, and in the evening just before going to bed, meditation can provide a framework for our day. This can be put into practice by everyone.

Continuity is the key. It is better to practice for a short amount of time every day than to not do anything for a long time, and then go on a meditation retreat for a few days, doing nothing again afterwards. One might compare it to learning the vocabulary of a foreign language. It is no use studying 50 words for a whole day and a night - it might be enough to get you through a vocabulary test the next day, but it will not be enough to store the words in long-term memory. You might even develop an aversion towards that language. Coming back to the sports example: it is better to move your body half an hour daily, than to do nothing, run a half marathon on a Sunday, and then do nothing again while recovering from the pain and loathing running for the rest of your life.

Maybe we should therefore all start training our minds, in the same way as we should all go to the gym to exercise our bodies. We have seen above that continuity is the key - and not so much the length of the individual practice sessions.

We should probably also think about integrating mindfulness training into our schools and college curricula in order to prepare students for the stress they are going to be facing - during and after school.

At our workplaces, we should think about integrating mindfulness training - as a line of defense against burn-out.

And finally: mindfulness training is not about getting anywhere – it is about the potential, the freshness, and the recreation of simply *being* in the present moment. Let us not misuse it as yet another optimization tool to further increase the pressure on ourselves and those around us. That would be the complete opposite of the basic idea of practicing mindfulness.

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