

in addition to supporting people living with various chronic medical conditions.

The current clinical evidence suggests meditation is useful in helping to sustain mental wellbeing and in coping with the symptoms of chronic illness. Although encouraging for meditation in the general sense, it does not specifically relate to Spiritualist meditation at this point in time.

## **CONCLUSION**

There is a wealth of scientific research that points to the changes that meditation can make to brain function and brain structure. It is absolutely possible that this improved function is a direct result of the closer connection of a person to their spirituality but that cannot be evidenced at this time. Clinical trials show potential improvements in various dimensions of mental wellbeing that appear to be corroborated by the neurophysiological research.

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## **SCIENTIFIC SPIRITUALISM: A SERIES OF BRIEF DISCUSSIONS**

### **I: EXPLORING THE SCIENTIFIC EVIDENCE FOR MEDITATION**

By Dr Graeme Donald (email: graeme\_donald@yahoo.co.uk)

#### **BACKGROUND**

This is the first in what is intended to be a series of conversations about a variety of topics that are core components of Seven Principle Spiritualism; they will focus on the scientific aspect of the Spiritualist triad of religion, science and philosophy. After all, we once thought of ourselves as the thinking man's religion.

The underpinning belief behind this work is that, today, much of UK society is secular in nature and religion is increasingly seen as outside the mainstream. That is not to decry the power that religion can have, or its inherent truths, but for a range of incredibly complex historical reasons, even the notion of organised religion is poorly received by a significant proportion of the population. Despite this, there is still a deep spiritual thirst within the hearts of many; and it remains untapped.

This is an incredible opportunity for Spiritualism – we do not belong to organised religion and have always seen ourselves as an individualistic, grass roots movement. We are, of course, a recognised religion as far as UK law is concerned, but we do not dictate scripture, dogma or doctrine to the people that walk through our doors; we are free from association with historical conflicts and atrocities. This set us apart from the rest and should be celebrated.

It is safe to say that, in 2016, science holds more influence in our society than religion does. This is where the key strength of Spiritualism becomes clear - science is one of our three fundamental principles. We believe in the empirical examination of spiritual phenomena and we are the only religious movement in the world that even attempts to offer verifiable evidence of its teachings, primarily through the practice of mediumship. If we can only wield this potential influence with confidence, many more spirits may be touched.

There are many forms of scientific evidence, some regarded as stronger than others, and selected research will be summarised, including investigations of the physiological effects of meditation and the effects that it can have on people's lives.

### **DEFINITION**

There are many types of meditation. Although spiritualists meditate for spirit communication, they also meditate for healing, quieting the mind or for connecting to the forces of life. It is difficult to pigeonhole what meditation is. Indeed, this difficulty has been encountered within the sphere of healthcare research, which is where the majority of this type of research is conducted. In a large scale exercise in reaching consensus within the field, Ospina et al (2007) produced a report that split meditation into five categories: Mindfulness meditation, Mantra meditation, Yoga, Tai Chi and Qi Gong. Spiritualist meditation does not fit easily into this model. The report does recognise, however, that no definition can truly encompass the variation of meditation practices and it does draw upon several important concepts like altered state of awareness, suspension of logical thought processes, self-observation, relaxation and concentration.

Discussion of the evidence, below, may relate to meditative techniques that are not necessarily Spiritualist in nature but, given the common principles, they remain applicable. It is not within the scope of this work to say what Spiritualist meditation is and is not, but perhaps that is something that should be given some thought.

### **NEUROLOGICAL EFFECTS OF MEDITATION**

Scientists have been researching the effects of meditation on the brain since the 1950s, following its popularisation in the West. Davidson et al (2003) conducted a study in which they tested the difference in brain and immune function between people who had been trained in mindfulness meditation and those who had not. Through monitoring electrical brain activity, they saw an effect in the meditators vs. non-meditators, in the region of the brain associated with positive emotions. Similar changes in neural activity have also been found in long-term meditators

(Ferrarelli et al 2013). In addition to brain waves, Davidson et al (2003) also found that immunological uptake of vaccines was more efficient in the meditation group, suggesting a strengthening of immune function.

Studies have repeatedly demonstrated functional changes to certain areas of the brain when using fMRI (functional Magnetic Resonance Imaging), a type of brain scan focusing on cerebral blood flow. Multiple meditative practices

have been shown to cause increased activity in the part of the brain related to our memory and how we make decisions (Baerentsen et al 2001, Cresswell et al 2007, Farb et al 2007, Treadway & Lazar 2009). Lazar et al (2005) have shown that regular meditation may lead to increased cortical thickness in the same location. Furthermore, Holzel et al (2008) demonstrated that meditators exhibited increases in grey matter density in the hippocampus and insular cortex, regions connected to memory, capacity for reflection and consciousness.

Most compellingly, the current scientific evidence suggests that meditation can not only change brain function but that continued practice may actually change physical brain structure.

### **CLINICAL TRIAL DATA**

Meditation is increasingly being explored within the context of healthcare and research suggests many benefits to a range of people with specific medical conditions, and for those who are fit and healthy.

In a review of several studies on meditation, numbering 625 cancer patients (Ledesma & Kumano 2009), mental wellbeing was found to be improved and meditating was shown to help patients in accepting their diagnosis. Keng et al (2011), in their review of multiple studies covering hundreds of participants, concluded that meditation brings about several positive psychological effects, including improved general wellbeing, reduced emotional reactivity and enhanced behavioural regulation. It has also been shown to be effective in managing depression, stress and anxiety (Kuyken et al 2013, Arias et al 2013),