

# The Yin and Yang of Climate Change: Chinese Medicine and Cultural Transformation

## Abstract

A fundamental tenet of Chinese medicine is that as humans we are connected to the world around us, and that the microcosm and the macrocosm - the little picture and the big picture - offer similar views, with the difference being merely a matter of scale. In light of over two decades of voluminous Western research indicating that the stability of the climate has been seriously compromised, how can Chinese medicine contribute to the ongoing discussion about climate change? Even a basic discussion of yinyang theory can provide significant insights into what climatologists describe is happening globally. This article examines prevalent assumptions about climate change held in the industrialised West through the lens of Chinese medicine, and explores deep-reaching philosophical understandings from classic Chinese medical texts that have much to offer in discussions about - and action towards - climate stabilisation.

## Introduction

A fundamental tenet of Chinese medicine is interconnection - that as individuals we are both internally connected and connected to the natural world around us. Part of this holistic thinking includes the understanding that the larger picture is a reflection of the smaller picture, and vice versa. Chinese medicine seems historically very comfortable with the idea that the microcosm and macrocosm reflect the same conditions and tendencies, with the difference being only a matter of scale. While modern Western medicine is now trying to articulate these connections, classical Chinese medicine has had them integrated in its thinking, writing and practice for several thousand years. For example, the *Nei Jing (Inner Canon)*<sup>1</sup> and *Nan Jing (Classic of Difficulties)*<sup>2</sup> both articulate the connection between the body, mind and spirit in their discussions of the internal organs. A condition that affects the organs on a physical level thus also affects the emotions and the spirit. Similarly, there is a well-developed appreciation of our connection to the natural world. While there are numerous interpretations of the underlying causes of sickness and the mechanisms and progression of disease, there is a common assumption that what happens in the world around us affects us. The *Shang Han Lun*,<sup>3</sup> for example, explains that sickness can originate from environmental cold entering and subsequently moving deeper into the body. The *Wen Bing*<sup>4</sup> tradition similarly argues that sickness can originate from environmental heat. Whilst the accuracy and efficacy of the schools of cold

and heat has long been debated, their common understanding is that we are intimately connected to the natural world, in terms of both health and sickness.

## The case for climate change

My personal observations and Western climatological research both confirm that the natural world is undergoing rapid and significant changes. This spring Lake Champlain, a great-lake-sized body of water in the northeast corner of the US, experienced unprecedented rises in its water levels. According to the Lake Champlain Basin Project that monitors the lake and its water levels, the 'Lake level exceeded the highest level ever recorded' [in 184 years of monitoring].<sup>5</sup> In Vermont the lake flooded to historic levels after two months of torrential rains and the melt from a heavy winter snowfall. I personally observed houses and businesses near the lake that were affected by three to five feet (one to 1.5 metres) or more of standing water for several months. Local residents experienced washed-out roads and bridges, flooded rivers and entire buildings being washed away. Although some may view such occurrences as isolated events and categorise them as anecdotal, they are part of a clear pattern of rapid, wider-reaching climate change.

The basic science of global warming is that the gases emitted from driving, flying, manufacturing and farming remain in the atmosphere and cause the heat from sunlight reflected off the earth's surface to be retained. In 2007 the Intergovernmental Panel on

By: Brendan Kelly

Keywords: Chinese medicine, climate change, environment, global warming, climate stabilisation.

## *The vast amount of data collected shows that there is no real doubt that the planet is becoming warmer.*

Climate Change (IPCC) issued its exhaustive fourth assessment report, which summarised the extant published Western scientific data on the condition of the planet's climate. Along with Al Gore, it was awarded a Nobel Peace Prize for assembling and analysing the work of more than 2500 scientific expert reviewers, over 800 contributing authors and more than 450 lead authors from over 130 countries. It found that there is almost universal scientific consensus (greater than 99 per cent) that the planet is warming significantly and rapidly due to the actions of humans, and that this is very likely to increase the global effects of violent storms, melting of glaciers (with an associated rise in sea levels), change in climate patterns (resulting in increasing floods and droughts) and disruption of climate stability. While this may seem like a shocking declaration from the often-conservative Western scientific community, it has actually been over 20 years since the first well-publicised public warnings. The widespread presentation of the effects of human-created climate change started with the publication in 1989 of Bill McKibbens' *The End of Nature*. The previous year the director of NASA's Goddard Institute for Space Studies James Hansen had testified before the U.S. Congress 'with 99 per cent confidence, that ... earth was being affected by human-made greenhouse gases, and the planet had entered a period of long-term warming.'<sup>6</sup>

The vast amount of data collected shows that there is no real doubt that the planet is becoming warmer. Recently, however, it has also become clear that the ability of the planet as a whole to keep the environment stable and cool and hold greenhouse gases at bay is decreasing. There are several interrelated biological reasons for this, including the acidification of the oceans,<sup>7</sup> massive deforestation<sup>8</sup> and the melting of the permafrost (which has been holding greenhouse gases).<sup>9</sup> The ice-sheets and glaciers, which have previously reflected sunlight back into the atmosphere, are melting, so that the sunlight is absorbed by the newly exposed land and water, thus contributing to the warming process.<sup>10</sup>

### **Climate change and Chinese medicine**

As discussed above, the planet is warming through greenhouse gas emissions. Simultaneously, the ability of the planet to limit the effects of these gases through forests, oceans, bogs and reflection of sunlight is diminishing. This is similar to Chinese medicine's concept of yin deficient heat, in which as heat (yang) increases, the coolant (yin) decreases (as the

excess heat 'cooks off' the fluids). This then further increases the heat, which in turn further decreases the yin - and so the cycle continues. Much of the emissions and resulting heat affecting the climate is coming from Western industrialised countries.<sup>11</sup> Although China recently became the largest overall emitter (due to its large population), the United States continues to top the list in terms of greenhouse gas emissions per capita. In the opinion of the author, it is the collective imbalance of Western industrialised countries - and particularly the US - that is affecting the climate of the entire planet. Put another way, where else could the rising rates of greenhouse gases, decreasing forests, and melting bogs and glaciers be coming from other than our own individual and collective pathology? If we were aware of how to live a balanced and harmonious life, and were acting on these understandings, the climate would not be in the state it is today.

One of the most common diagnoses seen at the author's clinic is yin deficient heat, which can be seen as a direct result of hyper-busy Western society. Greenhouse gas emissions occur through transportation, manufacturing and agriculture. Why do we continue to move around and consume in such a way that is having such a significant global impact? Because we collectively have too much heat and insufficient yin.<sup>12</sup> Yin deficient heat, of course, prevents internal peace. In the short term, we may be able to distract ourselves from the inherent unpleasantness of this state by being busy - over-working, travelling, buying things or entertaining ourselves - but once these distractions are gone, we return to an over-excited internal state. Yinyang theory states that personal well-being and global sustainability are in a dynamic state of balance where hot and cold, activity and rest, action and inaction are intertwined. In a myriad of ways we are being encouraged to believe that action and doing are better and more important than contentment and being. This is not to imply that being engaged in the world is inherently inferior to a more secluded life, but rather that so many of the messages we see and hear tell us that we should do more, move around more and buy more. It is the manifestation of these faulty assumptions that we are witnessing as climate change. Just as we can see the internal condition of our patients through the state of their pulse and tongue, what is happening to the climate is a reflection of what is happening to us internally.

It is vitally important that we - as practitioners, students and teachers of Chinese medicine - attempt to live a balanced life. This includes not only paying attention to the food and herbs we ingest and the treatments we receive, but also our contribution

to greenhouse gas emissions. How much does our personal travel contribute? How far does the food we eat travel? How much do we consume in general and how might this affect the climate? In a world that has become so busy and consumes so much that it is having very significant global consequences, rest, relaxation and contentment is of vital importance to all of us.

Connected to these individual issues are larger societal factors - particularly economics. We are by our nature social beings, and for better or worse are influenced towards balance and imbalance by those around us. As individuals we become more prone to excess when the predominant cultural emphasis is on an ever-growing economy. If we examine the words that are used to describe the condition of the economy and our reactions to them, we may notice the degree to which we are encouraged to desire growth and fear contraction. When the economy is 'strong' it is growing and considered to be healthy. When this growth slows, this is called 'recession', and if the economic situation seriously deteriorates we are told it is a 'depression'. From the Chinese medical perspective recession or depression merely involve the economy entering a yin phase. The prevailing view seems to be that it is both possible and desirable to be in a yang phase all of the time. But proposing that growth is 'good' and contraction is 'bad' is like saying that yang is good and yin is bad, or that we should have 24 hours of sunlight or 12 months of Summer. Obviously this is not only impossible, but it would have fundamental effects on our lives, as well as the lives of the plants and animals around us. As nonsensical as it seems to propose that we should have permanent sunlight or summertime, it is equally nonsensical to believe that we can have an economy that grows continuously. Despite the assertions of many economists, yang will eventually become yin, just as day leads to night and summer leads to winter. Even if the US federal government is willing to invest hundreds of billions of dollars in an effort to maintain expansion, growth can only be sustained for so long until the inevitable contraction occurs. It can even be argued that desperate measures to try to maintain growth will make the situation worse. In an ever-warming planet that has been adversely affected by the desire for economic growth, adding hundreds of billions of dollars to create more 'economic yang' essentially adds more fuel to the fire. With excess heat and a lack of coolant, yin contraction is actually part of the re-balancing that needs to occur, whether we like it or not.

It seems relevant to consider how Chinese medicine in general might help us adapt to our current condition. As Paul Unschuld convincingly argues

*As the climate further loses stability, humans will continue to be affected and it seems quite reasonable that climate change should be discussed as part of contemporary Chinese medicine.*

throughout *Medicine in China*, Chinese medicine's history shows a continuous process of adaptation - of thinking and treatment strategies - in response to larger cultural changes.<sup>13</sup> Changes in China - politics, military invasions, changes in dynasties, and shifting religious and spiritual influences - have all influenced conceptions about, and the application of, medicine.<sup>14</sup> As the climate further loses stability, humans will continue to be affected and it seems quite reasonable that climate change should be discussed as part of contemporary Chinese medicine. This medicine developed from a culture that lived close to nature, and created diagnostic models and treatment principles based on observing and interacting with the seasons (five phase model) and the weather (yinyang and eight principle models). Chinese medicine is therefore uniquely suited to look at, and comment on, climate change.<sup>15</sup> If the School of Attacking and Purging was partially a response to the Warring States Era, would not a 'Climate Change School' constitute an appropriate response to a global condition that is now seriously affecting all life on the planet? If the wen bing tradition was a response to epidemics that were killing large percentages of the people in China, should we not develop a school that helps to address not only medical issues but also the deeper philosophical and spiritual causes of our current condition?

### Conclusion

Whilst we as practitioners may provide insightful diagnosis, heart-felt connection and deep-reaching acupuncture treatments and herbal prescriptions to our patients, if they walk out of our clinics and resume their part in a culture that is informed by assumptions that are so misguided as to be fundamentally affecting all life on earth, what long-term good have we really accomplished? If we are committed to well-being in the treatment room, we also need to be committed to environmental sustainability and limiting the effects of climate change. Some might argue that environmental issues are outside the scope of the practice of Chinese medicine. However, while skill at diagnosing and treating patients is undoubtedly essential, our individual, cultural and economic pathologies are now being shared with the rest of the world through climate change. At this stage, it is imperative that we see the connection between

Chinese medicine and the condition of the climate on which all life on earth depends. Chinese medicine has much to offer in discussions about climate change and long-lasting sustainability. ■

**Brendan Kelly** practices acupuncture, and Eastern and Western herbal medicine at Jade Mountain Wellness, in Burlington, VT, USA ([www.jadementwellness.com](http://www.jadementwellness.com)). He has been involved with environmental issues for almost 25 years

and with the study, teaching and practice of natural and Chinese medicine for nearly 20. He teaches about natural medicine, environmental sustainability, and the intersection of the two at universities, schools, conferences, workshops and classes around the United States. He can be reached at [jadementwellness@gmail.com](mailto:jadementwellness@gmail.com).

## References

- Liansheng W. & Qi W. (1997). *Su Wen: Yellow Emperor's Canon of Internal Medicine*. Beijing: China Science and Technology Press
- Flaws, B. (February 2009). *Nan Jing: The Classic of Difficulties*. Boulder: Blue Poppy Press,
- Craig, M. et al (1999). *Shang Han Lun: On Cold Damage*. Brookline: Paradigm Publications
- Wen, JM & Siefert G. (2003). *Wen Bing Xue: Warm Disease Therapy*. Brookline: Paradigm Publications
- Lake Champlain Basin Project (2011). "2011 Lake Champlain Flood Update, Draft, 5/27/11", p.7, available at <[www.lcbp.org](http://www.lcbp.org)> [Accessed 12 December 2011]
- Hansen, J., (2009). *Storms of my Grandchildren*. New York: Bloomsbury USA
- Hansen, J., 82.
- UN's FAO, 2.
- Pearce, F., 78.
- Both quotes from Hansen, J., 74.
- Available at <[www.guardian.co.uk/news/datablog/2011/jan/31/world-carbon-dioxide-emissions-country-data-co2](http://www.guardian.co.uk/news/datablog/2011/jan/31/world-carbon-dioxide-emissions-country-data-co2)> [Accessed 12 December 2011]
- This is not to imply that I believe that we should treat all of our patients as having yin deficient heat.
- Unschuld, P. U., (1985). *Medicine in China*. Berkeley and Los Angeles: University of California Press. For example, see p.51 for discussion of how the system of correspondences was used to balance the turbulence of the Warring States era, p.62-66 for Confucius' application of yinyang and the five phases to social issues, or p.80-82 for how changes in demographics and metal production influenced medical thinking.
- Jeffrey Yuen frequently teaches about the larger cultural issues that affect the development of Chinese medicine.
- Increasingly there are direct connections being made in Western medicine between the condition of the environment

in general and the climate in particular, and our well-being. For example, at the University of Vermont, the Associate Dean of the Environmental School is a Western medical doctor who maintains a clinical practice and teaches in the medical program, including a course titled Ecosystem Change and Human Health. Numerous other medical schools in the US offer similar courses about a wide range of topics, including climate change. Harvard University has published an in-depth investigation into the connections between our health and the condition of the environment, in this case biodiversity.

# Continuing professional development

Events for acupuncture and Chinese herbal medicine practitioners



**Bill Ryan**

20–21 Feb 2012

**The art of feeling qi**

22 Feb 2012

**The art of projecting qi**

23 Feb 2012

**The art of safeguarding your qi using Dragon and Tiger qi gong**

24 Feb 2012

**The art of feeling and moving qi within body layers and channels**

**Frances Turner**

3–4 Mar and 1 Apr 2012

**The Three Step System of Chinese pulse reading**

**Peter Firebrace**

2 Apr 2012

**A yang ming feast: using stomach meridian points**

**Kevin Young** 16–17 Apr 2012

**Sports medicine**

**Radha Thambirajah**

8–9 May 2012

**Cosmetic acupuncture**

**Jennie Longbottom**

29–30 May 2012

**Trigger point acupuncture for myofascial pain**

**Elisa Rossi** 2 Jun 2012

**Classical syndromes affecting the spirit**

**Holger Wendt** 21 Jun 2012

**Holographic hand acupuncture**

**Lillian Bridges**

4–5 Jul 2012

**Fundamentals of facial diagnosis**

6 Jul 2012

**Signs of fertility on the face**

**Gisela Norman**

14 Jul 2012

**Crossing the frontiers: psychiatry and mental health in Chinese medicine**

**Peter Torrsell** 6 Sep 2012

**Food therapy: what really has an impact on health?**

**Sarah Budd** 18 Oct 2012

**A step further in obstetric acupuncture**

**Sandra Hill** 1 Nov 2012

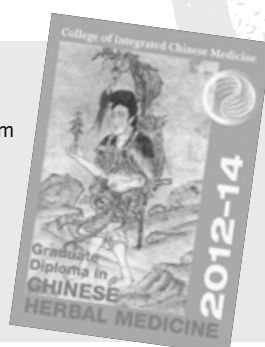
**Minister Fire: life force, fertility, creativity**

**College of Integrated Chinese Medicine**

19 Castle Street Reading Berkshire RG1 7SB

## Chinese herbal medicine diploma – enrolling now

A new two-year course designed from the ground up to provide a clear progression from being an acupuncturist to becoming a Chinese herbal medicine practitioner • Qualify to join the ATCM upon graduation • Starts autumn 2012 • Details at [cicm.org.uk](http://cicm.org.uk) or **0118 950 8880**



To find out more or book and pay online go to [cicm.org.uk](http://cicm.org.uk) or call Silvia on **0118 950 8880**