Revisiting the Concept of *Qi* as Life Force

Brian Cullen

This paper examines the Chinese concept of qi as a potentially useful perspective on the feeling and physical reality of being alive. It should be noted from the outset that this is a scientifically contentious topic, but it has had such a profound impact on the philosophy, medical practices, and lifestyles of people in China and other countries that it is worth considering. The paper begins with an overview of the roots and meaning of qi and then a review of the current views of science and modern medicine.

1. Introduction

This paper examines the Chinese concept of qi as a potentially useful perspective on the feeling and physical reality of being alive. It should be noted from the outset that this is a scientifically contentious topic, but it has had such a profound impact on the philosophy, medical practices, and lifestyles of people in China and other countries that it is worth considering as one potential element of what it means for a human to feel alive. The paper begins with an overview of the roots and meaning of qi and then a review of the current views of science and modern medicine.

2. What is Life Force Energy?

The Oxford English Dictionary entry for qi defines it as "air; breath" or "the physical life-force postulated by certain Chinese philosophers." The Webster's online dictionary defines it as "vital energy that is held to animate the body internally and is of central importance in some Eastern systems of medical treatment (such as acupuncture) and of exercise or self-defense (such as $tai\ chi$)." The word qi seems to have entered English as

a loanword from Chinese in the mid-nineteenth century. It is also often spelt as ch'i or ki. Below, all of these variants will be referred to as *qi*. From these definitions and other sources, we can see that *qi* refers to a life force, an energy, or breath.

The roots of the concept of qi are to be found in Chinese history, although similar ideas are found in the Hindu yogic concept of prana and to a lesser degree the Greek concept of humors or pneuma, the Hebrew ruach, and the Roman spiritus.

Qi is often interpreted to mean 'breath' and this idea of the importance of the breath can still be seen in modern $q\dot{r}$ based techniques such as Qi Gong which include exercises designed to deliberately slow and deepen the breath. In modern Japanese and Chinese, the centrality of breath to the practice is still linguistically evident when we see the kanji representation of qigong (気功 or 气功) which incorporates the character for breath (気 or 氣) and literally means 'breathing technique' or 'breath work.'

In the Analects of Confucius (Confucius [551-479 BCE], 2017) from about the fifth century BCE, the philosopher combined the words for blood (m xue) and breath (m q) to describe the motivational and energy states of people.

The [morally] noble man guards himself against three things. When he is young, his xue-qi has not yet stabilized, so he guards himself against sexual passion. When he reaches his prime, his xue-qi is not easily subdued, so he guards himself against combativeness. When he reaches old age, his xue-qi is already depleted, so he guards himself against acquisitiveness.

Another known early reference to qi is by Mencius (372–289 BCE], the philosopher who developed Confucius' teachings. Mencius described a kind of qi which can be seen as a form of energy and more specifically might be characterized as a person's vital energies. Qi was necessary for activity and could be controlled by a well-integrated willpower. When properly nurtured,

this qi was said to be capable of extending beyond the human body to reach throughout the universe, a concept which is practiced in certain qigong meditations such as the Inner Smile. It could be increased through careful exercise of mental and moral capacities and could be reduced by adverse external forces (Mencius, 2020).

In these writings, qi can usually be considered as synonymous with life force, but living things were not the only things believed to have qi. For example, Zhuangzi (or Zhuang Zhou, active during Warring States Period [475-221 BCE]) suggested that wind is the qi of the Earth and that there is qi throughout all things, but he also emphasized the life force nature of qi by saying that "human beings are born [because of] the accumulation of qi. When it accumulates there is life. When it dissipates there is death." (Zhuangzi, 2013).

Xun Zi (or Xun Kuang [310-238 BCE]), another Confucian scholar emphasizes that qi is an essential condition for life but not the only essential factor when he says, "Fire and water have qi but do not have life. Grasses and trees have life but do not have perceptivity. Fowl and beasts have perceptivity but do not have yi (36) a sense of right and wrong, duty, justice). Men have qi, life, perceptivity, and yi" (Leifer, 2013).

While animals were not viewed as having yi, they were viewed as having qi. For example, Dong Zhongshu (~150 BCE) wrote, "The gibbon lives eight hundred years, because he is expert in controlling his breathing" (Gulik, 1967). The gibbon as well as the crane were supposedly expert at inhaling and controlling qi. It was also believed that humans could learn to control qi by imitating the movements of certain animals. For example, Hua Tuo (140–208 BCE) developed the Five Animal Qi Qong techniques, suggesting...

that through imitating the movement of the tiger, deer, bear, monkey and crane, the Five Animal Qi Gong brings us back to our free human nature. Symbolically, the animals are related to the five elements, colors, sounds, seasons, internal organs, sensory organs and emotions. The system of Five Animals is practiced through simple forms of movements, meditation and spontaneous play of the animals.

Internally the practice opens the Qi channels and cultivates Jing, Qi, Shen (essence, vital energy, and spirit). (Feng. 2021)

It is clear that the early Chinese philosophers viewed qi as a very important element of life, that for them qi was essentially the force or energy that gave life and sustained life in humans and other animals. This philosophy found its way into many areas of Chinese life including medicine and exercise. In the section below, some techniques based on the concept of qi are briefly introduced and discussed.

3. Techniques Based on the Concept of Qi

Acupuncture, Shiatsu, and Moxibustion

Acupuncturists and other practitioners who base their work on the concept of qi describe it as a vital force, the flow of which must be unimpeded for health. One typical statement from practitioners is "Acupuncture, bodywork, herbs – these practices of Chinese medicine work together to get your qi flowing and harmonious throughout the body" (Kirkham, 2016). According to traditional Chinese medicine, qi energy is circulated through the body via energy pathways called meridians (see Figure 1 for an example of how these meridians are conceptualized). Each one of these pathways is thought to be linked to an internal organ. It is believed that if this flow of energy is blocked, imbalances occur which can result in health problems.

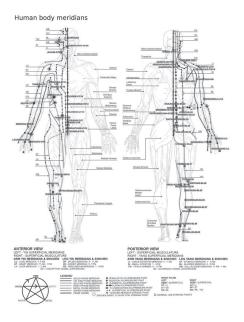


Figure 1 – Energy Meridians (Wikipedia, 2022)

Acupuncture is based on the idea that a block in the flow of qi through the body can be cleared by inserting needles at special acupuncture points along the meridians. When the needles are applied to the points the organ function is stimulated. There are hundreds of acupuncture points within the meridian system. Acupuncture needles come in different thicknesses and lengths. Modern needles are usually very fine (0.12-0.35 mm) in diameter. Chinese acupuncture techniques tend to use thicker needles than Japanese techniques (myDr, 2019). Treatments are ideally designed to unblock the meridians, easing muscle tension, and thus stimulating the qi and blood flow so the natural healing mechanisms of the body are engaged.

Acupuncture is not the only therapy based on the meridian system. *Shiatsu*, a popular form of massage in Japan, is a style of acupressure massage that is also based on the *qi* energy meridian system. Moxibustion is a form of therapy based on the burning of herbs close to the skin's surface

using a stick to apply heat.

Qi Gong, Tai Chi and other Qi-Based Practices

As mentioned above, *qigong* (other spellings include *qigong*, *chi kung*, *chi 'ung*, or *chi gung*) can be translated as "breath work." In China and increasingly around the world, it is viewed as a practice to cultivate and balance *qi*. It is influenced by Chinese medicine, meditation techniques, and martial arts. Typically, a *qigong* practice involves rhythmic breathing, slow and stylized movement, a mindful state, and visualization for guiding *qi* around the body, utilizing the same meridians as are used in acupuncture.

Tai chi (太极) was originally developed for self-defense but has evolved into a graceful exercise that is often recommended for stress reduction, improving balance and other health conditions. Often described as meditation in motion, tai chi involves a series of specific movements performed in a slow, focused manner and accompanied by deep breathing. Each posture flows into the next without pause, ensuring that your body is in constant motion (*Why Try Tai Chi?*, 2021).

There is considerable overlap between tai chi and *qigong* techniques and both are based on the concept that *qi* can be moved around the body, both by moving the body and by using the mind for visualization.

Reiki

While tai chi and qigong are generally well accepted by the science and medical community for at least the benefits of mindfulness and gentle exercise, the Japanese healing technique reiki (靈氣) is a more controversial $q\dot{r}$ based therapy. Proponents say that it works with the bio-energy fields within and around the body and involves the transfer of universal qi energy from the practitioner's hands to the client. While massage and acupuncture involve actual contact with a person's body, the reiki practitioner generally does not touch the client's body, so presumably any effect due to transfer of qi is transmitted through the air.

4. Is there a Scientific Basis for Qi?

Critiques of Qi-Based Therapies

The existence of qi has not been conclusively proven scientifically. For example, a 1997 consensus statement on acupuncture by the United States National Institutes of Health (NIH) noted that concepts such as qi "are difficult to reconcile with contemporary biomedical information." Concerning research studies of acupuncture, there were often problematic issues of "design, sample size, and other factors. The issue is further complicated by inherent difficulties in the use of appropriate controls, such as placebos and sham acupuncture groups" (NIH Consensus Statement Online, 1997). However, they also conclude that there have been positive effects of acupuncture in a range of medical areas including adult postoperative and chemotherapy nausea and vomiting, and in postoperative dental pain. In addition, they recognize that acupuncture may be beneficial either directly or as an adjunct therapy:

There are other situations such as addiction, stroke rehabilitation, headache, menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, osteoarthritis, lower back pain, carpal tunnel syndrome, and asthma, in which acupuncture may be useful as an adjunct treatment or an acceptable alternative or be included in a comprehensive management program. Further research is likely to uncover additional areas where acupuncture interventions will be useful.

A meta-analysis of controlled studies on *reiki* (Lee et al., 2008) summarized their findings in the following way: "In conclusion, the evidence is insufficient to suggest that reiki is an effective treatment for any condition. Therefore, the value of reiki remains unproven." For clinicians and patients, they offer the following advice:

"Whilst a lack of evidence does not mean that reiki is ineffective, patients should be informed that the only systematic and critical appraisal of RCTs (Randomized controlled trial) demonstrates that there is currently no robust evidence to recommend a course of reiki for management of several chronic conditions."

In an article titled "Reality Check: The Energy Fields of Life," Stenger (2007) gives the following harsh conclusion:

Despite complete scientific rejection, the concept of a special biological field within living things remains deeply engraved in human thinking. It is now working its way into modern health care systems, as non-scientific alternative therapies become increasingly popular. From acupuncture to homeopathy and therapeutic touch, the claim is made that healing can be brought about by the proper adjustment of a person's or animal's 'bioenergetic fields.'

Supporting Evidence

In more recent years, new technologies and more rigorous methodologies have been used to investigate the physical existence of acupuncture points and the implied meridian system of energy flow. These studies have suggested that there may be a physical basis to the meridian system or at least some acupuncture points.

Three-dimensional (3D) topographic structures of acupuncture points were investigated by using synchrotron radiation in-line X-ray phase contrast computerized tomography. Two acupuncture points, named Zhongji (RN3) and Zusanli (ST36), were studied. We found an accumulation of microvessels at each acupuncture point region.

Images of the tissues surrounding the acupuncture points do not show such kinds of structure. This is the first time that 3D images have revealed the specific structures of acupuncture points. (D. Zhang et al., 2011)

Medical science has definitely opened up more to the possibilities of complementary therapies including $q\dot{r}$ based therapies in the last decade or two and there are now journals which aim to explore these areas systematically and in an evidence-based manner. For example, in the *Journal of Evidence-Based Complementary and Alternative Medicine*, a recent well-designed study on acupuncture reported that "using acupuncture combined with moxibustion as a complementary therapy to basic treatments can improve pregnancy, ovulation, and miscarriage rates" (Li et al., 2022).

It is perhaps not surprising that many of the researchers involved in these studies are Chinese, presumably because qi is a much more accepted concept there than in Western countries. However, the number of studies and breadth of researchers internationally seems to be increasing. In a meta study into the efficacy of qigong, a group of researchers from China, the United Kingdom, and the United States examined 886 clinical studies and reported:

The top 10 diseases/conditions studied were: diabetes, chronic obstructive pulmonary disease, hypertension, stroke, cervical spondylosis, lumbar disc herniation, insomnia, knee osteoarthritis, low back pain, and osteoporosis.... The most frequently reported outcomes were physical function, quality of life, symptoms, pain and mental health indicators. Beneficial results from practicing Qigong were reported in 97% of studies (Y.-P. Zhang et al., 2020).

Clearly, these positive results and the increasing amount of research shows great potential for $q\dot{r}$ based therapies and techniques, although more evidence is certainly needed. For anyone interested in reading more about the scientific basis of qi and biofields, an excellent well-referenced narrative overview of the field was recently published which describes the attempts to conceptualize and measure qi energy from the early work of Harold Saxton

Burr in the 1930s right up to the biophoton emission imaging and magnetic resonance techniques being using today (Matos et al., 2021).

Whatever physical basis of qi may be eventually scientifically accepted, it is clearly accepted by the 80 million people in China who practice qigong and the 700,000 people in the United States (Cohen, n.d.). In addition, there are large numbers of people around the world who occasionally avail of acupuncture, acupressure, moxibustion, reiki and other qi based therapies. In the United States alone, ten million acupuncture treatments are administered each year (Hao & Mittelman, 2014). The obvious question is why—what is happening in acupuncture, tai chi or qigong and other qi based techniques? Below, I look at tai chi and qigong as examples because they are easily accessible and they are also the ones with which I have the most personal experience.

5. So What is Happening in Tai Chi or Chi Qong?

I have done *qigong* and tai chi for about ten years and I have found them to be useful in many ways. Tai chi is sometimes called a moving meditation, and like any other meditation or mindfulness technique, I find that it can make me feel more centered and calm. The simple slow stretches take me out of overthinking and bring me back into awareness of my own body.

Do I feel qi or life force energy? While this is clearly a difficult question to answer, the tentative answer is: not always, but sometimes, yes. I can feel a force between my hands or feel what seems like the flow of energy around my body. It could be an effect of suggestion, but combined with the movement and mindfulness aspects, it is certainly worthwhile and does make me feel more alive. Before I do a tai chi or qigong routine, I often think that I am too busy and only reluctantly do it. Invariably, by the end of a ten or fifteen minute routine, I feel much better in body and mind and am able to return to my work with a refreshed perspective.

Recently, I have interviewed several teachers of tai chi and *qigong* to explore their beliefs about what is happening. I have also looked deeper into some classic tai chi books. These are unfortunately beyond the scope and

length of the current paper and I will be returning to them in a later article to bring these perspectives in order to address some fundamental questions such as: What is qi, what is tai chi, what are yin and yang? While these questions are clearly important for understanding qi, the section below discusses how practices like tai chi and qigong have clear benefits even if we discount the concept of qi entirely.

6. Benefits of Tai Chi and Qigong (Without the Qi)

Even if we discount any of the possible 'life-force energy' effects of doing a $q\dot{r}$ based technique, there is much that can be gained from tai chi and qigong, and a brief summary is offered below.

Exercise

Tai chi and *qigong* are a simple and low-cost form of low-impact exercise. Low-impact exercises can improve your health and fitness without harming your joints. Research suggests moderate-intensity, low-impact activity, such as tai chi, *qigong*, yoga and fast walking, is just as effective as high-impact activity, such as running, in lowering the risk of heart disease and other health conditions (Avail, 2020). Any kind of physical activity stimulates various neurochemicals that leave you feeling happier, more relaxed and less anxious. Many people report that they sleep better, look better, and feel better.

Stress Management

Stress has been recognized for years as a serious threat to health and is one that is worsening in our always-on, always-connected modern society. Some conditions that are caused or aggravated by stress include heart disease, asthma, obesity, diabetes, headaches, depression and anxiety, gastrointestinal problems, Alzheimer's disease, accelerated aging, and premature death (Griffin, 2014). The Mayo Clinic reports that in many studies, tai chi has been shown to be a useful way to manage stress. It is a graceful form that can be regarded as meditation in motion and promotes serenity through gentle, flowing movements performed in a slow, focused

manner and accompanied by deep breathing. (Why Try Tai Chi?, 2021).

When we are stressed, our sympathetic nervous system goes into fight or flight mode. While this is useful in times of brief actual physical danger, it is detrimental to our health when it gets constantly triggered by modern interferences such as smart phone alerts. The deep breathing and relaxation of tai chi and *qigong* activate the parasympathetic nervous system, which sends a signal to your brain to tell the anxious part that you're safe and not to use the fight, flight, or freeze response. Deep breathing also gets more oxygen to the brain which facilitates clearer thinking.

Mindfulness - Tai Chi as a Moving Meditation

The benefits of mindfulness have been extensively researched over the last three decades (e.g., Verplanken & Fisher, 2014) and mindfulness has been shown to be very useful for work productivity and avoiding burnout, stress management, recovery from health issues, and dealing with emotional issues. Tai chi combines the benefits of mindfulness meditation with gentle exercise.

7. Conclusion

While this paper has been a brief introduction to some of the history and underlying concepts of qi, it only touches on a fascinating topic that is relevant to the overall research goal of investigating the subjective feelings of being alive. While there is a growing amount of evidence supporting the existence and usefulness of qi as a physical reality, there is much research that still needs to be done in order to make it generally acceptable to a wider population. In the meantime, if qi-based techniques are useful, does it matter whether there is a clear scientific consensus? The answer is probably both yes and no, and from the perspective of feeling alive, the only sensible approach may be to try it out for yourself. Acupuncture and acupressure are easily available in Japan, or you can join one of the many tai chi or qigong classes that are held at culture centers and other locations.

You will certainly get the well-researched benefits of stretching, gentle exercise, calming of the nervous system, and mindfulness. These will probably help you to feel more alive, and you might even get the bonus of qi universal energy, whatever that actually means.

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