



“When the qi of heaven and earth combine, it forms human life.”¹ The Chinese character 气 (qì) entered the English language as a loanword as far back as the early 19th century when it was rendered as *k'i* in Church Romanization. Later, in the mid-19th century it was written as *ch'i* in the Wade-Giles system of Chinese transliteration, subsequently morphing into *chi* in common use. In the mid-20th century, as the People's Republic of China officially adopted the Pinyin system of transliteration, the loanword used to express the character 气 in English has followed suit and is now widely written as *qi*. For the purpose of this article, I shall refer to 气 as *qi*. Despite the length of time that the word *qi* has existed in the English language, and thus the length of time the concept of *qi* has existed in the minds of the general public in the ‘Western’ world, much ambiguity about the meaning, significance, and function of this phenomenon still prevails and misuse of the term is ubiquitous. This misunderstanding and misuse of the term in the western world has led to the widespread conception that *qi* is a separate phenomenon within the bounds of the reality defined by the English language - much like ghosts, God, or aliens - to be neatly inserted into the English lexicon and believed in or not. This haphazard insertion of the word *qi* into the English language has led to it being treated as necessarily a ‘psychic energy’ or ‘magical power’, rather than merely one way of looking at and expressing ‘nature’s endless variety’, i.e. a different division of the very same raw reality that modern science has attempted to define. It is my hope that not only a deeper understanding of the meaning of the word in its original Chinese context, but also an appreciation for the philosophy of language itself, will dispel this misguided perception that *qi* is something to be believed in or not.

In this article I seek to briefly investigate the nature of *qi* and hope to shed some light on it from the perspective of a European sinologist and student of both traditional Chinese medicine (TCM) and Taijiquan. This article is therefore not designed to inform the Chinese reader, for whom the concept of *qi* is self-evident. The earliest known use in China of the primary logograph 气 has been found on oracle bone scripts dating back to the Shang dynasty (c. 1600 – 1046 BCE). The concept of *qi* has thus been part of Chinese language and culture since the early Bronze Age. *Qi* has been a cornerstone of almost all branches of traditional Chinese culture - from philosophy to medicine, martial arts to geomancy – for thousands of years. Due to the enormous brevity of any possible investigation of the concept of *qi*, rather than going into detail on any one particular type or function of *qi*, I shall limit the scope of this essay to the fields of culture westerners are most likely to encounter the term. I shall therefore specifically focus on making a very superficial overview of the different types of *qi* with particular relevance to the practice of TCM, followed by taking a brief look at *qi* in the practice of Qigong and Taijiquan from an anatomical and biomechanical perspective, as well as hint at its function in bioelectrical Qigong beyond our current understanding of the sciences.

Any examination of the meaning, nature, function or otherwise of *qi*, must begin with a recognition that the word is a loanword from the Chinese language. The character 气 is so widely used in Chinese as part of other words that it is impossible to disentangle it from its original linguistic context. For example, 天气(tiān qì - sky qi) means ‘weather’, 空气(kōng qì - empty qi) means ‘air’, 风气(fēng qì - wind qi) means ‘atmosphere’ or ‘general mood’, 气质(qì zhì - qi nature) means ‘temperament’, 神气(shén qì - spirit qi) means ‘lofty’ or ‘impressive’, 和气(hé qì - peaceful/gentle qi) means ‘friendly’, 电气(diàn qì - electric qi) means ‘electricity’ and thus the list goes on. From this perspective, we can see that the character 气 is not *necessarily* indicative of another separate

phenomenon in the universe that scientists cannot find, but rather illustrative of a way of expressing a number of different connected processes that occur naturally. For someone, therefore, to say that they do not believe in *qi* per se, is like someone saying that they do not believe in electricity or the weather; it is an absurdity.

Looking at the varieties of specific *qi* (as they occur, for example, in TCM) forces the western mind through an existential process of redefining the world along the lines of a very different vernacular. Since the philosophical impact of Wittgenstein has entered common discourse, it has been evident to many that language does not necessarily describe reality in and of itself as a mirror would dispassionately reflect an object, but rather defines or creates an impression of reality that reflects the language used to refer to it. Benjamin Lee Whorf, the American linguist writes that:

“...segmentation of nature is an aspect of grammar – one as yet little studied by grammarians. We cut up and organize the spread and flow of events as we do, largely because, through our mother tongue, we are parties to an agreement to do so, not because nature itself is segmented in exactly that way for all to see. Languages differ not only in how they build their sentences but also in how they break down nature to secure the elements to put in those sentences. This breakdown gives units of the lexicon. “Word” is not a very good “word” for them; “lexeme” has been suggested, and “term” will do for the present. By these more or less distinct terms we ascribe a semi-fictitious isolation to parts of experience. English terms, like “sky, hill, swamp,” persuade us to regard some elusive aspect of nature’s endless variety as a distinct THING, almost like a table or chair. Thus English and similar tongues lead us to think of the universe as a collection of rather distinct objects and events corresponding to words. Indeed this is the implicit picture of classical physics and astronomy – that the universe is essentially a collection of detached objects of different sizes.”²

Therefore, in seeking to understand the many varieties of *qi*, the non-Chinese mind is either forced into a paradigm of belief versus non-belief, or is forced to step out of the linguistically defined boundaries of reality that have been prescribed to them since infancy. To say that the divisions of what Whorf describes as ‘nature’s endless variety’ that a mind accustomed to Chinese grammar and lexis has brought into existence can be neatly fitted into those brought into existence through the use of English grammar and lexis is an absurdity. It is exactly this absurdity that leads to the mistaken notion that one must either *believe* in *qi* or not. Each language divides the world along different lines and therefore if, as non-native Chinese speakers, we are to understand the varieties of *qi*, we must be at least willing to temporarily suspend our own linguistic model of reality so as to avoid the absurdity of trying to reconcile both models.

Inviting the reader into that frame of mind, let us look at the word *qi* in its native context. The ideograph for *qi* was not always written as it is today – 气 – but developed over a period of a roughly 4,000 years. This period of development saw the character morph from something akin to three horizontal slightly wavy lines stacked on top of each other, found on oracle bones from the Shang dynasty, all the way to the ideograph 氣 in traditional Chinese characters adopted in roughly the 5th century AD. Apart from its continued use in traditional Chinese by the Chinese diaspora, the ideograph 氣 is still used in Korea and, up until 1946, was also used in Japanese Kanji. In modern day Japan, the ideograph 氣 is now used for *qi*. Since the 1950s/60s the simplified ideograph 气 has been in widespread use in mainland China and throughout the world. The ancient Daoist authors of talismans (符箓) used a fourth character for *qi* - 炁. Understanding the meaning of these four ideographs representing *qi* – 气, 氣, 炁, and 炁 – is significant because it helps us to build a sense of the nebulous concept of *qi*.

Drawing upon knowledge gained from the book *Explaining Graphs and Analysing Characters* (说文解字 – written around 100 AD) we can see that the ideograph 氣 is made up of two parts, namely a radical indicating the meaning (and in this case its pronunciation) – 气 – which means ‘cloudy vapours’ or ‘air’, along with the ideograph 米 meaning ‘rice’ but with the semantic function of indicating ‘steam’. To this extent we can see that *qi* has the nature of air, steam, or vapour. Furthermore, in TCM theory, the *qi* of the body can be subdivided into prenatal and postnatal *qi*. Postnatal *qi* is derived from a combination of the air we breathe and the food/water we eat and drink. Breaking down the character 氣 into 气 (air) and 米 (rice) illustrates this appreciation of postnatal *qi*. Furthermore, we can see the Yin-Yang nature of *qi* in general as both material (Yin) on the one hand, and functional (Yang) on the other.

The ideograph 氣 can be broken down into the same radical meaning ‘cloudy vapours’ or ‘air’ (气), along with a simplification of the ideograph 爻 (yáo). According to the *Book of Changes* (易经) 爻 is the ancestor of all *qi* transformations and can very simply be seen as Yin and Yang in dynamic change, one stroke being Yang and the other Yin. This insight into the ideograph 氣 shows us how the changing of Yin and Yang underpins the meaning of *qi* – that *qi* is not something static, but rather something dynamic. According to the theories of TCM, the *qi* dynamic of the human body involves Yin and Yang in the sense of an inward and outward, upward and downward system of movement. This can be seen in an inhalation and exhalation of air, as well as a sinking of ‘gain *qi*’ (谷气) in the food we eat (the stomach’s *qi* descends in TCM) and rising of nutrients from the digestive tract (the spleen’s *qi*, or *qi* from the GI tract, ascends in TCM) to enrich the blood in the lungs, blood that then is pumped out of the heart and ascends/descends to the rest of the body through the aorta and its branches in the systemic circulation of blood.

Understanding the rarely depicted ideograph 炁 is perhaps the most significant in understanding the philosophical significance of *qi* and gives us an insight into the general meaning of *qi* (not merely that of *qi* in TCM or martial arts). 炁 is comprised of the radical for ‘fire’ – 火 – underneath a morphed version of the ideograph 无 meaning ‘not to have’, ‘a lack of’, or simply ‘nothingness’ (strictly speaking the top half of the ideograph 炁 is another ideograph pronounced ‘ji’ that originally had the meaning of ‘to belch’ but that ideograph has almost entirely been lost from the Chinese language. To this extent, for the purpose of deepening our understanding, I shall take 炁 as being comprised of 无 and 火). According to traditional Chinese cosmology, the universe originated from a state free from extremes (无极 wújí), a state of nothingness, a state described as *chaos qi* (混沌气). Despite being nothingness, this state of *chaos qi* was alive with *source qi* (原气). From this state originated a polarity and potentiality – the extremes of Yang and Yin, a positive and negative charge, creating the potential for all transformations out of *source qi*. Metaphorically, we can think of the *qi* of the universe as a fire stirring nothingness into action – 炁. Gaseous clouds condensed to form planets and suns, the *qi* of the heavens (metrological forces) and the Earth (geological forces). In the environment of these natural metrological and geological forces – between the heavens and earth – evolved wo-mankind to exist on the Earth and under the sky. Thus *human qi* exists between *heaven qi* and *earth qi*.

Looking in this way at *qi* in a general way, everything in the universe consists of *qi*. *Qi*, in the general sense, is thus synonymous with the English word ‘energy’. Everything in the universe is comprised of energy (as energy is equal to mass multiplied by the speed of light multiplied by itself.) Matter is merely condensed energy or *qi*. This idea is called *Qi-monism* and from this perspective we can see how all things are inter-related (and, according to the Buddhist theory of the Perfection of Wisdom Sutras – Prajñāpāramitā – empty of inherent existence since when the identity of a phenomenon is looked for in its basis of designation, all that can be found are energy relationships i.e.

qi.) When a large amount of *qi* is condensed into a small part of space-time, material substance is observed. When *qi* is dispersed or released from elements that comprise the substances of the universe, it is sped up and observed as light. *Qi* is therefore both substantial and insubstantial.

According to TCM theory there are a number of different ways to differentiate the *qi* of the human body. As mentioned above, one way to differentiate the *qi* of the human body is into prenatal and postnatal *qi*. Prenatal *qi* comes from the energy present in the sperm and ovum of a human's mother and father. Sperm can be seen as pertaining to Yang *qi* and the ovum can be seen as pertaining to Yin *qi*. Together they form the *qi* necessary for the growth and development of a human being. Postnatal *qi*, on the other hand, is derived from the nutrients extracted from *grain qi* (谷气) i.e. nutrition from the food and water we consume during our life – called *nutrient qi* (营气), and the oxygen (氧气 yǎngqì) extracted from the air we breathe, called *clear qi* (清气). Together the *nutrient qi* and *clear qi* combine through the action of the spleen system in conjunction with the heart and lung systems to form *pectoral qi* (宗气). *Pectoral qi* is then distributed throughout the body to provide nourishment. In this way we can see that some *qi* of the human body is inherited from our parents, i.e. prenatal, and others come from the food, drink and air that we breathe, i.e. postnatal.

Speaking of the *qi* in the human body, Dr. Qu Li Fang says “In traditional Chinese medicine there are eight kinds of *qi* according to their source, function, and distribution. They are the *source qi* (原气), *initiating qi* (元气), *genuine qi* (真气), *pectoral qi* (宗气), *nutrient qi* (营气), *defence qi* (卫气), *visceral qi* (脏腑之气), and *channel and vessel qi* (经脉之气).”³ I shall briefly deal with them one by one.

According to TCM theory, *source qi* is derived from the prenatal essence (原精) obtained from the sperm and ovum of the mother and father. The *Classic of Difficulties* (难经) issue 36 says that the *gate of life* (命门) “is the place to which the source *qi* is tied”. *Source qi* originates from the *gate of life* (a point debated to reside either between the kidneys or within the kidneys themselves) in the sense that *source qi* is produced from *prenatal essence*. Since the *prenatal essence* is a finite resource of the body, this type of *qi* is also considered to be finite and used up throughout the process of living. *Source qi* leaves the *gate of life* and carries essential information for physiological processes through the channels and vessels to the viscera, as well as through the thoracic, abdominal and pelvic cavities and the interstices to the intercellular matrix (三焦) to enable the essential functions of cell production and metabolism to take place. A possible analogy between *source qi* and stem cells can be made in the sense that stem cells are the body's raw material and are the cells from which all other specialized cells are generated. Analogous to the action of *source qi*, stem cells exist in an undifferentiated state before mitosis whereby they transform into and build all the various cells of the body.

Another two forms of *prenatal qi* are *initiating qi* (元气) and *genuine qi* (真气). Both *initiating qi* and *genuine qi* are both forms of prenatal *qi* in the sense that they are both transformed from prenatal essence. The ideograph for *initiating qi* - 元 - can be translated as ‘original’, ‘beginning’ or ‘initiating’. This type of *qi* is described as being the initiating spark or influence that kicks starts the process of life. Chapter 27 of the *Elementary Questions* says “The genuine *qi* is called channel *qi*.” in that *genuine qi* is the *qi* that circulates through the major and minor meridians of the body. *Genuine qi* directs postnatal *nutrient qi* (营气) in the maintenance of normal physiological functions. Chapter one of the *Essential Prescriptions of the Golden Cabinet* says “If the initiating and genuine of the five yin viscera flow freely, the person is calm and in harmony.” This means that, according to TCM, a state of good health is the result of the *initiating qi* providing the initial stimulating influence for life to begin and *genuine qi* informing cells how to operate correctly.

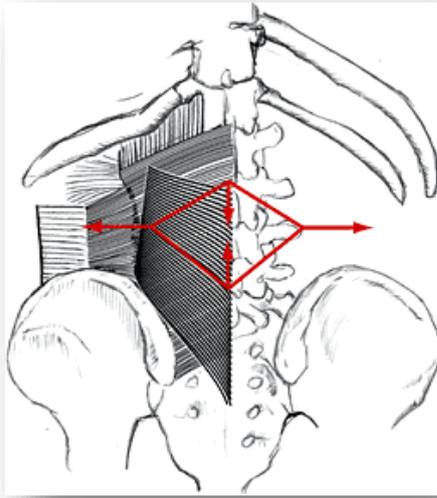
Whereas *source qi*, *initiating qi* and *genuine qi* are all derived from prenatal essence, *pectoral qi* (宗气) is derived from the postnatal essence extracted from *grain qi* (the food we eat) by the spleen system, thus becoming *nutrient qi* (营气), and *clear qi* (the air we breathe) by the lung system. The ideograph depicting *pectoral qi* is 宗. “宗 means root, ancestor, source and gathering.”³ and is translated as *pectoral* as it gathers in the chest to be distributed to the respiratory tract and the vessels through the action of the heart. *Pectoral qi* is responsible for maintaining respiration and vocalisation as well as assisting blood circulation and supplementing *initiating qi*.

Nutrient qi (营气, sometimes called *nutrient yin* – 营阴 – since it is Yin in nature) is the nutrition extracted from food and assimilated into the body in the process of digestion. It has the function of forming essential aspects of the blood and nourishing the body. *Defence qi* (卫气, sometimes called *defence yang* – 卫阳 – since it is Yang in nature) encompasses a range of complex physiological processes analogous to the immune system. *Defence qi* has a prenatal as well as a postnatal source and circulates outside of the vessels through the interstices to the surface of the viscera and skin to protect against external pathogens. *Defence qi* is said to warm the body as well as regulating sweat to maintain normal body temperature.

Visceral qi (脏腑之气) is the collective name for the *qi* that stimulates and maintains the physiology of each of the viscera. Even though heart *qi* is responsible for the correct functioning of the heart and liver *qi* is responsible for the correct functioning of the liver, this differentiation of different *visceral qi* is merely a nominal one. *Visceral qi* includes and is limited to the prenatal and postnatal *qi* already mentioned upon above. Likewise *channel and vessel qi* (经脉之气) is a nominal designation and no more than the *qi* derived from prenatal and postnatal essences – *source qi*, *initiating qi*, *genuine qi*, *nutrient qi*, and *pectoral qi* – that circulates through the meridians and blood vessels of the body allowing for smooth and unobstructed physiological processes to take place.

To further illustrate the concept of *qi* to the non-Chinese reader, a helpful analogy of how *qi* could be stored in the body can be made by looking at the action of the molecule adenosine triphosphate (ATP). ATP is a specific form of stored energy, it is the means by which biological energy is stored or spent in the body. We derive energy from the food we eat (from glucose) through the process of cellular respiration. Through cellular respiration, one molecule of glucose can yield up to 38 molecules of ATP plus heat. Certain biological processes use ATP to store energy (e.g. photosynthesis), whereas others (muscle movement etc.) break ATP down in order to release energy. The bonds between phosphate and oxygen in ATP are in a high energy state, therefore when the molecule is broken down in the process of hydrolysis, and the electrons go into a lower energy state, a large amount of energy is released. In order for cells to grow, move, produce electrical impulses in our nerves and brains, or do pretty much anything active ATP is used to release energy. We can therefore see ATP as the currency of *qi* in our bodies.

As a student of acupuncture, I believe my own personal experience of subtle physical sensations can be brought to bear on understanding the disparity between the ability of English lexis to accurately describe the world, and the range of phenomena experienced by human beings. In TCM, the different types of *qi* not only describe the relative functions of the organs and physiology of the body, but also help us to understand subtle feelings for which there might not even exist a word in the English language. When beginning to study traditional Chinese medicine on an acupuncturist's ward of a hospital in China with needles puncturing my skin, I observed the distinctly different sensations traversing my body and how they accumulated around the insertion points of the needles. Some of the sensations were tingly and hot, others tingly and cold, some were tingly and numbing, others tingly with increased sensation, some sensations were calming, others disturbing. English lexis falls far short of sufficiency at describing all of these sensations within the body, yet it is these many sensations that comprise our every mood and feeling. Traditional Chinese medicine has a systematic,



functional lexicon of words to describe the myriad of different subtle sensations experienced by a human.

Another major field in which a non-Chinese mind might come across the word *qi* is in the field of Qi Gong or internal martial arts (内家拳 - of which Taijiquan is a branch) Let us look at a modern scientific interpretation of the function of *qi* for the practitioner of standard Qi Gong (e.g. 'The Muscle/Tendon Changing Classic' 易筋经, 'The 8 Brocades' 八段锦 etc.) or internal martial arts. From looking at the above list of Chinese words that are comprised in part by the character *qi*, we can see that *qi* has both the meaning of 'air' as well as 'electricity'. Through practicing Qi Gong or internal martial arts, over time one's abdominal area changes

in consistency. The deep abdominal wall becomes thicker and more elastic and swells up with pressure accumulated there in the process of breathing. For many practitioners of internal martial arts, this phenomenon is what is described in the Taiji classics as the *qi* sinking to and being stored in the lower *dantian* (下丹田), an area roughly 2-3cm below your umbilicus and deep to the rectus abdominis and linea alba/rectus sheath. The lower *dantian* starts in that position and expands to fill the entire hypogastric region, the right and left iliac regions, and even parts of the umbilical region. The physical pressure that builds up in these regions from practicing internal martial arts stretches the thoracolumbar fascia at the posterior of your lower back – the lumbar region – thus temporarily removing lumbar lordosis and making your lumbar region either straight or slightly kyphotic. In doing this, it activates a biomechanical mechanism called the thoracolumbar fascia mechanism. The thoracolumbar fascia should be the main weight bearing aspect of your trunk and activation of its mechanism functionally connects the upper and lower parts of the body. With a very strong and elastic thoracolumbar fascia connecting the body, a person can efficiently transfer kinetic energy from the ground to the rest of the body and from the rest of the body to the ground. It is this 'sinking of the *qi* to the lower *dantian*' that, biomechanically, allows for vastly increased stability throughout the frame of the entire body as well as an enormous increase in the amount of kinetic energy capable of being generated in the process of physical movement whilst standing be it pushing, pulling, punching, kicking etc. Through activation of the thoracolumbar fascia mechanism (as well as other mechanisms in Taijiquan), the body can act as one connected whole. The picture above left shows intra and inter-abdominal force patterns with relation to the thoracolumbar fascia, note how they converse and emanate from the lower *dantian* area.

However, is the thickening and expansion of the deep abdominal wall with its attendant activation of the thoracolumbar fascia mechanism really what the Taijiquan classics mean when they talk about sinking your *qi* to the lower *dantian*? Practitioners of particular types of Qi Gong develop a *dantian* of an entirely different nature to that of modern practitioners of other forms of Qi Gong and internal martial arts. Certain practitioners of Qi Gong in now extremely rare Qi Gong systems describe the refinement and storage of a type of *qi* in the epigastric region we are forced to describe as bioelectricity since it has many of the properties of electricity and is produced in the body. Such practitioners can produce with their bodies a high voltage direct electrical current that can be objectively verified using an ammeter or other equipment to test electrical currents. From this bizarre phenomenon, it would seem that through the practice of certain types of Qi Gong, bioelectricity can be stored in the epigastric region of a practitioner enough to generate negatively charged ions in the air sufficient to attract small pieces of paper a few inches from a surface of the hand or put a very noticeable electric shock into a human being. The applications of this form of bioelectricity generation

go far beyond the mere trivial and are used in a medical context in remote parts of Anhui province in China (as well as Indonesia and elsewhere). This extraordinary phenomenon certainly requires much further rigorous scientific investigation. Such investigation is, unfortunately, highly limited by many socio-political as well as economic factors prevalent not just in China but throughout the globe. At a time when the politics and economics of, perhaps, every country in the world are largely invested in pharmaceutical companies which make billions of dollars a year selling drugs to limit the symptoms of a range of illnesses possibly capable of being treated with bioelectrical (*qi*) healing methods, there is an enormous amount of political power to be lost in the rigorous scientific investigation of advanced Qi Gong methodology.

In the process of this brief look at *qi*, we have seen how language shapes our division of the world, we have looked at the etymology of *qi* its meaning in Chinese, we have made an overview of the different types of *qi* in the universe and in the human body, as well as looking at the function of *qi* sinking to the lower *dantian* in Qi Gong and internal martial arts. We have looked at a number of analogies for *qi* in the realm of modern science. Through this brief analysis, it is highly tempting to attempt to pin down *qi* to one specific English word – ‘energy’, perhaps. It is my feeling, however, that all of these divisions and illustrations merely highlight the lack of an appropriate English ‘lexeme’ that satisfactorily encompasses the full range of what is meant by *qi*. Nevertheless, for the non-Chinese mind, this necessarily existential process of looking at *qi* in its original context, as well as peeking at analogies for *qi* in our own system of dividing what Whorf describes as ‘nature’s endless variety’, can at least and at last leave us with a taste for the real meaning of *qi*.

1. Plain Questions, Chapter 25
2. B.J. Whorf, “The relation of habitual thought and behaviour to language”, Language, Thought, and Reality: Selected writings of Benjamin Lee Whorf p134 MIT Press, Cambridge 1956
3. Dr Qu Li Fang, Basic Theory of Traditional Chinese Medicine p129
4. Dr Qu Li Fang, Basic Theory of Traditional Chinese Medicine p130