Luke's Journal

of Christian Medicine & Dentistry

Vol. 25 No. 2 April 2020
ISSN 2209-9441

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Breath of Life

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"As a medical student, I was challenged to see theological education as akin to secular education. Prior to this I had felt it was only for those considering full-time vocational ministry. We study and train for years to work as a doctor, but we are called to be followers of Jesus 24/7. I had intended to do a short stint of theological study after completing medicine but, with work, family and continued lay ministry, this decision was delayed until this year. As I became a father and more involved in church, I realised that studying the Bible in depth has value for every facet of life. As a doctor it will shape and mould the way I approach my work, but more importantly it will equip me to understand and teach the Bible better. Ultimately, it will allow me to serve God effectively wherever he places me. After proclaiming I'd had enough of study forever, this year has been the most rewarding, enjoyable and life-changing study I have done. It's never too late!" **SMBC student, Julian**

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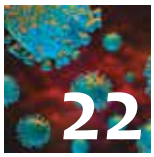
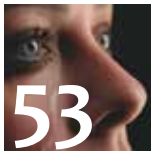




Luke's Journal

Themes for Next Editions:

End of Life
copy due 1 Sept 2020

Children of God
copy due 15 Jan 2021

Dr Annetta Tsang

Annetta Tsang is a member of the *Luke's Journal* editorial team. She works as a paediatric dentist on the Gold Coast. She is involved in teaching Sunday School and coordinating the young families' fellowship at her church. Annetta loves spending time with her family as well as drawing, reading, writing, singing, eating desserts, drinking coffee and learning.

Breath Of Life

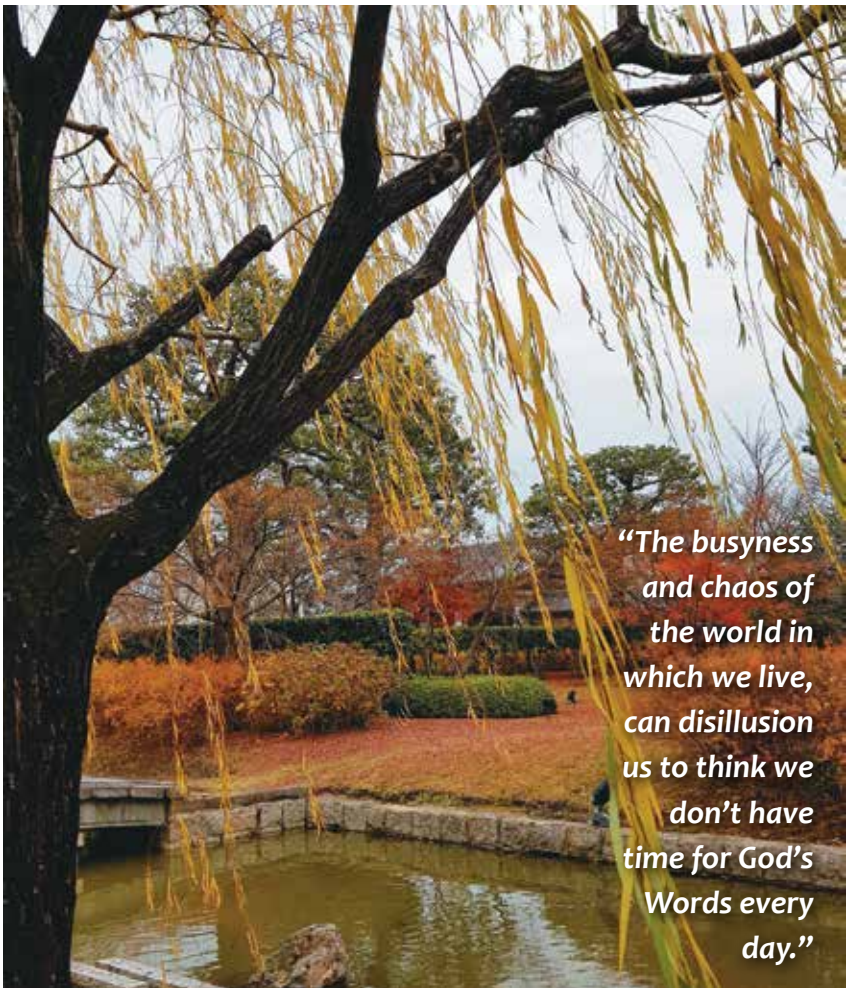
This is the second edition of *Luke's Journal* for 2020.

The topic, *Breath of Life* could not be more timely.

Since 1 January 2020, the world has been fighting the coronavirus disease (COVID-19) caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). A respiratory illness spread by close contact, airborne droplets and contaminated surfaces, that causes a variety of symptoms and signs, including fever, cough, shortness of breath, pneumonia and death.

Originally identified in Wuhan, China, on 31 December 2019, this novel virus spread unexpectedly and speedily. On 1 March 2020, Australia had 30 reported cases and 1 death. By 10 March 2020, Australia had 100 confirmed cases and 3 deaths. Three days later, on 13 March 2020, Australia had 200 confirmed cases. Two weeks later, Australia had over 2000 confirmed cases including the famous Tom Hanks and Home Affairs Minister, Peter Dutton. As I write, there are significant outbreaks reported in South Korea, Italy, Iran, UK, USA and in over 190 other countries. Human-to-human transmissions are a reality; and the death counts are continuously increasing, including many lives of those who died saving others.

Border closures, school and business closures, cancellation of large events and panic buying are increasing. Toilet paper was hijacked off a delivery van in Hong Kong, Australian police had to intervene between shoppers fighting for toilet rolls, and others are trying to make money selling this precious commodity at unrealistic mark-ups to discombobulated others. Rice, pasta, canned foods and cleaning agents are flying off shelves. Masks and gloves are in a severe shortage globally, posing unprecedented threats to those working on the frontline and many others.



Dr Peter Wark's article, *Calm and Compassion amidst the Coronavirus* draws upon insights gained from history, and discusses how we can do better together, as members of humanity. Dr Bo Wong highlights the parallel pandemic of panic that has proved to be increasingly more destructive than the coronavirus pandemic itself.

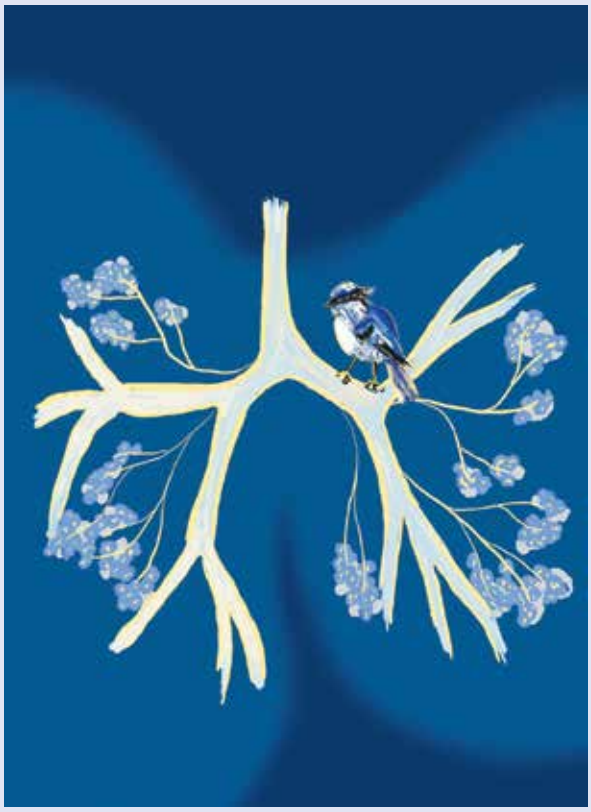
These are, indeed, unsettling times…

We need to focus on God right now, more than ever before. As we face our limitations and asininity, we are reminded of our limitless Almighty God and His perfect love for us. Dr Sam Chan's reflection, *Breath of life – God's Spirit: Can we ever be more than the sum of our diseased body parts?* and Dr Rhys Morgan's *Exploring the breath of life through Genesis, Ezekiel and Acts* are sure to draw you nearer to God.

The busyness and chaos of the world in which we live, can disillusion us to think we don't have time for God's word every day. Quite the opposite, we are too busy *not* to make time for God's word and moments with God. I'm particularly reminded of 2 Timothy 3: 16-17 (NIV) *"All Scripture is God-breathed and is useful for teaching, rebuking, correcting and training in righteousness, so that the servant of God may be thoroughly equipped in every good work."* And Job 33: 4 (NIV) *"The Spirit of God has made me. And, the breath of the Almighty gives me life."*

May the heartfelt writing of the many contributing authors in this *Breath of Life* issue draw you nearer to God and His Words; and encourage you to share God's Awesomeness with others. Yes, glory be to God!

Dr Kristen Dang
Kristen is a family doctor who loves music, writing and anything artsy. She lives with her husband and daughter in Adelaide and writes a regular blog (lostnowfoundk) on life with God. Her second blog (lilyofthevalleysk), aims to share her love for Jesus through the creative arts.



Artwork by Dr Kirsten Dang

In a Breath

It is incredible to think about what happens with one breath. Lungs expand, and life-giving oxygen is ferried around the body while carbon dioxide is released. At a smaller level, alveoli and capillaries assist with gas transfer, red blood cells carry oxygen to vital organs, and nerves run a fragrance-deciphering relay. One breath mobilises our entire body!

Breathing also affects us mentally. Relaxation techniques include deep, slow and controlled breathing. A breath like this can help dissipate feelings like anxiety and anger.

More wonderful than the intricacies of the human breath, is the breath of God the Creator. His breath creates physical life, refreshes weary spirits, and speaks of eternity. It blows down barriers to bring us into freedom, and gently whispers God's unceasing love. It is the breath of God within us that moves us to worship and sing a new song to Him.

"By the word of the Lord the heavens were made, and by the breath of his mouth all their host." (Psalm 33:6)

Life Over Death

"Man is like a breath; his days are like a passing shadow." (Psalm 144:4)

Death is inevitable, yet our perspectives on it differ. For some, it is like a faraway dream, and for others, it is an expected reality. Medical training equips us to deal with the possibility of death. It exposes us to many of its facets – uncertainty, pain, relief, the fight, peace, fear, and faith.

Working in a nursing home, death and its implications are starkly highlighted through end of life planning and advanced care directives. Some residents have even paid for prepared funeral plans. Sadly, not everyone feels at peace about death. There are those taken unexpectedly and those who fear the finality of death.

As Christians, we can have a different perspective. We know that each one of us, made in the image of God, has eternity to live. Billy Graham describes it like this:

"Some day you will read or hear that Billy Graham is dead. Don't you believe a word of it. I shall be more alive than I am now. I will just have changed my address. I will have gone into the presence of God."[1]

Life on earth is only a passing shadow when we consider a future of eternity in the presence of God, but it also carries great significance. When all things are restored, there will be no more crying, no more pain, no more blinding of vision. Therefore, we will not have the same opportunities to comfort the hurting, or to demonstrate faith in the face of suffering then as we do right now. God is glorified in these things as we wait for that eternity when all will see and know God, though not all will have worshipped Him.

On earth, we make choices that will affect eternity. Will we choose to love God and serve Him? Will we steward the gifts and opportunities He gives us? Are we living now to store up treasures on earth, or treasures in heaven?

As children of God, we have a hope beyond death – eternal life in Christ our Lord. This is not a hope to be kept to ourselves, but a light to be shared with the world. We do this as we listen to our patients with compassion, as we work with integrity, as we treat our colleagues with love, as we bring joy into the workplace, and as we navigate difficult situations with trusting confidence in God who sees us through.

In this world that knows death, let us be revealers of the love, hope, joy and life found in Jesus Christ. His victory has overcome the grave.

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1. Quotes and Guidance from Billy Graham (February 21, 2018). Accessed online: https://billygraham.org

Dr Rhys Morgan
Rhys did his anaesthetic training in Brisbane and the UK. He became a staff anaesthetist and subsequently a VMO at the Princess Alexandra Hospital. In 1990, Dr Morgan entered private practice. In 2001 Dr Morgan completed a theology degree. He has mission experience in Thailand and China and supports Christian outreach in India.

The Breath Of God

The logo of the Australian Society of Anaesthetists is a symbol depicting a hand holding a bowl of ether.

It symbolises the careful administration of the mystical ethereal vapours of anaesthesia. My speciality of anaesthesia is steeped in this history. Without pushing the imagery too far, the biblical words for breath: *ruach* (and its synonym *neshamah*) in the old testament (OT) and *pneuma* in the new testament (NT), have a similar mystical ethereal quality to them. They have been variously (and at times interchangeably) translated as breath, wind, and spirit, which speak of the mysterious, unpredictable, invisible dynamic power of God.[1] The close relationship of these translations is borne out in our common uses of these words today in theological circles. In theological literature, the very term *Breath of God* is often taken to mean the *Spirit of God*. In academic circles, study of the third person of the Trinity is typically called *Pneumatology*.

When asked to write on *The Breath of God* for this journal, there were three immediate biblical passages that sprang to my attention. The first of course is in book of beginnings, the biblical account of God's creative role in our primeval history (Genesis Ch. 2). Next was the dialogue between God and the prophet Ezekiel regarding the '*valley of dry bones*' (Ezekiel Ch. 37) and the final one is the coming of the Spirit of God upon the disciples on the day of Pentecost (Acts Ch. 2). Any word study of scripture will find many more references to the words *ruach* (OT: 389 times) and *pneuma* (NT: 379 times)[2] which could be incorporated a study of the Breath of God, but for the purpose of brevity and for context of this journal, I propose to limit myself to these three texts and where possible, draw some association to the church today. Finally, I propose to tentatively wade into the ambiguous arena of the '*mortality vs immortality of the soul*', not because I claim to be an expert on the topic but because I believe our understanding of this issue is not unimportant for us as Christian physicians / dentists, particularly as we seek to work within a surging tide of dementia in our Western communities.

The Breath Of God: In The Beginning (Genesis 2)

In the second verse of the Bible, *ruach Elohim*, which in this context is best translated, the Spirit of God "*was hovering over the surface of the waters*" (Genesis 1:2)[3] Right at the beginning, God is present and is going to be the pro-generator of all that follows. In the very next chapter, *The LORD God formed man from the dust of the ground and breathed into his nostrils the breath (neshamah) of life; and man became a living being (nepes)*[4,5] (Genesis 2:7).

Although cast in anthropomorphic terms, the living being is assembled from the lifeless body by the divine breath of God.[6] It is as if man's body had been completely formed but lifeless. It had to become a living being: the breathing mechanism activated, the heart needed to beat; the blood to circulate and all metabolic functions take their place but there's a problem: only life can generate life.[7] In this account we see God, the Divine Life, generating human life through his divine breath. Without God's breath, without God's Spirit, there could be no life.

Elsewhere in the creation narrative, God speaks his word and life is created, but it is only into man that God directly breathed in the breath of life. It is this unique relationship between God himself and our individual life that speaks to our understanding of the sanctity of life and which underpins our attitude to the 'Ends of Life' issues that we as Christian clinicians hold dearly and must defend in a secular world that sees no such connection.

The Breath Of God: Can These Bones Live? (Ezekiel 37)

The context for this prophet narrative is a nation in exile. Israel had been carried off in exile to Babylon in 597BC because of their unfaithfulness. The valley was probably the remnants of an army slain in battle but it was more than a scene

of death; it was a metaphor for the nation of Israel. Exile was not just their military defeat or removal from their homeland, exile was their death. Israel, previously known as God's people, had been declared by him as "*not my people*" (Hosea 1:9). In the same way that these dry bones were beyond hope for life, Israel's situation was hopeless. They were powerless to alter their situation. What was required was a miraculous intervention, a re-creation by of God. Into this situation, God asks the prophet the question: "*can these bones live?*" (vs 3).

Much can be said of this restoration narrative. It is divided into two distinct phases which according to Hals, deliberately mirrors the original creation narrative of Genesis 2.[8] In the first phase, the scattered bones come together and are reconstructed to form a body (vs 4-8). From the dust of the valley, these scattered bones come together. They are joined with other body parts and covered with skin, "*but there was no 'ruach' (breath) in them*" (vs 8). These forms are yet to be given life for without God's Spirit, there could be no life.[9] In the second phase of the narrative, these forms are given breath and life (vs 9-10).

Ruach occurs ten times in the first fourteen verses of this chapter. In the second phase of the narrative, the prophet is instructed to call forth the ruach (wind) of the four compass points (ends of the earth). This motif again picks up the same mysterious invisible mighty power of God of the Genesis 2 account.[10] Seitz[11] in his commentary interprets the four winds as the Spirit of God and in this sense, the reference to the spirit refers to the presence and activity of God; this is what brings life back into these bodies. Again the direct relationship between God and the life of the individual is reiterated and the foundation for our theology of the sanctity of life strengthened.

The Breath Of God: The Day Of Pentecost (Acts 2)

Luke's description of the coming of the Spirit of God upon the disciples in Acts 2 does not follow the exact same pattern of our first two texts, however the parallels are striking. According to Luke, Jesus' last words to his disciples before he ascended into heaven were that they were to remain in Jerusalem until they received God's promised gift, the Holy Spirit, God's power from on high (Luke 14:48; Acts 1:5-8). What follows in chapter 2 is the Spirit, God's empowering presence falls on the believers and the church is born. There were three phenomena that accompanied this heavenly deposit affirming its supernatural origin: there was a noise "that sounded like a mighty wind, there was an image that looked fire and there were languages that were not ordinary but in some way 'other'".[12] Bruce states that the wind symbolises the coming of the Spirit of God believing it draws in the Ezekiel account mentioned above.[13] He also believes Jesus draws on this Ezekiel passage when he says to Nicodemus, "*the wind blows where it pleases, and you hear the sound of it, but you don't know where it comes from or where it goes; so it is with everyone who is born of the Spirit*" (John 3:8).[14] What is clear from Luke's account in Acts 2 is that the Spirit had come with power and that there was now a new community of believers which were now born of the Spirit and their actions that followed, demonstrated their new life.

One Last Breath Of God: It Started With The First Easter Sunday

Each of the four accounts of the Gospel of Jesus Christ end with a record of the resurrection of Jesus. By this miracle, God affirms Jesus' claim to be the Messiah, the Son of God and demonstrates Jesus' power over sin and death. While there is no specific or detailed account of how this miraculous event took place, I wish to draw on the words of a worship song we sang in church this week. It goes like this:

Then came the morning
that sealed the promise
Your buried body began to breathe
Out of the silence the roaring Lion
declared the grave has no claim on me
Jesus, yours is the victory
Hallelujah
Praise the One who sets me free
Hallelujah
Death has lost its grip on me
You have broken every chain
There's salvation in Your name
Jesus Christ
My living hope.

For me this song encompasses all that I want to leave you with. Although there is no biblical chapter and verse for the process by which God breathed new life into Jesus' crucified body, the fact remains that it is a historical fact that Jesus was resurrected to be the first born from the dead. It was a creative miracle not unlike the breath of life having been breathed into original man in Genesis 2 and also into those dry bones of Ezekiel 37. And because he lives, we will live also. This is the great hope of the Christian church. The apostle Paul gives an extended teaching on the resurrection of the dead in 1 Corinthian 15 and it is well worth a read to complete our understanding of the Breath of God in our lives:

"The first man, Adam, became a living person. But the last Adam – that is Christ – is a life giving Spirit. What came first is the natural body, then the spiritual body comes later" (vs 46).

"There is an order to the resurrection: Christ was raised as the firstborn of the harvest; then all who belong to Christ will be raised when he comes back" (vs23).

"When our dying bodies will be transformed into bodies that will never die… death is swallowed up in victory" (vs 54).

"But thanks be to God! He gives us victory over sin and death through our Lord Jesus Christ" (vs 56).

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4. The Hebrew words *ruach* and *neshamah* are both often translated breath in the OT. *Ruach* was the more frequent word used (389 times in OT) and can be associated with God, man, animals and even false gods. It is the word used when speaking of the more forceful expression of the wind / breath. *Neshamah* on the other hand (used 25 times in OT) is only applied to Yahweh and to man depicting the close relationship between God and this divinely created life of man.
5. The Hebrew word *nepes* is often translated 'soul'.
6. "The Mortal Soul in Ancient Israel and Pauline Christianity: Ramifications for Modern Medicine." James L. Wright. *Journal of Religion and Health*, Vol.50, No.2 (June2011) pp.447-451.
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14. Ibid.

Dr Sam Chan
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Can We Ever Be More Than The Sum Of Our Diseased Body Parts?

When was your first time?

We all remember the first time we had to declare a dead patient as officially dead.

For me, I was on night shift, as the ward intern, in a major public hospital in Sydney's western suburbs. A nurse paged me to declare one of the patients on her ward as dead. I didn't know how to do it. I've never done it before.

So, I asked a more senior resident. It's easy, he told me. Just examine the patient for vital signs, and then write in the notes that they're dead. And note the time and date you did this.

So that's what I did. I went to the dead body and examined it. And then I wrote in the notes what would become my standard formula for declaring someone, dead:

"Heartbeat – absent.
Breathing – absent.
Blink reflexes – absent.
Pupil reflexes – absent.
Gag reflex – absent.
The patient is declared officially dead."

Sign it. Date it. And then put a big box around it.

Over the next few years, I would perform this same ritual over and over again. Most commonly, this was one of my duties during the overnight shift as an intern or resident. Statistically, it makes sense. Two-thirds of deaths in a hospital are going to occur between 5pm in the evening and 8am the next day.

> ***"The Bible often talks about death as someone, not just taking their last breath, but also giving up their spirit."***

Every now and then, not everything would follow this script.

There was the time I declared the wrong person dead. After examining the dead body, I grabbed the wrong patient's notes and declared them to be dead instead. Worse, I rang their relatives and treating doctor to tell them the sad news. Fortunately, they were very understanding when I later explained to them the mix-up. I guess they were rather thankful for the sudden reversal of bad news to good news.

Every now and then, whenever I was working a shift in the Emergency Department, people from a funeral directory would bring a dead body to the hospital so that a doctor could write a death certificate for them. It was a mere matter of formality. The body was so obviously dead. It was already in a thick, black, plastic body bag. Often the person had been dead for hours, even days.

But I always thought I should do it properly. Just in case! I would unzip the body bag. And then I would go through the whole exercise of sticking my stethoscope on the body's chest and examining for reflexes.

The funeral directors would look at me in disbelief. The person was so obviously dead!

And that's just it. In the medical profession, we see many, many dead bodies in our lifetime. A dead body is so obviously dead. Even if the person has been dead for only a few minutes, they are so obviously dead.

What Makes Someone Dead Or Alive?

But what is it that makes them dead? What is the difference between living and not living? What is *it* that the person had when they were alive, which they no longer have now that they are dead?

Despite what I write in my standard formula of declaring someone to be dead, it's *more*

than a heartbeat, breathing, and reflexes. We can take these away from a patient during a cardiac bypass operation under general anaesthesia. Yet, we would not declare that person to be dead. That person is still alive, with or without those vital signs.

So, what is it that makes a person alive?

What is *it* that a living person has, that a dead body no longer has?

The Story Of Humans According To The Bible

In the Bible's creation story, it says:

> *"Then the Lord God formed a man from the dust of the ground and breathed into his nostrils the breath of life, and the man became a living being." (Genesis 2:7).*

What is it that makes a person alive? According to the highly poetic language of the Bible, it is *breath*.

Phenomenologically, this makes a lot of sense. Whenever we see a still, sleeping baby take a breath, we are once again reassured that the baby is alive. Conversely, when someone dies, we say that this person took their final breath.

Without *breath*, the man, Adam, is merely dust. He is only atoms and molecules. But with breath, he is alive. He is more than a collection of organic chemical compounds. He is a living being. On the flip side, when he dies, he returns to dust (*cf. Genesis 3:19*).

But it's more complicated than this.

The Existence Of The Human Spirit

In the Bible, the language of "*breath*" and "*spirit*" is used interchangeably. That's why the Bible often talks about death as someone, not just taking their last breath, but also giving up their spirit (e.g., *Ecclesiastes 12:7; Matthew 27:50; Acts 7:59*).

So, what is it that makes us alive? According to the language of the Bible, it is "*breath*" or "*spirit*". We have a spirit that animates us. This is the spark that keeps us alive.

This is why a patient – under anaesthesia without their vital signs – is still alive. They still have a spirit.

Conversely, this is what is missing when we finally declare someone to be dead.

Photo: pexels.com

Their spirit is no longer present. Their body might be present, but not their spirit.

Is This A Fairy Tale?

This is where most of my medical and non-medical friends will roll their eyes. Any talk of spirit will be laughed away as religious mumbo-jumbo.

> ***"We have a spirit that animates us. This is the spark that keeps us alive."***

For those of us trained in the sciences, who only believe what we can see under a microscope, we're happy to talk about brains, heartbeats, and reflexes. But any talk of the "*spirit*" or even – *gasp!* – a "*soul*", is deemed fairy-tale nonsense.

The Mind-Body Duality Problem

Or is it? This is where I want to argue that the Bible's view of "*breath*", "*spirit*" or "*soul*" gives us a far richer anthropology.

How so? Let me tell you a story about my son Toby. When Toby was 4 years old, he asked me, "Dad how do I get my leg to move?"

I answered, "Your brain tells your leg to move."

But then, Toby replied, "But how do *I* tell my brain to tell my leg to move?"

At that I immediately grinned. "Aah, Toby," I replied. "You have stumbled upon what philosophers call the mind-body duality problem."

Most of us are familiar with the mind-body duality problem. If we are committed to a strictly materialist account of reality, there can be no such thing as the "mind" *and* a "body". There can be only a body. We have a physical brain, which is part of our body. But there is no "mind" that tells our body what to do. And there is definitely no "soul".

Or, as it is often explained, there is no ghost behind the machine.

So, how do we typically account for the phenomenon of human consciousness? When Descartes says, "I think therefore I am," where is this "I"?

The Story Of Humans According To Materialism

According to materialism, the answer is that human consciousness is an illusion. It's a trick that our bodies have learned to play upon ourselves.

A good popular representative of this school of thought is Yuval Noah Harari, the author of the bestsellers *Homo Sapiens* and *Homo Deus*.[1] In a recent lecture,[2] Harari says that humans are only a combination of molecules and neural pathways. Any talk of human rights, free will, or love, is basically a useful fictional story that we've been telling ourselves. These things don't exist. Up until now, they have been useful in helping us to get along and survive.

But here's the key thing. They don't exist.

What Then Is A Human?

This is where it gets interesting. Once upon a time, we wondered how a human was different from any other animal – a dog, an elephant, or a dolphin?[3] But now the question for the 21st century is how is a human different from a computer?

Especially now that we have artificial intelligence – with its deep learning – how is human intelligence different from artificial intelligence?

At first, we can try to say that a human has consciousness and free will, but a computer doesn't.

But again, this will not do. If we're committed to a materialist account of reality, these do not exist.

As Harari would remind us, a human is only a combination of molecules and neural pathways, with our own set of complex algorithms. No more. No less. In the end, this is no different from a computer with its circuits, pathways, and complex algorithms.[4]

Maybe then, like Kai Fu Lee, author of *AI Superpowers*, we can try to say that a computer will never have human qualities such as love, empathy, or relationships.[5]

But, again, if we're committed to a strictly materialist account of reality, then this too is fairy-tale nonsense. Love, empathy, and relationships are merely fictional stories we've been telling ourselves to get along, survive, and propagate. But they don't exist in any real, objective sense. They are, in the end, only complex algorithms that we've been using to regulate inter-human interactions.

We are now entering unchartered waters.

Once upon a time, scientists laughed at popular media for the way it anthropomorphised computers, robots, and AI – especially by giving it a human face with two eyes.

Take, for example, Joanna Bryson, a professor of computer science. Bryson says that computers are obviously not humans.[6] So why give them a human face? Clearly, computers are only running on an algorithm. A code. So why humanise them – as if they can think for themselves?

But, if a human is also only a set of circuits, with our own algorithms, with no soul or spirit, then aren't we guilty of the same naïve error when we talk of ourselves as human?

Are we similarly guilty of anthropomorphising a *human*? Especially when we talk of human rights, free will, love, and consciousness?

A strictly materialist account of humanity has painted us into a corner where there is no essential difference between a human and a machine.

Going Back To The Bible's Story

But what if we once again return to the Bible's anthropology?

I remember when I was a junior resident, working a shift in the Emergency

Department. Suddenly a triage nurse spoke into the loudspeaker system, "COULD SOMEONE TAKE THE BROKEN FINGER TO BED 8?"

> ***"A strictly materialist account of humanity [says] there is no essential difference between a human and a machine."***

It was a cringe-worthy moment.

A patient had been identified. Not as a person, but rather, as a diseased body part. It was so humiliating. It was … *de-humanising*.

Yet, if all we are is atoms and molecules, then it's not de-humanising at all. If the materialist account is true, we would make the opposite problem if we anthropomorphised the patient as a human being. They are no more than their body parts. Get over it.

But what if that patient really is more than the sum of their body parts? What if that person is animated by "breath" – a sprit breathed into them from God?

Breath isn't just the difference between living and not living.

Now, more than ever, our God-given breath is also what gives us human worth and dignity, free will, moral accountability, love and relationships.

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Photo: pexels.com

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Calm And Compassion Amidst The Coronavirus Pandemic

In December 2019 the first cases of a severe respiratory illness affecting people in Wuhan, China emerged. The cause of the illness was unknown.

A Chinese ophthalmologist of the Wuhan Central Hospital, Li Wenliang was astute enough to make the link between the cases and the live animal market in Wuhan. Out of concern for his colleagues, Dr Li warned them via social media. His comments raised the attention of the local police who issued a warning, *"According to the law, this letter serves as a warning and a reprimand over you illegally spreading untruthful information online,"* the interpretation of the letter reads. *"Your action has severely disrupted the order of society."* This style of response from the authorities is commonly seen in totalitarian regimes where fear of social disorder often outweighs fear of the real crisis. Under a repressive regime, the local officials delegated with the responsibility of controlling all aspects of residents' daily living, are fearful that they will be held accountable for any potential loss of control or disorder. Thus, local officials react by keeping quiet and work at containing any problems locally.

Despite initial actions of concealment and containment, the Wuhan disease outbreak was a disaster that could not be concealed, either from Beijing or the rest of the world. The fear and hysteria of an unknown infectious agent, a modern plague, dispersed swiftly among Wuhan residents and beyond. In the end, the Chinese government took over the management of the evolving situation, contained the disease and shared information about this outbreak with the wider world, with more transparency than they have displayed in the past.

Dr Li was rehabilitated as a hero, only to die caring for the sick, a few weeks later. The local officials' fear of repercussions became a reality, with Beijing dismissing most of the local senior officials in Wuhan.

We face this new infectious challenge in 2020, armed with the powerful understanding of modern science and medicine. Yet, the old fears of pandemic and plague can exert a powerful effect on the human psyche. The current coronavirus disease (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has infected too many people to just disappear. Our efforts to quarantine have slowed its spread, but it is likely to circulate and infect many more people across the world. It will cause suffering and economic disruption. To defeat this challenge, humanity will employ public health measures to contain the disease. The ill will need to be supported by our medical services and with time, effective treatment or a vaccine will likely become available. As we progress, we must not forget those in the developing world where medical systems are not as advanced, and few individuals are able to afford treatment.

> ***"The old fears of pandemic and plague can exert a powerful effect on the human psyche."***

Humanity is on a journey and how we respond to this challenge will be important. We should remember and learn from our past experiences. Calm and compassion should guide our responses and be prioritized along with medical technology.

The current outbreak of the virus is very much in the news at the moment. As I write the numbers of cases in Australia are steadily rising. The news is full of medical jargon. An explanation of some of these terms may be helpful:

- *An epidemic* refers to an increase, in the number of cases of a disease above what is normally expected,

this may be sudden and can occur in a known disease, such as influenza.

- *An outbreak* is essentially the same as an epidemic, but the term is often used if the disease occurs in a limited geographic area.

- *A pandemic* refers to an epidemic that has spread over several countries or continents, affecting a large number of people.[1]

- *The case fatality rate* is calculated by dividing the number of deaths from a specified disease over a defined period of time by the number of individuals diagnosed with the disease during that time; the resulting ratio is then multiplied by 100 to give a percentage. The case fatality (CFR), reflects the severity of the disease.[2] For example; a population has 1,000 people; 60 people have the disease and 40 die. The mortality rate is 40 ÷ 1,000 = 0.04, or 4 percent; the case fatality rate, however, is 40 ÷ 60 = 0.67, or 67% percent.

Disease epidemics give rise to a primeval fear. This is certainly a theme reflected in the Bible where people in ancient times were seemingly at the mercy of the natural world and they feared the consequences of these events; *"There will be mighty and violent earthquakes, and in various places famines and pestilences"* Luke 21:11. Or they represented a direct punishment from God; *"... this time I will send the full force of my plagues against you and against your officials and your people, so you may know that there is no one like me in all the earth"*. Exodus 9:14.

These views would have been foremost in the minds of people living in Europe when the bubonic plague emerged from 1347 to 1351. This was not the first visitation of the plague to Europe, but it was the event that resulted in the most deaths, with an estimated 25% of Europe's population dying during this time. The very name; "Black death" or "La Moria Grandissma (the great mortality)", has connotations of fear and finality. The disease, caused by the organism Yersinia pestis, was carried by fleas on the bodies of black rats to Europe from Central Asia.

Over the 5 years of the first wave of infections, 25 million people were thought to have died. Europe, having just emerged from the chaos of the middle ages,

was undergoing rapid development of cities that were overcrowded with poor sanitation, Additionally, the population was afflicted by recent famine and wars. All these led to an extremely high susceptibility to the infectious disease. It was estimated that 60-80% of the population died. Over time, *Yersisnia pestis* acquired enhanced transmissibility, and pathogenicity. It spread through direct contact with the infected, but also by aerosol in the pneumonic form, that was especially deadly, with an 80% CFR. Society was overwhelmed. The scale of death was beyond the ability of any government to cope. Eyewitnesses such as Italian, Agnolo di Tura wrote; *"... in many places in Siena great pits were dug and piled deep with the multitude of dead"* and *"I [...] buried my five children with my own hands."*[3]

"Calm and compassion should guide our responses and prioritized along with medical technology."

They hinted at the severe fear that gripped Europeans at the time[3]: aerosol spread and a frighteningly rapid onset of symptoms, and then death. Chroniclers of the time reported a society gripped by fear and on the verge of collapse. Jean le Bel reports, *"one did not dare help or visit the sick, nor could anyone find a priest who would agree to hear confession."*[3] According to the Scot John of Fordun, *"because of fear of contagion, sons fled their parents on their death beds and visa versa."*[3]

Society however, did not collapse and despite what must have been an overwhelming calamity, the initial surge of fear seemed to abate. A more humane and compassionate voice began to be expressed. Matteo Villani of Florence was disgusted by what he saw, *"many were abandoned, and a vast number died that could have survived....mothers abandoned children and children their fathers and mothers....this cruelty was the habit of barbarians."*[3] However, after his initial shock, not armed with modern medicine or even an understanding of the disease, Matteo reports a return of rationale thought, compassion and a desire to help others; *"Florentines saw that some could recover, they began nursing the plague-stricken."*[3]

Later accounts of plague revisitations are not characterised by stories of abandonment. There is still fear and desperation, but perhaps a greater awareness that to survive, more was to be gained by assisting the suffering and maintaining society.

There were also stories of astounding courage and self sacrifice, none greater than that of the village of Eyam in England.[3] In September 1665, a cloth merchant from London inadvertently brought the plague to the village, dying soon after. It was not long before the villagers started to be infected. As the plague swept through the village people prepared to flee. They were persuaded not to by their pastor, William Mompesson. He wanted to prevent the plague spreading to nearby towns and incredibly persuaded his parishioners to adopt a self-imposed quarantine. The local earl agreed to provide the villagers with food. For the next several months, the quarantine held. It was thought that 260 out of some 360 people in the village died. Whole families were wiped out. The pastor's own wife also died. Yet for all that time no one broke the quarantine. This one village's self-sacrifice almost certainly prevented the spread of the plague to nearby towns.

Another ugly side of previous pandemics have been the development of hysteria

and fear, and the expression of these by attributing disasters to a scapegoat(s). Such an example is the massacre of the Jewish population of Strasbourg.[4] Reports were that peasents and merchants in the city were driven by fear and spread stories that the plague was the result of the Jews poisoning the water supply. Hundreds of the local Jewish population (men, women and children) were herded together on to an island in the middle of the river, locked in a warehouse and then the warehouse was set on fire with those inside perishing. While this event was reported to have occurred as the result of mob hysteria, evidence suggested that more sinister motives may have been at work. It seemed that the local bishop and surrounding landowners instigated the mob and, following, the massacre. They benefited from the remission of considerable debts owed by these so-called nobles to the Jews; with the Holy Roman Emperor confirming the remissions as well as distributing the property of those murdered to the same instigators, who attributed the blame to the townsfolks.[4] The motives here are more likely to have been greed exploiting the fear engendered by the plague.

While these experiences have occurred in the distant past, many of our current public health practices evolved from these times. Quarantine comes from the Italian *quaranta*, meaning forty, representing the number of days people and animals had to be separated if they had come in contact with a contagion. Quarantine remains an important public health strategy to contain and prevent the spread of an infectious disease. Or at least, slow the transmission. As a measure, it has its limitations and is open to abuse by authorities, and the creation of xenophobia.

A more modern epidemic was that of the 1918-19 "Spanish Flu". This was caused by a new strain of influenza virus infecting humans. Several countries, including Australia, placed a quarantine on ships from Europe. At the time, quarantine was unpopular, because it delayed the return of many soldiers from World War I. However, It did slow down the "second-wave" of influenza reaching Australia, although did not prevent it.[5] Closures of public events and schools in cities during the 1918-19 influenza pandemic was effective in delaying the spread of the virus and limiting mortality in those cities that acted quickly as opposed to those that delayed measures.[5]

In these instances, just as was the case during the 2009 influenza pandemic, quarantine did not prevent the spread of an infection that had successfully established itself in human hosts and in whom individuals could be asymptomatic.

Quarantine has been applied with varying success in the current COVID-19 pandemic. The efforts put in place by the Chinese authorities once the problem was appreciated, were both fast and effective. Most western commentators' viewed President Xi Jinping's rule as authoritarian if not brutal in its repression of dissent. However, it is hard to argue against the fact that this enhanced authority has enabled him to put in place draconian, disease containment measures that has led to the lockdown of entire cities of millions of people in Hubei province. These efforts have led to the containment of COVID19 in China and have bought us all extra time. It led Bruce Aylward, who co-led the WHO-China Joint Mission on COVID-19 to say that China's efforts are *"probably the most ambitious, and I would say, agile and aggressive disease containment effort in history"*.[6]

Quarantine can also lead to xenophobia, another primal fear of the unknown and the threat from others. This was the case with SARS in 2003 against people of Chinese descent, and even against Africans in 2014 with Ebola. In Australia there have been instances of individuals with Asian appearances being targeted. A Korean student was asked to leave a private school dormitory in Sydney for fear of infection, though she was not and had not been to China. Another student in Perth was evicted from her accommodation as she was of Asian appearance. Across Australia in January and February, there were reports of people avoiding businesses operated by Chinese.

Xenophobic views can easily be espoused on social media. Unfortunately, the reality is, the regular media can be just as guilty. On 26 January 2020, two of Australia's highest circulating newspapers published provocative headlines. Melbourne's *Herald Sun*'s headline read, "Chinese virus pandamonium", a play on "pandemonium" alluding to China's pandas; while Sydney's *Daily Telegraph*'s headline read, "China kids stay home". These ill-conceived banners appeal to the lowest common denominator of society's fears and are potentially very dangerous. Fortunately, and to the credit of Australians these headlines led to a petition with over 51,000 signatures demanding an apology from both papers.

The World Health Organisation declared the outbreak a Public Health Emergency of International Concern on 30 January 2020. The reality of the COVID-19 pandemic is sobering, but ignoring the threat will not solve the problem, and will only worsen people's fears. The Chinese Centre for Disease Control has published the results of 72,314 cases.[7] In 81%, the cases were mild. Another 14% were severe, requiring hospitalisation, and 5% critical. The overall case fatality rate was 2.3%, but in critical cases this was much higher at 49%. No deaths occurred in children under 10 years of age, but the CFR was higher in the elderly (70-79yo, 8%; 80+yo, 15%). The CFR was also higher in those with chronic diseases such as cardiac disease, diabetes, chronic lung disease and cancer.

Health care workers accounted for 3.8% of overall cases in China, but it was much higher in Wuhan. Of concern is that the disease appears to be more severe in health care workers, with 14.8% (247/1668) having severe or critical presentations.[6] Despite such large numbers there is still confusion about how dangerous COVID-19 is. In Wuhan the CFR was 5.8%, but in the rest of China it was much lower at 0.7%, suggesting that during the early outbreak medical services were overwhelmed and this contributed to the higher mortality.

Similarly, on the outbreak on the *Diamond Princess* cruise ship, with a population skewed to the more elderly and so potentially at heightened risk, there were 707 people infected and 6 died; a CFR of 0.8%. At this stage the CFR of COVID-19 is unclear, but it is certain that COVID-19 is a serious concern compared to other pathogens that have caused pandemics (Table 1).

Table 1: Case fatality rate of pathogens

Pathogen	Case fatality rate
COVID-19	0.7 to 2.6%
SARS-COV	10%
Seasonal influenza	0.1%
Pandemic Influenza 1918-19	2%

In a recent perspective written for the *New England Journal of Medicine*, Bill Gates, of Microsoft fame, but now a passionate advocate for several causes, including pandemic planning, calmly outlines his concerns for COVID-19.[8] He states it could be a once in a century pathogen as the CFR is relatively high, and it can kill otherwise healthy adults. It is efficiently transmitted, with one person spreading it to 2-3 others and it can be transmitted by people with mild disease or who are asymptomatic, that will make it difficult to contain. Bill Gates positively reminds us that while governments need to work to contain the virus through public health measures and provide funding for research to better understand the virus, as well as to develop a vaccine or treatment. Efforts should also be made to assist our neighbours who may have greater need, especially those in the developing world; to work towards efforts to better prepare for future epidemics and by sharing data and resources. When solutions such as antivirals or vaccines become available, these cannot be sold to the highest bidder, or only be made available to those who can afford them.[8]

We do not yet know how seriously COVID-19 will impact upon the world. It has the potential to be the cause of much suffering and widespread disruptions. This can easily give rise to feelings of fear, and this fear can only too easily be exploited. We must approach this problem calmly and rationally. We have a greater understanding now of science and far greater resources than our forebears who suffered from previous epidemics. It is important to remember the remarkable bravery and compassion they displayed, in the face of limited knowledge and remedies.

"Efforts should also be made to assist our neighbours who may have greater need, especially those in the developing world."

Overcoming this fear and rising above it requires courage and faith. It is important to remember what is said in Matthew 25:35-40,

> *"For I was hungry and you gave me food, I was thirsty and you gave me drink, I was a stranger and you welcomed me, I was naked and you clothed me, I was sick and you visited me, I was in prison and you came to me. Then the righteous will answer him, saying, 'Lord, when did we see you hungry and feed you, or thirsty and give you drink? And when did we see you a stranger and welcome you, or naked and clothe you? And when did we see you sick or in prison and visit you? And the King will answer them, 'Truly, I say to you, as you did it to one of the least of these my brothers,[a] you did it to me."*

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CMDFA CHRISTIAN MEDICAL & DENTAL FELLOWSHIP of AUSTRALIA Inc.

Luke's Journal

www.cmdfa.org.au

Published by the **Christian Medical and Dental Fellowship of Australia Inc.**
ABN 95 084 292 464
Please submit all contributions to:

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Dr Lachlan Dunjey

Lachlan was President of Baptist Churches WA in 1989/90. He is still involved in ethical and moral issues that challenge both medicine and our nation as per websites: www.ChooseLifeAustralia.org.au • www.MedicineWithMorality.org.au • www.TheBeltOfTruth.org.au • www.ConscienceinMedicine.net.au • www.Doctors4family.com.au

The Heart Of Medicine

To Relieve Distress Until the Final Breath and So Much More

The heart of medicine is for good health outcomes:
To maintain health, to restore health, to heal.
To cure sometimes, to comfort always[1], to ease the way,
To relieve distress until the final breath, and to practice in conscience with compassion.[2]

Working in cooperation with the patient to inform and teach:
Informing of treatment options and risks.
Sometimes informing of better ways,
And sometimes gently challenging.
Rarely confronting.

Always conscious of the privilege of the doctor-patient relationship;
Gently probing, analysing to find contributing factors[3] and causes.
Seeking to develop empathic awareness.[4]
To listen.
To be there.[5]

To *ease the way*, but *never* to intentionally kill.[6]
To heal on request even if government forbids[7] it.
To refuse "treatments" and procedures even when government compels[8] it.

Collegiality and loyalty – but not at the expense of truth.[9]

To seek, and to speak for, the future of medicine,
Especially in ethical standards[10] and the doctor-patient relationship.
Being aware of the lessons of history,[11]
With active engagement depending on the opportunity.

Understanding that it is not enough to evaluate medical or surgical options,
While ignoring the merits of the purpose for which those techniques are being discussed.[12]
Understanding also that there will be ethical divides,
When it becomes essential for medicine, not activists and not governments,
To be decisive and authoritative, when there is no neutral.[13]

To promote physical and mental health in community,
Helping the disadvantaged, and promoting a global consciousness
With respect to all who are at risk.
It is also to warn of risk to health of family and community,
And to engage in such action as is necessary
To counter those risks, both within medicine and in government.

The heart of Medicine demands of its practitioner,
Skill, knowledge, sensitivity, respect for people and their backgrounds
To ensure good health outcomes.
It involves understanding,
Assessing what is happening and what is needed,
Education and explanation,
And working respectfully with the patient
To ensure the best possible good health outcome.

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2. **Where do we stop in response to the call for compassion? When the threat is made to suicide because of distress?**

   When the threat is that the baby might be a dwarf? Ending the pregnancy is an extreme option but deliberately killing the baby in utero is even more extreme when the baby could have been delivered alive and, if desired, not ever seen by the mother and adopted.

   "Terminating" the pregnancy by simple induction of labour is one thing but terminating the life of the baby is another.

   When the threat is that the baby has Down Syndrome? That it might have talipes (a surgically correctable foot deformity)? That it has a cleft palate? Even when there are waiting lists to adopt such babies?

   There is the underlying assumption that such babies do not deserve to be alive, they are not fit to live, that they will be a drain on the public purse as was evident at a Senate Committee hearing in 2008. There may be a perverted economic logic to this but why does the *mother* want the baby killed?

   Because it is somehow her fault? That she is responsible? Is it a matter of turning back the clock as if it had never happened? Like the logic that a partial birth abortion (see below) will ensure a relatively easy vaginal delivery and a flat tummy.

   Is this the end of guilt for the mother? That if she knows the baby is alive somewhere, someplace, being cared for by someone else, she will be plagued by a constant reminder that somehow she is responsible and one way or another has failed – either in actually conceiving such a baby or failing then to care for it? If the baby is born dead then her dilemma is resolved by the doctor's "compassion" in killing it. Is it right, is it just, to kill in the name of compassion?

Is it compassion to kill the invalided child? The Down Syndrome baby now born? To abort the baby conceived by rape? To abort/kill the female baby because it is female?

Is it right, is it just, to refuse to refer to another doctor who will kill that baby and for the doctor to then be "cautioned" by the medical "authorities" because of that refusal? And yet the doctor who performs the execution is left alone?

Is it right, is it just, to tear off the baby's limbs in utero – with no anaesthesia – in the name of compassion for the mother who didn't want to be a mother?

Is it right, is it just, for the baby to be partially delivered as a breech and then to feel the puncture wound in the upper neck for the sucker to penetrate into the Foramen Magnum and suck the brain out so the skull can be "collapsed" to aid a vaginal delivery with the "advantage of a dead baby"? (Partial Birth Abortion – NHMRC report of 1995). Is this compassion?

Is it compassion for the sake of the relatives watching their loved one die to prematurely kill their loved one and "put them – the relatives – out of *their* misery"?

3. Pain syndromes, self-cutting, possible "false" memories in *False Memory Syndrome*, dysphorias including gender dysphoria, repetitive strain injury – particularly in epidemics. Re transgenders, if we have not even queried whether there are possible contributing factors or stressors in children wishing to transgender – such querying itself labelled as abuse by those who insist on affirming the wish – then we have failed our ethical and professional responsibilities as doctors, and our duty as community leaders and parents. We have failed the child and we have failed the community. We have failed medicine.

4. Empathy and intuition add to the doctor/patient connection in a way that cannot be known unless it is experienced or observed closely. *Intuition is a sacred gift; rationality its faithful servant* (Einstein). When the doctor has met the patient's point of need as the patient perceives it, intuition helps a doctor to move beyond that to meeting the unexpressed and often unrealised point of need. The ideal doctor/patient relationship enables the doctor to add something to the patient's life – to leave the surgery richer than before, not only with more knowledge and understanding and responsibility in their part of the relationship but also strengthened to face another day. The rapport that is established with this kind of personal relationship also gives strength in the patient's last illness particularly if the treating doctor is able to keep the dying patient at home. Health bureaucrats concerned with economic rationalism may not understand this kind of professional relationship unless they have experienced it for themselves. Medicine's primary concern must always

be with patient health and not just be providers of Government-defined medical services on demand. See http://www.medicinewithoutmorality.info/wp-content/uploads/downloads/2011/09/Notre-Dame-Law-and-Ethics.pdf

5. *Which was it? the thrill of the chase of the elusive diagnosis? the triumph of solving the puzzle? the entrée into people's lives? the adventure of saving life? the awe, excitement and responsibility of the birth? the presence during the last illness? The passion was the privilege of being there…*
The Passion of Medicine 1998.

6. Killing by doctors, or assisting in killing, is never to be seen as a solution. Medicine would be the poorer. Society would be the poorer. And, yes, there are other consequences too but paling into insignificance in light of such a catastrophic shift in the heart of Medicine.

   Killing must never be endorsed as "good medicine". Killing must never be a part of *Good Medical Practice.*

7. For example, so-called "conversion" therapy.

8. For example, Section 8 of the Abortion Law Reform Victoria; transgender surgery in Texas.

9. Patients trust their doctors because they believe that, in addition to being competent, their doctor will not take advantage of them and will display qualities such as integrity, truthfulness, dependability and compassion. *The obligation to practice conscientiously is the obligation on which all other medical ethics are built* (Dr Farr Curlin).

10. Rubicons that must not be crossed: destructive embryo research; abortion: sex-selective abortion, Down Syndrome genocide; abortion specimen research and selling of parts for this purpose; babies born alive and left to die; euthanasia; cloning with or without destructive research or transfer of mature organs; mixing of animal and human genetic material, never to sacrifice one human life for another including organ transfer from prisoners or people condemned to death.

11. Medical Ethics and Human Rights: Legacies of Nuremberg (the "Doctors Trials") https://quadrant.org.au/magazine/2010/05/the-return-of-eugenics-in-australia/

    Abstract: In 1996, on the fiftieth anniversary of the Nuremberg medical trials, German doctors gathered together in conference. They commemorated this anniversary under the title 'Medicine and Conscience' and reminded their medical peers throughout the world that the separation of biological power from a moral sense would always be a danger to the profession. 'This history,' they said, 'should not be viewed as just happenstance in Germany at a certain period in time.' The removal of conscience from medicine creates an amoral medical force, but worse still, a force that can be sent in any direction. 'Medicine can be distorted by state; physicians must be above state-decreed strategies,' they warned.

12. http://medicinewithmorality.org.au/what-we-do/ Medicine with Morality was formed in early 2006 to unite doctors across Australia in response to an increasing drift of medical ethics away from moral absolutes. The actual trigger was the argument in the RU-486 debate that *evidence-based medicine* alone should govern the use of such drugs. But this line of reasoning ignored consideration of intent and outcome morality. The application of evidence-based medicine in an ethical vacuum reduces human life to its biological function. It is not enough, for instance, to simply discuss the `best´ technique for euthanasia without consideration of its significance for the individual, the doctor-patient relationship, and the community.

13. For example, the mutually exclusive "affirming" pathways for children wishing to transgender and which pathway constitutes child abuse.

    Which side of the polarity regarding child abuse will Medical Defence Organisations defend? If they defend surgeons who do transgender mastectomy for a 25 yr-old on the grounds that fully informed consent was given, will they also defend surgeons who have done the same procedure for a 13 yr-old who decides to sue when an adult?

    Further, will MDOs defend the surgeon who *refuses* to do a mastectomy for a 13 yr-old?

    And how will MDOs decide? Will different MDOs have different approaches to these matters because their boards have been taken over by people with set ideologies? Because ethical doctors have been quietly going about their ethical work and have failed to recognise the need to be involved at these higher levels. Will MDOs simply side with that which is legal – if governments declare that affirmation of birth sex or reversal counselling is child abuse and punishable by law?

Dr Natasha Yates
Tash is a General Practitioner, who also teaches Medicine at Bond University in Gold Coast, Australia. Her belief that Jesus Christ can transform individuals and communities has driven her to explore a range of non-technical skills within medical education and practice, including compassion, empathy, coping, and resilience.

Air Of Sensitivity: Bedside Manner And The Christian Clinician

"Doctor, would you mind taking me on as a patient? I don't think I can go back to my previous doctor. He was so rude to me."

Edith (pseudonym) was a gentle lady in her mid-70s and had attended my GP practice with the company of her friend for moral support. I am always wary when a new patient begins a consultation by criticising another doctor. Her friend chimed in, perhaps sensing my guardedness, saying "Edith has been with her previous doctor for years, but he has become increasingly rude to her. At the last visit, he told her that if he wrote a book about being stupid, he would write the first chapter about her. She does not want to go back to see him after that experience."

Most readers will immediately react to the appalling bedside manner displayed by the doctor towards Edith. This is an extreme case and, thankfully, not particularly common. I have concerns for colleagues who think that it is fine to talk to patients (or anyone!) in this manner. In addition, I have a suspicion that Edith's previous doctor was impaired and close to burnout.

Mosby's Medical dictionary defines bedside manner as "the behaviours of a nurse or doctor as perceived by a patient or peers."

The excuse of "they are a good doctor even though their bedside manner is terrible" no longer carries validity with many patients. As a doctor, it is insufficient to be knowledgeable alone, without also possessing important qualities of good bedside manner with patients. In fact, medical knowledge is only one of the six core values which are defined by the Accreditation Council for Graduate Medical Education (ACGME) as essential for practising medicine.[1] The other five core values are: Professionalism, Patient Care, Practice-based learning and improvement, Interpersonal and communication and skills, and Systems-based practice (i.e. practising within the wider healthcare systems and teams). However, teaching and assessing competence in these other five core areas remains a challenge.

> *"The excuse of 'they are a good doctor even though their bedside manner is terrible' no longer carries validity with many patients."*

Hence, many medical students graduate and commence working as doctors, but lack the skills and experience for effective bedside manner with patients. This may be due to factors including personality traits and preferences, lack of experience, or unawareness of an issue or its importance. It is vital to address these concerns and issues within medical education and healthcare delivery.

As Christians, the prime motivation to strive for an excellent bedside manner is that, first and foremost, our goal is to follow in the footsteps of Jesus, whose treatment of others was exemplary. Even those who do not believe his claim to be God usually recognise that Jesus was an exceptional human who set a new standard for the treatment of others. His compassionate treatment of people who were vulnerable or rejected was so shockingly counter-cultural that the religious leaders of the time could not understand or perceive his actions. Jesus threatened to undermine the carefully planned social structure of the time. Had Jesus been an employee in the present healthcare setting, he would likely have been fired for becoming distracted, being tardy or late often, and treating patients who were not 'on his list'. He certainly would not have climbed the ranks within the system because he spent too much time with the 'wrong people' and was critical of those in power or authority.

Yet, Jesus was approachable to those who recognised their need for him, including children, women, lepers, prostitutes and many other marginalised or minority populations. His 'bedside manner' was so enticing that crowds began to follow him, at times by the thousands. Jesus showed us how to love and continues to challenge us personally to live out of love for others every day.

Beside the Christian call and the desire to imitate Christ, three further propositions for the importance of prioritising bedside manner are:

1. for the sake of our patients,
2. for the sake of ourselves,
3. for the sake of Christ.

For The Sake Of Our Patients

Patients deserve to feel that they have been listened to and treated with respect, regardless of what we are able to offer them.

I clearly recall watching a Consultant Physician spend 40 minutes listening to a patient with chronic pain in the outpatient department. The patient spoke of all the different tests and treatments that he had endured over the years and how he was not getting any better. The Physician barely spoke, beyond simple encouraging statements to show they were listening ("go on..." "that must have been difficult…" etc). At the end of the consultation, the Physician simply said, "I am so sorry you have endured all this. I cannot think of anything else that we can offer you to treat your pain. You have tried everything I know about. We need to focus now on how to help you live with where things are at."

Unbelievably, the patient broke into a huge smile and thanked the Physician profusely. He acted as if he had just been offered a cure for his pain. He stood up and shook the Physician's hand and then left, still smiling. He had been heard and this brought him more satisfaction and peace than being offered yet another intervention. This example is consistent with recent findings that the practice of simple 'etiquette-based medicine' may improve patient satisfaction.[2]

Improving patient satisfaction is not the only benefit of good bedside manner. In fact, research has shown that doctors

who treat their teams or their patients poorly result in measurably poorer patient outcomes. For example, one study found that surgeons who had a higher number of co-worker reports regarding unprofessional behaviour in the 36 months prior to an operation or procedure, were at increased risk of surgical and medical complications.[3] In a different study, researchers found that rudeness reduced communication and the sharing of information between physicians and nurses which was, in turn, detrimental to diagnostic performance. Similarly, rudeness reduced teamwork and collaboration amongst team members which had a negative impact on procedural performance.[4]

"Research has shown that doctors who treat their teams or their patients poorly result in measurably poorer patient outcomes."

Possessing good bedside manner is not only applicable in Western societies, as there is mounting evidence that patients in other cultures believe that an essential component of being a good doctor includes the skills of good bedside manner.[5] This is a human issue and not simply an issue affecting Western medicine.

For The Sake Of Ourselves

In the opening vignette, I described the true story of a doctor whose rudeness towards his patients elicited my concern about his own mental health. Such rudeness toward others can be a sign of burnout, and perhaps no one had the courage to point it out to him. One of the difficult things about burnout is that it is very difficult to recognise in oneself.

Having an excellent bedside manner may not protect us from burnout, but it will certainly make it more obvious to detect if, or when, it occurs. A doctor who has always been moody and rude may practise in an impaired condition for a long time because everyone puts their behaviour down to their *modus operandi*. However, if a kind, gentle, and compassionate doctor suddenly starts snapping at their team, it will be recognised much earlier.

On a more positive note, I believe that practising medicine with a good bedside manner enhances practitioner self-satisfaction, as it improves our relationship with patients, colleagues, and team members. When we treat others with dignity and respect, we are treating them as Christ would have us do and, therefore, we are carrying out our assigned purpose on earth. Our work is therefore understood in the context of God's kingdom, rather than our own individual efforts.

For The Sake Of Christ

What if our patient is in a coma, from which they are not expected to recover? What if they are unaware of what is going on around them, such as due to dementia or delirium? What if they are mentally unstable and do not want us to help them? In these cases, does our meticulous personal treatment towards them matter? They may not know or care whether we are empathetic and kind. In these instances, listening to our patients may make little difference to their overall healthcare delivery and not provide essential professional assistance towards

their treatment. In these situations, it may be tempting to treat them with less patience and kindness than we would if we could build rapport. I have certainly seen colleagues behave with impatience and even unkindness towards such patients.

As Christians, we need to remember that every human being is made in the image of God, regardless of how disfigured, incapacitated or disgruntled they are. Even if they will never know or understand how much we are doing for them, we know that our actions toward them are, in fact, our actions toward Christ. When I am struggling to be compassionate towards someone, I find it helpful to remember the words that Jesus spoke in Matthew 25:34 - 45. Even seemingly small and insignificant acts toward others are, in fact, acts of service to Christ. It does not matter whether that person knows or understands; Christ does.

List For Good Bedside Manner

Below is a very brief list of practices that I have found helpful when striving for good bedside manner:

1. Communicating with excellence

Nowadays, students need to demonstrate at an early stage in their training that they can communicate with patients. However, just because you "passed" communication at university, it does not mean you are a good communicator. I believe it is something that we will never truly master and every encounter with a patient is a chance to improve.

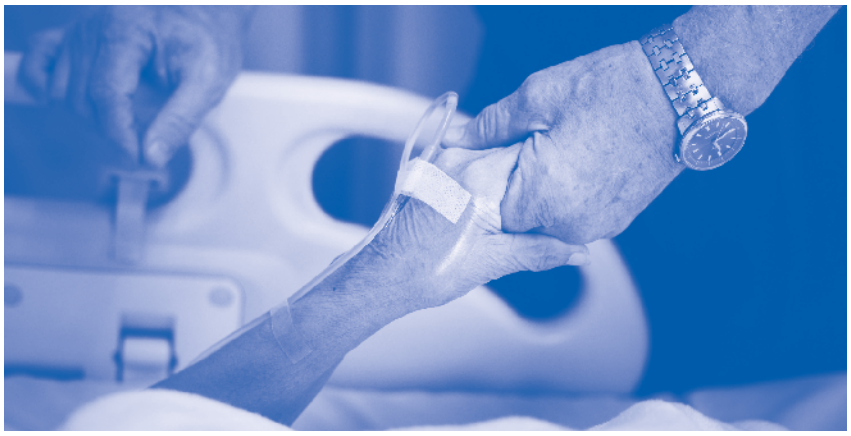
Some basic communication skills that we all need, and in which I still remind myself after 20 years of clinical practice, include:

- Avoiding jargon
- Checking that my patient understands me
- Checking that I have understood my patient
- Being careful with my body language

2. Listening and hearing

Active listening is a skill that most of us need to continually cultivate, especially in an era where screens constantly demand our attention and we spend a lot of our lives torn between a virtual and real world. Making sure that we are 'truly present' with patients is vital to truly hearing them.

This can be achieved by not interrupting patients unless it is essential to do so, as well as being careful to take notes in a way that does not interrupt the flow of conversation. It also includes validating the concerns and emotions of the patient, even if we do not agree with their perspective.



3. Taking time

In our fast-paced and demanding jobs, taking time with our patients may be the most difficult aspect of good bedside manner that we aspire to achieve. However, in my opinion, it is also one of the most important and critical aspects. A few things that I have learnt over the years include:

- Sitting down next to someone makes them feel that we are spending more time with them.
- It is very helpful to acknowledge that their time is important and to thank them for their patience in waiting, especially if we are running late.
- Realising that time heals and is therapeutic; spending a bit longer with someone may save time, as well as costly interventions, in the long term.

"Good bedside manner... is essential to cultivating a life lived in the footsteps of Jesus."

4. Being compassionate

Compassionate care is about care "with" a patient, not simply "of" a patient. In other words, they need to know that we are there with them through their struggles and not aloofly evaluating and trying to "fix" things. Of course, the way we provide care towards our patients is through accurate and timely diagnosis, investigation and treatment, but patients should never feel that they are just another sausage on the healthcare conveyor belt.

5. Being respectful

Every patient that we see is precious to God, regardless of how they may present to us on the surface. Starting a consultation by asking what name they would like us to use when we speak to them is one way of showing courtesy. Acknowledging other people that are present in the room or accompanying the patient, including children, is also helpful. Different cultures show respect in different ways, so learning about specific features of the various cultures that you are working with is crucial. However, in my own experience, I have found that patients forgive our ignorance even if we make significant cultural mistakes, if they can sense that we are trying to be kind and respectful towards them.

Good bedside manner encompasses more than just being "nice". It forms the core to providing good medical practice and, for Christians, it is essential to cultivating a life lived in the footsteps of Jesus. The benefits of good bedside manner will flow to our patients, colleagues, and even ourselves. When we treat our patients, we are treating Christ in them – this alone should challenge us, as Christians, to behave in an exemplary way towards each and every patient no matter how 'insignificant' or 'unaware' they may seem.

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Dr Arielle Tay
Arielle is a junior doctor working for the South Metropolitan Health Service in Western Australia. She is hoping to specialise in General Practice. She became a part of the *Luke's Journal* editorial committee to encourage fellow Christians within healthcare to press on in being the salt and light in their workplaces.

Holding My Breath: Seeking To Survive As An Intern

I remember my first day of internship vividly. I had completed an undergraduate medical degree interstate and this was my first full time job. I was unfamiliar with the hospital systems, I didn't know any of my colleagues, and I really questioned if my medical knowledge was sufficient.

To say that I was anxious would be an understatement. I was petrified! My heart was pounding, my hands were shaking, and I could hardly breathe! That day I had probably asked my registrar a thousand questions and apologised every second sentence. Thankfully, my registrar was patient enough to deal with my overly anxious disposition. At the end of that first day, I let out a huge sigh of relief. That, was only day one of 365 days.

As the year went on, I was constantly holding my breath in anticipation for disaster to strike. I was on-edge every single day; anxious about making a mistake that would harm my patients, stressed about disappointing my seniors and letting the team down, worrying that I would miss multiple cannulation attempts in an acutely unwell patient… the list went on! In my third week of internship, I was ready to quit medicine altogether. It was emotionally exhausting.

I recall a particular day while I was working in the Acute Medical Unit. I was sleep deprived, hungry, had a particularly full bladder and my to-do list felt like it was never ending. I was stressed, anxious and felt completely demoralised. As I was walking back to the office, a friend came up to me, and seeing that I was clearly upset, asked if I was okay. As soon as he asked, I started bawling my eyes out. I cried all over his scrub top in front of all of my colleagues. Not my finest moment! I recalled thinking to myself that day, "I can't keep going like this!" I was right. I couldn't continue for the rest of my career like this. Being wildly nervous and constantly on-edge was completely unsustainable. Why was I so anxious? Why did small issues seem to upset me so easily?

> ***"In my third week of internship, I was ready to quit medicine altogether."***

Throughout the year, God graciously revealed to me the cause of my anxieties. It all came down to my pride. I was relying too much on my own abilities. I was putting all my worth and value in my career and how my colleagues viewed me. This raised a few questions in my mind. What does God think about this? Am I fully trusting in Him? Do I really believe His promises? How can I change to rely more on Him and not myself?

Through friends at church and at work I was being reminded of God's grace, mercy and love, and that He works for our good. As it is written in Romans *"He who did not spare his own Son but gave him up for us all, how will he not also with him graciously give us all things?"* (Romans 8:32 ESV). God gave up His Son for sinners to have victory over sin and death so that we can be reconciled with Him. To be saved from sin is our greatest need and God rescuing us from the wages of sin without any contribution from our part is the greatest love that we could ever experience! He foreknew us, predestined us, calls us, freely justifies us, and gives us the hope of glory all through Christ (Romans 8:30 ESV). Since God did not withhold His Son, He will not withhold anything else that He knows will help us glorify Him and enjoy our relationship with Him.

Knowing God's love and having this confidence allows us to fully trust in Him and know that He listens to our desperate prayers. *"Be anxious for nothing, but in everything by prayer and supplication, with thanksgiving, let your requests be made known to God; and the peace of God, which surpasses all understanding,*

will guard your hearts and minds through Christ Jesus." (Philippians 4:6-7 ESV). God truly cares for His children and loves to listen to our prayers. Recognising this and looking at the bigger picture of God's plan for His people allowed me to find peace in God's promises and let go of my anxieties surrounding work. I began to start enjoying my work, focusing on my patients, rather than worrying about potential mistakes or what my co-workers thought of me.

On the last day of my internship I began to reflect on the year that had passed. I had finished an ED night shift and I was completely exhausted. Just before I went to bed I remember praising God that He saw me through the year. Thinking back, I am so grateful for His providence and love towards me. He helped me to understand the hospital systems better, allowed me to apply my knowledge, improve my skills, and provided a great supportive group of friends at work and at church. Moreover, God helped me to see His steadfast love, reminded me of my citizenship in heaven, and helped me find comfort in Him from having assurance in His promises.

> ***"God was guiding me to learn to fully trust in Him."***

It was a tough year. God was guiding me to learn to fully trust in Him. Although I know I will continue to have periods of anxiety, praise God that through Christ, He allows His people to draw near to Him and experience His mercy. *"For we do not have a high priest who is unable to sympathize with our weaknesses, but one who in every respect has been tempted as we are, yet without sin. Let us then with confidence draw near to the throne of grace, that we may receive mercy and find grace to help in time of need"* (Hebrews 4:15-16 ESV). He knows his people intimately and fully understands our weaknesses, yet still has unconditional compassion towards us. Therefore, we don't have to run away from God. We can boldly stand before His throne and ask Him for help. My prayer is that God will help us to stop anxiously holding our breath, knowing that we have such a loving heavenly Father!

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Graphic design by Ivan Smith, Lilydale, Vic.
Stock photos from https://www.dreamstime.com; https://unsplash.com; https://pexels.com.
Other photos (pages 4 & 31) contributed by Annetta Tsang.

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Articles, **perspectives**, **reflections**, **letters**, **book reviews**, **devotions**, **and creative works** should be submitted (preferably in electronic form) to the **editor** with a cover letter requesting their consideration for publication. Photos supplied should be of high resolution (minimum 500K) and submitted as JPEG files.

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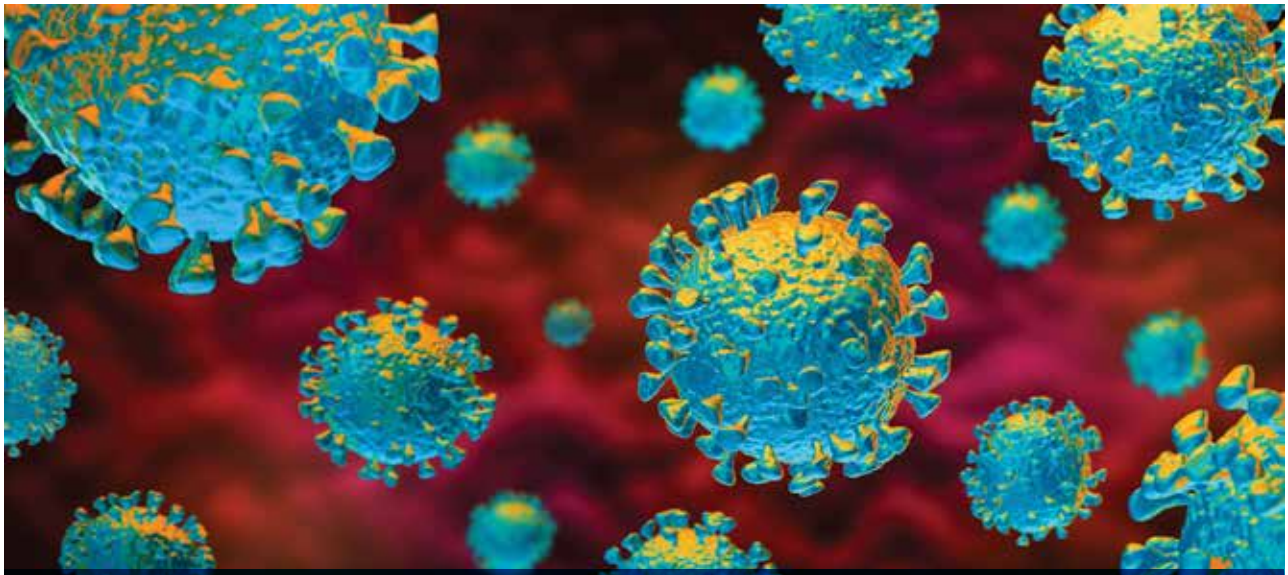
Let *Luke's Journal* know what is happening in your lives, including births and marriages. Please contact lukesjournalcmdfa@gmail.com with information, dates, and photos as appropriate.

Some members whose spouses have passed, would be interested in meeting with others in similar situations for support. Please contact lukesjournalcmdfa@gmail.com for more details.

Dr Bo Wong
Bo Wong is an elder of Grace Evangelical Church Newcastle. He works part-time as a GP in Mayfield, Newcastle. He is married to Lay. They have two children, Joyce and Joel.



The Pandemic Of Panic

In 2003, I started working as a GP in Tamworth when SARS appeared. It affected mainly China, Hong Kong and Taiwan. Life in Tamworth went on as usual.

I think hand sanitizer became popular after SARS.

In 2009, H1N1 (swine flu) hit the world hard, I was working as a solo GP then. The Australian government distributed loads of Tamiflu (I think about half of it eventually ended up in the rubbish tip as it expired). We were told not to swab, just treat on suspicion, because the pathology services could not handle all the swab requests. I got the flu from one of the patients. I had never been so sick before, with rigors and extreme lethargy; but I was still seeing patients. I do not remember if I wore a mask back in 2009. Many people were infected, but there was no panic buying and no quarantine in place. Life was relatively normal.

Why Do We Have Panic Buying With Covid-19 Now? Why Do We Fear Covid-19 So Much?

I can think of four reasons:

1. We know too far in advance and believe that worse is to come.
2. We are relationally isolated, and there is fear of missing out (FOMO).
3. We hear reports of extreme measures taken by other governments, such as the Chinese and Italian governments.
4. We have perpetual access to news, updates and stories via social media.

As we witness what has been happening in China and other northern hemisphere countries, we know that the virus is likely to hit us hard during our winter months. Fear becomes unbearable when we are given time to wait for our turn to suffer.

> ***"Fear becomes unbearable when we are given time to wait for our turn to suffer."***

People begin to do irrational things to cope with their fear. Anyone who believes that he/she only has this worldly life to live, will do anything to avoid discomfort, suffering and death.

We live in a society in which everyone lives for themselves. Many may think that if one runs out of toilet paper, one cannot expect anyone to help. This is because for many, only superficial relationships exist, and such relationships are only for having fun together. In times of adversity, we may discover that we have no true friends. We therefore feel the need to stock up for ourselves as much as possible. Even if we do not think of stocking up initially, when we see others doing so, we do not want to miss out. I asked a student today why she bought so much toilet paper. She said when she saw other customers buying loads of toilet paper, she just had the urge to also get some for herself. Adversity like COVID-19 reveals the shaky foundation upon which we build our life philosophy and our society.

A lot of overseas Chinese have connections to the twenty million Hubei residents who have been locked inside their housing units for the past six weeks. (Some report sixty million people, but I think only twenty million or so were under the strictest of quarantine.) I was in the area one year ago conducting a wedding

for a couple who were PhD students in Australia. It was very cold there in winter. I got to know the couple's families who have all been under quarantine. They are not allowed to get out of their houses at all. People rely on home deliveries for their survival. There are reports of many elderly individuals dying of hypothermia, starvation and lack of medical care. Overseas Chinese and other people who hear the horrible side effects of quarantine are therefore motivated by fear to stock up.

> ***"Social media has evolved to become a catalyst for the spread of rumors and sensationalism."***

Social media provides the ideal interactive platform, especially in times of epidemics. Originally intended for instant connections, updates and news, social media has evolved to become a catalyst for the spread of rumors and sensationalism. An uploaded recording of panic buying in your nearby suburb or city, and the fear of missing out kicks in. The result? Masses heading to the local supermarkets to join the panic buying movement.

How Then Should We Live As Christians And Doctors In A Pandemic?

I would go to 1 Corinthians 7: 17 & 29-31 for instructions.

> *Only let each person lead the life that the Lord has assigned to him, and to which God has called him. This is my rule in all the churches.*
>
> *This is what I mean, brothers: the appointed time has grown very short. From now on, let those who have wives live as though they had none, and those who mourn as though they were not mourning, and those who rejoice as though they were not rejoicing, and those who buy as though they had no goods,and those who deal with the world as though they had no dealings with it. For the present form of this world is passing away.*

If we are called as Christians, then live as Christians – loving God and loving others; taking up the cross daily and following Christ; being one with other believers; and caring for the needy.

If we are called as doctors, then live as doctors – caring for the sick; trying to minimize suffering; comforting the despondent; and teaching the ignorant.

> ***"When we have only this life to live, when we only have oneself to live for, it is natural to panic when this life is being threatened."***

When COVID-19 spreads in our communities, and many people become sick, two facts constrain me to act as a Christian doctor. God's love that has been poured into my heart, and a doctor's duty that I have committed myself to in my heart. I may not be able to walk into harm's way calmly (though I hope I would), but I would walk into it because of God's love and God's calling. I will keep reminding myself that on the Cross, Death has lost its sting. I will keep praying that Philippians 1:21 would become a reality: *"For to me to live is Christ, and to die is gain."*

Baruch, the scribe of Jeremiah, was affected by fear and great anxiety after he recorded all the calamities that were coming to his nation. He said, *"Woe is me! For the LORD has added sorrow to my pain. I am weary with my groaning, and I find no rest."* (Jeremiah 45:3-4) The LORD told Baruch not to seek great things for himself, but to see things from God's point of view. When we focus on ourselves, we interpret everything for the benefit of our own happiness and comfort. God says there are much greater purposes for things that are happening around us. When our vision is limited to our own comfort and happiness, we miss seeing the glory of God.

1 Corinthians 7:30b says, *"... and those who buy as though they had no goods."* It is not saying that we should buy up all the toilet paper because soon there will be no more stock available. Reading the whole passage from 1 Corinthians 7:29-31, it is clear that the Bible does not suggest that we should live as if our own comfort and happiness are our primary aims. To put it another way, it is saying that the present form of this world is passing away, we should therefore, avoid following the ways of this world.

When we have only this life to live, when we only have oneself to live for, it is natural to panic when this life is being threatened. If we do not panic, we must either be fools, or we have the blessed assurance of the hope of glory.

> *"To them (the saints) God chose to make known how great among the Gentiles are the riches of the glory of this mystery, which is Christ in you, the hope of glory."* (Colossians 1:27).

Dr Lisa Koo
Lisa was born and raised in Adelaide. Her father and eldest sister are also doctors. She graduated from Flinders University in 1997, followed by internship and then GP training. She has worked in private practice at the Clare Medical Centre as a rural GP.

Are Doctors Breathing In Anxiety And Breathing Out Depression?

In order to gain a better understanding of the effects of mental health on a medical professional, Dr Jill Benson (from Doctor's Health SA) and Joel Derham (from SAMET) had a Question and Answer session with Dr Lisa Koo. Lisa was born and raised in Adelaide. Her father and eldest sister are also doctors. She graduated from Flinders University in 1997, followed by internship and then GP training. She went back to the Clare Valley in 2005 and has worked in private practice at the Clare Medical Centre as a rural GP. She sees nursing home patients. She also works at the local hospital doing emergency, anaesthetics, and looks after inpatients in the disciplines of general medicine, surgery, paediatrics, psychiatry and palliative care.

The Symptoms

What were the main challenges that you faced during your early years in medical training?

I enjoyed university, but had supplementary exams in my first four years. When I commenced internship, I was not fully prepared. I possibly was dysthymic as an intern, but because I struggled in my studies through high school and university, I did not feel that much different.

What were some of the contributing factors or challenges you faced with your health? What did you find helpful?

As a RMO: I dated my first boyfriend at the age of 24. Six months afterwards we broke up, I was crying a lot and was pining for the past. My registrar at the time, Kelton Tremellen, and another senior registrar, Anna Bof, realised that I was depressed. Kelton took me aside one day and said, "Lisa, you're not your usual self." I appreciated his concern and the suggestion that I get help. I saw a GP that I knew through my Christian doctor circles (Christian Medical and Dental Fellowship of Australia). I had a break from work for seven weeks. It was a very 'black' period, but by the end I felt so good, and so spiritually alive. It was a definitive time for me.

19 years later: March 2019. The day I decided to get help was a day that I was on call. I was managing a STEMI and instructing the nurses, phoning Medstar and arranging ambulance transport. In the meantime, other patients were arriving and waiting to be seen. Whilst the nurses thought I handled this well, anxious thoughts were distracting me whilst I was multitasking and I realised I wasn't coping.

In hindsight, I had been anxious for the past 12 months or so. I was mildly anxious for several days leading up to being on call and doing certain anaesthetic lists. My anxiety worsened so that I no longer needed those triggers, and I was waking up feeling faintly negative every day, including my days and weekends off.

I was suffering from compassion fatigue and burnout. I thought everyone got more tired and world-weary as they aged! I also thought I was not being 'spiritual' enough, so once I 'fixed' this I'd be better.

Was there something else that people could have done that would have been helpful?

Years later, a GP friend mentioned that she thought I had been depressed in internship. She did not let on at the time, but to me it didn't matter, because she was very supportive in a responsible, sisterly sort of mentor way!

I guess she could have said "I think you're depressed and maybe you need to see a GP", but she knew I had a good supportive network of friends, and I was still functioning. If I had seen her as a patient the outcome may have been different. Personally, I am not good at diagnosing mental illnesses in friends, because I view our conversations as debriefs with each other, rather than

diagnosing them with an illness. My friends are not my patients – I am there because I am listening and responding to them as a friend. But if I have a patient in front of me, I'm making an assessment about what mental illness they may have, and asking pertinent questions to establish a diagnosis. Unless you are asking those specific questions, or picking up on subtle signs, you can miss that someone is unwell.

We all get stressed, especially with time management, or being on call. How do others recognise the difference between 'normal' stress (being grumpy), and a mental illness? Often we can't. It was really up to me to ask for help, as I must have looked my normal self to the hospital nurses, and the staff at the Clare Medical Centre, where I've worked for 14 years. I did my own DASS 21 that day – I scored moderate anxiety (I thought I was mild), and surprisingly – but not so surprisingly on second thought – mild depression.

It was only after I started to improve that I realised why I had been internally resentful, and grumpy at home. When I apologised to my husband for my past behaviour, he said, "I hadn't noticed a difference."

You can put on a really good face (very few of my patients show a flat affect), and if you're not asking deep questions, you can miss it. I think that's why people don't always recognise suicidal people. You can convince yourself that you're fine. You can also give yourself many reasons not to tell others – maybe from catastrophizing or minimizing your feelings, or from being critical of yourself, or from assuming you can fix it yourself. Anxiety and depression exacerbates these 'unhelpful thinking styles'.

Once I asked for help, the support was amazing. I had a break from doing on call, we came up with solutions for managing anaesthetic lists, and patient-free breaks were included in my daily schedule.

Did you ever feel as though you couldn't show the effects of your illness or ask for help, as it was your role to help other people with their health?

Living in a small country town I wondered, "Am I allowed to be transparent with my mental illness or will my patients perceive me as being incapable of treating them?" When I told my colleague he asked, "Have you told anyone?" I said, "My husband." He then asked, "Have you told anyone else?" It then dawned on me that I hadn't told anyone else. The next morning, my husband and my children were away and I felt so alone, trapped in my house. I thought, I can't walk down the street in tears because everyone knows me, and I didn't want them to know. I'm supposed to be the one on top of it all that sorts out other people's problems. What do I do? (I ended up contacting a work colleague).

"I'm supposed to be the one on top of it all that sorts out other people's problems."

I recognized pretty quickly that I was over-identifying with my anxious patients. They were becoming 'heartsink' patients and I was getting emotionally drained. When you're in that pattern of negative thinking you assume that everyone else thinks like you do. I didn't want to talk to my GP friends in Adelaide because I didn't want to emotionally overwhelm them with my problems. So when patients tell me they don't want to burden anyone else, I kind of get it.

But of course, now that I'm well, I can openly talk about it, and listen to people who have mental health issues because it doesn't burden me anymore. My irrational reasons for keeping quiet have been confirmed as incorrect assumptions.

There is professional stigma, too. The Medical Board is different now but, in the past, if someone admitted that they were mentally unwell, they would be fearful of it affecting their registration and being treated punitively, like being struck off. For doctors beginning their training, there is fear of it being seen as a weakness, and concerns with it affecting career progression.

Would you say that in your view that it is easier to talk about and more accepted in the workplace now?

If I had schizophrenia or bipolar disorder, I would not be talking in public to you. However, anxiety and depression affect 1 in 3 Australians in their lifetime, so we should be talking about it!

One of the most therapeutic things to do is to actually come clean and talk to the appropriate people and get help. Initially, I chose only to tell two of my senior administrative staff, and a couple of my senior colleagues. It would have been counterproductive to tell everyone, because I didn't want to be wrapped in cotton wool, so I could keep functioning as normally as I could.

> *'Don't underestimate the emotional burden that doctoring can have on our lives. It's not 'normal' for a layperson to listen to hundreds of people debriefing about their deepest emotions and physical sufferings, so what makes us think that we think we have immunity?'*

In the past, I thought that a GP admitting they have mental health issues is like a beautician having uncontrollably-bad acne! Now that I have an intimate understanding and realise the benefits of treatment, I want to tell others! I feel better! I am enjoying my work (most of the time), my family and the world around me. I want others to experience that joy, too. There must be other doctors out there who are anxious or depressed who aren't getting help, or who have halted a particular career path because they haven't thought of getting help. Mental illness affects the way we function as professionals. If we struggle looking after our own basic needs, how do we have the energy to look after others?

> *'Mental illness can rob us of being confident of our own abilities, affect our competence, and diminish our compassion.*

Mental illness is greedy. It is self-absorbing, and we can be slaves to it, and behave in whatever way that makes us feel in control.'

We are human. We like to feel in control. But if we are not coping, this might mean just that little bit more alcohol; or shopping; or ordering our patients more investigations to exclude that elusive cancer; or ordering nursing staff around with whatever erratic idea comes to mind!

The Solutions

What were some of the ways in which you overcame some of these issues? Was there a key moment or turning point?
I am indebted to Kelton Tremellen who picked up that I was depressed in 2000. My spiritual life took off as well and my relationship with God became essential and life-affirming. I will be eternally grateful to my dear friends, Catherine and Brenton Wait, who offered me their place to sleep at night, as I was scared of sleeping alone. In those weeks, their toddler was learning to walk. I watched him take his first steps in those 7 weeks; it was such a powerful metaphor for me. I also went on antidepressants and eight weeks later I was really happy and grateful. It was a very dark time, but also a very special time.

2019 was different as I've been a doctor for 20 years, and I'm married with young children. My workplace is very supportive. I was very happy to see one of my colleagues (as a patient) but was advised, "You are better off getting external help, especially as this is work-related stuff and we're more like family." So I made an appointment with Dr Jill Benson at Doctors Health SA.

I went on medication (I have no qualms about being on medication; some people feel like they've failed) and am seeing a psychologist, Rosie Walsh in Gawler. I was having noticeable gains of feeling positive within two weeks of starting the anti-depressants. The psychological techniques beautifully dovetailed as prevention and treatment.

> *'Psychology: it distills the unconscious, like a good wine or perfume. It brings it into consciousness like distilling the best ingredients of life.'*

Sessions have taught me about mindfulness (I find engaging the five senses using the Grounding technique helpful). I was pleased to learn that physical activity was only a small part in increasing endorphins! Progressive muscle relaxation helps me to sleep.

Now I realise that none of us are perfect thinkers. We could all do with a little help.

Hugh Kearns and Maria Gardiner's course for professionals is also excellent. Look up The *Ultimate Time Management Guide for GPs* on their ithinkwell.com.au website.

"Some of my patients are so socially isolated; it's good to be a friendly person in their life that day."

Do you feel as though there is a sufficient level of support services for people who may have been in the same position as you? Are they approachable and are people likely to turn to them for help?
Yes, there are services out there. But one of the biggest barriers is people having the insight to seek help, and wanting to seek help (stigma).

So psychological support services haven't improved?
They have improved in the country, but mental illness is a burgeoning field. Rural people can access government-subsidised psychology sessions for free, but our current local waiting list is about six months. Our visiting psychiatrist is booked out for that long too.

There are so many services out there that I don't remember what they all are. There's no central website to say this person has started up in our area, or that organisation has left. The more services we have the more confusing it gets. Seeing a good GP is still the first point of call for knowing what services are out there.

Had you observed any similar issues with colleagues during your time? Did you get a sense of this being a common problem amongst other junior doctors?
With our small intern cohort at Modbury Hospital in 1998, we were all pretty good at being open with each other, but I don't think mental illness was really talked about back then. As an RMO, my LMHS consultant bosses respectfully acknowledged that I had time off, but I didn't have any in-depth conversations at work. Everyone else seemed to be okay.

Now that I've been anxious, and I'm a more experienced clinician, my ability to detect it in other doctors and patients has become very sensitive! Our reception and nursing staff also notice when doctors are grumpy! The main issue seems to be managing on-call.

Nowadays, I quite happily open up to select people. I've had some really good conversations with other doctors who have also quietly admitted that they've had issues. With patients, I am sharing psychological techniques. I can offer something more than my usual psycho-analytical approaches which rarely fix my patients. I think, as human beings, we feel acknowledged when there is a small amount of self-disclosure. People are relieved that they aren't the only ones who feel like they are going crazy, and that even those who look like they've got it all together can struggle. Some of my patients are so socially isolated; it's good to be a friendly person in their life that day.

Do you have any advice for any junior medical officers who have been in a similar position?
If you're struggling to talk to someone you trust. See a GP. If you don't quite gel with that GP, please don't give up. Find another GP you feel comfortable talking to. I recommend Doctors Health SA, because they are specifically set up to understand and treat the needs of doctors and medical students.

If you see someone else is struggling, gauge how they are going. You may end up advising them to see a GP. Be mindful of being overwhelmed. Being there as a friend is the best starting point and then go from there. Remind them that they are not alone.

Editor's note: This article was first published in the South Australian Medical Education and Training (SAMET) newsletter, and then again in http://doctorshealthsa.com.au/

Dean J. O'Rourke
Following 15 years teaching PDHPE, Dean became a pioneer of functional breathing in the Central Coast and Newcastle. He is a member of the Buteyko Institute of Breathing and Health, and the International Society for the Advancement of Respiratory Psychophysiology. He is also qualified in Orofacial Myology through the Coulson Institute USA.

Breathing The Wrong Way: Insights From A Breathing Specialist

What Does A Breathing Specialist Do?

As a Breathing and Orofacial Therapist, I specialise in the detection and correction of breathing dysfunction and related orofacial conditions.

On a regular basis, clients of all ages are referred to me by medical, dental and allied health professionals. Yet during initial assessments, essentially, I am looking for the same functional problems each time. I find that regardless of the pathology or variety of symptoms present from case to case, a functional breathing disorder is often present, ranging from mild through to severe. I have found that when functional breathing is established, clients routinely enjoy a reduction in symptoms; many experiencing significant and long-term change.

How Are Breathing Disorders Detected?

Detection of breathing dysfunction is achieved through a proforma screening documentation completed by the client, clinical observation of key indicators, and the use of biofeedback technology in the form of capnometry and oximetry. It is important to note that currently many people suffering from breathing dysfunction are unaware of their condition and their dysfunctional breathing remains undiagnosed. Even in moderate to severe cases, breathing dysfunction may never have been detected prior to referral. Some sufferers are diagnosed with Sleep Disordered Breathing through sleep testing, however daytime dysfunctional breathing which are often also present, remains undetected.

What Are The Key Indicators Of A Breathing Disorder?

1. **Constant or excessive mouth breathing.**
2. **Chronic upper thoracic breathing pattern (including at rest) with limited diaphragm movement.**
3. **An excessive breathing rate.**

In some cases also:

4. **A low tongue posture with poor swallow pattern.**
5. **Inability to seal the lips without conscious effort.**

What Happens If Breathing Dysfunction Is Present?

If a breathing dysfunction is detected, I clearly explain the nature and severity of the dysfunction. The client is then provided with a simple explanation of the therapy that is appropriate for them and is given ample opportunity to ask any pertinent questions. Therapy strategies can vary from person to person dependent upon their age, lifestyle and also prevailing pathology.

Following the initial assessment when detailed pre-therapy information is gathered, the majority of clients complete four to five training sessions with one or two follow up sessions including post-therapy testing. This enables clear measurement of any functional change, as well as changes in symptoms resulting from breathing retraining. All referring practitioners receive a detailed pre- and post-therapy report, including biofeedback results.

In the training sessions, clients are taken through a targeted step by step process to permanently alter their habitual breathing pattern. Essentially, it is a simple program in breathing habit change. During the training phase clients are provided with a lot of support because even though the process is simple, it is not always easy to change breathing habits. Afterall, we are creatures of habit.

How Does Breathing Therapy Improve Health?

In short, breathing therapy establishes what may be referred to as Autonomic Optimised Respiration (AOR); which by definition is constant nose to diaphragm breathing at a slow speed (between 4 to

10 breaths per minute at rest). AOR has many potential benefits. Nasal breathing enables full filtration of all inhaled air at the right dosage for the lungs, it stimulates increased diaphragm function promoting parasympathetic dominance (through vagus nerve activation) and increased immune function. Nasal breathing stimulates nitric oxide release in the sinus cavity promoting tube system dilation and increased blood oxygenation. Carbon dioxide levels may also increase, thus enabling more efficient release of oxygen to all tissues of the body including the brain.

What Are The Outcomes Of Breathing Therapy?

The therapy normally results in a new habitual breathing pattern including the following:

1. Constant nasal breathing day and night.
2. Full diaphragm excursion with no upper thoracic recruitment at rest.
3. A respiratory rate around 10 breaths per minute.
4. Tongue positioning in the upper palate with improved swallow pattern.
5. A relaxed and comfortable lip seal.

From more than a decade of clinical experience, I do not claim this therapy is a panacea. Far from it. However, I have seen it transform the health of people suffering from a broad range of health conditions. Examples include asthma, COPD, hay fever, enlarged tonsils, chronic cough, anxiety, snoring, sleep apnoea,

Capnometer.

restless sleep and breathlessness. It has also allowed many sufferers of chronic pain to achieve a better quality of life, with less reliance on medication. Functional breathing can also play a key role in pre-orthodontic care and to promote optimal orthodontic outcomes.

> ***"Regardless of the severity of breathing dysfunction, it is a condition that can be improved."***

Functional Breathing Is God's Design

From a faith perspective, breathing retraining finds its foundations in the book of Genesis chapter 2 verse 7. *"For the Lord God breathed into Adam's nostrils the breath of life and the man became a living being".*

A single word 'nostrils' in Genesis 2:7 gives us a critical clue as to how the Lord designed us to breathe. It is fascinating that this bit of detail is included in the text. God did not give Adam mouth to mouth. The truth is the Lord designed us to nasal breathe on a constant basis, day and night. The nose is our specialist breathing instrument, whereas the mouth is a multiple purpose device designed as our back up breathing system.

Why Do So Few Of Us Rate Breathing As Important?

For decades, the health message on diet and exercise has predominated the media. People are aware that breathing is essential to their survival but few have any real awareness of how critical breathing is in their day to day health. Nationally, schools and health professional curricula have paid little attention to breathing function either. Consequently, there is little community awareness of this critical health habit.

What Should Anyone Concerned About Their Breathing Do To Get Help?

Due to its foundational nature, any person suffering from conditions like asthma, COPD, respiratory allergies, recurrent respiratory infections, breathlessness, sleep disorders such as snoring and sleep apnoea, anxiety, orthodontic conditions and even chronic pain would be well advised to have their breathing function analysed by a therapist specialising in the detection and correction of breathing disorders.

Options For Health Professionals?

When conducting an examination of a patient, take note if a mouth and upper chest breathing pattern is observed, as this is a reliable indicator that a breathing dysfunction is present. If the patient's breathing is audible, and/or if breathlessness is detected during speech, and/or if there is shoulder lift when breathing in, these may indicate that the breathing dysfunction of a moderate to severe level is present.

The good news is that regardless of the severity of breathing dysfunction, it is a condition that can be improved. Breathing

Mouthbreathing, low tongue position.

Therapy is a non-invasive, extremely low risk, highly cost-effective training system and can routinely be applied as part of an integrated approach to health care. It can often enhance and will not hinder any other forms of treatment undertaken concurrently.

Breathing Therapy is available in most major cities and some regional centres.

Skype consultations are also available for long distance clients with similar outcomes achievable to face to face training.

Breathing Therapy Case Studies:

In the cases below it is worth noting the decrease in breaths per minute and increase in end tidal CO_2 readings. In case 1 there was also a significant reduction in resting pulse.

Case 1.

Gretta 46. Non-smoker.*
Suffered chronic anxiety, restless sleep, multiple overnight toileting, night sweats, breathlessness.
Pre therapy stats – Post therapy stats after 4 sessions:
O2 saturation: 95% 98%
Resting Pulse: 103bpm 69bpm
Resting Breathing Rate: 10.4bpm 7.1bpm
End Tidal CO2: 33.1mmHg 36.8mmHg
Breathing Pattern: Intermittent disruption stable (sighing habit eliminated)
Due to 'deep sighing' habit.

Post therapy – Gretta reported a significant reduction in breathlessness, a significant increase in sleep quality with no overnight toileting required, no night sweats and a significant decrease in anxiety on a daily basis. These outcomes have been maintained in the 12 months since therapy.

**Consent given to share names.*

Case 2.

Jemma 11. Asthma*
Pre therapy stats – Post therapy stats after 8 sessions
O2 saturation: 99% 99%
Resting Pulse: 56bpm 61bpm
Resting Breathing Rate: 23.8bpm 10.9bpm
End Tidal CO2: 28.5mmHg 44.5mmHg
Breathing Pattern: Constant disruption and intermittent disruption due to very poor diaphragm function. Increase in diaphragm ROM.

Jemma is an elite junior athlete who had reached the point of being unable to train and compete anymore due to repeatedly suffering attacks, despite daily doses of preventative and reliever medications. A few additional sessions were needed for Jemma to achieve a full range of motion of the diaphragm in order to obtain the optimal result of being symptom free when running. Post therapy – she reported zero asthma symptoms, including when training and competing, and was able to cease medication under medical supervision. These outcomes have been maintained now for more than 2 years since therapy.

"He is my refuge and my fortress, my God, in whom I trust."

Psalm 91:2

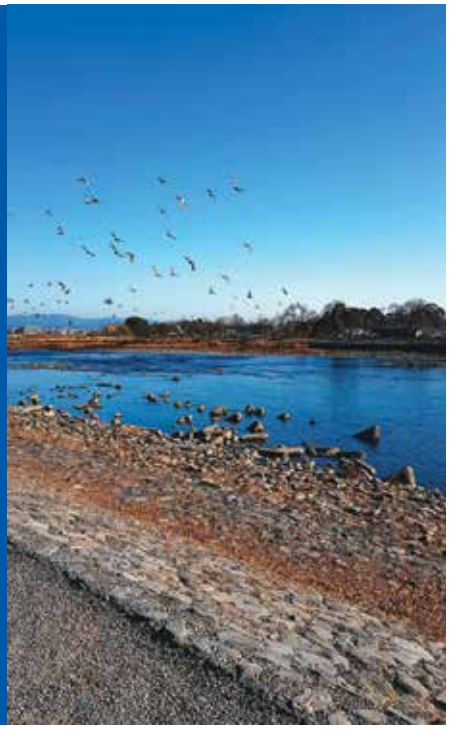
Pastor Andrew Chai works with European Christian Mission (ECM) and is based in Dresden, Germany. He is also an award-winning author and illustrator and has published several Christian books since 2009. Pastor Andrew regularly shares his cartoons via his Facebook page @cartoonsforfaith.

NCFA Saline Process TASTER "Taste and See"

Saturday 13 June
10:30 am to 12:00 noon
Please register directly with Georgie Hoddle via **ncfa.salineprocess@protonmail.com,**
Once registered, you will receive the Zoom link.
Focus will be on
Q 1: Why is faith important in healthcare?
Q 4 Tool: Spiritual assessment within the nursing context
Donations to NCFA gratefully received.

Dr John Upham
John is a respiratory physician and clinical researcher working in Brisbane. He is happily married to Susan, and has four children and five grandchildren.

Breath Of Life: Reflections From Respiratory Medicine



Most of us take breathing for granted – aside from when we have to run for a bus, climb a mountain or engage in unaccustomed exertion! Even then, most people are not concerned by feeling 'out of breath' in these situations, recognising the sensation as entirely appropriate.

As a respiratory physician, I often meet people who experience *dyspnoea*, usually defined as difficult or laboured breathing, or 'shortness of breath'. Such people have difficulty breathing to the extent that it restricts their capacity to take part in physical activity, whether that be playing sport, exercising with friends, walking short distances or even 'routine' activities of daily living such as bathing and dressing. Some people with advanced lung diseases are breathless even at rest, every breath an effort and a reminder that their hold on life is tenuous.

With this in mind, it is instructive to consider what the Bible has to say about breath and breathing. Four themes will be discussed:

- The breath of life in creation
- The breath of God's judgement
- The renewing and refreshing breath (wind) of the Holy Spirit
- God's breathless people

Breath Of Life

In the creation account, we read that every living animal has the "breath of life" (Genesis 1:30). Likewise, during the creation of Adam from the dust of the ground, the Lord God *"breathed into his nostrils the breath of life, and the man became a living being"* (Genesis 2:7). Interestingly, the Hebrew word *ruach* usually translated as the *Spirit* who hovers over the waters in Genesis 1:2, can also be translated as 'wind' or 'breath'. The Psalmist proclaims *"By the word of the Lord the heavens were made, and all their host by the breath of his mouth"* (Psalm 33:6).

The close connection between life and breath is reinforced in Job 12:10 *"In his hand is the life of every living thing, and the breath of every human being"*. Both humans and animals share this breath: *"For the fate of humans and the fate of animals is the same; as one dies, so dies the other. They all have the same breath"* (Ecclesiastes 3:19). Lifeless idols are condemned because they have *"no breath in them"* (Jeremiah 10:14). Paul proclaims to the residents of Athens that God *"gives to all mortals life and breath and all things"* Acts 17:25, while Revelation foretells a time when *"the breath of life from God"* enters and rejuvenates the faithful witnesses (Revelation 11:11).

Breath Of Judgement

Breath also appears in the Bible as a metaphor for God's judgement. In Exodus, we read that God's breath (or wind) blew on the sea to defeat the Pharaoh's army who were pursuing the escaping Israelites (Exodus 15:10). God's breath of anger consumes evil people (Job 4:9 and Psalm 18:15), the breath of his lips brings judgement to the wicked (Isaiah 11:4). Paul speaks of a time when the Lord Jesus will destroy the *'lawless one'* with the breath of his mouth (2 Thessalonians 2:8).

The Renewing And Refreshing Breath (Wind) Of The Holy Spirit

In Ezekiel's vision, the refreshing wind breathes new life into the dry bones, a prophecy of the time when God will send the Spirit to renew Israel (Ezekiel 37:1-14). In explaining the new birth to Nicodemus, Jesus compares the Spirit's sovereign and unpredictable actions with the wind (John 3:8). After the resurrection, Jesus breathes on the disciples, imparting the Holy Spirit (John 20:22), while the coming of the Holy Spirit at Pentecost is accompanied by the blowing of a violent wind (Acts 2).

God's Breathless People

The psalmist describes how he pants for God, comparing his overwhelming desire for God's presence with a thirsty deer that longs for water (Psalm 42:1-2). Psalm 119:131 proclaims *"I open my mouth and pant, longing for your commands"*.

What does this mean for us? It is worth recalling that the Holy Spirit continually seeks to breathe new life into us, bringing renewal and refreshing where we might have grown stale and complacent. Have we as individuals or as the church become lukewarm in our love for God and our neighbour? Do we need to rediscover what it means to pant for God's presence? Do we need to allow the Holy Spirit to revive in us the call to mission, justice and compassion? Let us be mindful that each breath we take is a life-giving gift from God, and let us consider how we might use our lives to bring life to others.

Dr Gillian Porter
Gillian works as a General Practitioner in Melbourne and seeks to be faithful in every aspect of her life.

Book Review

Nine Minutes Past Midnight

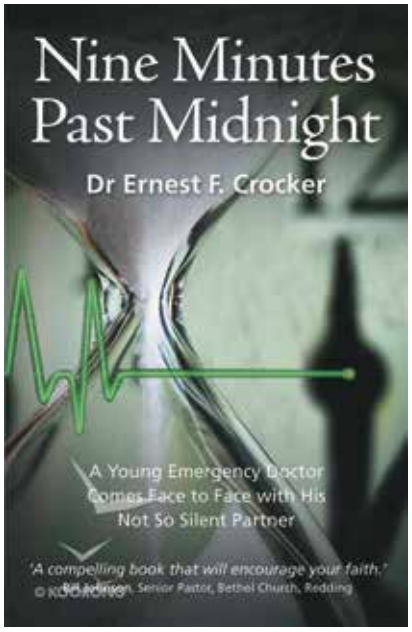
I come home from a busy day of clinic. *My patients have been varied – young children with fevers and worried parents, a mother who has just found out she is unexpectedly pregnant and doesn't know if she wants to keep the baby, an older lady with chronic depression that just doesn't seem to be responding to treatment, a woman with a new diagnosis of breast cancer, a young man with chest pain who needs to go to hospital. As I reflect on my day I keep wondering – did I do enough? Was there anything I missed? Should I have said something different? Could I have done more? As I sit down to read bible stories with my children I read of Jesus raising the dead to life and healing the sick and I wonder, does God do miraculous healing today? Where is God in my work?*

Many Christian health professionals, will have been faced, at some point, with the question of whether God is interested, or indeed involved in our work. This may come in a crisis, when the reaches of modern medicine just don't seem to

> ***"As I reflect on my day I keep wondering – did I do enough? Was there anything I missed?"***

answer the problems set before us, or more quietly, when our God-given passion and desire to bring healing and hope through medicine is ridiculed and denied by unbelieving colleagues. At times it seems easier to relegate our faith to our private lives and attending church on a Sunday.

Early in his medical career, Dr Ernest Crocker was faced with these very same questions. In his book *Nine Minutes Past Midnight* he chronicles his own story of understanding and draws us into the journey he took in seeing God's hand at work within his own practice and also that of many colleagues. Crocker uses these experiences to candidly outline how God demonstrated to him that He was not only involved in the lives of patients, but



actively working with and through medical professionals in all areas of their work and personal life.

Through engaging stories from his own life, Crocker outlines ways in which he has seen God miraculously heal, as well as acknowledging God's underlying hand in his own research, medical advances and career progression. We see how God has been at work in and through Crocker, guiding and using him in his personal and professional lives. These stories show us how God used even the hardest of experiences to bring Crocker to a deeper understanding of himself – as God's child – rather than finding his identity in his job, position, achievements or security. Indeed, God became Crocker's "silent partner", involved in all aspects of his life and work – whether in a successful radiology practice in Sydney, or on mission trips to China.

Crocker's storytelling is not restricted to his own experiences. The book has many

> ***"These stories are amazing examples of... divine intervention..."***

stories of medical professionals from all around the world who have also seen God at work in their lives as God calls them into full obedience to Him: asking them to trust him in their work and using them for His glory. These stories are amazing examples of the divine intervention God uses today in the lives of ordinary people through the faithful prayers and witness of Christians in Australia, Asia, Africa and beyond.

Nine Minutes Past Midnight asks the reader if we are prepared to submit ourselves completely to God and allow Him to work through us. It challenges us as Christians who work in the healthcare industry to deepen our relationship with God and look for His presence and guidance, power and work in every aspect of our lives. It challenges us to listen for His call and to follow Him, so that His purposes might be realised in our lives, no matter the cost.

> ***"Are we prepared to submit ourselves completely to God and allow Him to work through us?"***

Although the message of the book may have been strengthened by providing a deeper theological grounding for its conclusions, this was not its intent. While more biblical reflections would have added further insight into the way God works today, there is no doubt that both the author and his interviewees are entrenched in the word of God and allow it to speak in their lives. The gospel message indeed drives the underpinning of their faithful service through their work.

This book seeks to give an insight into the lives of faithful Christians today who have seen God at work in their own lives and workplaces, and in doing so encourages the reader to see that the Holy Spirit given is at work in each of us and is working in the lives of those God sets before us. If only we would seek Him.

Dr Anthony Herbert
Anthony is a paediatrician specialising in paediatric palliative care in Queensland. He is also the current chair of the Queensland Branch of CMDFA.

The Last Breath: When A Patient Is Dying

Photo: Liane Metzler on Unsplash

Our breath, along with our heartbeat, is one of the basic building blocks of human life.

It is estimated that a person takes approximately 630 million breaths in a lifespan of 80 years. Much of our breathing is automatic and occurs subconsciously, though there are times when we become more aware of our breathing. This awareness particularly happens when patients are symptomatic from disease. Our first breath, taken at the time of birth, is so critical, as is our final breath. Family members are often present with their loved ones when they take their final breath. This is an emotionally intense time for all, as a person and loved one makes their transition out of this life. Another example that will be discussed in this paper is when health professionals use a focus on their breathing to be more present with their patients.

Theological Consideration

Books have been written on the theme of '*breath*" from perspectives of both the beginning of life (*The First Breath*[1]) and the end of life (*When Breath Becomes Air*[2]). Jesus' last breath was a critical part of his crucifixion. "And Jesus uttered a loud cry, and breathed his last" (*Mark* 15:37). This was presumably in part due to the severe pain, respiratory muscle paralysis and exhaustion associated with the crucifixion process. A new breath is also one of the first signs of the resurrected state. God gives life-giving breath to dead bones in the Old Testament (*Ezekiel* 37). Such breath carries both power and symbolism for the Christian believer. When Jesus appeared to his disciples, he not only showed them the scars on his hands and his side, but also breathed on them – offering both the Holy Spirit and forgiveness (*John* 19:22).

> ***"Breathlessness is a common symptom encountered at the end of life."***

Breathlessness At The End Of Life

Along with symptoms such as pain and anxiety, breathlessness is a common symptom encountered at the end of life.

> *"When you can't breathe, nothing else matters".*

Children with cystic fibrosis experiencing difficulty breathing, have described the feeling as *"can't speak properly", "sucking air out of me", "someone standing on your chest", "like an elephant sitting on your chest" and "feels like you're going to die."*[3]

Breathlessness as a symptom has a huge impact on the patient and their quality of life. It can result in both severe physical limitations for the patient and severe psychological distress. This in turn causes distress and can be a burden for the patient's carers. Sleep is impacted, and the patient may eventually become home or bedroom bound. Portable oxygen delivery devices can be helpful in this context.

Our understanding of both the cause and management of breathlessness has improved dramatically over recent decades. The suffering associated with this symptom has also reduced dramatically, as health professionals become better at managing shortness of breath with both pharmacological and non-pharmacological strategies. For example, a simple fan provides an air stream which can help ease the feeling of breathlessness.[4]

Australian clinician and researcher, Professor David Currow, and colleagues, pioneered the way in our understanding of the role of opioids in relieving dyspnoea in patients with advanced illness such as lung cancer and chronic obstructive pulmonary disease (COPD). Their research, which includes randomised controlled trials, found that the use of morphine reduces a patient's level of distress associated with

dyspnoea and sleep, while at the same time not causing or worsening respiratory failure.[5] The main side effect to look out for was constipation. The benefit of this research to patients was evident in August 2019 with a new medicine listing on the Pharmaceutical Benefits Scheme for Kapanol® (slow release morphine) for those suffering with breathlessness through their final stages of life.[6]

A key concept to remember when managing dyspnoea is that shortness of breath is particularly anxiety provoking. This anxiety then causes further dyspnoea in a cyclical fashion as shown in figure 1. This also reminds us to consider how best to support the patient psychologically, in addition to providing pharmacological approaches to management of their breathlessness.

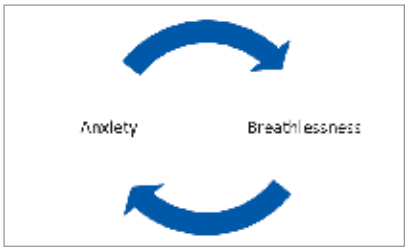


Figure 1 – Cyclical interaction between anxiety and breathlessness

I can recall cases where a patient's breathlessness and pain has been well managed at the end of life, giving peace to both the patient and their family at that difficult time. This is a rewarding outcome for the involved palliative care physician or paediatrician. There are also occasions where respiratory distress or breathing changes has been more difficult to manage and this has impacted both the patient and their family. It is these difficult occasions such as this that I find harder to manage as a clinician. I often reflect on such cases, hoping that I can learn from them and improve the situation for other patients in the future.

Prayerfulness As A Strategy Of Providing Compassionate Healthcare

The strategy of *grounding* can help us stay present and in the moment with our patients. By focusing on one of our five senses, we can move ourselves out of past or future thinking to focus on what is happening currently. This focussing can include touch (*e.g. our feet on the ground*), smell, sound, taste or smell. Another area of focus can be our breathing. This can put out of mind previous different or challenging experiences (*e.g. the complex patient we have just seen prior*), and also future concerns (*e.g. the noisy waiting room with many patients to be seen*). We can then focus just on the patient at hand in front of us.

Such an approach allows the clinician to stay present with the patient and also ensures better assessment and care of the patient. Figure 2 demonstrates this approach, with another outcome being the ability for us to show more compassion to our patients and subsequently focus more on holistic care. As we do this, we may become more able to see the patient as a person, rather than as a disease process. It may also allow spiritual aspects of care to be considered, perhaps even prompting the clinician to say a quiet prayer while they are seeing the patient.[7] The Greek word for breath is *pneuma* which can also mean spirit or soul. Such a focus on our breathing (and prayer) in the moment opens the possibility of *"keeping in step with the Spirit"* while we consult with patients (Galatians 5:25).

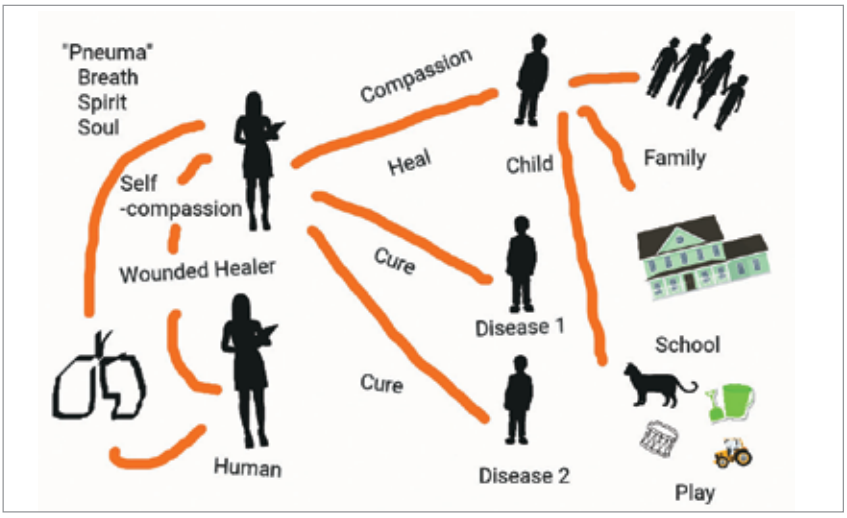


Figure 2 – A schema for providing compassion and holistic care to children[7]

Finally, this approach can also allow the clinician to reflect on their own humanity and vulnerabilities, connecting patient and clinician both professionally, and as humans. *"Effective communication takes place when practitioners move fluidly between their position as experts and their position as curious and respectful human beings."*[8]

Conclusion

Breathlessness is an important symptom to assess and manage. This is particularly the case for patients with advanced illness (e.g. cancer, COPD, heart failure) and when patients are receiving end of life care. This symptom significantly impacts on a patient's quality of life, and on the patient's carers. There are both pharmacological and non-pharmacological strategies that can be used to manage breathlessness, and Australian researchers have led the way in understanding the role of opioids in managing breathlessness in the palliative care context. In addition to focusing on the breathing of our patients as a symptom to manage, we can also be mindful of our own breathing when we consult with, and care for our patients. Such a focus can allow us to be more present with our patients and to provide improved holistic medical care. The Greek word for breath, *pneuma,* can also mean spirit or soul, and a focus on our own breathing can provide opportunities to "keep in step with the spirit".

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Dr Andrew Williams
Andrew is a medical practitioner in full-time ministry. He completed a Bachelor of Divinity at Moore Theological College in 2018. Andrew and his wife Claire are currently job sharing on the pastoral team at City on a Hill Evangelical Church in Wellington, New Zealand, having moved there at the start of this year.

Do We Really Save Lives?

I lay awake in my dorm room, rehearsing the conversation over and over in my head. Beside my bed lay an A4 page, scribbled with handwritten notes on both sides.

I had an airtight argument.

He just couldn't see it from my perspective. And how should he know? He's not medical. Sure, he might have seen plenty of medical students come through, say the same things, and end up in the same place, but I was going to be different. I was truly going to use medicine to impact people's lives for Christ. I would use my position as a doctor to reach hurting people with the gospel. If I lost my medical licence for being too open about my faith, then so be it. Christian brothers and sisters through the ages had lost their lives for less.

It was 2008. I was at a ministry recruiting conference (called *Spur* in those days). As part of the conference, delegates were interviewed by someone in full-time ministry to discuss thoughts about whether vocational ministry was something they should consider. I was down to be interviewed by my senior pastor, who had already tapped me on the shoulder 6 months prior. At the time, he asked me if I'd considered full-time ministry. My response was that I was already heading towards full-time ministry - as a Christian doctor. What followed was a slightly heated conversation about whether medicine was or could be a ministry, which was cut short as I had to run off to my next class.

> ***"I was truly going to use medicine to impact people's lives for Christ."***

So here I was, at this conference, sitting on the grass with my senior pastor, chatting about my thoughts on ministry. I'm normally pretty unflappable, but at this point (not helped by my lack of sleep the night before), I was pretty jittery. I had my page of notes tucked into my Bible, at the ready.

Right from the start, my senior pastor threw me, "Hey, I don't really wanna talk about the whole 'medicine vs ministry thing'. Let's just talk about how you're going in your relationship with God."

I was a little baffled, but I complied, talking through how my quiet times were going, the people I was evangelising to, the epiphanies I'd had lately, the sin I was fighting, my passion for all the ministries I was involved in – the usual stuff.

Our hour passed quickly, but as we walked to the next session I cracked, "Look I really want to talk to you about medicine and ministry. I've been thinking about it a lot. I've even prepared some notes on my thoughts. Can you just tell me what you think?"

"Sure," he said.

I proceeded to give him my spiel. My airtight case. His response changed my life.

Pastor: "So, you want to spend your life reaching out to the hurting, the sick, the dying, with the good news of Jesus?"

Me: "Yep."

Pastor: "Why do you need to be a doctor to do that? Why not be a hospital chaplain, or a hospital evangelist – where it's actually your job to do that?"

I hadn't thought of that. I was lost for words. I had nothing to say in response. Why had I not thought of this option? It was at that point that the veil was lifted. I saw how I had once again been led astray by my heart. Deep down, I really just wanted to be a doctor. I wanted the prestige, the respect, the acknowledgement of how hard I had worked to get to this point. I had spent

the last few months, especially the previous night, finding a gospel-loving, Christian-sounding justification for what deep down I just really wanted.

To. Be. A. Doctor.

We are really good at convincing ourselves that we are wholeheartedly seeking God's will when in actual fact we're simply justifying our own will before God. We are such good self-justifiers. This is especially true for type A, high achieving, highly rational personalities. In fact, doctors are trained to seek justifications:

"Tell me what your provisional diagnosis is – justify why you think that."

"Tell me why you think this patient needs a CT today."

"Tell me why my Dad needs to stay in hospital over the weekend. Justify your decision, doctor."

We're not only good at giving our justifications to others, we're even better at justifying things to ourselves – without even realising it. Those things that we've convinced ourselves as the only rational choices, are really just about what we love deep within. As Thomas Cranmer aptly put it, *"What the heart loves, the will chooses and the mind justifies"*. We think that our rational brains are what's steering the ship of our lives. Actually, it's our hearts. Our brains are just the instrument we use to justify what our sinful heart has already decided we should do. In general, God has given 'medicos' fairly highly functioning brains – so we tend to be pretty good at it.

This danger of self-deception is further heightened when our propensity for self-justification is coupled with another narrative or worldview. It's the narrative that our senses, our culture, and our profession are screaming at us. It's the narrative that this world and this life is all there is; that what we perceive in the physical universe is all that there is to know about reality, and that we are simply collections of atoms, and when we die, we simply decompose and our mind ceases to be. Now surely, as Christians, we believe something different (at least, if we're asked). Even so, it's amazing how our perception of the world, and our subsequent attitudes and behaviours, are dominated by this narrative.

In this narrative, doctors are like modern-day gods. We have the power to give people the most valuable thing they could possibly possess: the breath of life. More time to be alive. When this life is all there is, there is nothing more valuable we could offer. My non-medical friends have often said in passing, as I've headed off to work, "Off to save some lives then?" It's funny, but in my 8 years of medical practice, I can't think of a single life that I've actually saved.

"We're not only good at giving our justifications to others, we're even better at justifying things to ourselves – without even realising it."

I'm sure many reading this article can think of those patients who, if it wasn't for their direct intervention, would have died – more so in some specialties than others. Whether we've saved lives as a small part of the health machine; or as one of the 74 administering that 'life-saving' medication where the number needed to treat (to prevent one death) is 74; or as the ED Registrar literally giving someone 'breaths of life' through a bag and mask when they've stopped breathing for themselves; it seems we have the power to save lives. Or do we? Are we actually saving lives, or are we just giving them a bit more time?

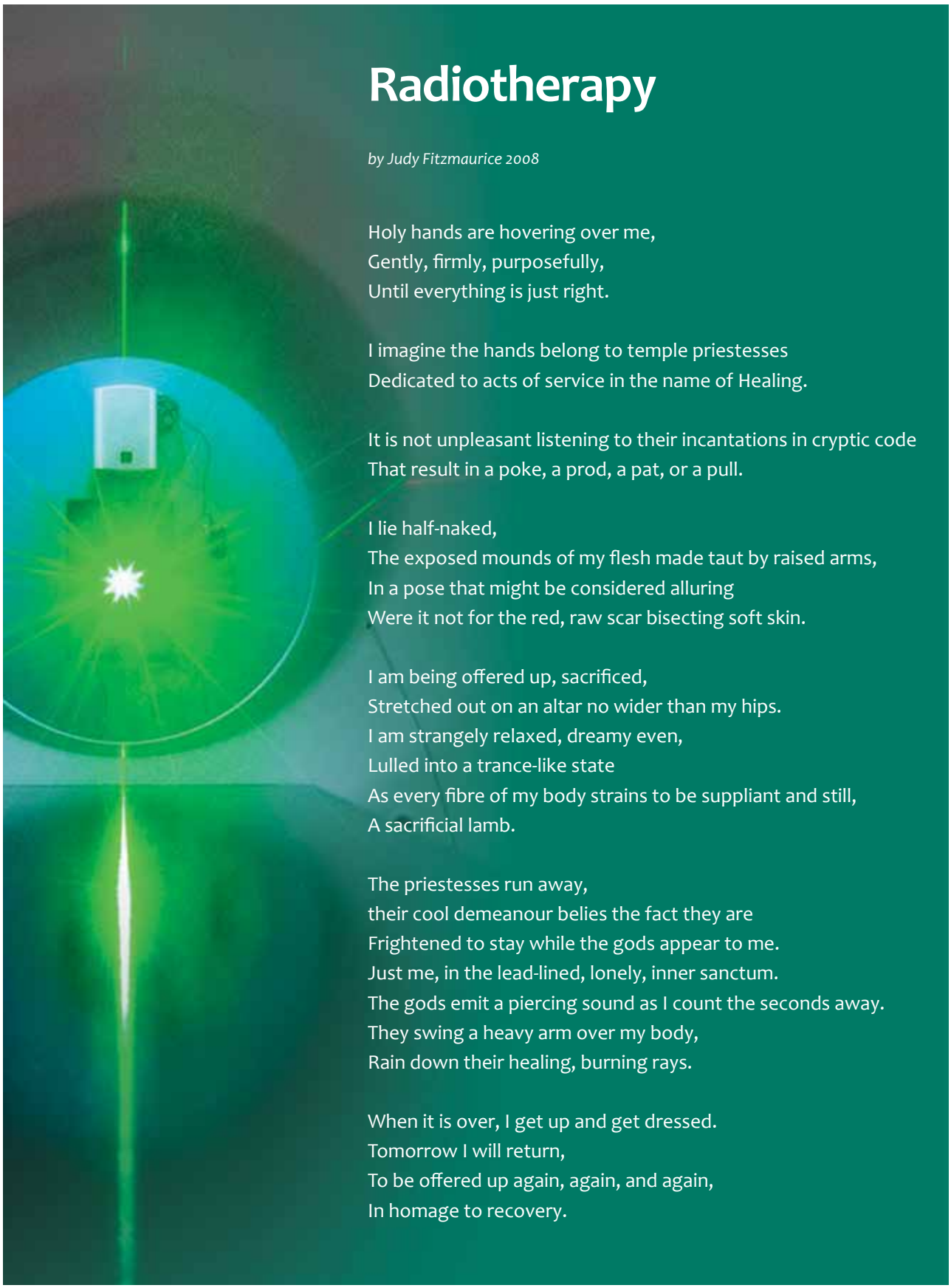
With everything around us shouting the "this life is all there is" narrative, we need to be constantly reminded of the truth. We need a different perspective – to see the world as it truly is. As God, the ultimate source of truth in the universe, has revealed to us. When you add eternity to the equation, all we are doing if we save someone's physical life is giving them more time to repent. We are giving one of God's image-bearers a tiny fraction more time on earth, before they plunge into an eternity, either in heaven with Jesus, or in hell, cut off from God's goodness. Forever. The sad truth is that for the vast majority of lives we 'save', we are really just giving people a little more time to struggle on with this broken life on earth before they face the fires of hell. Some saviours we doctors are!

But as disciples of Jesus we have a far more powerful ability. We have the message of salvation. We truly can save lives. We can see people brought from death to life. We can give people the true gift of life – not a few years more, but eternal life – where death is no more. A spiritual perspective means we no longer regard anyone from a worldly point of view (2 Cor 5:16). People's greatest need, no matter how dire their physical condition, is to be reconciled to God.

It's only the supernatural work of the Spirit of God working in our hearts and minds that will enable us to see things as they really are. On the surface, everything appears to be going on as it always has. On the surface, it looks like a doctor saving someone's life is merely a system of cause and effect between our medical intervention and the effect it has on the body's damaged physiological processes. Yet, when we see our practice truly, it is primarily the mercy of God, at work every step of the way to keep that person alive. He is patient with us, not wanting anyone to perish but rather giving everyone the chance to come to repentance. On the surface, it looks like a doctor who is giving away a satisfying, respectable and lucrative career to teach ancient superstitions to gullible, ignorant people. In reality, it is giving up a role focussed on the temporary and physical, to help give people the true gift of eternal life.

We need to examine our hearts, humble ourselves before our God, and let him show us where we are justifying our actions to ourselves; and where we are avoiding doing what we know we should be doing because it's so much easier to pretend those spiritual realities just don't exist. We need daily reminders of the reality that exists behind what our senses, our culture and our profession are telling us. It might mean intentionally pausing to pray between consultations, for our patients, and even with our patients. It might mean looking for, praying for, and taking fresh opportunities to share Christ in our workplace. It might mean using more of the money God has given us to support those who are doing the work of gospel proclamation, rather than saving for the next holiday house, skiing holiday or new car. It might even mean giving up 'saving lives' altogether, so we can give ourselves more fully to the work of seeing people come to Christ and seeing people truly saved in Jesus.

Dr Judy Fitzmaurice
Judy is a GP who lives in Sydney with Mark. She wrote this poem, *Radiotherapy* after she had breast cancer in 2007, when she participated in a short course at her treating hospital – *Healing Through Creative Writing*. She experienced the benefit of reflecting about her illness journey through imagery and through the process of writing poetry.



Radiotherapy

by Judy Fitzmaurice 2008

Holy hands are hovering over me,
Gently, firmly, purposefully,
Until everything is just right.

I imagine the hands belong to temple priestesses
Dedicated to acts of service in the name of Healing.

It is not unpleasant listening to their incantations in cryptic code
That result in a poke, a prod, a pat, or a pull.

I lie half-naked,
The exposed mounds of my flesh made taut by raised arms,
In a pose that might be considered alluring
Were it not for the red, raw scar bisecting soft skin.

I am being offered up, sacrificed,
Stretched out on an altar no wider than my hips.
I am strangely relaxed, dreamy even,
Lulled into a trance-like state
As every fibre of my body strains to be suppliant and still,
A sacrificial lamb.

The priestesses run away,
their cool demeanour belies the fact they are
Frightened to stay while the gods appear to me.
Just me, in the lead-lined, lonely, inner sanctum.
The gods emit a piercing sound as I count the seconds away.
They swing a heavy arm over my body,
Rain down their healing, burning rays.

When it is over, I get up and get dressed.
Tomorrow I will return,
To be offered up again, again, and again,
In homage to recovery.

Dr Yvonne Lai
Yvonne is a specialist paediatric dentist. She has been involved in clinical supervision of undergraduate students in Western Australia, New Zealand, and currently performs this role in paediatric dentistry clinics in the University of Adelaide and is actively involved in research.

Breaths Of Life In The Midst Of Change: Lessons Learnt From The Paediatric Oncology Ward

I have come to realise, over the years, that many doctors and dentists have certain idiosyncrasies. For many, these may include the incessant attention to detail, obsession with perfection and a self-critical nature.

For dentists, one of the outward, tangible measures of success is the quality, retention or longevity of our dental work in the respective patient's mouth. For those in specialist training, the importance of this criterion may be magnified on a higher level, when the measure of our competence in final specialist qualifying exams is in the quality of our work after a minimum twelve month follow up period, including patients with multiple co-morbidities or who require interdisciplinary management.

Accordingly, despite being Christian health professionals, when we are under pressure it can be easy to be focussed on the end goal, and to subconsciously use this as proxy for our self-worth, instead of remembering that our intrinsic identity lies solely in our status as heirs to the throne of Christ, as his sons and daughters. Additionally, many of us excel in our areas of expertise, and if we are not careful, it is easy to think as practitioners that we have "everything else" under control, and that our professional self-worth is intricately tied to our clinical success with our patients and positive outcomes.

I have not been immune to this. I will share my reflections on lessons learnt working with terminally ill patients in private and public sectors in my work both as a general dentist and during my previous specialty training which challenged my subconscious desire to have and be "in control" of things which were clearly in God's hands.

The first event occurred seven years ago. I was the sole dentist present in a country town and preparing to see an elderly man for some routine dental work. Mr B. was in his seventies, diagnosed with multiple myeloma, and already receiving chemotherapy. After interdisciplinary consultation, it was agreed that the dental treatment be performed before treatment for bisphosphonates resumed as soon as possible, to ameliorate the chances of existing dental infection compromising the remaining medical treatment.

> ***"It is easy to think as practitioners that ... our professional self-worth is intricately tied to our clinical success with our patients and positive outcomes."***

Mr B. was in the waiting room sitting in the chair. As I was finishing my notes for the previous patient, the receptionist entered the room. I was informed that the patient "did not feel too well" and had shortness of breath. I walked out to the waiting room where Mr B was seated and asked him how he felt. Mr B looked at me but did not respond. We sent a nurse to seek help from the medical surgery across the road. I squeezed Mr B's shoulder and asked him "Can you hear me? Squeeze my hand if you can hear me".

Barely a minute passed. The doctor from the surgery across the road arrived just as Mr B's eyes glazed over and his head slumped forward in his chair and he was placed into the recovery position.

A second doctor was sent for from the surgery and the ambulance called as we attempted resuscitation, defibrillation and use of the appropriate medications.

Mr B. was pronounced dead in the ambulance on the way to hospital.

I cancelled my patient list for the day and held a debriefing session with my dental

team, who were visibly upset. Our dental team visited the hospital in the country town to offer our condolences to the family and visited the medical clinic across the road to thank our medical colleagues for their help.

Given that we were in a private dental clinic, this incident was unexpected for all of us. While I felt like I had handled the situation with composure and taken control as the sole attending dentist, I drove home feeling guilty over the ordeal. In the days that followed, I admitted to myself that I felt this way because I was used to having complete control, that I wanted control, but in retrospect, could not have further influenced this patient's outcome. This scenario would be encountered rarely in a dental private practice setting. Nevertheless, the appropriate procedures were followed to seek and administer emergency first aid, and we called for help as soon as we could. Despite our best efforts, the patient died. It was all very sudden and unexpected: this was a private dental surgery, not a hospital, and Mr B. was merely waiting for dental treatment and had been given a one to five-year prognosis for his medical condition.

I found it helpful to debrief with a fellow colleague not involved with the incident. I realised God was ultimately in control of the situation and called the patient home that day. I needed to relinquish my feeling of wanting to have control over my patient outcomes when some of these were clearly outside of my control. I also needed to remember that I was merely God's servant, stewarding my time, talents and skills in service of others. God was still God – and I was still me. God still reminds me of this lesson today.

In looking back, the same lesson I learnt seven years ago disguised itself in many other ways in the course of my subsequent specialist training in Paediatric Dentistry. During my time as a Paediatric dental registrar, I developed an interest in and had a burden for patients with special needs and particularly those in the Paediatric Oncology unit. A void had been left with the departure of a consultant some years earlier and so I became involved with resurrecting regular inpatient dental ward rounds for the Oncology unit, and in strengthening stronger ties with the Oncology team to further optimal patient care.

I had a passion for helping these children, but also learnt the importance of balancing this passion with resilience as a registrar in the hospital in order to deliver the best patient care. While some of these patients did recover after intense medical treatment, occasionally some did not. Three of the long-term patients I was involved with in interdisciplinary team management, passed away within a nine-month period. The first patient was an eight-year-old girl with no limbs who was on the waitlist for a combined procedure for bone marrow aspirate and dental treatment. The second was the four-year-old son of a family friend who died from a rare form of leukaemia after two failed haemopoietic stem cell transplants. The third had leukaemia and died shortly after a relapse. I was involved in a very small part of a larger journey for all these patients. Nevertheless, the mourning of the loss of young lives is always very difficult for everyone involved, especially for the families of the deceased, and I did find this confronting. In these moments, God continued to show me that, once again, my role as his steward is to help these children to have the best quality of life that they can for the time they have, and that God is sovereign and that we do not have control all the time. My role in His greater plan was to be the best Paediatric dental registrar that I could be, not necessarily openly evangelising in the wards, but sharing His compassion with others through doing the best dental management I can and in caring for my patients.

> ***"I am to offer myself as a living sacrifice to [God], which drives me to strive to give the best possible care to my patients."***

In my journey back then as a paediatric dental registrar, I came to realise on a more practical level, that clinical work, study and life, has, will, and shall continue to serve up the odd, or even constant, surprise. Whilst I have long-known many of God's promises on a cerebral level, I have been challenged to own these promises on a heart-level, regardless of life circumstance. For me, the antidote to the urge to control things, especially outcomes I clearly do not have control over, has been to remember and acknowledge that God loves me (John 3:16, Lamentations 3:23) and that God is Love (1 John 4:8), that I have been bought with a price (John 3:16), that I belong to him and that I am a co-heir with Christ (Ephesians 2). Accordingly, my response to God is that I will serve Him because I love Him, regardless of the life circumstance, because he first loved me (1 John 4:8). These promises and reminders have been a breath of life to me when I am stuck, under pressure at work, or when I am feeling vulnerable to the societal messages or the lies that I might be tempted to believe: that I am only as good as the last patient that I treated; especially when my perceived failures seem to add to the expectations to perform or to please other people; or when I am tempted to value tangible results in patients over other intangible outcomes which are equally as important.

It is a relief to be reminded that our time, talents, money, and resources (Matthew 25:14-30) are all gifts from a good God. As such, I will serve Him with my heart, acknowledging that my life is not my own but a gift from God. Therefore, I am to offer myself as a living sacrifice to Him (Romans 12:1), which drives me to strive to give the best possible care to my patients – realising my role is to give the patients the best possible quality of life, regardless of how long they may live, and that the rest shall be in God's hands.

When I am under pressure, it is a relief to remember that my identity lies in the fact that I am first a most beloved daughter of God, and being a dentist is secondary to this, as God has given me the skills in these areas to serve others to glorify Him.

> *"For I am convinced that neither death nor life, neither angels nor demons, neither the present nor the future, nor any powers, neither height nor depth, nor anything else in all creation, will be able to separate us from the love of God that is in Christ Jesus our Lord." (Romans 8:38-39)*

Georgie Hoddle

Georgie is a registered nurse (RN) who currently collaborates with Sydney University School of Pharmacy, drawing on her experience as a clinical nurse educator in disability nursing and the quality use of medications. She also works as an RN in Aged Care in a rural setting. Georgie is currently Vice-President of Nurses Christian Fellowship Australia.

Inspiration: Breathing In Of The Spirit

In all the classical and biblical languages the word 'spirit' has many meanings. It can refer to both wine, and a spirited man.[1] However it is used, it always seems to define an essential element that is elusive.

When first referred to in the Bible, the spirit (in Hebrew, *rûah*) refers to a soft wind which in itself is a mystery, as it is invisible but can also be fierce, destroying buildings (Ezekiel 13:13), uprooting rocks (1 Kings 19:11), to later become a gentle breeze (1 Kings 19: 12).

Breathing In Of The Spirit

Inspiration, breathing in, is like the wind; it comes from God and returns to God when we die. "Then the Lord God formed the man from the dust in the ground. He breathed ***the breath of life*** into the man's nostrils, and the man became a living person" (NLT, Genesis 2:7).

As healthcare workers we use the word inspiration with reference to breathing, which has the power to give life and at the same time is fragile. *Breathing in* is the force that raises the body and animates its entire mass. But we are not masters of our own breathing, as it is the work of the mysterious sympathetic nervous system, which in turn is in the hands of God. We can't do without it, and die when it ceases.

"For the spirit of God has made me, and the breath of the Almighty gives me life."
(NLT, Job 33:4)

"If God were to take back his spirit, and withdraw his breath, all life would cease, and humanity would turn again to dust."
(NLT, Job 34:14; Eccl. 12:7)

"Our special abilities come from the Holy Spirit – we are inspired because we have literally breathed in the Spirit."

Inspiration

In the context of the spirit of man, as defined in Genesis 2:7, we are given life, and all that touches us, impressions and emotions are expressed through our breathing: fear (Genesis 41:8), anger (Judges 8:3), joy (Genesis 45:27), pride etc, all modify our breathing. *Rûah* is therefore an expression of man's conscious spirit. When we give that spirit back to God (Psalm 31:6 and Luke 23:46) it means we expire for the last time and give God our own being.

As we live in New Testament times with the gift of the Holy Spirit through Jesus Christ[1] we can see all the various dimensions of the spirit of man and the spirits that can animate him. One of these is the discerning spirit of God's gifts (1 Corinthians 2:11) which leads to a spiritual understanding of the wonderful things God has freely given us (v.12).

Receiving Spiritual Gifts

Paul's first letter to the Corinthians (Chapter 12) explains well that our special abilities come from the Holy Spirit – we are inspired because we have literally breathed in the Spirit; some people can give wise advice, others knowledge (v.8), etc; and many of us have been given the gift of healing (v.9) – we are *inspired* to do our work (paid or volunteer) because we have been given this gift, and can therefore serve the Lord enthusiastically (Romans 12:11).

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Dr Bo Wong
Bo Wong is an elder of Grace Evangelical Church Newcastle. He works part-time as a GP in Mayfield, Newcastle. He is married to Lay. They have two children, Joyce and Joel.

'Qi' And The Multiple Perspectives Of Breath

Growing up in Chinese culture, the concept of Qi has been part of my life since a very young age. However, I have never managed to fully grasp this concept. Even when I was learning acupuncture, I struggled with the concept of Qi.

I imagined Qi as a sort of energy flowing along meridians to different internal organs, and acupuncture was the art or science of influencing this flow to promote healing. The real meaning of Qi is a lot more complicated than my rudimentary understanding.

Qi is used in many terms in Chinese.

1. Qi Li 气力 – strength.
2. Qi Shi 气势 – grandeur.
3. Qi Si 气死 – to die from an excess of anger.
4. Sheng Qi 生气 – to be angry.
5. Cai Qi 才气 – talent.
6. Yun Qi 运气 – luck.
7. Duan Qi 断气 – to breathe one's last.
8. Jing Qi 景气 – prosperous.
9. Shi Qi 士气 – morale.
10. Fu Qi 服气 – to submit.
11. Su Qi 俗气 – poor taste.
12. Xi Qi 喜气 – happy atmosphere.

I can list ten times the number of terms in which Qi is employed. The ones I have listed suffice to show that Qi is involved in every part of life in Chinese culture.

This is one of the most useful words to know well for those who want to learn both the Chinese culture and language.

I have summarised below a description of Qi from the book *The Web That Has No Weaver*[1]

> *The notion of Qi is fundamental to Chinese culture and medical thought. For the Chinese, everything in the universe, inorganic and organic, is composed of and defined by its Qi.*
>
> 1. *Qi is not so much a force added to lifeless matter but the state of being of any phenomena.*
> 2. *Qi can be thought of as a kind of matter on the verge of becoming energy, or energy at the point of materialising.*
> 3. *Qi is the thread connecting all being.*
> 4. *Qi allows any phenomenon to maintain its cohesiveness, grow, and transform into other forms.*
> 5. *Qi is more than cause; it is also the process and outcome of all activity in the cosmos.*
> 6. *Qi is the cosmic breath that unites disparate forms.*
> 7. *Qi has five major functions within a person.*
>   a. *It is the source of all movement and accompanies all movement (physical and mental movement, and growth).*
>   b. *Protection (shielding the body from external invasions).*
>   c. *The source of harmonious transformation (transforming food and air into other states of being).*
>   d. *Maintaining stability (physical endurance and structural integrity).*
>   e. *The source of warmth (keeping the body warm).*

Qi may then be considered a fundamental force for life. Such a concept of Qi was first mentioned about 2,500 years ago in *Huang Di Nei Jing* (the *Yellow Emperor's Inner Canon* – an ancient Chinese medical text). Amazingly, this concept of Qi has some similarities to the Christian concept of life, in that the biblical account recognises the presence of a fundamental entity that gives true life – God's breath, His Spirit.

In the Bible, life is related to breath, wind, Spirit.

> *"God gave everything that has the breath of life in it every green plant for food." (Genesis 1:30)*
>
> *"God breathed into man's nostrils the breath of life, and the man became a living being." (Genesis 2:7)*

"God saved pairs of all creatures that have the breath of life in them." (Genesis 7:15)

"Everything on dry land that had the breath of life in its nostrils died." (Genesis 7:22)

"... unless one is born of water and the Spirit, he cannot enter the kingdom of God." (John 3:5)

"The wind blows where it wishes, and you hear its sound, but you do not know where it comes from or where it goes. So it is with everyone who is born of the Spirit." (John 3:8)

Survival of the human body is dependent on the supply of air with appropriate ratios of inert gas, oxygen and carbon dioxide. A body that is deprived of such air will decompose and disintegrate. While the Chinese call the physical air "Qi", they also recognise that Qi is much more than physical air. For example, without an appropriate morale or will (Shi Qi 士气), a body would also deteriorate. A patient who has lost the will to live will usually die sooner than one who wants to live longer. I have seen an elderly couple dying on the same day in a nursing home: the husband's death was expected as he had a terminal illness; the wife gave up her will to live when she knew that her husband was dying. She somehow managed to die soon after her husband's death. ('Somehow' because there is no explanation for how Qi, being a non-person, could motivate. However, we do know that, as well as respiration, we need aspiration [to live FOR something] to have life). Qi is therefore understood as something that not only enables energy production and growth, it is also something that somehow gives the body the motivation and purpose to survive.

Similarly, 'breath of life' can have two meanings: one in the physical realm, another in the spiritual. Most people consider life only in the physical realm. If our life consists only of physical breath, we will generally fear the time when we take our last breath. However, there are some who understand the spiritual breath of life. These people may appear to be talking of non-sensical things – they are driven to strive for the welfare of others; they do not fear death or suffering; they are not motivated by personal comfort or gain, but something else motivates them to live sacrificially.

"If we live only in the physical breath of life, we shall perish with our bodies."

The ancient Chinese suspected that Qi was at the centre of life. They tried to explain their concepts as well as they could from observations and deductions. Without revelation from God, the Chinese concept of Qi might be as close as we can get to the mystery of life. Acts 17:28 tells us that, "In Him we live and move and have our being." The Chinese could easily say, "In Qi we live and move and have our being." However, since Qi is impersonal, what sort of being would we have in Qi? In the Bible, the "Him" means God, or to be more specific, God the Holy Spirit, the breath of life. Life makes more sense when we live and move and have our *being* in a Person because we are *being* persons. We relate, we aspire, we feel, we hope, we hate, we laugh, and we love. None of these could be explained by Qi. Because God is a relational Being (the meaning of Trinity), we are also similar in being.

"Without revelation from God, the Chinese concept of Qi might be as close as we can get to the mystery of life."

To the Chinese, if a person lives without any regard to the presence of Qi, that person will have a difficult life as they will miss all the good fortune that come with Qi (that is why Feng Shui is important to the Chinese). Similarly, we Christians may think that a person who lives without regard to the Holy Spirit will have a difficult life. This is not exactly so. In some ways, someone who lives in obedience to the Holy Spirit will have a difficult life because the world does not like such a person. However, to such a person, life is not defined by suffering or comfort – they have tasted the goodness of God and seen God's glory in the face of Jesus Christ. They live for Someone far more glorious than themselves. They also wait for the day when their perishable body is replaced by an imperishable one. On that day, the physical breath of life will no longer be relevant and the spiritual Breath of life will last forever. If we live only in the physical breath of life, we shall perish with our bodies. By contrast, life, true and eternal life, is only found through life in the Holy Spirit:

I tell you this, brothers... flesh and blood cannot inherit the kingdom of God, nor does the perishable inherit the imperishable. Behold! I tell you a mystery. We shall not all sleep, but we shall all be changed, in a moment, in the twinkling of an eye, at the last trumpet. For the trumpet will sound, and the dead will be raised imperishable, and we shall be changed. For this perishable body must put on the imperishable, and this mortal body must put on immortality. When the perishable puts on the imperishable, and the mortal puts on immortality, then shall come to pass the saying that is written: "Death is swallowed up in victory." "O death, where is your victory? death, where is your sting?"
(1 Corinthian 15:50-55)

Reference:
1. Kaptchuk, TJ (2000) The Wen That Has No Weaver. Contemporary Books Inc., Chicago IL United States, pp. 43-49

Dr Geoffrey Booth
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TESTIMONY

As a child growing up in post WW2 suburban Melbourne I attended Sunday School like so many others of that time. In retrospect it didn't really mean much: it was just something you did with your parents and siblings before the roast lunch and the afternoon trip to see the 'relatives'.

At age 11, in 1956, on the Torquay (Victoria) main beach, following the 'Altar call' at a CSSM (now Scripture Union) evening meeting, something inside me made me raise my hand and led me down to the front: deep inside, I really did believe in Jesus!

Apart from this event, I can't remember anything else specifically happening. But, from that time on, and throughout my life, many 'miraculous' things happened:

- never being killed or seriously injured, despite a number of very close calls
- actually getting into (and graduating from!) Medical School in Melbourne
- somehow obtaining both residency and research positions at a major teaching hospital and university in Sydney.

During my 'teenage' years, although I drifted away from the church and prayer, the Lord never left me. For example, as a first-year medical student I was introduced to beer. I enjoyed 'having a few' with my mates at the pub next to the University. I felt great. I was no longer shy. I became 'a leader' – but of the wrong kind! Unbeknownst to me at the time, but by God's grace, 'I realised' that alcohol and Geoffrey did not (and do not) make great companions. The urge to drink ceased.

My subsequent career in the extraordinary medical specialities of Rehabilitation Medicine and Pain Medicine was a revelatory time of learning, learning and more learning as I was privileged to walk with greatly distressed people in their chaotic times of medical, emotional and social needs. I was aware of 'spiritual need', but, at that time, I had no specific framework with which to address this (critical) dimension.

It was not until the late years of my medical career, at age 68, that I became aware of the Lord's persistent gentle calling: although I had lost contact with the Lord, He had never lost contact with me.

Salvation:

In 2013, as a support person to someone I dearly love, I started to attend Wednesday night Chapel Service at the Dooralong Transformation Centre (DTC). This was a Salvation Army residential community on the Central Coast for persons suffering addiction to alcohol +/- drugs and gambling.

The DTC residents attend various Sunday Church services in the Central Coast and Newcastle areas as part of their residential program. One Sunday it was the turn of Newcastle (Hamilton) Salvos to host such a service.

Di (my wife, *see her testimony on the following page*) and I decided to attend this church service. At the entrance we met Ian O'Dea, a previous colleague we had worked with at Rankin Park Rehabilitation Centre. Ian introduced us to his wife, Pam. We introduced Ian to the beloved person who we were supporting. To our great surprise, Ian told Di and I that Pam and he were Senior Pastors at a Church called Northlakes Salvo's (NLS). He invited us to attend their Church.

> ***"Although I had lost contact with the Lord, He had never lost contact with me."***

At the Newcastle Salvation Army Church that night, something life-changing (and life-saving) happened to both Di and myself. We decided to 'give Church a crack' and the next Sunday, with some apprehension, we attended NLS. From that time on, we were lovingly welcomed and embraced, to become brothers and sisters in Christ both within the NLS Church and the worldwide Community of Jesus believers and followers. In December 2014, together with 6 other new believers, Di and I were baptised at the NLS Church.

I would like to share an example of the way the Holy Spirit worked in the beginning period of my new walk with Christ. In early 2015, a surgical colleague referred a person with a number of 'challenging' medical, emotional and social issues. I turned to my new Christian brothers and sisters for assistance. Following their inputs, this person subsequently became a member of our Church. Eventually, her small family came to Australia. Other members of this ethnic community were also drawn to our Church and subsequently, a young leader from within this community arose, bringing to NLS a series of powerful Christian messages.

Present:

Di and I have since been entrusted with a Pastoral Care Ministry within our church, as well as a Church Service Ministry to a local nursing home.

Via the Holy Spirit, we continue each step along the transformation pathway towards becoming the persons that God made us to be.[1] All of this because we finally heard, listened to, and became obedient to Jesus as our Lord.

Personally, I cannot express this any better than the following verses from the song, *100 Billion X*.[2]

God of salvation
You chased down my heart
Through all of my failure and pride
On a hill You created
The light of the world
Abandoned in darkness to die
And as You speak
A hundred billion failures disappear
Where You lost Your life
so I could find it here
If You left the grave behind You so will I
I can see Your heart in everything
You've done
Every part designed in a work of
art called love
If You gladly chose surrender so will I.

References:
1. Romans 12:2 (ESV): "Do not be conformed to this world, but be transformed by the renewal of your mind, that by testing you may discern what is the will of God, what is good and acceptable and perfect".
2. *So Will I (100 Billion X)*: Hillsong UNITED - Official Lyrics.

Dr Dianne Pacey
Di worked at Royal Newcastle Hospital on the clerical staff. She gained a Bachelor of Medicine, specialist qualifications in Rehabilitation Medicine and Pain Medicine. Currently, she and Geoff are co-leaders of the Pastoral Care Team at Northlakes Salvos. She volunteers in aged care and addiction rehabilitation facilities. She also works as a School Chaplain.

TESTIMONY

I had always thought that I was a lucky person. Life seemed to go pretty well for me. I was born into a 'good' family in the mid-20th century; a great time for a woman to be born in Australia. I had access to education, never went hungry or worried about a roof over my head. Surprisingly, I was admitted to Medical School despite being a single parent without an HSC; at a time when Gough Whitlam made the Single Parent Pension available and had removed tertiary education fees.

I loved my job working as a doctor. I had the good fortune of pursuing Rehabilitation and Pain Medicine and looking after people with chronic disabilities. I was inspired by the way they dealt with life and their ongoing challenges. Life was good. I had a great job, loving family, material security, good friendships, and good health. I did struggle with a work/life balance and had had one episode of reactive depression but I do not remember feeling an absence in my life; the so-called 'God-shaped hole'.

Salvation:

Six years ago, Geoff (*see his Testimony on earlier page*) and I happened to find ourselves at the Salvation Army Hamilton Corps supporting a family member. It was to my great surprise that night that I had an experience of the love of God so powerful that I could not deny it.

An elderly Salvation Army lady in her blue serge uniform, showed the grace and love of Jesus in an amazing way. That night we happened to run into Ian O'Dea with whom we had worked at Rankin Park Hospital and his wife Pam, part of the senior leadership team at Northlakes Salvation Army. They invited us to that church and this began our journey of regular church attendance.

> ***"God has a love for us independent of our circumstances, our self-perception or anything else."***

By the good grace of God, Geoff followed not far behind me in experiencing the love of Jesus and we accepted Him as Lord and Saviour into our lives. We came to know that there is a love for us independent of how we might feel even about ourselves, that God has a love for us independent of our circumstances, our self-perception or anything else.

Following Jesus:

I began to follow Jesus, learning his teachings through the Bible and the church. I began to practice this ancient spiritual discipline of being a Jesus follower and I began to experience a God who is all around us and in us. I learnt about sin, both conscious and unconscious, and there was a change to the deep posture of my inner being.

I gave up things that do not relate to my relationship with Jesus and experienced a decline in anxiety. I developed a deep trust in God and peace. I gave up practising medicine and now find myself working in a school as a Chaplain, and have been greatly challenged by this. I have had to depend totally on God's Spirit to guide me in this work, as I am completely inexperienced in this area. I have learned much and He continues to encourage me to depend not on my own resources but on Him.

As I reflect on the past, I have the realisation that someone else is and has always been leading my life. But now I am set free. I now ask myself,

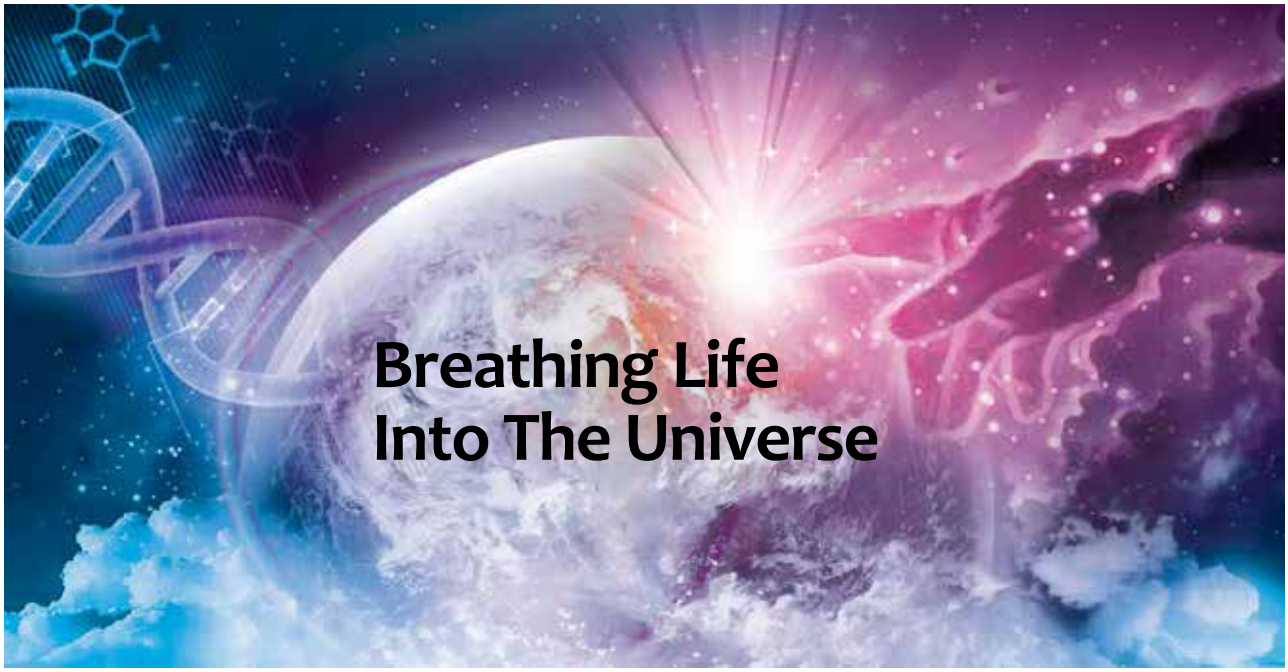
"What are the invitations of Jesus in this phase of my life?"

"What is Jesus trying to do in my life right now?" and,

"How do I say yes?"

The end goal of my journey now is to live in God's presence and love.

Dr Robert Wiles
Robert graduated from the University of Sydney before pursuing post-graduate training in the UK. He has been a rural doctor in Cooma, NSW for over twenty-five years and is a senior lecturer in the Rural Clinical School at the Australian National University. He has a passion for exploring and understanding the information that defines our universe.



Breathing Life Into The Universe

In school and university, the Cosmos was portrayed as beginning in chaos at the 'Big Bang', then randomly developing order through gravity, leading to the formation of the Solar System, the Earth and finally, life. The interesting thing is that this defies the Law of Entropy which states that systems left to their own devices will move to greater disorder. However, the two concepts were never taught together and it never occurred to me to ask about this apparent conflict.

One of the problems is that we tend to be encouraged to compartmentalise everything and not to join the dots. When we read in Genesis 2: 7: "*… the Lord God formed the man from the dust of the ground and breathed into his nostrils the breath of life, and the man became a living being…*" we are presented with an alternate origin story. So how should we resolve these two histories? I faced this question head on when our eldest child entered Year 9 at school and I knew he would encounter Darwinian Evolution.

Many think science has replaced God as author and architect of the Cosmos but the Information Age is changing the way we understand life, the Universe and science. In particular, the study of the information that is found in life and appears to specify the Laws of the Universe is posing questions. We can conceive that information in the universe might allow matter to combine through random processes to form a comet composed of assorted ices but the profoundly complex and *meaningful* information that describes the Laws of the Universe is completely different.

> ***"The Law of Entropy which states that systems left to their own devices will move to greater disorder."***

Computers are a useful model to gain further understanding. They have a physical hardware platform that runs non-material software, which is an information code. Meaning can be delivered through the information carried by the software but not the hardware alone. The material hardware platform is a vehicle that has physical existence in our touchable or Tangible Domain. It is very different to the impalpable, intangible software that operates within the hardware in a non-material world that has been referred to for the last 30 years as Cyberspace (whatever and wherever that may be). The vehicle that carries the code is material but the information itself is not. Yet, both the Tangible Domain and Cyberspace are logical, rational, and in quantum terms, "local" (i.e. discrete, not dispersed). The Universe follows a similar pattern with a material platform that we call matter, which is organised by non-material information.

Thinking Informationally

Although, in the 21st century, we live in the Information Age, most of us were educated in the 20th century, and we tend to bring our materialist thinking with us. So recapping, software is non-material information (organised data) which is not the material vehicle that carries it but the source code. Think of the code embedded in DNA; it is not the DNA molecules themselves that convey the information but the order in which the molecules are arranged. Equally, it is the entity that underpins the natural laws that formed and sustains the Universe. I call this non-material code: "pure information". If this sounds strange, think of the chemical structure of the Universe then take a step back to consider the information describing the structure within the atoms inside the chemicals that compose the Universe. Information all the way down!! (*Floridi, L: Information: A Very Short Introduction. Oxford Univ. Press (2010) pp110-111*)

Thinking informationally requires us to revisit our understanding of information.

According to the orthodox materialist view, mathematical relationships describe the basis of our existence. The physical world is an expression of these mathematical relationships, whereas information is a secondary, or derived, concept that characterises specific states of matter (such as an electron spin being up or down).

The orthodox view:
Mathematics → Physics → Information

However, physicist, Professor Paul Davies points out that the laws of physics are information statements: they tell us something about the way the physical world operates. In this view, information uses mathematics to describe the laws of physics from which matter derives. Thus information is the fundamental entity.

The information view:
Information → Laws of physics → Matter

(Davies, P: Universe from bit. in Davies, P & Gregersen, NH (Eds.): Information and the Nature of Reality: from Physics to Metaphysics. Cambridge University Press (2010) p.75)

So, thinking more broadly with this new understanding of information, the entire universe is a composite of material vectors (or carriers) and non-material information. In Einstein's equations, mass and energy are different forms of the same thing, which was shocking to most physicists when he first published this thesis and still sounds counterintuitive to most people but was proven to be true with the detonation of the atomic bomb. So, there are effectively only two fundamental entities in the Universe: mass/energy that does things and information that says what and how to do it.

Describing Information

The information we observe behaves in one of four different ways, suggesting four different forms or domains of information. We have already identified the Material (or Tangible) Domain and Cyberspace when examining computers but that is not all.

The different guises of Information:

A. The physical universe (which led to material science)
B. Information processing in computers (Cyberspace)
C. Thought and memory (information in the mind)
D. Quantum information ('non-local' and bizarre)

A. The Physical Universe

Our material universe is composed of atoms constructed from quarks and other fundamental particles. Underlying these is an invisible entity which physicists call the 'Space-Time Fabric'. We cannot detect it directly but we can infer that it is there as objects called phantom particles constantly materialise out of the empty vacuum of outer space and then vanish back into it, as described by the Heisenberg Uncertainty Principle. This Space-Time Fabric appears to support and/or sustain our material universe. Note that as this domain is logical, rational, and 'local', the physical world is deterministic, meaning the same outcome will always occur given the same initial conditions. See Figure 1.

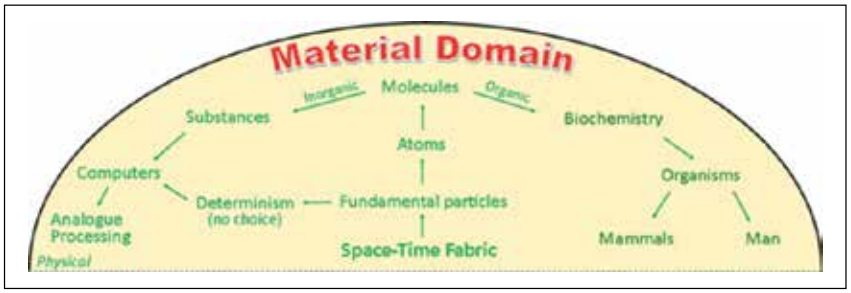


Figure 1: The Material or Tangible Domain

Now that we have some understanding of the Material Domain, to avoid possible confusion when we come to the Quantum Domain, I am going to refer to our familiar physical domain as the 'Tangible Domain'.

B. Cyberspace

In contrast to the physical Tangible Domain, Cyberspace is non-material and digital. However, like the Tangible Domain, Cyberspace is also logical, rational and, in quantum terms, 'local' so they complement each other very effectively. See Figure 2.

Further, we depend upon the Tangible Domain to access Cyberspace. The natural laws of the Universe have similar characteristics in that they too are logical, rational and local. So, the Tangible Domain and Cyberspace seem to be interdependent, with Cyberspace behaving like an application that runs on the physical entity that is the Tangible Domain. In marked contrast, the human mind works very differently.

C. Mindspace

Research over the past century has shown that our mind is not located in any particular place within the brain but disseminated and operates holographically, suggesting that Cyberspace and Mindspace are very different. (*Paul Pietsch, Shufflebrain: the Quest for the Holographic Mind, Houghton Mifflin, Boston, MA (1981)*) Mind exhibits consciousness permitting thought and the human mind exhibits self-awareness which (although it remains contentious) appears to provide free will or choice, unlike computers that are deterministic. However, instead of computer hardware, Mindspace requires a complex brain to interface with the Tangible Domain. See Figure 3 over page.

D. Quantum Domain

The fourth information type occupies the Quantum Domain which defies logic and common sense but all modern technology including computers, lasers and smart

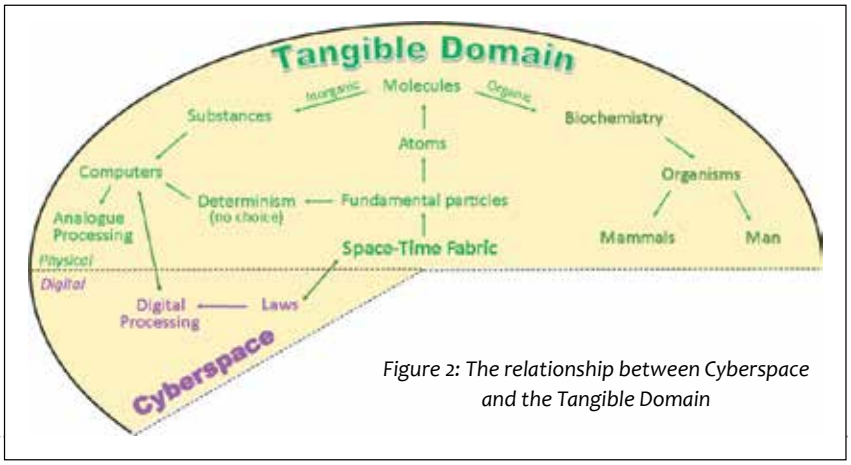


Figure 2: The relationship between Cyberspace and the Tangible Domain

phones depend upon it. It is disseminated and non-local. These characteristics are compared in Table 1 (below). Note that there are multiple interpretations as to the meaning and implications of the Quantum Domain, so depending on the interpretation, there may or may not be material effects and hence implications for time.

We do not have the space here to unpack all these terms and if you are not a physicist, you may be struggling with some of these concepts but from the table, it can be appreciated that each of the domains has very different characteristics and is hence distinct. But why do they exist at all and where does all this structured, meaningful information come from? Professor Bernard Olaf-Küppers gives us a clue when he writes:

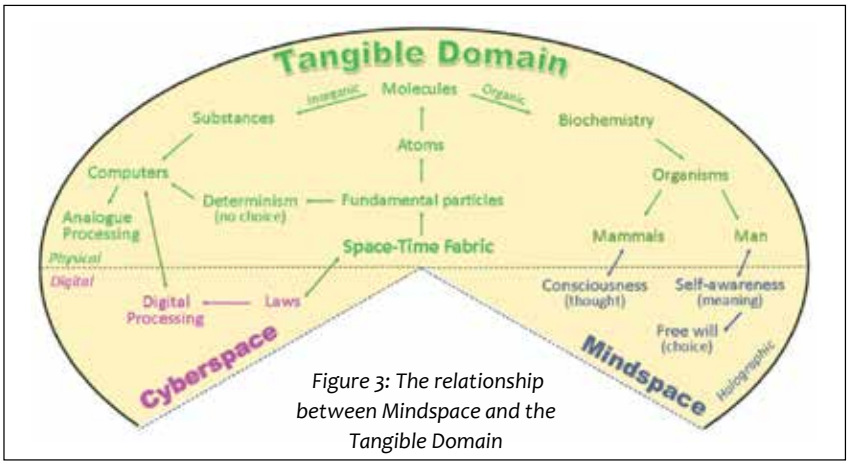


Figure 3: The relationship between Mindspace and the Tangible Domain

Table 1	1	2	3	4
Domains	Tangible	Cyberspace	Mindspace	Quantum
Mechanics	Einsteinian Relativity	Shannon (syntactic) data management	Meaningful (semantic) info management	Quantum mechanics
Language	Analogue	Digital	Holographic	Vibrational
Character	Physical (particle/wave)	Granular	Disseminated	Fuzzy/blurry smeared
Function	Material being	Deterministic processing	Thought, free will & meaning	Actualising
Scope	Local		Non-local	
Implication	Bounded by time	Non-material & timeless		Depends on interpretation

> *"…Information conveying meaning cannot be compressed without change in, or even loss of, its meaning… This is the case for any meaningful information… this means that no algorithms [or] computer program … can … [expand missing] parts of … [a] message and thus generate the rest of the message. But if there are no meaning-generating algorithms, then no information can arise de novo. … Ultimately, it implies that there are no '… machines' that can generate meaningful information out of nothing." (Küppers, B-O: Information and communication in living matter in Davies, P & Gregersen, NH: (2010) pp.180-1)*

From this realisation we derive **The Golden Rule of Information** which states:

> *Any meaningful entity (such as life) requires a meaningful code (such as within DNA) and ALL meaningful code requires an intelligent source.*

However, the physical Universe is considered to be a machine (albeit very sophisticated), therefore the Universe cannot have generated its own meaningful information either. Generating meaningful information requires a self-aware mind, therefore there must have been an external information generator to compile the information that formed the natural laws and fabric of the Universe (requiring a physical information generator) as well as to create life (requiring a biological information generator).

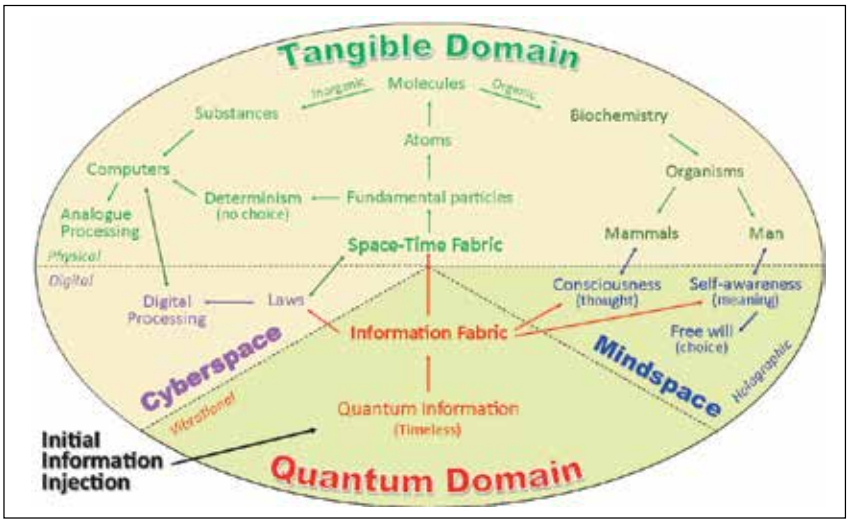


Figure 4: An Information Map of the Universe

> ***"… there must have been an external information generator to compile the information that formed the natural laws and fabric of the Universe."***

Information Map Of The Universe

Going back to our four domains of information, we can now construct an information map of the Universe. See Figure 4.

Underlying the Space-Time Fabric, there appears to be an 'Information Fabric' that

actualises the rest of the Cosmos. As the Universe is finite and had a beginning, the extraordinary amount of information that specifies the Universe must have come from outside to create it in the first place so there must have been an initial information injection to create the Universe.

> *On this point, Max Planck, the father of Quantum Physics commented in 1944: "As a man who has devoted his whole life to the most clearheaded science, to the study of matter, I can tell you as a result of my research about atoms this much: There is no matter as such! All matter originates and exists only by virtue of a force which brings the particles of an atom to vibration and holds this most minute solar system of the atom together...We must assume behind this force the existence of a conscious and intelligent Mind. This Mind is the matrix of all matter."*
>
> *(Das Wesen der Materie (The Nature of Matter), 1944 speech in Florence, Italy. Source: Archiv zur Geschichte der Max-Planck-Gesellschaft, Abt. Va, Rep. 11 Planck, Nr. 1797 as quoted in: Braden, Gregg The Spontaneous Healing of Belief, Hay House (2008) p.212 [en. wikiquote.org/wiki/Max_Planck – accessed 15 Oct 2016])*

"Chance ... has already been shown to be inadequate to explain the extraordinary volume of precisely defined information within the Universe."

Cosmic Choices

So, Max Planck has sent us on a quest for the intelligent mind that is the matrix of all matter, or re-phrased: the Mind in the matrix!... What are our choices?

We have already seen that there had to be a physical information generator to write the programme for the natural laws that define the Universe and a subsequent biological information generator to compose (at the very least) the digital code for the DNA (or RNA) in the first autonomous cell. However, Occam's Razor would suggest the existence of a single Universal Information Generator (UIG) instead of separate physical and biological information generators. Further, the UIG must have been outside our Universe to generate the information to create the Cosmos. However, space, time, matter and energy are considered to have only begun at the 'Big Bang', so as the UIG lies outside the space-time fabric and is hence outside of time, it has no mass and thus is presumably non-material. (The phenomenon we call mass derives from the space-time fabric, which, by definition, is within the Universe. Before the Universe there was literally nothing!) (Andrews, E: *Who Made God? Searching for a Theory of Everything.* (2009) p93) Therefore, we cannot use materialistic methods to investigate the UIG. In addition, as the UIG is outside time, it must be timeless so must have had no beginning and will have no end. The options for the identity of the UIG are limited and not new. See Figure 5.

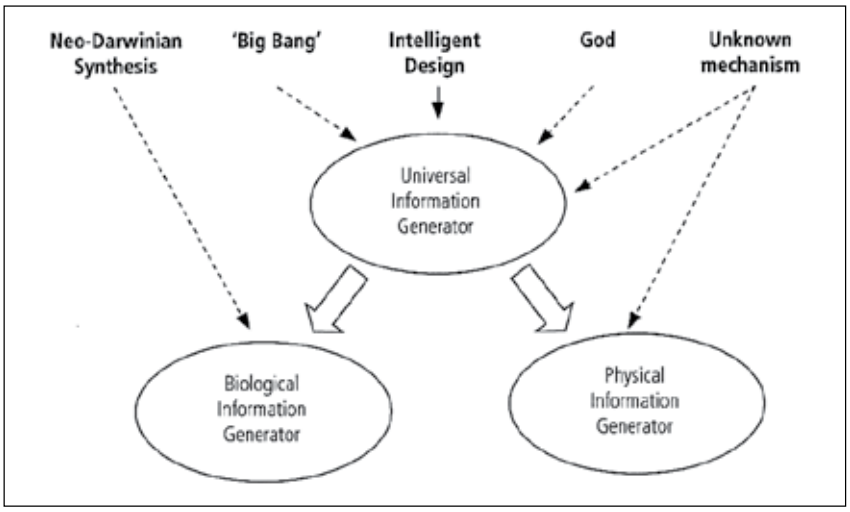


Figure: 5: Options for the Formation of the Universe

It can be seen from this diagram that the number of possible alternatives for the causation of the Universe is small. Chance has not been included as it has already been shown to be inadequate to explain the extraordinary volume of precisely defined information within the Universe. The 'Big Bang' has been included as it is the currently accepted model however it does not provide a mechanism for inducting meaningful information, which is a prerequisite for the formation of the Universe. Likewise, the Neo-Darwinian Synthesis also has a problem with information generation but has been included here to demonstrate the limitation of its scope in an information context.

This has profound implications for those who maintain that truth is defined by materialistic, empirical science alone – a notion that dominated latter 20th century scientific thought. The four discernible information domains show that this reductive notion needs revising to cope with the Information Age and 21st century science because pure information is neither a tangible nor a physical entity.

When God breathed life into the Universe, we do not know exactly what he was imparting but it must have included prodigious amounts of meaningful information. Anyone who would challenge that it was God who caused this activation of the Universe and animation of life needs to offer another information generator of equally awesome capability!

"Anyone who would challenge that it was God who caused this activation of the Universe and animation of life..."

[This paper is an extract from: *The Mind in the Matrix: The Origin of Meaning* published in 2019.]

A/Prof Alan Gijsbers
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Mind Brain Relationships

The relationship between the mind and the brain is *the* hard problem in neuroscience. There are many false pictures and inadequate solutions. No one has cracked this problem yet!

Inadequate Solutions

Disneyworld in Florida US presents one such false picture. We are taken into a large auditorium which depicts the inside of the human body, with levers to move limbs, eat, digest, calculate and the like. At the start of the show, an animated figure of a young man wakes up and starts moving the levers. The young man represents the "*me*" that moves my body. It is cute, but it does not answer the question of how this animated figure lives, moves and perceives inside the body.

Visual perception is another example. Light rays from the outside scene impinge upside down on the retinae of two eyes, travel along the optic nerve, cross over at the optic chiasm, then travel along the visual pathways to the visual cortex where the scene is reproduced stereoscopically on the brain. The scene is superimposed on the visual cortex, but how is that picture actually perceived by the brain? The picture is not just a reproduction of what is seen on a screen seen by me, but I add my own perceptions to the visual cues to create a reality beyond the limits of the screen, a reality that is all around me. I add to this reality with auditory and proprioceptive cues, relating them to memories of previous scenes to interpret how I might respond to this scenario. How does all that occur? That is *the* hard problem of consciousness.

Mind, Body, Soul

Poor René Descartes, the "*I think, therefore I am*" guy, is often blamed for the separation of the mind from the brain. In reality, he was grappling with the new mechanistic science developed by Isaac Newton and colleagues, trying to work out how the mechanical body could possibly sustain human reasoning. Descartes tried, unsuccessfully it turns out, to develop his understanding of the world from the single foundational axiom of "*I think, therefore I am.*" His rationalism was related to his mathematical skill; Cartesian coordinates and all that. He tried to develop a theory of knowledge for all of life in the same way Euclid developed his mathematical axioms.

> ***"Behaviourists have deemed human subjectivity too variable to be assessed scientifically."***

But how can a mechanistic body with its cause and effect reactions within a closed system, relate to the free rational thinking that humans do? Descartes attributed our thinking to our mind or soul, suggesting a disconnect of our soul from our body. However, he acknowledged that the mind does affect the body, and postulated a connection through the pineal gland. His mechanistic approach to the body has been regarded as the start of modern medicine, but in allowing the human body to be treated like a machine, it also allowed the soul to be regarded as a completely separate entity.

The neurologist, Antonio Damasio, blamed Descartes for separating our thinking from our emotions, and his book *Descartes' Error: Emotion, reason, and the human brain* cogently argued that our thinking is closely related to our emotions. His postulation was that lesions affecting our emotions also change our thinking. Psychologist and child psychiatrist, Peter Hobson, writing *Cradle of Thought: exploring the origins of thinking,* observed that children learn to think well in an intact emotional environment. Hobson comments that if computers are to think like humans, they have to develop a social life. Thinking, feeling and socialisation are thus intimately connected. But how do

these mind functions relate to our bodies? How do we have these feelings, this subjectivity?

Human Subjectivity And Qualia

Behaviourists have deemed human subjectivity too variable to be assessed scientifically. In response to this, they have tried reducing human behaviour to a simple *"stimulus – response interaction"*, measuring inputs and outputs. These studies, usually performed with rats, pigeons or other animals, are used to make inferences on human behavioural patterns. While helpful, there are two big problems with the studies. Firstly, while humans might be compared with animals, we are not rats and have significant biological differences. Secondly, humans have an *"internal world"* that affects our behaviour. This internal world is not just a world that thinks rationally, but it is also comprised of emotions, perceptions and the like.

Neurophilosopher, David Chalmers, coined the term *"qualia"* to describe our consciousness. Qualia describes our subjectivity – the redness of red and the musicality of music. Yet, is my red-perception the same as your red-perception? We cannot say, for no one else has access to my personal sensations; they can only be inferred from what I describe or from the body language I express. Nevertheless, we all acknowledge qualia to a whole range of external inputs. These qualia, however, are totally private and outside observers have no direct access to them.

This has important implications in clinical practice. Pain, addictive sensations, and other symptoms can only be described by our patients. We have no access to what they are really feeling. We can only make inferences by comparing what they say with how we have perceived these feelings ourselves. This can become very difficult for complex disorders of depression or anxiety. We cannot contradict what another person is feeling, but we need to explore with them how they interpret their feelings.

One of the most challenging qualia is our sense of self. How do I develop the *"me-ness"* of me; the person who perceives, feels, thinks, and integrates all the different afferent inputs into some sort of coherent whole? The *"self"* has been dismissed by some as an illusion.

"We cannot contradict what another person is feeling, but we need to explore with them how they interpret their feelings."

Some Buddhists might think that way, for example. Other people have dismissed the *"self"* as a social construct, as if that somehow solves the problem of the *"me-ness"* of me.

Yet, this thinking is refuted by recognising that there are many social constructs which are still tangibly real. Money is put into a *bank* to pay *bills* to enable me to have *services*. Each of these italicised entities is a social construct but each is still real. It can apply the same thinking to myself. I am *Alan*, so named by my parents, who registered me at the local town hall in *Apeldoorn, Netherlands*, where I can get a birth certificate. At school and in a hospital I am identified by my name and date of birth. My identity can be verified further by a photograph, as seen on my driver's license and passport. There is even facial recognition software now available to identify and distinguish me from impostors who might claim to be me.

Note what has happened. I have moved from a subjective identification of myself to an objective social identification increasingly based on my facial appearance. Another dimension of my sense of self is my biography. This is the story I develop as I live. However, others will have their own version of my life also. We are selective in what we remember, and in how we perceive our memories. My lived experience may alter my perceptions. For example, once I am a parent, I may see my parents' parenting in a new light. The *"self"* therefore, has subjective, biographical and physical dimensions to it.

A Biblical Perspective

How does the Bible understand the soul? The Greek word is *ψυχη, psyche*; from which we get psychology and psychiatry. It could simply mean the essence of a person, the equivalent of the *"self"*. Thus, the Authorized (King James) Version translates Luke 12:19:

> *"I will say to my soul, 'Soul thou hast much goods laid up for many years; take thine ease, eat drink and be merry.'"*

The more modern New International Version translates the same verse:

"I will say to myself, 'You have plenty of good things laid up for many years. Take life easy, eat, drink and be merry.'"

In this instance, the soul and the self could be regarded as equivalent. There are other passages which imply a distinction between body and soul such as in Jesus' comment in Matthew 10:28,

"Do not fear those who kill the body but cannot kill the soul; rather fear him who can destroy both soul and body in hell." (New Revised Standard Version).

Interestingly someone can kill the body but not the soul, or someone can kill the body and the soul. So is the soul mortal, or immortal? There is, in fact, little justification in Scripture for the immortality of the soul. The Christian doctrine is the resurrection of the body.

This is a profound mystery. The Bible describes humans as made from the earth; Adam from *adama*, or in Alter's memorable phrase, humans from *humus*, a much richer, earthier description than man from dust. Into that earthy form, the Lord breathes his life and the human becomes a living soul (*nephesh chaim*) (Genesis 2:7). In other words, the living human *is* a soul, rather than that he *has* a soul. When breath leaves the body, the person dies. But what happens to the soul? The Bible does not describe the soul living on, but talks about the resurrection of the body. It dies a *σωμα ψυχικόν (soma psuchikon, translated "natural body" but uses the Greek word for soul – psyche)* and is raised a *σῶμα πνευματικόν (soma pneumatikon, a spiritual body, using the Greek word for spirit, pneuma)*.

There are a number of ways of understanding the time between death and the resurrection of the body. It could be that humans move out of the realm of our time into the timeless realm of eternity. It could be that just as time seems to stand still when we sleep, so time for us stands still from the time we die to the time we are raised. It could be that we are *"in the mind of God"* between death and resurrection. Any attempt at an explanation is speculative and goes beyond the incomplete Biblical data.

So, are humans best understood as a psychosomatic unity (*monism*) or a body-soul duality (*dualism*). There is a third, *tripartite* view based on 1

Thessalonians 5:23 where Paul prays that the Thessalonians' spirit, soul and body are kept sound at the coming of the Lord Jesus. It is hard to base a comprehensive anthropology on a by-the-way greeting in a letter, and the debate continues. I am not sure that Biblical anthropology centers itself on compartmentalising humans. However, if we do embrace monism and the resurrection of the body, we still need to explain the mystery of what a spiritual body would be. That again, is to speculate beyond the Biblical data.

"Many neurological syndromes like dementia, stroke, and head injury would suggest that the mind needs an intact brain to function."

What Can We Conclude?

We might argue that the mind and the body are not quite so separate as Descartes attempted to make them. We have explored the mind side, but what about the body side? Many neurological syndromes like dementia, stroke, and head injury would suggest that the mind needs an intact brain to function. Even though the brain is remarkably neuroplastic, there are limits to the degree in which it can change itself.

Modern neuroscience suggests that the brain is embodied, and that ongoing somatic input is needed to maintain a healthy mind; that the mental side of our function can be changed by pharmacological inputs. Thus, hallucinogens can change our perception of reality; some much older hypotensive agents can make us feel quite depressed; anti-depressants can lift our moods; and addictive agents can stimulate the pleasure centre of the brain and make us feel good. However, simply fiddling with the pharmacological soup in which the brain functions does not guarantee that human problems will be fixed. We can also stimulate the pleasure centre of the brain through addictive behaviours like pokie machines, or through more healthy interventions like meditation and nourishing conversation.

What Then Can We Conclude?

In sum, let's consider the following conclusions:

- *Firstly*, the mind and brain are distinct but interactive entities.
- *Secondly*, mind functions are much more complex than simple thinking, but include perception, emotions and decision-making.
- *Thirdly*, that one of the mind functions is a sense of *"self"*.
- *Fourthly*, that these mind functions can be classified as *"soul functions"*, but it seems that humans are seen in Scripture as a psychosomatic unity, incorporating interaction between the body and the mind.
- *Fifthly*, that mind function is affected by brain function, and that brain lesions may affect mental functions.
- *Sixthly*, that we are embodied beings and that our bodies are God's gift to us. Furthermore what we do in our bodies has eternal value, for we are judged by what we do.

Finally, as we consider all these points, we as Christians believe in the resurrection of the body, though what this body will be like remains a profound but exciting mystery.

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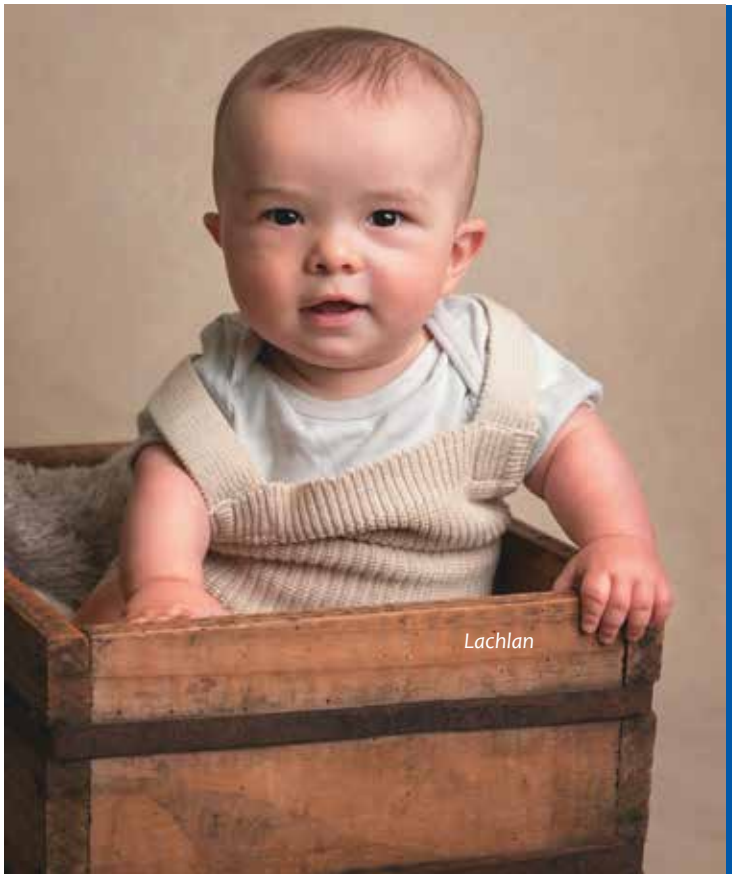


Lachlan

Finding Purpose Through Pain: The Story of My Son Born with Achondroplasia

(written in response to the Disability edition 2018)

Suffering and disappointment are expected, but unpleasant, realities of life. Even as a Christian, with the hope and victory we know and profess, going through hard times is difficult.

This is something I have had personal experience with, especially through the birth of our son in 2018. I've known God for almost fifteen years, grown up in church and worked as a Paediatric trainee for six years. What I am about to share is the hardest thing I have ever walked through, but also the most rewarding and purpose-filled testimony. I hope to bring you a word of encouragement through my story today, but it will also be a raw and honest account of my journey over the last two years.

To paint a picture of my experience, I'll use the metaphors of exfoliation, pruning and sanding. All these processes require painful removal of old debris to allow an adequate environment for new cells, paint or growth. This is the pathway I was led on recently with the pregnancy and birth of my second son, Lachlan.

"I am the true vine, and my Father is the gardener. He cuts off every branch in me that bears no fruit, while every branch that does bear fruit he prunes so that it will be even more fruitful. You are already clean because of the word I have spoken to you. Remain in me, as I also remain in you. No branch can bear fruit by itself; it must remain in the vine. Neither can you bear fruit unless

> ***"I needed to go through a period of grief ... and instead accept a future that looked very different from what I expected."***

you remain in me. I am the vine; you are the branches. If you remain in me and I in you, you will bear much fruit; apart from me you can do nothing. If you do not remain in me, you are like a branch that is thrown away and withers; such branches are picked up, thrown into the fire and burned. If you remain in me and my words remain in you, ask whatever you wish, and it will be done for you. This is to my Father's glory, that you bear much fruit, showing yourselves to be my disciples." (John 15:1-8)

Grief is a very real part of life in a fallen world. I believe grief comes when our realities do not match our expectations of life. Grief became a part of our story when, pregnant with our second son, we were told he would be born with a form of dwarfism. The news was unexpected to say the least. After weeks of uncertainty, Lachlan was born on the 6 April 2018 with confirmed achondroplasia on his genetic test. This is a spontaneous genetic mutation that only occurs in about 1 in 40,000 cases. I was re-directed into unchartered territories as a person of "average height" because I knew nothing of what life would be like for him. I needed to go through a period of grief for the son I thought I was going to have, and instead accept a future that looked very different from what I expected. I went through all of the stages of grief to finally

come to acceptance. But what I didn't expect was that I would have to *fight* to get to acceptance with the *shield of faith and sword of His spirit* (Ephesians 6:16-17).

This journey was initially terrifying, but not catastrophic. Everybody charters uncertain territories and harbours storms in life. What differs is the scale of the storm and the capacity of the vessel. This life looks and feels different for all of us, but what anchors us all should be the unchanging, unwavering truth of who our God is. Just like Daniel in the lions' den, I had to believe I knew who my God was and what He was capable of. I had to believe that :

> *"in all things God works for the good of those who love him" (Romans 8:28).*

> *"May the king live forever! My God sent his angel, and he shut the mouths of the lions." (Daniel 6:10-27 NIV)*

I believed God's purposes would prevail despite the unknown. By faith and trust I viewed my future, and didn't allow my circumstances or the world's views to dictate my reality. I came to terms with my reality and *believed* it was breathed with God-destined purpose and power.

> *"Be content with what you have, because God has said, "Never will I leave you; never will I forsake you." (Hebrews 13:5)*

"Look outwards to who God is and what He has for you instead of looking inwards at inner turmoil."

Another version of Hebrews 13:5 puts it like this: *"I will never leave you and I will never **abandon** you"*. So, no matter how or what we are grieving today, we know that God will not leave our side. No matter what we are experiencing or facing right now, we know God will be there. He is the source of all love, purpose and acceptance. Our God is central and integral to any overflow in our lives. Difficult life circumstances do not halt this process but can actually bring us closer to God's purposes. I know that Lachlan's birth didn't halt God's purposes. In fact, it accelerated them and has resulted in so much overflow and joy in my life. I now have a new contentment in life, and have developed boldness and courage to profess my truth.

So I encourage you: do not shut the door on God. Maybe God has hidden purposes in your challenging circumstances. Persevere. Look outwards to who God is and what He has for you instead of looking inwards at inner turmoil. Living life with God-perspective is freeing and powerful.

> *"Where the spirit of the Lord is, there is freedom..."*
> *(2 Corinthians 3:17)*

There is strength and abundant joy in His presence no matter what you are facing or feeling. Finally, may the God of hope fill you with all joy, strength and peace as you trust in Him no matter what you are going through right now, so that you may overflow with hope by the power of the Holy Spirit.

Dr Iain Johnston

Iain graduated from Edinburgh University and completed specialist training in Intensive Care and Anaesthetics in the UK and Australia. Iain works in Intensive Care on the Gold Coast and Tweed Coast with a special interest in acute cardiovascular pathophysiology. In his spare time(!) he represents Australia in the World Medical Football Championship.

Breathe In God's Meticulous Creation

"Jesus wept." John 11.35
Did God make the eye?
The tear ducts?
The tears?

"Jesus wept" is the shortest verse in the Bible. Yet these two words carry much meaning. Jesus shed tears at the death of his close friend Lazarus and shows him to be as much human as you or I. He was "deeply moved" and was not afraid to show emotion, in deep compassion for the family who were grieving.

Known as the "Man of Sorrows", Jesus had tear ducts and was not afraid to shed tears.

Yet, is there any evidence of design in the humble human tear?

Our tears are made of three main ingredients that are vitally important to our vision. If our tears fail, our eyes dry and if the ducts completely fail, not only is this increasingly painful, but we are not far off the bleak dark world of blindness.

Tears are made of an inner layer of mucin, a sticky material that is secreted from the eye surface directly. The middle layer is a watery film that spreads out between the two oily layers, like a sandwich. This oil water interface guarantees a uniform and comprehensive barrier. The outer layer is oily again and creates a waterproof seal.

These three layers are secreted from three different sources. The lacrimal gland secretes the watery middle layer – the gland channels transporting the fluid via tiny tunnels which end at the very tips of our eyelids. The oily outer layer is secreted by another set of glands which also have dedicated channels pumping oil onto the watery base. The innermost layer is secreted straight onto the eye surface.

"If our tears fail... we are not far off the bleak dark world of blindness."

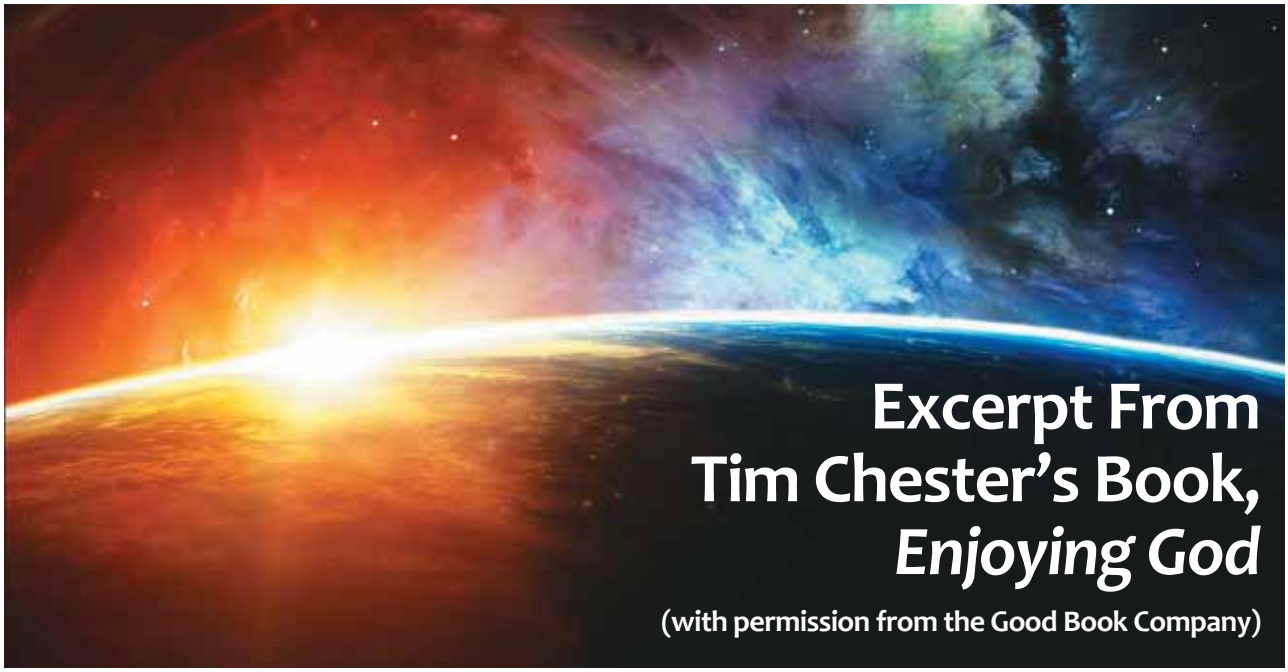
Certain design principles are recognisable in our tear production: the laws of physics, biochemistry and engineering.

Here is a short list of 5 examples:

1. The shape and form of the tear ducts echo basic engineering principles with around 50 channels evenly spaced at the edge of each upper eyelid, and 25 evenly spaced on the lower lid.
2. The physical forces created between the oil on water interface ensure a formidable lubricant barrier.
3. The middle watery layer contains around 90 ingredients such as nutrients for the cornea and antioxidants for bacterial repulsion.
4. Given the tears must be transparent for vision, it is impressive that all three layers are see through, and each ingredient is held in balance, teetering on the constant threat of an opaque soup.
5. Without thinking, our blink spreads the oil water smoothly out over the cornea, like a windscreen wiper.

More importantly for us, as human beings, however, is the strange fact that our tears are expressed in response to emotions, such as great happiness or grief. Such tears are quite different from our normal tears, they are dripping with expressions of our soul – output from the deepest parts of our brain. The lacrimal duct alone, is stimulated by three separate nervous stimuli, linked with the brainstem. Yet we weep not automatically, but in response to great stimulus to our mind and soul, at births and deaths. For this reason, Jesus wept.

Dr Tim Chester
Tim is the pastor of Grace Church Boroughbridge, North Yorkshire; a faculty member of Crosslands Training; and the author of many books.



Excerpt From Tim Chester's Book, *Enjoying God*

(with permission from the Good Book Company)

Story One

In the beginning, God created the heavens and the earth. Now the earth was formless and empty, darkness was over the surface of the deep, and the Spirit of God was hovering over the waters." (Genesis 1:1-2)

"Spirit", "breath" and "wind" are all the same word in Hebrew and Greek. So "the wind of God", breathed out from God, is blowing over the waters.

And God said, "Let there be light," and there was light. (Genesis 1 v 3)

God spoke and the world came into being. The writer of Psalm 33 says, "*By the word of the Lord the heavens were made, their starry host by the breath of his mouth.*" (Psalm 33:6). The word of God comes on the breath of God, bringing light and life and beauty. God separates and orders. He separates light from dark. He separates the waters to create dry land, and fills that land with vegetation and animals.

Then God shaped the dust into a human form. But it's lifeless – like a shop mannequin – until God "*breathed into his nostrils the breath of life (or the spirit of life), and the man became a living being*" (Genesis 2:7). "*All creatures look to you,*" says Psalm 104:27-30, and "*when you take away their breath, they die and return to the dust. When you send your Spirit, they are created, you renew the face of the ground.*" The Spirit animates all creation. Everything has life through the Spirit.

Story Two

By the time we get to Noah, humanity is deeply wicked. So God sends death in the form of a flood. Noah and his family are left floating in the ark on an endless ocean, surrounded by death. There appears to be no prospect for terrestrial life. But then God "*sent a wind over the earth, and the water receded.*" (Genesis 8:1). This is the story of creation all over again. The wind or spirit of God blows over the water to separate the waters and land again, to give hope for life.

Story Three

Fast-forward in the story. God's people have been enslaved by the Egyptians. But God sent ten plagues and the Egyptians have freed God's people. But now Pharaoh has changed his mind and sent his army to recapture them. God's people are cornered. In front of them is the sea. Behind them is the Egyptian army. "*Then Moses stretched out his hand over the sea, and all night the Lord drove the sea back with a strong east wind and turned it into dry land. The waters were divided (or separated), and the Israelites went through the sea on dry ground, with a wall of water on their right and on their left.*" (Exodus 14:21-22). It is the same story again. The wind or the Spirit of God is blowing across the waters, separating the waters to create the ground. The Spirit leads God 's people to life and freedom.

"The word of God comes on the breath of God, bringing light and life and beauty."

Story Four

The spirit of God sets the prophet Ezekiel in the middle of the valley. As Ezekiel stands there, all around him are dry bones – skulls, vertebra, sterna, ribs, clavicles, scapulae, pelvises, femurs, tibias. The bones represent God's spiritually dead people.

Ezekiel is told to prophesy: "*Dry bones, hear the word of the Lord!*" (Ezekiel 37:4). The bones come together, flesh forms on them and skin covers them, "*But there was no breath in them.*" (Ezekiel 37:8). They are like the lifeless clump of clay in Eden. Ezekiel is surrounded by inanimate clay forms like the Terracotta Army of the first Chinese Emperor.

So God tells Ezekiel to "prophesy to the breath". He is to call on the breath or

the Spirit of the God. I imagine Ezekiel feeling a gentle breeze, a gust of wind on his cheeks. Then gradually it increases in strength until a mighty wind is blowing through the valley – the wind of God. God breathes the breath of life, *"and breath entered them; they came to life and stood up on their feet – a vast army."* (Ezekiel 37:10).

Story Five

Fast -forward again to the first century AD and enter a tomb. There in the gloom you see the dead body of Jesus. Psalm 104 said, *"When you take away their breath, they die and return to the dust."* (Psalm 104:29). There before you is the body of Jesus returning to the dust – a lifeless, rotting corpse.

And then the spirit of the Wind of God blows through the tomb and breathes life into the body of Jesus (Romans 1:4, 8:11). The heart starts to beat again. The lungs draw in breath. The eyes open. The Word that was silenced on the hill at Calvary speaks again.

Story Six

Later that day Jesus appears to his followers, *"As the Father has sent me,"* he says, *"I am sending you."* Then Jesus breathes on them, saying, *"Receive the Holy Spirit,"* (John 20:21-22). The Son of God breathes the breath or Spirit of God into the fearful, powerless hearts of his followers. It is a picture of what will happen seven weeks later when a violent wind blows through the building where the disciples are gathered. (Acts 2). It's the Wind, the Breath, the Spirit of God. Tongues of flame appear over their heads and they praise God in the languages of many nations. They are filled with power to proclaim Jesus as God and Saviour.

> ***"At the heart of your conversion was an act of the Holy Spirit. The Spirit breathed life into your dead heart."***

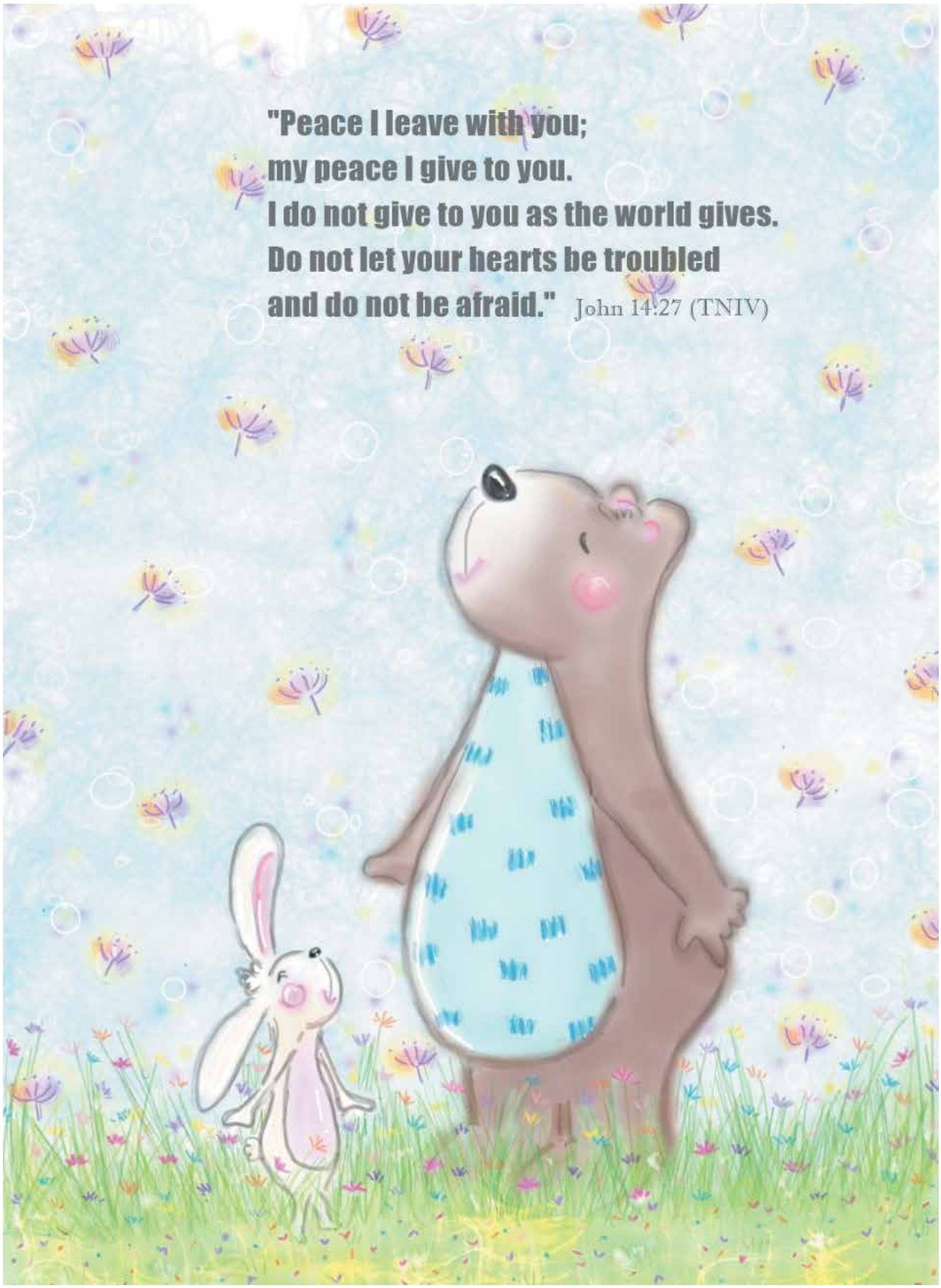
A few days later, the authorities tell them to stop evangelising, so they gather to pray. *"Enable your servants to speak your word with great boldness,"* they pray (Acts 4:29). *"After they prayed the place where they were meeting were shaken."* The Wind of God again blows through the building, *"And they were all filled with the Holy spirit and spoke the word of God boldly."* (Acts 4:31).

Story Seven

Forty years ago I was dead. You wouldn't know it to look at me – I was a young child, full of life. But spiritually I was dead. I didn't need a more persuasive argument or a more moving meeting. I was dead. I needed an act of resurrection or rebirth.

Then one evening I was talking to my mother about Jesus. I wanted to follow him. So she called for my father and together we prayed. The room didn't shake. There was no violent wind. But the Spirit or Breath of God has breathed new life into my heart. I was reborn. I was resurrected.

If you're a Christian, then you have a similar story to tell. The details may be very different. But at the heart of your conversion was an act of the Holy Spirit. The Spirit breathed life into your dead heart. He opened your blind eyes to the glory of the Christ. He gave you the gift of faith.



Text and illustration by Dr Annetta Tsang.

Annetta's artwork and verse *Breaths of Life* was inspired by the song *Breathe* by Jonny Diaz and Bible verses 1 Peter 5:7, Matthew 11:28, Philippians 4: 6-7 and John 14:27. As we breathe in God's words, may the peace of God which transcends all understanding rest within us, guard our hearts and minds, and instil in us, joy and hope.

Dr Annetta Tsang
Annetta Tsang is a member of the *Luke's Journal* editorial team. She works as a paediatric dentist on the Gold Coast. She is involved in teaching Sunday School and coordinating the young families' fellowship at her church. Annetta loves spending time with her family as well as drawing, reading, writing, singing, eating desserts, drinking coffee and learning.

Breaths Of Life From God's Word

We live crazy lives,
Busy with being busy,
At home,
At work,
In church,
Even on holidays.

When you have a moment,
Spend the moment with God.

When you need to "just breathe",
Breathe in God's Word.

God was, and is, and always will be,
The Bread of Life (John 6:35 NIV)
The Fountain of life (John 4:14 NIV)
The Breath of Life (Genesis 2:7 NKJV).

"Be still, and know that I am God."
Psalm 46: 10 NIV

God cares.
He really cares.
He truly cares.

"Cast all your anxiety on him because he cares for you."
1 Peter 5:7 TNIV

Every detail about you
is important to Him.
He knows the number of hairs on your head (Matthew 10:30 TNIV).

He has put your tears in a bottle (Psalm 56: 8 TNIV),
His thoughts about you are countless, more than grains of sand (Psalm 139: 17-18 NIRV).

"If God gives such attention to the appearance of wildflowers, most of which are never even seen – don't you think he'll attend to you, take pride in you, do his best for you?"
Matthew 6: 30 MSG

Breathe in God's love.
Breathe in God's peace.
Breathe in God's promises to you.

"Are you tired? Worn out? Burned out on religion? Come to me. Get away with me and you'll recover your life. I'll show you how to take a real rest. Walk with me and work with me – watch how I do it. Learn the unforced rhythms of grace. I won't lay anything heavy or ill-fitting on you. Keep company with me and you'll learn to live freely and lightly."
Matthew 11: 28-30 MSG

"Do not be anxious about anything, but in every situation, by prayer and petition, with thanksgiving, present your requests to God.
And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus."
Philippians 4: 6-7 TNIV

"With man this is impossible, but with God all things are possible."
Matthew 19: 26 NIV

"For my thoughts are not your thoughts, neither are your ways my ways," declares the Lord. "As the heavens are higher than your ways and my thoughts than your thoughts."
Isaiah 55: 8-19 TNIV

"Breathe, just breathe.
Come and rest at my feet.
And be, just be.
Chaos calls but all you really need
Is to take it in, fill your lungs
The peace of God that overcomes.
Just breathe (just breathe).
Let your weary spirit rest,
Lay down what's good and find what's best.
Just breathe (just breathe)."
Lyric from
Breathe by Jonny Diaz

Wherever you are,
At home,
At work,
In church,
Even on holidays,
Breathe in. Look up. Immanuel.

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- Gabrielle Macaulay

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[see-luh, sel-uh]
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