

Coronavirus: does its activation of archetypes of evil cause added psychological suffering?

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Abstract: Fear and grief caused by the pandemic have produced a powerful unconscious narrative in the collective psyche that the coronavirus is driven by an innately evil, and possibly divine, force. The resulting archetypal dimension of fear causes an extra layer of psychological suffering in individuals. This paper discusses how and why this narrative was created and why it is so compelling by looking at 1) the myth-making nature of the human psyche, 2) the psychodynamics of fear that drive the narrative, 3) the properties of the coronavirus and the pandemic that activate negative poles of some archetypes, in particular, archetypes of evil, and 4) asking how analytical psychology can help ease psychological suffering caused by these negative narratives, where one possibility is to invoke the transcendent function. The author's personal experiences as both biochemist and analytical psychologist elucidate how the transcendent function can promote healing.

Keywords: archetypes, biochemistry, coronavirus, evil, pandemic, transcendent function, *unus mundus*

Introduction

On 11 March, 2020, the World Health Organization (WHO) declared the novel coronavirus (SARS-CoV-2) outbreak a global pandemic. Now, nine months into the pandemic, the coronavirus feels to be unstoppable as it continues to spread through the world populations, causing immeasurable economic damage and taking the lives of an estimated 2.1 million people, as at 23 January 2021. The magnitude of loss, grief and all forms of material and psychological suffering it has caused – in such a short time – is nearly impossible to comprehend. In the well-known reaction to any major natural disaster, we are overwhelmed with shock and confusion and filled with anguished fear.

We are a species endowed with what C.G. Jung defined as an innately mythopoeic psyche, so we cannot help but compulsively search to understand

why this pandemic happened. As a biochemist and physiologist,¹ ‘initiated’ into the sub-microscopic processes of living systems, I can largely understand *how* it happened. However, as an analytical psychologist, I see that the ‘how’ explanations are not adequate to allay the suffering of my patients and of society in general. Our deeper ‘mythological mind’ demands a mythological explanation and will continue to search compulsively in confusion and fear until it finds one. Unfortunately – as can be seen in all aspects of social discourse (news and commentary, politics, social media, etc.) – in this state of fear, our psyches generate their own extremely negative narratives and myths. I believe these narratives arise because the shock and dismay caused by the coronavirus, and the pandemic it has engendered, activate the negative poles of certain archetypes.

How we demonize the coronavirus

When we speak of ‘The Virus’ or ‘The Pandemic’, or as Donald Trump called it, the ‘Invisible China Virus’ (Trump 2020), (notice the capital letters turning the phrase into a title), rather than referring to ‘a virus’ or ‘a global viral infection’, it is as if we are describing a concrete unitary entity. Taking other examples (they are ubiquitous), in a warning that more attention needs to be paid to ventilation, Associate Professor Zeynep Tufekci stated, ‘Epidemiologists are finding that this disease *stalks us* indoors’ (Tufekci 2020, italics added). And, ‘The coronavirus (SARS-CoV-2) is capable of causing more than a respiratory illness; it can *launch a full-body attack*’ (Nania 2020, italics mine). These statements imply that the virus has malicious intention.

Our human myth-making psyches turn the coronavirus into a sort of unified enemy army. This type of imagery can be found in dreams collected during the pandemic. Psychologist dream researcher Deirdre Barrett has collected dreams from all over the world since the beginning of the pandemic. In an interview with *The Harvard Gazette*, she summarized major themes from the more than 9,000 dreams she has studied:

I’m noticing big clusters of dream content. One is very literally about getting the virus – that’s been a fairly common dream... Then there are metaphors for the virus – there’s a big sub-cluster of bug dreams. After 9/11, I saw metaphors as well as literal dreams about those events. But I didn’t see bug dreams after 9/11. And I’ve just seen dozens and dozens and dozens of every kind of bug imaginable attacking the dreamer: There are swarms of every kind of flying insect you’ve ever heard of; there are *armies of cockroaches racing at the dreamer*; there are masses of wriggling worms; there were some grasshoppers with vampire fangs; there are bed bugs, stink bugs.

(Walsh 2020, my italics)

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Although this attitude towards the virus is largely unconscious – and therefore traceable in dreams – it can be recognized in the affect and type of language used when the virus is alluded to. This type of unconscious fantasy is, of course, a natural reaction to something that we believe may kill us, but in the context of society as a whole *we demonize this virus* – even when we know rationally that the coronavirus cannot have conscious intention to harm and is nothing like a stable, cohesive entity. In fact, at this moment, it has mutated so dramatically that every region of the world has its own genetic strain (Mooney et al. 2020). And, using one of the best tricks for biological success available to every virus, it will continue to mutate, making it more difficult to develop an effective vaccine against it. A virus that mutates is a natural fact, just like an Artic Tern that migrates between north and south poles every year. But when we consider its mutation properties in a mood of fear, it is as if we are talking about an intelligent being that pulls itself together and mutates itself as an act of aggression! (You’ll notice that I just conferred Trickster qualities to it: ‘best tricks’).

In speaking of pandemic dreams, it must be added here that medical and other front-line professionals tend to regularly have ‘full-on nightmares’ that are like ‘trauma nightmares, meaning they’re not as dreamlike and bizarre and metaphorical as most of the other dreams’ (ibid.). The toll we see on our helping professions is heart-breaking, adding, for those of us who can only look on, sorrow upon sorrows.

Is our suffering more than it needs to be?

It is a fact that the COVID-19 pandemic has brought a new level of physical danger into daily life for every person, and immeasurable suffering to all nations of the world. All of us must grieve and support each other in this universal tragedy. But there remains in my mind an important question: are we suffering psychologically above what the reality of the pandemic requires of us? Does our all too human tendency to unconsciously assign evil and destructive intent to the virus cause extra psychological suffering? For example, if a person believes that a loved one’s death is caused by something innately evil, that had the *intention* to murder, do they suffer more? The psyche’s interpretation of a loved one’s death, the way it registers and judges and assigns the loss to a particular archetypal category, will drive the bereaved person’s emotions. We know through research in many fields that being the victim of intentional cruelty can be psychologically devastating. In the World Health Organization’s *World Report on Violence and Health*, intentionality is central to their definition of violence:

The World Health Organization defines violence as: ‘The *intentional* use of physical force or power, threatened or actual, against oneself, another person, or against a

group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation'. The definition used by the World Health Organization associates *intentionality* with the committing of the act itself, irrespective of the outcome it produces. Excluded from the definition are *unintentional* incidents – such as most road traffic injuries and burns.

(Dahlberg & Krug 2002, p. 5, italics added)

If some pain could be avoided, can analytical psychology offer help in preventing, or lessening it? I believe the answer is yes. In this paper I want to investigate the psychodynamics and archetypal background of demonizing the coronavirus, and offer one possible way that analytical psychology can be applied to temper the impact of this unconscious tendency.

Fear of the coronavirus: psychodynamics and underlying archetypes

Fear

Roughly speaking, we can see fear as an instinctive reaction to danger. On the one hand, the danger can be material, such as an approaching bear. Alternatively, when fear is a reaction to a danger in our imagination, it can be seen as psychological in nature; the clinical term for this is anxiety. Because this second type of fear is psychological, in other words, of the psyche, it can be organized according to archetypal themes. I will list those properties of the coronavirus that stimulate 'psychological' fear and demonstrate, using mythology and modern cultural trends, which archetypal themes these properties have activated. In other words, I will show why these properties can by definition be frightening to us.

Psychodynamic processes

In his insightful paper, 'The intersection of collective vs. personal trauma in the coronavirus pandemic and racial "othering" in America', Donald Kalsched describes how fear, in the case of the pandemic, impacts our experience of the world.

[Our] imagination can work either 'for' or 'against' us as we struggle to adapt to an outer crisis such as we are facing in the worldwide pandemic we call COVID-19. As Depth Psychology has taught us, imagination is how we make meaning out of our experience, and when experience becomes 'too big' or terrifying for us to organize in our customary ways, the imagination gives us archetypal stories and lenses through which to see our experience. These 'categories of understanding' (Kant) do not always help us to integrate our experience because they are 'primitive' binary, totalistic structures and they tend to turn us all into heroes or villains, victims or perpetrators.

(Kalsched 2020, p. 3)

Described beautifully here, this is precisely the point I am making about the negative impact that mythologizing the coronavirus has on our collective imagination: in this pandemic, the ‘Invisible China Virus’ becomes the perpetrator, and of course we humans are the victims.

Characteristics that can ‘get under our skin’ and haunt the imagination

We are naturally afraid of the virus for its concrete effects (due to instinctive fear of physical danger), but likely also because of a number of its properties that evoke so-called ‘archetypal fear’, that is, qualities that typically belong to the destructive aspect of an archetype. A primary example is a virus’s property of being invisible. As is well demonstrated in horror movies, being stalked by something invisible is especially terrifying. For example, the film *Alien* was prized for keeping the viewer terrified of the monster by not actually showing it for most of the movie; and later versions, such as *Alien II*, were criticized as being less scary because the monster was in full display in early scenes. When people speak about the virus as something deadly and dangerous, this trait is often emphasized. As mentioned above, Donald Trump, in his genius for stirring up fear and suspicion, began early on in the pandemic to blame the ‘Invisible China Virus’ – in capital letters no less (Trump 2020)!

Also, the property of invisibility makes the virus a purely psychic creature, living only in the imagination. Therefore, our perceptions of it are subject to archetypal influences that tend to assign personality and even intention to it. This is a known function of archetypes. In *Archetype of the Apocalypse*, Edward Edinger defines archetype in concordance with C.G. Jung as both an objective pattern in the psyche as well as a ‘dynamic living agency ... with *intentionality* and some semblance of consciousness’ (Edinger 1999, p. 2, italics mine). Thus, being invisible, a virus is especially subject to being ‘brought to life’ in an archetypal form. This archetypal, in other words, mythological virus stimulates in us not only patterns of fantasy and emotion (archetypes are always bound with emotion): when experienced as a ‘living agency ... with intentionality’, that appears to want to murder us, I believe the ‘archetypal inner virus’ can even drive one to compulsive and dangerous behaviours. Naturally, this is a complicated topic, so I state this as my personal opinion.

To demonstrate how the virus and pandemic can activate ‘archetypal fear’, Table 1: ‘Coronavirus’s frightening properties in myths and modern trends’, lists some typically frightening characteristics of the virus, then gives examples of where these characteristics appear in cultural personifications of evil. The examples are taken from myths and religions, as well as from themes of fascination – and even sometimes obsession – in our current western society. These modern examples can include everything from film and literature, to

Table 1. Coronavirus's frightening properties in myths and modern trends

Properties of the virus that frighten	Cultural depictions of archetypally evil properties	
	Mythological	Modern
Kills (murders)	In <i>Shadow and Evil in Fairy Tales</i> (von Franz 1995): Death is itself depicted as evil personage. Also, dying is a battle with 'Death the enemy' and dying is equivalent to being devoured	Murder and killing are extremely popular themes, in all forms of entertainment, e.g. the detective genre and war battles of all kinds: on Earth and in space; past, present and future
Invisible	Demons and ghosts; the Kwakiutl <i>Bakbakwalanooksiwae</i> ; Malaysian polong; Hades' cap of invisibility; Babylonian Talmud: multitudes of invisible demons surround everyone	Sci-fi and horror films, e.g. <i>The Thing</i> and <i>Alien</i>
Mutates = Shapeshifting	Evil magicians in many cultures, Werewolf in the Gilgamesh epic and early Nordic folklore	Sci-fi film <i>The Thing</i> . The alien took the form of humans who came into contact with it
Robotic = No conscience, soulless, intent to murder	Cruel stupid giants in fairy-tales, but actual mechanical robots seem to be an Industrial Age mythology	In dreams, robots can depict blind ruthless power complexes that terrify the dream ego. Sci-fi films such as <i>The Terminator</i>
Causes isolation	von Franz (1995): in folktales and beliefs, being alone invites evil	Horror movies set on an island or in the emptiness of outer space; in haunted houses
Preys on the weak	In nature, killing the weak is a natural hunting behaviour. In some	A modern definition of evil: the deliberate exploitation of others,

(Continues)

Table 1. (Continued)

Properties of the virus that frighten	Cultural depictions of archetypally evil properties	
	Mythological	Modern
	folktales: the animal that kills a human is seen as incarnation of the evil personage Death (von Franz 1995)	often more vulnerable than one's self (Swan 2015)
God-like: Powerful enough to stop the entire human world	All-powerful divinity that can destroy humanity. Judeo-Christian angry God causes Flood and the Apocalypse Hindu God Shiva (not angry) uses his destructive capacity for recycling the universe	Edinger (1999) and Stein (2016): activated apocalypse archetype in modern society Craze of fascination with zombies: mirror Apocalypse dead rising from graves, see Michelangelo's <i>The Last Judgement</i>

video games and hot trends in social media. Although there is no space for the topic here, an unpublished paper (van den Berg-Cook 2020) describes how one of these themes, particularly apocalypse caused by an angry god, was already highly activated in our society before the pandemic. Please note that the categories in the table are arbitrary and, due to the nature of archetypes, there will be overlap.

Regarding this table, please note that considering the profoundly tragic consequences of the coronavirus pandemic, the contents of the table are in *no way* meant to be light-hearted, even if we can smile at, for example, current popular trends involving zombies. They are cited only to indicate which archetypes have been activated in our collective psyche, which in turn will influence how the collective experiences the pandemic. The mythological examples are placed here with the highest respect for their meaning and value in the cultures to which they belong.

Invisibility

We mentioned earlier how the virus's property of being invisible makes it more frightening. Table 1 lists terrifying invisible entities from mythology such as the Malaysian polong and the Native American Kwakiutl Bakbakwalanooksiwae.

These descriptions show how extremely frightening and powerful such figures can be. Regarding the polong:

The polong is an evil invisible spirit from Malaysian folklore. The main attribute ... is that it is controlled (actually enslaved) by a human for that man's personal use.... It takes a human practitioner of black magic, such as an evil sorcerer, to order this unseen spirit to cause harm to another person.... People attacked by the polong will generally have bruises or cuts but almost always have blood spilling from their mouths.

(Windsor 2010, p. 1)

And the Bakbakwalanooksiwae:

A major ceremony of the Kwakiutl is the Hamatsa, or Winter Dance, in which one of the most important beings is Bakbakwalanooksiwae, the invisible, fearsome man-eating supernatural. Three of his servants are Kwakwakwalanooksiwae, 'The Raven at the Mouth of the River', HokHokw, 'Long Beak', and the third, Galokwudzuwis, 'The Crooked Beak of Heaven'. This latter being is depicted in some of the most elaborated mask designs of the Northwest Coast people, all of which represent legendary bird monsters who search for human flesh. The ritual itself includes frenzied dance performances by masked and costumed individuals who go into a trance, during which they seize initiates, and occasionally spectators, and bite at their arms or bodies.

(Boas 1930 cited in ARAS 2020)

Modern examples from much-loved horror films include *The Thing*, directed by John Carpenter. It is considered one of the best horror and sci-fi films ever made: 'Carpenter ... ups the level of horror in the film by making his alien a shape-shifter that can take on the appearance of any living creature with which it comes into contact' (Booker 2020), while the alien itself remains invisible to the viewer.

Robotic

Whether it is a robot depicting a blind and ruthless power complex in the dream of an individual, or the relentless unstoppable robot famously played by Arnold Schwarzenegger in the film *The Terminator* (Cameron 1984), we humans are terrified of creatures that have no capacity for compassion or conscience. This void chills our blood, and trying to inspire pity in them is utterly hopeless.

Isolation

Isolation is by definition not good for humans. We are a social species that depends on others for our very survival, so being alone invites evil in folktales (von Franz 1995) as well as in classic horror films:

The prototypical haunted house is in a remote, isolated location, far removed from the rest of society (think of the off-season resort hotel in ‘The Shining’, for example). If bad things do happen, help would be a long time coming, even if communication with the outside world were possible. (Conveniently, in old horror movies the telephones always stop working).

(McAndrew 2019, p. 1)

God-like

As of January 2021, the disease COVID-19 has literally spread over the planet, and recently new more infectious variants threaten to create new faster-spreading versions of the disease. The sheer magnitude of the virus’s destructive capacity evokes, with no doubt, the power of a god. Our mythopoeic conclusion is that we humans are being punished. As mentioned above, the degree to which our society is already gripped by the apocalypse archetype makes one fear for the pandemic’s effect on our collective psychological health (van den Berg-Cook 2020).

How can we as analysts help?

Analytical psychology shows us that we, as individuals in situations of painful inner conflict, can rely on the regulating and healing functions of our own psyche for help. The symbol-making function in the unconscious, when given time and focused attention from our ego, can spontaneously produce a symbol that integrates the conflicting sides into a new third possibility that ‘transcends’ the conflict, in what Jung named the transcendent function. Can we help our patients to mobilize their own transcendent function for easing painful tension caused by demonizing the virus – where the conflict is an unconscious mythological war between Humans and The Evil Coronavirus? If so, what might be a resolving symbol, in other words, something that neutralizes the feeling that we are victims of an all-powerful invading enemy? For me, it is an alchemical *coniunctio* symbol: the *unus mundus*.

Marriage of biochemistry and psyche – my experiences

I was led to the idea that the *unus mundus* archetype can offer help in the pandemic by my personal experiences as both biologist and analyst. Coming to analytical psychology from my first career in cell physiology research, I had a growing, intuitive sense that biochemical processes in our body are interconnected and inseparable from our psyche. Since the late 1980s, when I began my analytic training, these two systems had ‘cooked together’ deep in my psyche. This cooking finally came to expression in 2018, when a method

for demonstrating their interconnection erupted into my awareness as a nearly fully-formed paradigm, connecting for example creation myths with the chemistry of the simplest bio-molecules. I then developed my thoughts into the lecture series, 'Archetypal patterns in the fundamental properties of living systems' (unpublished). This eruption was preceded and followed by many striking synchronicities, and what arose from my unconscious was both an intellectual explication but primarily a deeply moving experience of the *unus mundus*. I will describe this vision in detail at the end of this paper, but first need to elucidate some fundamental properties of chemistry in living systems.

In her book, *Towards an Ecopsychotherapy*, ecopsychologist and analyst Mary-Jayne Rust gives a moving description of how synchronicities and the experience of *unus mundus* can occur during psychotherapy in the outdoors:

Synchronicities happen in abundance outdoors.... Jung defines synchronicity as two things coming together in time, simultaneously, which are connected through meaning, not through cause and effect. Such moments offer a portal into another way of seeing the world where we have an experience that everything and everyone is in continuous dynamic relationship within a unified reality from which everything emerges and to which everything returns. Jung and Pauli referred to this matrix as *unus mundus*, Latin for 'one world'. In this way, synchronicity is like an intervention of grace offering an experience of wholeness.

(Rust 2020, p. 10)

In what Rust describes here, and in my own experience of 'one world', psyche saturates the natural biological world. This biological world is for me a sub-microscopic universe of biochemical and physiological processes and, for Rust, it is the majestic natural world we can see and experience through our senses.

Is the unus mundus 'real'? Research into the physical science of matter and psyche

We know that an experience of the *unus mundus* archetype can function in our psyches with a *coniunctio* type of healing effect. It can resolve perceiving the universe in polarized opposites: male versus female, Muslims versus Christians, Republicans versus Democrats (in the current political climate), and so on *ad infinitum*. But is the *unus mundus* more than a purely psychological entity or is it also something arising from the psychoid that takes form in our imagination: a true depiction of the physical facts of our universe? In other words, is our modern conviction that psyche and matter are two entirely separate entities simply wrong – delusional as it were?

I have already described my belief that properties of the biochemistry in our bodies are somehow 'known' by the human psyche, and our imagination uses

these properties to build myths. In addition, neurological evidence for such a connection has been postulated by the distinguished neuroscientist Antonio Damasio, David Dornsife Chair in Neuroscience and Professor of Psychology, Philosophy and Neurology at the University of Southern California. He asserts that our sense of self, our self-awareness, arises from the part of our brain that monitors, in minute detail, our metabolic processes; in other words, it is constantly in intimate neurological connection with the biochemical operations that are essential for life. In his book *Self Comes to Mind*, for the most fundamental neurological mechanisms involved in perceiving 'self', Damasio has coined the term protoself. He describes the 'privileged' and unique interaction of body with psyche as such:

Another central idea is based on the consistently overlooked fact that the brain's protoself structures are not merely about the body. They are literally and inextricably attached to the body. Specifically, they are attached to the parts of the body that bombard the brain with their signals, at all times, only to be bombarded back by the brain and, by so doing, creating a resonant loop. This resonant loop is perpetual, broken only by brain disease or death. Body and brain bond. As a result of this arrangement, the protoself structures have a privileged and direct relationship to the body. *The images they engender regarding the body are conceived in circumstances different from those of other brain images, say, visual or auditory.* In light of these facts, the body is best conceived as the rock on which the protoself is built, while the protoself is the pivot around which the conscious mind turns.

(Damasio 2010, p. 21, italics mine)

The question of psyche versus matter can also be studied from the viewpoint of physics. In recent years we have seen a large body of elegant investigation into the physical science of synchronicity, the relativity of time and the relationship between matter and psyche – in some respects continuing the explorations of Jung, von Franz and the physicist Wolfgang Pauli. Investigating synchronicity and the physical properties of complex systems in nature, Joseph Cambray (2009), Roderick Main (2004), Harald Atmanspacher (Atmanspacher & Fach 2013) and others have provided convincing evidence that psyche and matter are indeed interconnected and mutually influence each other. The point of mutual influence can be envisioned as Jung's concept of the *psychoïd*. In his book *Synchronicity*, Cambray describes the importance of the psychoïd in Jung's ideas on the nature of the universe: 'Jung is seeking to create a theory of the world based on the psychoïd archetype as an originary point from which the subjective and objective realms emanate' (Cambray 2009, p. 16).

Naturally, whether seen through the lens of analytical psychology, from our sensory experiences or from the science of biology and physics, we are all looking at the same thing: our exquisite and unimaginably complex universe,

where our individual psyches are in a state of union with the material world – and that world *includes the coronavirus*.

What would our relationship to the coronavirus be like inside the ‘one world’?

I believe a living vision of ‘one world’ will include all creatures, and we must then come face to face with the coronavirus. What aspect of a genuine *unus mundus* experience could be healing for our fear of the virus? What kind of relationship to the virus is needed to ease fear-enhancing unconscious narratives, and how would we conceive of the virus and our relationship to it?

These are all questions that can only be answered by the individual psyche. I’ve said that I believe a ‘one-world’ experience may ease suffering, but we cannot force a genuine realization of the *unus mundus*. We must trust and support the psyche’s organic healing mechanisms and the transcendent function to produce a new symbolic experience that is healing. However, in our work as analysts, we are in a position to promote such a process. We can, with focused intention, help individuals to find their *own* unique way, support them to invoke their own transcendent function. One would also hope that individual experiences could stimulate our society’s collective psyche to give birth to a new transformative transcendent symbol.

My personal transcendent vision of *unus mundus* included the biochemical processes that create life. In addition to the union of psyche and matter, I will describe more ways in which we are ‘one’ with the virus; expanding as it were my vision of an *unus mundus*.

My vision of the biological universe as an *unus mundus*

How versus why

In the introduction, I said that we aren’t sufficiently comforted by knowing only *how* the pandemic occurred, our mythopoeic psyches want to know *why*. But for myself as a biochemist, understanding from a purely biological point of view *how* the new coronavirus SARS-CoV-2 was able to cause such a devastating pandemic is central to finding my personal mythological *why*. Early on, when the world was beginning to understand the tremendous danger of this virus and it was being increasingly demonized in the press, I thought to myself with puzzlement, ‘but why so surprised, why the sense that something shocking is happening? This is, after all, what viruses do’. They infect, multiply, often mutate and then travel on to the next host. From a global point of view, the reasons for its frightening virility can be understood. We have overpopulation that causes large portions of the world population to live in over-crowded conditions, providing the ideal opportunity for an infectious organism to spread rapidly to new hosts. In addition, every day,

millions of people travel from one side of the planet to the other. The effect is like a tremendous blender mixing all the world populations together to ensure maximum opportunity for a virus to find new locations with new populations to infect. I was thinking to myself: anyone aware of the biology has known this pandemic, at this scale, could happen. Indeed, virologists and epidemiologists have, for years, made predictions (and published warnings) based on these raw facts of biology. For example, in 2011, an internal review by the WHO of the efficacy of their International Health Regulations in combatting the 2009 swine flu (virus H1N1) pandemic stated: ‘The world is ill-prepared to respond to a severe influenza pandemic or to any similarly global, sustained and threatening public-health emergency’ (Director General, WHO 2011, p. 12), and the 180-page document made extensive recommendations for improving preparedness within the agency and in the world at large.

Regarding the current COVID-19 pandemic, an article entitled, ‘The man who saw the pandemic coming, will the world now wake up to the global threat of zoonotic diseases?’ describes the work of renowned infectious diseases expert, Dennis Carroll:

For decades, Carroll has been a leading voice about the threat of zoonotic spillover, the transmission of pathogens from nonhuman animals to us. Scientists are confident the current outbreak, which began in Wuhan, China, stemmed from a virus inherent in bats. In 2009, after years of studying infectious diseases at the Centers for Disease Control and Prevention, and the United States Agency for International Development (USAID), Carroll formed a USAID program called PREDICT, where he guided trailblazing research into viruses hiding, and waiting to emerge, in animals around the world.

(Berger 2020, p. 1)

More recently, the science and technology magazine *New Scientist* published the essay, ‘The COVID-19 pandemic was predicted – here’s how to stop the next one’ (MacKenzie 2020).

My thoughts that a pandemic should have been expected did not arise from an attitude of cynicism or cold scientific aloofness. On the contrary, this way of understanding the pandemic actually afforded me a sense of calm and helped me manage my fear: ‘there is nothing bizarre or *wrong* about the situation we find ourselves in’. Contemplating these thoughts helped allay an anguished sense of futility and depression because the events of the pandemic are facts of our majestic natural world. I also found that sharing this way of looking at the pandemic was helpful for analysts. Perhaps it was my words, but more likely it was the emotion of reverence for Nature and my body language that conveyed the message: this is terribly sad, but it is of course an *entirely natural movement* within our biological universe.

We humans are *also* driven to stay alive and expand our populations as far as our planet permits. We may regret this aspect of humans, and regret the effects of this new virus, but we and every virus share the instinct to survive and reproduce (of course, the term instinct is not applicable to sub-microscopic species, but in the following sections I will explain what is meant).

My personal mythological, philosophical and spiritual why

As an analytical psychologist searching for my own mythological why, this biological understanding of the coronavirus informed a series of reflections that I would like to share: as a biologist, I visualize the novel coronavirus SARS-CoV-2 as merely a minuscule packet of some genetic material and some protein. I understand that, like all viruses, it is an extremely simple and primitive type of organism, but it is never-the-less highly successful in surviving under a variety of conditions, and propagating – thereby causing illness and death on a massive scale. The coronavirus is, in fact, extremely dangerous to humans and our entire civilization.

Even with that fact in mind, when I reflect on our human relationship to the virus, a sense of calm comes to me. It is essential to add here that I am *not* calm about the devastating facts of the pandemic. I am calm only about the biological organism of the virus itself and our human relationship to it. This following section is a description of my personal belief system that is built up from a scientific, philosophical and spiritual investigation into the most fundamental properties of the organic, ‘living’ world. I will attempt to explain how those properties lead me to the vision of being united with the virus in an *unus mundus*. That we share psyche with the virus has already been discussed, but my vision also included the biochemistry we share, so in this section I will also describe the mysterious nature of our biochemistry.

I remind the reader that I am speaking here as a biochemist, focused on living chemical and physiological systems. From a scientific point of view, a physicist or ecologist will certainly ‘see’ the natural universe differently and emphasize a different aspect. And from a philosophical or spiritual view, writers such as Gregory Bateson in *Mind and Nature, A Necessary Unity* (2002), have made far more complex and far-reaching contributions about the nature of our relationship to ecological systems. But as I said earlier, ‘we are all looking at the same thing: our exquisite and unimaginably complex universe’.

My ‘logic’ that humans and any microbe are essentially similar and united in an *unus mundus* is based on two basic arguments. First, I compare a single virus to the cells in my own body and ask myself, ‘what actually is the difference?’ Of course, in their gross structures, the difference is massive, but two aspects are identical. All of the atoms and most of the molecules in a virus are entirely

identical to ours. We are, in our most basic make-up, the same; made of the 'same stuff'.

The second feature that we share is more mysterious, and I can only define it metaphorically. I call it the property of 'the driving force of Life itself' where 'life' includes the myriad processes of growth, repair and reproducing itself. We humans, in every cell in our bodies, and the virus are inseparably contained in and driven by this 'Life-drive'. How can this drive be understood? For myself, three qualities help create a definition.

1. *The first quality is that this drive cannot be understood by the rational mind.* One might argue that biology and physics have elucidated drives in animals in extensive detail. For example, it has been beautifully described by neuroscientist Jaak Panksepp in his 'affective neuroscience' (Panksepp 2004). He postulates that the primary organization of the brain is based on emotions, and he has shown in several species distinct neuronal tracts for what he defines as the seven basic affect systems. One of the earliest affect systems he discovered controls the emotion of SEEKING (Dr. Panksepp uses capital letters to demonstrate that these are formal definitions). When that part of the brain is stimulated, animals leave their nest, snuffle around and explore their surroundings. In other words, activation of the SEEKING neural pathways produces the 'drive' to perform seeking activities.

So we do know tremendous amounts about how that type of drive works. But for me, the mysterious aspect of the life drive lies at the sub-microscopic level, in the chemical and physical processes that, for example, produce the firing of the neurons causing the seeking function. One may ask, where is the mystery in that, because biochemistry in living organisms has been studied and described in exquisite detail. We know what happens with the molecules and atoms in the myriad bio-reactions and we understand how they do work, such as by synthesizing new molecules. Again, where is the mystery? Molecules can do work, such as making new molecules, and drive is defined as 'energy and the determination to achieve things' (Cambridge Dictionary 2021). So, must not there be some kind of simple way to understand drive, or the 'determination to achieve things' that produces the work of synthesizing new molecules? Actually, no, at least not in the way we normally think of drive, where work is done as a result of someone's or something's intention (or expressed colloquially, 'on purpose'). In fact, all chemical reactions, even in our body, are by nature entirely random, non-deterministic events. Quantum physics also demonstrates this randomness in nature and, in his works on synchronicity, Jung elaborated extensively on the physical property of acausality (Main 2004), but I will focus on chemistry here.

This randomness is caused by the physical property called Brownian motion, named after the Scottish botanist Robert Brown (1773-1858), who first investigated it. While studying pollen grains suspended in water, Brown observed that microscopic particles inside the grains were constantly moving

in a non-directional random manner. He first believed this to be a ‘vital activity’ inherent to the male sex cells of plants. However, he then observed the same movement in the pollen of long-dead plants and went on to demonstrate it in chips of granite and in smoke particles. Further research showed the movement to be an innate property of all things suspended in a gas or liquid. We observe it when sunlight falls into a room, lighting up tiny specks of dust floating in the air. They move constantly because the gas atoms of air are themselves in constant motion and bump into the particles, causing them to move in turn. The same is true in a solution of salt in water: the salt atoms are ‘bumped around’ in reaction to the movement of the water molecules. Years later, Albert Einstein and others produced precise mathematical descriptions of Brownian Motion. And eventually, Einstein discovered that atomic theory *requires* that microscopic particles dissolved in a liquid will move. Thus, the continuous motion is an innate property of our physical universe.

The result of all this moving around is that atoms and molecules will, in a random way, constantly bump into each other. In biological systems, where everything occurs in a solution of water, a chemical reaction can only happen when the atoms/molecules randomly bump into each other! Of course, our biology can increase the frequency of a chemical reaction by making the bumping of the molecules more probable by, for example, 1) making membranes to create enclosed spaces, such as cells, that hold certain molecules close to each other, and 2) creating ‘mechanisms’ in those membranes that actively transport those molecules into the cell. But the creation of those membranes, and the transport machines inside of them, is also by definition a random process. Using random processes, our brilliant biology builds and creates the extreme degree of order required to create and maintain life. We can even call this randomness, combined with orderly structure, the basis of ‘Life’ as an entity.

Biochemical science describes the mechanics of how randomness and creating structure work together. Yet for the human psyche, something that is entirely non-deterministic in its nature, but nevertheless appears ‘driven’ to maintain, repair and reproduce itself, must remain mysterious. If chemical reactions in a cell are not mechanically forced to happen, how is it that every living thing is continuously working to stay alive? What drives all that work? My philosophical answer is, as I stated above, ‘the driving force of Life’. Certainly, in our mutual biochemistry, we share this drive with the coronavirus and all other living entities. It will produce work continuously until we die. Then, when we die, another living organism will take up all of our constituent molecules and elements and use them to keep itself alive. Seen this way, life as an entity is always, as it were, moving forward.

2. The second quality is that this drive is unimaginably powerful and

productive on a cosmic scale: it is estimated that in the human body, *every second*, there are ‘37 with 21 zeros after it, or 37 thousand billion billion chemical reactions’, in other words, ‘there are more “chemical reactions” happening in the body, in one second, than there are stars in Our Galaxy’ (Cannon & Cochrane 2016).

3. *And the third quality is that this drive of ‘Life’ is very literally continuously creating the entire biological universe.* I experience this continuous production of new organisms and new life as a cosmic flowing river, where the flow is ‘driven’ by ‘the driving force of Life itself’ and all new life arises from the strange *coniunctio* of randomness and structure. We humans and the miniscule virus are both created by and contained in it. The river’s drive flows through us, and as individual organisms our behaviours are driven by it too.

When I had my original *unus mundus* experience in 2018, I had turned my attention inwardly to my body to try to witness with my mind/imagination/psyche the billions of reactions and profound activity I knew was taking place. What I perceived there was a timeless eternal space, filled with a bright pale-yellow light, a liquid matrix. I saw endless numbers of molecules in movement: floating, bumping into each other and engaging in countless chemical reactions. This degree of activity, on such an incomprehensibly vast scale, was breath-taking and was registered in my body with a numinous tingling sensation, as if I were physically resonating with the activity.

Now, when I add to my original *unus mundus* vision, the river of new life being generated, it becomes yet another *coniunctio* of opposites – a vast open space containing all the reactions, while also a flowing creation of life – that I can ‘feel’ but not even visualize. This more expanded *unus mundus* is a vast biological universe of life flowing forward, filled with atoms, molecules, entire organisms, all infused with and contained in psyche. Or is it the other way around: a universe of psyche that continuously creates the entire forward-flowing biological world? This is, for me, a profound mystery that is in its essence *divine*.

Conclusion

Because the coronavirus is a deadly threat, our reactions of fear and mythologizing it are entirely natural, to be expected. However, contemplating a vision of *unus mundus*, can we continue to demonize the virus for its drive to live when, within this one world, the virus’s drive is precisely the same as ours? When we feel our lives and our entire civilization threatened, it is a serious challenge not to demonize. But we must say no to our projections, because making natural phenomena into demons causes our own suffering and it interferes with our relationship to nature. When we project human

archetypes onto microbes, or any other aspect of the natural world, we believe they have human qualities such as evil intent and a drive to act based on willpower. This blocks our path to living in the deep knowledge that nature, in its random and non-deterministic essence, is entirely different from how our human consciousness perceives it to be. In *Mind and Nature*, Gregory Bateson sums up, with some humour, what I'm attempting to convey: 'The major problems in the world are the result of the difference between how nature works and the way people think' (Bateson 2002).

Rather than holding us in a psychological war with nature, we can hope that the global shock effect of the pandemic will inspire our societies to try to better understand nature itself, all the way to the chemical and subatomic levels, and our place in it, so that we can understand in our souls that we live together with the entire natural world in an *unus mundus*, an ecstatically vibrant cosmos of the Divine.

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 TRANSLATIONS OF ABSTRACT

La peur et la douleur causées par la pandémie ont produit un puissant récit inconscient dans la psyché collective, à savoir que le coronavirus est dirigé par une force intrinsèquement maléfique ou éventuellement divine. La dimension archétypale de peur qui en résulte produit une couche supplémentaire de douleur psychologique chez les individus. Cet article étudie comment et pourquoi ce récit est créé et pourquoi il est si convaincant. L'article procède en examinant 1) la nature de la psyché humaine qui tend à fabriquer des mythes, 2) les dynamiques psychanalytiques de la peur qui motivent le récit, 3) les propriétés du coronavirus et de la pandémie qui activent les pôles négatifs de certains archétypes, et en particulier l'archétype du mal, et 4) comment la psychologie analytique peut aider à soulager la douleur psychologique produite par ces récits négatifs. Une possibilité est d'invoquer la fonction transcendante. Les expériences personnelles de l'auteur à la fois en tant que biochimiste et en tant que psychologue analytique éclairent comment la fonction transcendante peut promouvoir la guérison.

Mots clés: coronavirus, pandémie, archétypes, mal, fonction transcendante, *unus mundus*, biochimie

Angst und Trauer, die durch die Pandemie verursacht wurden, haben in der kollektiven Psyche ein starkes unbewusstes Narrativ hervorgebracht, in dem das Coronavirus von einer von Natur aus bösen und möglicherweise göttlichen Kraft angetrieben wird. Die daraus resultierende archetypische Dimension der Angst verursacht bei Einzelnen eine zusätzliche Ebene psychischen Leidens. In diesem Artikel wird erörtert, wie und warum dieses Narrativ entstanden und warum es so überzeugend ist wobei geschaut wird auf 1. die mythenproduzierende Natur der menschlichen Psyche, 2. die Psychodynamik der Angst, die das Narrativ antreibt, 3. die Eigenschaften des Coronavirus und die Pandemie, die negative Pole einiger Archetypen aktiviert, insbesondere Archetypen des Bösen und 4. Die Frage, wie die Analytische Psychologie dazu beitragen kann, das durch diese negativen Narrative verursachte psychologische Leiden zu lindern, wobei eine Möglichkeit darin besteht, die Transzendente Funktion zu aktivieren. Die persönlichen Erfahrungen des Autors als Biochemiker und analytischer Psychologe verdeutlichen, wie die Transzendente Funktion die Heilung fördern kann.

Schlüsselwörter: Coronavirus, Pandemie, Archetypen, böse, Transzendente Funktion, *unus mundus*, Biochemie

La paura e il dolore causati dalla pandemia hanno prodotto una potente narrativa inconscia nella psiche collettiva, ossia che il Coronavirus sia guidato da una forza innatamente malvagia ed, eventualmente, divina. La dimensione archetipica risultante dalla paura provoca un substrato ulteriore di sofferenza psichica negli individui. Questo articolo discute come e perché questa narrativa sia stata creata e perché sia

così avvincente, guardando a 1) la natura mitopoietica della psiche umana, 2) la psicodinamica della paura che guida la narrativa, 3) le proprietà del Coronavirus e della pandemia che attivano i poli negativi di alcuni archetipi, e 4) chiedendo come la psicologia analitica possa aiutare ad alleviare la sofferenza psicologica causata da queste narrazioni negative, in cui una possibilità è di invocare la funzione trascendente. Le esperienze personali dell'Autore sia come biochimico che come psicologo analitico elucidano su come la funzione trascendente possa promuovere la guarigione.

Parole chiave: Coronavirus, pandemia, archetipi, male, funzione trascendente, *unus mundus*, biochimica

Вывзанные пандемией страх и горе создали мощный бессознательный нарратив в коллективной психике: коронавирусом движет врожденное зло, возможно, имеющее божественную природу. Вытекающий из этого архетипический уровень страха причиняет дополнительные страдания людям. В статье обсуждается: как и почему был создан этот нарратив, а также почему он так убедителен. Приводятся доводы, связанные с 1) мифотворческой натурой человеческой психики, 2) психодинамикой страха, который движет этим нарративом, 3) свойствами коронавируса и пандемии, которые активировали негативные полюса некоторых архетипов, в частности, архетипов зла. Автор также задается вопросом, как аналитическая психология может помочь облегчить психологическое страдание, вызванное этими негативными нарративами. Один из вариантов помощи – это пробуждение трансцендентной функции. Личный опыт автора как биохимика и аналитического психолога помогает понять, как трансцендентная функция способствует исцелению.

Ключевые слова: коронавирус, пандемия, архетипы, зло, трансцендентная функция, *unus mundus*, биохимия

El miedo y el dolor causado por la pandemia han producido una poderosa narrativa inconsciente en la psique colectiva, significando que el coronavirus es producido por una fuerza divina, innata del mal. La resultante dimensión arquetípica del miedo causa un estrato extra de sufrimiento psicológico en los individuos. El presente trabajo examina cómo y porqué ha sido creada esta narrativa y porqué resulta tan atractiva, prestando atención a: 1) la naturaleza creadora de mitos de la psique humana, 2) los psico-dinamismos del miedo que impulsan dicha narrativa, 3) las propiedades del coronavirus y de la pandemia que activan los polos negativos de ciertos arquetipos, en particular arquetipos del mal, y 4) pregunta cómo la psicología analítica puede ayudar a aliviar el sufrimiento psicológico causado por estas narrativas negativas, donde una posibilidad es invocar la función trascendente. Las experiencias personales de la autora como bioquímica y psicóloga analítica elucidan como la función trascendente puede promover la curación.

Palabras clave: coronavirus, pandemia, arquetipos, mal, función trascendente, *unus mundus*, bioquímica

新冠病毒:它对邪恶原型的激活是否导致更多的心理困扰吗?

疫情导致的恐惧和哀伤在集体心灵中引发了强烈的无意识叙事,即新冠病毒是由自然的邪恶力量,可能是神圣的力量所驱使。由此导致的恐惧的原型层面在个体中导致了另一重的心灵苦难。这篇文章讨论这一叙事是如何以及为什么被创造出来,以及为什么它那么引人注目,论文从这些层面讨论:1)人类心灵创造神话的本性,2)驱动叙事的恐惧心理动力,3)新冠病毒和疫情的特征激发了一些原型的消极层面,特别是邪恶原型,4)心理分析为什么可以缓解由这些消极叙事导致的心理苦痛,其中一个可能是它唤起了超越功能。作者从自身作为生物化学家和分析心理学家的个人经验,说明了超越功能如何可以促进治愈。

关键词:新冠病毒,疫情,原型,邪恶,超越功能,一元世界,生物化学
