

Taming the Piglet

Panic Attacks in Classical Chinese Medicine

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Abstract

In the 1990s, Stephen Porges presented his Polyvagal Theory, which asserts that humans have evolved three main responses to threat. The two most primitive of these responses—fight-or-flight and freezing—serve as the basic psycho-neuro-endocrine processes at play in panic attacks. Fight-or-flight manifests with such symptoms as palpitations, shortness of breath, and dizziness, while freezing behavior is marked by immobility and dissociation.

Ancient Chinese medical minds clearly understood these two responses to threat, referring to them as 驚 *jing* (“fright,” correlating with fight-or-flight) and 恐 *kong* (“fear,” akin to freezing behavior). In three Han Dynasty medical classics—the *Neijing*, *Nanjing*, and *Shanghan zabing lun*—writers describe episodes of fear and fright as being characterized by such symptoms as upward-surgings qi, vexation, and palpitations. At times, they subsume the pattern under the syndrome designation of “running piglet.” A tendency toward panic, they argue, can be adopted in utero, and over time, panic can deplete *jing*-essence. The central organs to which they attribute the panic phenomenon are the Kidney, Heart, and Liver, with the Lung and Stomach incurring collateral damage.

Not only did the authors of these texts outline the patho-dynamics of panic attacks, but they also offered nuanced therapeutic strategies. One strategy—culled from Zhang Zhongjing’s *Shanghan zabing lun*—is presented here.

Panic attacks are frequently encountered by Chinese medical practitioners in the modern clinic. We can turn to our classical texts for guidance. This capstone project attempts to give a modern biomedical context for panic attacks; to provide ancient Chinese medical views of panic attacks; and to present a comprehensive herbal method of treating them.

In Gratitude

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Author's Note: All *Neijing*, *Nanjing*, and *Shanghan zabing lun* translations in this project are original renderings by the author.

A wave of panic passed over the vessel, and these rough and hardy men, who feared no mortal foe, shook with terror at the shadows of their own minds.

—Sir Arthur Conan Doyle, *Sir Nigel*

There is no terror in a bang, only in the anticipation of it.

—Alfred Hitchcock

And extreme fear can neither fight nor fly,
But coward-like with trembling terror die.

—William Shakespeare, *The Rape of Lucrece*

恐懼者，神蕩憚而不收。
When one experiences fear and fright,
the *shen* shakes with dread;
it can no longer be gathered.

—*Neijing Lingshu, Chapter 8*

The body keeps the score: If the memory of trauma is encoded in the viscera, in heartbreaking and gut-wrenching emotions...and if mind/brain/visceral communication is the royal road to emotion regulation, this demands a radical shift in our therapeutic assumptions.

—Bessel Van Der Kolk, M.D., *The Body Keeps the Score*

We must travel in the direction of our fear.

—John Berryman, *A Point of Age*

I. Viewing Panic Attacks Through a Modern Western Lens

If you've ever had a panic reaction, you know: its authority is absolute. There's no choice involved, no reasoning. There isn't even a "you." You are gone; the panic is running the show.

—Wolf Pascoe, *Going Under*¹

Sound the Alarm: The Progenitor of Panic

The English word *panic*, meaning “sudden overwhelming fear,”² derives from the French *panique*, itself a derivation of the Greek phrase *panikon deima*, “fright emanating from Pan.”³ Pan was the Greek demigod of the woods, fields, and caves; of fertility, wine, and ecstatic music.⁴ A flute-playing, nymph-seducing goat-man whose celebration of the instinctual taunted the moral constraints and order of civilization, Pan was known as “the god heard, but not seen.”⁵ He used sounds—typically emanating from his panpipe—to frighten those who dared interlope upon his wild lands. Thus, he came to be considered the progenitor of panic.⁶

According to legend, the mischievous sprite hid in the shadows alongside forest paths and toyed with Greek travelers by emitting sinister sounds, wafting the scent of threat. The travelers would respond like his very own marionettes, tensing their sinews, clenching their jaws, and picking up their pace. Then, he would sneak ahead through the thick Acadian woods, so that once again he could tingle their spines with ominous peals of his pipe. The travelers would further hasten their gait, their breath accelerating, their clothes dampening from perspiration, their hearts in their throats. By this point, the travelers’ own minds had become their tormentors: they spooked at the sounds of their own

footsteps and braced against blood-thirsty beasts forged from tree branches. One more series of sounds would send them sprinting full-throttle to escape the terrors of the forest, Pan giggling all the while at his ability to induce full-scale panic with the slightest of efforts. Such an episode would frequently suffice to prevent the travelers from ever returning to Pan's woods, so deeply embedded in their bodies and minds was the sense of danger.

Another of Pan's impish pleasures was to unleash his hysteria-inducing noise-making on invading armies. After sundown, he would sneak to the edge of an encampment and deploy an alarming racket such that a soldier—perhaps relieving himself in the darkness or half-asleep on the perimeter—was tricked into thinking his slumbering battalion was on the verge of being ambushed. The soldier's frightened response would spark a conflagration of frenzied panic among his comrades. In the shadows, they saw enemies everywhere, and they began to attack one another, so certain were they that their lives were in jeopardy.

Such a scene captures the essence of the panic attack: it is a disorienting assault on oneself. The mind conjures a threat, and the body braces itself. But since there is no actual opponent to face, we are left to stew in the physiological by-products and mental anguish borne of repeatedly girding for attacks which never arrive. The rational brain can recognize—and even articulate—that there is no present peril, and yet one can still find oneself plunged into a panic attack, into a state of inner chaos.

This project aims to bring into the light a process that is shrouded in darkness, perpetuated subconsciously. How can we understand panic attacks, from Western and Eastern perspectives? And, as practitioners of classical Chinese medicine, how can we diagnose and treat them? How can panic attack sufferers come to *see and know* the stealthy trickster Pan, to bring him out of the shadows and establish a healthy relationship with him?

What is a Panic Attack?

I am troubled by my shapeless fears. My God, these anxieties! Who can live in the modern world without catching his share of them?

—Vincent van Gogh⁷

Let's begin our exploration by defining panic attacks. Panic attacks are sudden, quickly-peaking periods of intense fear in the absence of any real danger. The duration of attacks can range from seconds to about a half hour, and their frequency can greatly vary. "A panic attack is distinguished from ongoing anxiety by its time to peak intensity, which occurs within minutes; its discrete nature; and its typically greater severity."⁸ Modern Western psychology differentiates panic attacks into two types: expected (meaning there is an obvious cue or trigger) and unexpected ("out of the blue").⁹

Each episode of panic is characterized by a constellation of some of the symptoms listed below. Note that the 5th edition of the *Diagnostic and Statistical Manual of Mental Disorders [DSM-V]* defines a panic attack as being composed of four or more of those symptoms marked *a* through *l*. "Limited symptom attacks" is the term used to refer to

panic-like episodes which feature fewer than four of those symptoms.¹⁰ The *DSM-V* designates symptoms *m* through *o* as being “culture-specific”; that is, they figure prominently within the symptom profiles of certain cultural groups. Examples include headaches among the Vietnamese and tinnitus among Cambodians.¹¹ The final three symptoms (*p* through *r*) are commonly described by sufferers, but are not listed in the *DSM-V*.^{12, 13, 14}

- a. Palpitations, pounding heart, or accelerated heart rate
- b. Sweating
- c. Trembling or shaking
- d. Sensations of shortness of breath or smothering
- e. Feelings of choking
- f. Chest pain or discomfort
- g. Nausea or abdominal distress
- h. Dizziness, unsteadiness, light-headedness, or faintness
- i. Chills or heat sensations
- j. Paresthesias
- k. Derealization (feelings of unreality) or depersonalization (feeling detached from one’s self)
- l. Dread of losing control, of going insane, or of dying
- m. Tinnitus
- n. Headache or neck pain
- o. Uncontrollable screaming or crying
- p. Dry mouth
- q. Immobility
- r. Visual disturbances

Panic attacks are associated with increased likelihood of such psychiatric diagnoses as anxiety disorders, depressive disorders, bipolar disorders, post-traumatic stress disorder, obsessive-compulsive disorder, and, naturally, panic disorder.¹⁵ Trauma is the central theme here. Bessel Van Der Kolk, M.D., a trauma expert, asserts that if, in a life-threatening event, our normal repertoire of responses is impeded—“for example, when people are held down, trapped, or otherwise prevented from taking effective action, be it

in a war zone, car accident, domestic violence, or rape—the brain keeps secreting stress chemicals, and the brain’s electrical circuits continue to fire in vain.”¹⁶ And yet, panic-inducing trauma need not be so dramatic; panic can derive, for instance, from having a mother who breast-feeds in an aggressive manner.¹⁷ Regardless of their origin, panic episodes persist after the initial event despite the cessation of danger.

Panic attacks and panic-like episodes can also occur within the context of a variety of somatic diseases. We see this phenomenon at play in cardiopulmonary conditions (e.g., angina, acute myocardial infarction, mitral valve prolapse, supraventricular tachycardia, hyperventilation syndrome, pulmonary embolism, and asthma); seizure disorders; hyperthyroidism and hyperparathyroidism; hypoglycemia; Wilson’s disease; Parkinson’s disease; pheochromocytoma; and vestibular disturbances.^{18,19} Additionally, panic attacks are strongly linked with many of the vector-borne diseases surging in the modern world, including Lyme disease (borreliosis).^{20,21,22}

Panic attacks can be induced by the ingestion of caffeine; alcohol; cigarettes; and psychotropic drugs, including marijuana. (On the other hand, the panic sufferer often turns to such substances as a means of self-medication.) Panic can also be a side effect in the withdrawal from alcohol, recreational drugs, or pharmaceuticals—for instance, in the case of antidepressant discontinuation syndrome.^{23,24}

In the United States, the estimated prevalence of panic attacks in adults over the course of twelve months is 11.2% (which is considerably higher than Europe’s rate), and the mean

age of panic attack onset is 22-23 years.²⁵ Women are more likely to experience panic,²⁶ as are those prone to perfectionism and sensitivity to stress,²⁷ and those whose early lives featured physical, sexual, and/or mental abuse.^{28, 29} Panic attack sufferers have a higher rate of suicidal ideation and suicide attempts.³⁰

Western biomedicine mainly turns to psychotherapy and pharmaceuticals in the treatment of panic attacks. Biomedical clinicians commonly recommend a combination of cognitive-behavioral therapy and selective serotonin re-uptake inhibitors. Other anti-panic medications include tricyclic antidepressants, monoamine oxidase inhibitors, and high-potency benzodiazepines.³¹ Meanwhile, therapies like acupuncture, eye motion desensitization and reprocessing, and craniosacral represent alternative approaches to establishing emotional regulation. Additionally, a wide range of self-management practices—such as breathing exercises, mindfulness meditation, yoga, qigong, taiji, and martial arts—continue to gain traction in the West. In Part III of this paper, we will investigate Chinese herbal therapies for panic attacks. Now, however, let's zoom in on how panic manifests in the body.

Preparing to Clash or Dash: The Fight-or-Flight Response

Terror acts in the same manner on [animals] as on us, causing the muscles to tremble, the heart to palpitate, the sphincters to be relaxed, and the hair to stand on end.

—Charles Darwin, *The Descent of Man*³²

Panic has long been understood as a fight-or-flight response—a set of physiological changes initiated by the sympathetic nervous system to help the body handle a situation

perceived as life-threatening. The process begins with the thalamus, a “brain hub” where sensory information converges and is organized. The thalamus transmits this information in two directions: downward to the amygdalae, two almond-shaped clusters of nuclei tucked in the primal limbic brain; and upward to the frontal lobes, our “seat of consciousness.” Of the two, the pathway to the amygdalae is quicker. As a result, we can plunge into a fear-based reaction before we’re even consciously aware of it—the classic example being startling at the sight of a snake before realizing that it’s actually a hose. In such a case, the information triggers the amygdalae before the rational brain can properly assess the situation.³³ This is where Pan resides, in the amygdalae, prodding our instinctual fright response.

The amygdalae form and store memories associated with traumatic events, flagging such experiences so that we can brace for them should they recur.³⁴ The amygdalae “freeze” images of snakes and spiders; of dizzying heights and cramped spaces; of a recent car crash or abuse sustained as an infant; of alienation, humiliation, death. This category of memory is known as “implicit”; it is processed and stashed as fragments in the primal brain, beneath conscious awareness (as opposed to “explicit” memory, which is mediated by conscious thought and possesses the characteristic of coherence).³⁵ The body responds instinctively to implicit memory, without the need for recall from the higher cortical centers. Upon remembrance of a threat, the central nuclei of the amygdalae goad the fight-or-flight response into action.

Activation of the amygdalae triggers a neural response in the hypothalamus, which causes the pituitary gland to secrete adrenocorticotrophic hormone (ACTH). ACTH induces the adrenals to release cortisol. Meanwhile, animation of the adrenal cortex and the sympathetic nervous system triggers the synthesis and release of epinephrine and norepinephrine from the adrenal medulla. Cortisol, epinephrine, and norepinephrine engender a full-body arousal by constricting vessels (thereby increasing blood pressure) and tensing muscles; accelerating cardiac and respiratory rate; boosting blood glucose and fats to supply the body with extra energy; and suppressing the immune system. A cold sweat is induced in anticipation of the warmth of intense muscular activity, while shivering and horripilation serve to ward off cold induced by vasoconstriction. The pupils dilate to provide greater visual capacity. Digestive activity (including salivation) is suspended, so that blood might be allocated for use in muscle activity.^{36, 37, 38}

Everything that has occurred up to this point represents the body's *normal* response to danger. There's no problem! In fact, it shows the body is functioning well. The problems begin when this response habitually occurs without the consummation of strenuous physical action. Sustained hyperventilation—which was supposed to supply the body with oxygen for exertion—leads to a drop in carbon dioxide in the blood, shifting blood pH. This, in turn, can cause strange sensations—paresthesias, trembling, dizziness, faintness.³⁹ Adrenaline-induced vasoconstriction limits the blood entering the brain, increasing the likelihood of mental disorientation.⁴⁰ Habitual retardation of digestion and acceleration of heart rate can impair gastrointestinal and cardiac function.⁴¹ Chronically elevated blood pressure can lead to vascular hypertrophy, which, over time, can result in

damaged arteries and plaque formation.⁴² Prolonged exposure to cortisol has been linked to weight gain and cognitive deficits.^{43, 44} And continuous suppression of the immune system can leave sufferers vulnerable to infection.⁴⁵ In sum, over time, panic sufferers tend to incur significant impairment to their cardiovascular, respiratory, gastrointestinal, vestibular, cognitive, and immune systems.

The panicked person experiences emotional and physiological arousal at the memory of an earlier insult because her brain cannot discern between past and present. “When memory traces of the original sounds, images, and sensations [of a traumatic event] are reactivated, the frontal lobe shuts down, including...the region that creates our sense of location in time.”⁴⁶ The self-preservation instinct of the amygdalae (the emotional brain) has taken precedence over the reasoned assessment of the frontal lobe (the rational brain), making it more difficult to control one’s emotions and impulses. This shift in power in favor of the amygdalae is bolstered by a feedback loop: after initial panic attacks, the experience of panic itself can become imprinted with a memory of “danger!”, which only hastens one’s cascade into peak panic. “Panic symptoms are maintained largely because the individual develops a fear of the bodily sensations associated with the panic attacks.”⁴⁷

Furthermore, as the number of attacks increases over time, the amygdalae accrue new fearful memories. Say, for example, you are triggered by large men with beards, and there happens to be a large, bearded man behind you in line at the bank, setting off a panic attack. Now that this experience is embedded in the amygdalae, the mere act of

entering that bank—or the sight of that bank, or the experience of *any* bank—might serve as a trigger. New images, scents, and sounds are continually added to the amygdalae’s catalogue of threats, forming a trauma mosaic, rendering ever-greater slices of everyday life aversive, and consuming ever-more bodily resources to suppress or recuperate from attacks.⁴⁸

Sufferers commonly develop “negative anticipation,” a form of dread marked by avoidant behavior. They want to steer clear of situations where they are having a panic attack and cannot escape. Thus, it makes sense that panic attacks are often associated with agoraphobia, the fear of public spaces. (In fact, panic attacks and agoraphobia are listed successively in the *DSM-V*.) The fear of being triggered in an unsupportive or unfamiliar environment confines many panic attacks sufferers to their homes.⁴⁹

And so, the fight-or-flight response is a conceptual framework which indeed explains a good deal of the visceral panic attack experience. However, it omits the critical component of “freezing” that so many sufferers describe. Immobility, collapse, dissociation—this state of frozenness isolates and alienates the panicked person. How can we understand this phenomenon?

Scared Stiff: Polyvagal Theory and the Freeze Response

It’s often said that a traumatic experience early in life marks a person forever, pulls her out of line, saying, “Stay there. Don’t move.”

—Jeffrey Eugenides, *Middlesex*⁵⁰

In the 1990s, Stephen Porges debuted his Polyvagal Theory, which posits that the fight-or-flight response is neither our most recently-evolved nor most primitive strategy in the face of threat. Porges outlines a hierarchy of three responses to danger, each mediated by a distinct autonomic subsystem: social engagement (mediated by the myelinated branch of the vagus nerve); fight-or-flight (the sympathetic-adrenal system); and freeze (the unmyelinated vagus nerve).^{51, 52}

Our most recently evolved method of responding to threat, Porges argues, is social engagement. The myelinated, ventral branch of the vagus nerve connects to the mouth, pharynx, larynx, and esophagus; it makes it possible for us to vocalize. When threatened, we activate the ventral vagal complex to express ourselves with our voices, thus recruiting the power of relationship to defuse danger and ensure safety. “We call out for help, support, comfort from the people around us.”⁵³ Further, this vagal branch links to the heart and lungs; its activation calms heart rate, increases depth of breathing, and inhibits fight-or-flight arousal. Consider the way we coo and cluck and sing to babies; in a sense, we are “training” their ventral vagus complexes, so that they need not rely on more primitive responses to threat. Laughing, singing, and chanting strengthen the tone of this vagal branch and serve as tools for us to self-soothe.^{54, 55} Indeed, the advent of the myelinated vagus branch provided mammals an evolutionary advantage by giving us a sophisticated threat response that demands less of our visceral physiology.

However, when social engagement fails (when we are not heard by those around us or when the magnitude of the threat overwhelms the ventral vagus complex), the more

primitive limbic brain comes on line, activating the fight-or-flight response described above. But even that is not our ultimate line of defense. If mobilization proves unavailable, we turn to our reptilian vestige of immobilization.⁵⁶ The freeze response is triggered by the unmyelinated (or “vegetative”) dorsal vagus nerve which stretches below the diaphragm to the stomach, liver, intestines, and kidneys, markedly reducing bodily metabolism. Heart rate and digestion slow to a crawl, and the breath becomes shallow. There might be a desire to evacuate the bowels or bladder. In extreme cases, we no longer register physical pain, or we might even faint.

The ancient development of the freeze response offered several evolutionary advantages.

Trauma psychologist Peter Levine details them thusly:

Immobility is an imitation of death that misleads the predator into sensing that the meat may be bad. Through this deceptive act, the prey animal has a chance to escape. Second, predatory animals have greater difficulty detecting potential prey that are not moving...Third, if a predator comes upon a group of animals the collapse of an individual can distract the predator momentarily, allowing the rest of the herd to escape. Fourth, in a world where all animals are located somewhere in the food chain and may be either predator or prey, nature provides an analgesic mechanism for minimizing the pain suffered at death.⁵⁷

In animals, the amount of time spent in the freeze state tends to be finite: they literally “shake it off” and re-access their baseline physiology. Humans, however, are prone to getting stuck in this state indefinitely. The experience of dissociation so characteristic of panic—and mental illness at large—might be understood as a chronic form of the freeze response.⁵⁸ In dissociation, the person does not possess the capacity to absorb and

integrate the shock of trauma, and so must sequester that which is presently intolerable.

Psychotherapist Mark Epstein writes:

In dissociation, that which is unbearable is closed off and isolated from the rest of the self. The person has to go on, but to do so he or she must turn away from trauma, compartmentalizing it in a way that keeps it out of view. In dissociation there is no self-reflection—in order to survive trauma the devastated self is immobilized and hidden out of view. The emotional impact has nowhere to go, however. It becomes stuck, in a frozen state, inaccessible to the person's usual waking consciousness. It is never digested, never symbolized or imagined, never processed by thought or language, and never really felt.⁵⁹

The strategy is intelligent: we are acknowledging that this shock is too much for us to bear, and we enisle it in order to remain otherwise intact. However, if the sequestered shock is never attended to, we move through our lives in a compromised state.

The ratio of hypo-arousal (freezing) to hyper-arousal (fight-or-flight) varies in panic attacks. In his years of practice, Van Der Kolk has found that the freeze response “characterizes many chronically traumatized people, as opposed to the mammalian panic and rage that make more recent trauma survivors so frightened and frightening.”⁶⁰ It makes intuitive sense that those whose wounds are fresh possess a tendency toward fight-or-flight, while more seasoned sufferers tend to withdraw into freezing.

And so, in our modern clinics, with the Polyvagal Theory in tow, we can perceive our panic patients not only through the lens of the fight-or-flight response, but also in terms

of frozen collapse, while also acknowledging the by-passing of a patient’s social engagement strategy. But if our modalities for treating panic are ancient in origin—like Chinese herbalism—it will be useful for us to know how the ancients saw and treated panic attacks, so that we might incorporate that approach into our modern framework and have it inform our treatments. How were panic attacks described in the early Chinese texts? How were they diagnosed? And how were they treated?

II. Classical Chinese Medical Views of Panic Attacks

是故怵惕思慮者則傷神，神傷則恐懼流淫而不止。因悲哀動中者，竭絕而失生。喜樂者，神憚散而不藏。愁憂者，氣閉塞而不行。盛怒者，迷惑而不治。恐懼者，神蕩憚而不收。

Thus, when there is apprehension and worry, it injures the shen. Injury to the shen leads to the incessant flowing forth of fear and fright. This causes grief to stir within; there will be exhaustion, severing, and loss of life. When one is elated, the shen becomes scared and scattered; it can no longer be stored.

When one is sorrowful, qi becomes impeded and immobilized; it can no longer move freely. When one is enraged, one becomes entranced and bewildered; one can no longer be controlled. When one experiences fear and fright, the shen shakes with dread; it can no longer be gathered.

—Neijing Lingshu, Chapter 8

Fear and Fright

The writers of three of classical Chinese medicine’s core texts—the *Neijing*, *Nanjing*, and *Shanghan zabing lun*—clearly understood both the freeze and fight-or-flight responses described in Polyvagal Theory, and referred to them as 恐 *kong* (translated as “fear” and analogous to freezing) and 驚 *jing* (“fright,” the body’s startle reaction). Let’s begin our exploration with fear.

Chinese physicians categorized fear as one of the five basic human emotions, belonging to the Kidney organ system.⁶¹ Chapter 5 of the *Neijing Suwen* says:

北方生寒，寒生水，水生鹹，鹹生腎。
在志為恐。恐傷腎。

The North direction engenders cold; cold engenders Water; Water engenders salty [flavor]; salty [flavor] engenders the Kidney...Among the emotions, it manifests as fear. Fear harms the Kidney.

The energetic momentum of the Water phase—and, by extension, its *zang*-organ, the Kidney—is downward. Correspondingly, the Kidney governs the body’s lower trunk—the lower abdomen, lumbus, urogenital system, and anus—as well as the feet. The Kidney embodies Winter energy—cold, contraction, inwardness, stillness, storage. The organ is, above all else, in charge of storing *jing*-essence; this is energy in its most condensed form, the body’s “original water.”⁶² The act of securing *jing* is essential to ensuring our individual and collective survival.

Fear arises when we perceive that our survival is threatened. In such a scenario, energy has a tendency to collapse. *Suwen* 39 states:

恐則氣下。
When fear arises, the qi descends.

While a modicum of fear is healthy—it keeps us, of course, from sticking our heads in the tiger cage—an over-abundance of fear can trap the body in a process of descent. This makes intuitive sense: we commonly point to fear’s downward momentum with such scatological turns of phrase as “I was so scared I pissed my pants!” or “That scared the crap out of me!” The storage function of the Kidney becomes overwhelmed by excess

fear, leading to downward leakage. And such a state not only purges our waste products, but it emotionally roots us to the floor, hindering forward momentum (into the active Wood phase). We freeze. We're stuck in winter, our feet blocks of ice.

The character 恐 *kong* consists of the Heart radical and the phonetic 巩 *gong*, an ancient term for “hugging”—in fear, as in frigid weather, we hug ourselves as a form of bracing against the unbearable.⁶³ When this bracing gesture becomes habitual, we can find ourselves becoming paranoid, cynical, and isolated. If we believe the world to be fundamentally unsafe, then we retreat from it, leaving us cold and numb—we have lost touch with the Kidney's internal warmth, its vitalizing seed of yangqi. (*Jing*, after all contains both the body's original yin *and* its original yang.)⁶⁴ Again, *Suwen* 39:

恐則精卻，卻則上焦閉，閉則氣還，還則下焦脹，故氣不行矣。

*When fear arises, the jing retreats. When it retreats, the upper jiao closes. When it closes, then the qi turns back. When it turns back, then the lower jiao becomes distended. Thus, the qi does not move.*⁶⁵

Excessive fear incites a withdrawal process beginning with Kidney essence and ultimately hindering the entire qi dynamic. The Kidney is directly connected to the Lung and Sanjiao, stimulating them to distribute qi. If the Kidney is withdrawn, qi does not flow from the chest, immobilizing the body.

Another avenue for fear to take hold in the body is through Liver Blood deficiency. A paucity of Liver Blood, or an inability of the Liver to properly store the Blood, prevents it

(and its partner the Gallbladder) from fully realizing its role as a dynamic organ of courage and decisive action. *Suwen* 62 says:

血有餘則怒，不足則恐。

When the Blood is in excess, there will be anger.

When it is insufficient, there will be fear.

Fear fills the vacuum created by Wood insufficiency. Blood transports yang (warmth); thus, when Blood is in short supply, yin (cold) reigns. Icy vessels are not a safe abode for the *shen*, which trembles in fear.

And so it is clear that, whether due to a compromised Kidney or Liver, 恐 *kong* “fear” represents the body’s withdrawal into immobilization. The concept of 驚 *jing* “fright” adds a yang component to fear’s yin presentation. Once more, we turn to *Suwen* 39:

驚則氣亂。

When fright arises, the qi becomes chaotic.

驚則心無所倚，神無所歸，慮無所定，故氣亂矣。

When fright arises, the Heart has nowhere to rest, the shen has nowhere to return to, and one’s worries have nowhere to settle. Thus, the qi becomes chaotic.

Fright is active. It strips the body of the capacity to relax. The alarm system is blaring, and there is nowhere for the mind to feel at ease. The once-reliable rhythms of qi and Blood, yin and yang, are disturbed. Given the nature of fright to create chaos in all directions, we are expanding from the fear domain of the lower *jiao* to incorporate organs such as the Heart, Lung, and Stomach.

The character 驚 *jing* features 馬 *ma* “horse”—the animal corresponding with the Heart organ network.⁶⁶ The horse is a prey animal which evolved an exaggerated startle reflex in response to the threat of predators. Its senses are acute: it possesses a hyper-detailed visual memory and can feel the slightest of vibrations through its hooves, alerting it to the presence of others long before its human rider becomes aware. When a horse feels threatened or overwhelmed, it will “spook”—an eruption of the fight-or-flight response, manifesting with tail-swishing, sweating, quivering, widening of the eyes, and head-raising. If not pacified, the episode can progress into bucking, biting, kicking, and sprinting away. Like the flame of a wax candle nearing the end of its wick, the horse rages against the threat of extinguishment.

In his battlefield masterpiece *All Quiet On the Western Front*, Erich Maria Remarque writes of the panicked cries of the wounded and traumatized horses: “It's unendurable. It is the moaning of the world, it is the martyred creation, wild with anguish, filled with terror, and groaning.” When the surviving soldiers try to shoot the horses to bring cessation to their suffering, they have difficulty containing the raging animals: “The men cannot overtake the wild beasts which fly in their pain, their open mouths full of anguish.”⁶⁷ While a wild tiger might connote “fight,” and a nervous rodent “flight,” the horse embodies both; thus, the character 驚 *jing* perfectly captures this component of panic. In a panic attack, the horse is bucking and braying wildly in our bellies, our chests, our minds.

The movement of fright might be chaotic, but the tendency of that chaos is to move upward.⁶⁸ *Suwen* 47 provides an example of fright’s ascending nature. In that chapter, Huangdi asks Qibo to elaborate on those diseases which feature “peak illness from birth onward.” “Peak illness” is a congenital condition of the head/mind—the “peak” of the body—which can manifest with epilepsy, mania, depression, and fright. Qibo answers Huangdi’s query thusly:

歧伯曰：病名為胎病，此得之在母腹中時，其母有所大驚，氣上而不下，精氣并居，故令子發為巔疾也。

Qibo said: The name of the disease is fetal disease. This is acquired during one’s time in the mother’s abdomen. When the mother experiences a great fright, the qi ascends and does not descend. The [mother’s] jing stays together with the qi [such that it cannot nourish the fetus]. This is how a child develops peak illness.

In this case, the mother’s episode of fright propels the qi upward; *jing* follows, depriving the growing fetus. This child will lack the proper Kidney essence to develop the psycho-emotional capacities necessary to successfully navigate the world—he or she will develop mental illness.⁶⁹

And so, between the concepts of fear and fright, the ancients covered the two primitive panic responses: freeze (fear, *kong*) on the one hand and fight-or-flight (fright, *jing*) on the other. To provide a classical example of how fear and fright can create problems for the sufferer, we can turn to *Suwen* 24, which reads:

形數驚恐，經絡不通，病生於不仁，治之以按摩醪藥。

When fright and fear frequently manifest, the channels and collaterals cease to flow. Disease emerges in the form of paresthesia. To treat it, use massage and medicinal wines.

In this case, fright and fear have jumbled flow to such an extent that the body has lost normal sensation. We see such a phenomenon in panic sufferers whose extremities or faces go numb when they are triggered. Massage (specifically, the *Anmo* pressing-rubbing technique) and wines are recommended to re-invigorate the flow of Blood and qi. Commenting on this line, Zhang Jiebin says: “Fright brings the qi in disorder, fear causes the qi to descend. In case of repeated fright and fear, qi and blood are dispersed in disorder and the conduits and network [vessels] become impenetrable. Hence one suffers from numbness.”⁷⁰

Indeed, these two inner states of fear and fright represent the two directional responses of panic attacks: downward and inward on the one hand (manifesting in states of immobility, dissociation, social withdrawal, confusion, digestive collapse), and chaotically upward on the other hand (up-rushing sensations, chest discomfort, dizziness, nausea, sweating). Fear connotes an inner milieu of deficiency (whether of the Kidney or of Liver Blood) and chronicity, while fright suggests abrupt episodes of reactivity. Over time, panic wears down the body. *Lingshu* 8 states:

恐懼而不解則傷精，精傷則骨痠痿厥，精時自下。

When fear and dread go unresolved, it injures the jing-essence. Injury to the jing causes aching and atrophy of the bones, and reversal. The jing will descend frequently and spontaneously.

Panic eventually erodes the strength of the Kidney, leaving the bones to wither and the essence to leak away. Let’s continue our investigation by taking a closer look at how fear and fright specifically relate to the Kidney organ.

Water Piggies: The Kidney

Instinctively, pigs are herd animals and prey animals, so when they're scared, they run and when I say run, they run fast to get as far away as possible from whatever has frightened them. They can cover a lot of surface area when they're running, so if you have a new pig, you want to put them down in secured areas...

—From a blog post called “New Pig Parents”⁷¹

The ancients captured the inner chaos of panic attacks in a memorable name: 奔豚 *bentun* “running piglet.” This term surfaces with a single citation in the *Neijing Lingshu*. Chapter 4 of the *Lingshu* states:

腎脈急甚為骨癩疾，微急為沉厥奔豚，足不收，不得前後。
An extremely urgent Kidney pulse reflects bone-dian illness. A mildly urgent [Kidney pulse] indicates sinking reversal; running piglet; stiffness of the feet; and retention of urine and stool.

That’s all we get! There is no mention in the *Neijing* of what running piglet *is*, only that it is accompanied by a mildly urgent Kidney pulse. We cannot glean much from this citation. *Nanjing* 56, however, helps flesh out the matter:

腎之積名曰賁豚，發於少腹，上至心下，若豚狀，或上或下無時，久不已，令人喘逆，骨痿少氣，以夏丙丁日得之。何以言之？脾病傳腎，腎當傳心，心以夏適王，王者不受邪，腎復欲還脾，脾不肯受，故留結為積。故知賁豚以夏丙丁日得之。此是五積之要法也。
An accumulation of the Kidney is called ‘running piglet.’ Emerging from the lower abdomen, it ascends to the region below the Heart. Like a piglet, it suddenly moves up and down. It can last a long time, and will lead to panting-counterflow, bone atrophy, and shortness of breath. It is acquired in the summertime, on bing-ding days. Why do I say this? When the Spleen is diseased, it transmits [the disease] to the Kidney, which should then transmit it to the Heart. [However,] the Heart serves as ruler in the summer, and cannot receive it. The Kidney desires to return it to the Spleen, but the Spleen

does not agree to receive it. Thus, it binds in the Kidney, becoming an accumulation. This is how one knows that running piglet is acquired on binging days in the summertime.

From this passage, we can gather that running piglet disorder is related to the Kidney (which makes sense, given that *Suwen* 4 informs us that the animal corresponding with the Kidney is the pig); that the disorder develops in the lower abdomen (the Water region) and rushes upward toward the Heart (the abode of Fire); that it manifests chaotically, like a rambunctious piglet; that it can become chronic; and that it can damage the Lung and bones. We also learn that the disorder results from a Spleen disease which the Kidney has received and has failed to transmit to the next organ on the *ke*-controlling cycle, the Heart. In this scenario, it is the Kidney's relative deficiency which causes the disease to lodge there. This echoes a line from *Lingshu* 10:

氣不足則善恐，心惕惕如人將捕之。

When the qi [of the Kidney channel] is insufficient, it results in a tendency toward fear. The Heart becomes distressed, as if the person were about to be apprehended.

Granted, the focus in this quotation is the channel and not the organ; nevertheless, it is clear that a Kidney weakness is paving the way for fear. We can infer that the fear gives way to upward-surgings qi that disturbs the Heart.⁷² The trajectory of the Kidney channel can help us understand why the Heart becomes entwined in Kidney fright. After traveling up the legs, the channel ascends from the pubic bone alongside the abdominal midline into the chest, ending just beneath the clavicle. Along the way, it connects directly with the Heart organ, the Kidney's Shaoyin partner. Upward-surgings qi in this channel will therefore naturally have an affect on the Heart; this is how running piglet can ensnare the

entire Shaoyin complex. What's more, this segment of the Kidney channel (from pubic bone to chest) is shared with the extraordinary Chongmai. Pathology in the Chong, of course, revolves around counterflow, including emotional upheaval. From an eight extraordinary vessel perspective, the Chong recruits the Kidney channel to express such counterflow.⁷³

The most expansive explication of running piglet disease in our three Han dynasty classics comes from the *Shanghan zabing lun*. The disease is mentioned in seven lines, most prominently in the four lines of chapter 8 of the *Jingui yaolue*, entitled “The Pulses, Patterns, and Treatments of Running Piglet Qi Disease.” The first line of *Jingui* 8 states:

師曰：病有奔豚，有吐膿，有驚怖，有火邪，此四部病，皆從驚發得之。師曰：奔豚病，從少腹起，上衝咽喉，發作欲死，復還止，皆從驚恐得之。

The master says—The diseases of running piglet, vomiting of pus, terror, and fire-evil: these [actually constitute a single] disease with four parts, all of which derive from fright. The master says—Running piglet disease features [a sensation of qi] surging upward from the lower abdomen to the throat, such that one feels as if one is about to die. It is episodic, returning and then stopping. All of this derives from fright and fear.

Here, we finally have running piglet disease explicitly linked to the emotional state of fright. The disease features an upward surging, a deep sense of foreboding, and an intermittent nature—common characteristics of panic attacks. Let's now turn our attention to the Kidney's Shaoyin partner to deepen our understanding of panic attacks.

All Aflutter: The Heart

*Quite collected at cocktail parties,
meanwhile in my head
I'm undergoing open-heart surgery...
The heart, that eyeless beetle,
running panicked through his maze...*

—Anne Sexton, *Red Riding Hood*⁷⁴

All emotional upheaval affects the Heart, but fear and fright seem to have a particularly detrimental effect. *Lingshu* 8 states:

心，怵惕思慮則傷神，神傷則恐懼自失。破膈脫肉，毛悴色天死于冬。

When the Heart is consumed by apprehension and worry, it will injure the shen. Injury to the shen will bring about fear and fright, and the loss of self-possession. The muscles and flesh will deteriorate; the hair will wither; the color will fade away. Death will come in winter.

Panic tears at the fundamental axis of the human body—the core which binds the Heart and the Kidney. In the passage above, the Heart has been compromised by apprehension and worry, disturbing Shaoyin communication and paving the way for fear and fright. The Earth realm is collateral damage in this development (“the muscles and flesh will deteriorate”), since it stands anatomically and theoretically between Fire and Water. The body decays and yin and yang separate.

But long before the condition reaches this extreme, panic can manifest as the simple loss of Heart rhythm. When we are startled, we instinctively clutch our chests and exclaim “My heart skipped a beat!” or “My heart was in my throat!” Panic sends the Heart into overdrive, a state of excitation which expresses itself in the form of palpitation. The

Chinese character for palpitation is 悸 *ji*, which the early dictionary *Shuowen jiezi* defines as “a stirring of the Heart.” Wiseman notes that the term “refers to apprehensive stirring, fearful throbbing, and disquietude in the heart.”⁷⁵ The character carries the connotation of fright; even so, the ancients frequently employed the phrase 驚悸 *jingji* “fright-palpitation” to emphasize the mental-emotional connotation (and perhaps to differentiate such a manifestation from “purely physiological” arrhythmias).

The stirring sensations described in the *Shanghan zabing lun* are often not confined to the anatomical heart; they can manifest throughout the abdomen, from the epigastrium down to the region below the navel, tracing the trajectory of the aorta. The *Neijing* establishes that the Blood vessels are the tissue governed by the Heart organ system; thus, the aortic pulsations described by Zhang Zhongjing reflect a Heart condition even if they reside distal to the physical organ.

One way to understand these tremulous sensations is via the lens of yin (and, by extension, Water) and yang (Fire). The Fire of the upper body should be strong enough to penetrate and transform the Water of the lower body. In health, the sun of the Heart shines down into the ocean of the Kidneys, evaporating the cold waters into qi. But if the Heart is deficient, Kidney Water gains control, accumulating and upwardly encroaching upon the Heart realm. As a result, the Heart (whether the organ itself or its vessels) shudders with panic.

The theme of Heart disturbance arises throughout lines 110-119 of the *Shanghan lun*, which detail transmuted patterns caused by mistreatments using heat. Line 119 distills the information thusly:

太陽傷寒者，加溫針，必驚也。

If, in a case of Taiyang cold damage, one uses a warm needle: there will be fright.

Misuse of fire treatments—warm needles, fuming, moxibustion—represent a form of shock that weakens the Heart. The heat can “fry” the qi and Blood, stressing the nervous system. Moreover, the opening in the flesh created by the warming stimulus might allow for the sudden invasion of exogenous cold in patients with deficient defensive qi (see, for instance, the discussion of Guizhi jia Gui Tang in Part III). Treatment in such cases calls for cinnamon to tonify the weakened Heart and often also requires the inclusion of the minerals Longgu and Muli to gather and settle the *shen*.

When they induce excessive perspiration, fire treatments also represent a loss of Heart essence. Sweat is a body fluid which has been steamed and propelled out of the pores by yangqi. Mutually interchangeable with Blood, sweat is known as the fluid of the Heart. Excessive perspiration thus exhausts Heart yang and depletes Heart Blood, leaving the *shen* unanchored, and paving the way for panic. Therefore, not only can panic cause someone to “break out in a cold sweat,” but sweating itself can provoke panic by depleting the Heart.

A tendency toward Heart vexation and restlessness can serve as the ideal atmosphere for lightning strikes of panic. The term 煩躁 *fanzao* “vexation and restlessness” is found throughout the *Shanghan zhabing lun* to refer to a state of anxiety (煩 *fan*, which features a head on fire) felt in the chest that manifests with physical agitation (躁 *zao*). *Fanzao* can result from a variety of patho-mechanisms, from Stomach accumulation to exterior cold, from qi deficiency to parasites. It might precede or accompany the upward-flowing panic presentations we find with running piglet; thus, Ke Qin referred to *fanzao* as “a prelude to fright and mania.”⁷⁶ On the other hand, we must be discerning: the presence of vexation and restlessness does not invariably presage panic attacks. There are many formula patterns featuring *fanzao* that do not feature fear and fright.

The Heart is sensitive. When it becomes compromised (as in the case of chronic worry mentioned in *Lingshu* 8 or the fire mistreatments of the *Shanghan lun*), it is vulnerable to harmful influences released upwardly from the Kidney or inwardly from the exterior. It bears the shock by palpitating, which disorganizes flow and further unsettles the *shen*. The Heart also absorbs fear and fright expressed by the Liver, whose roles in the panic experience we will now explore.

If I Only Had the Nerve: The Liver

But I am pigeon-liver'd and lack gall.

—William Shakespeare, *Hamlet*⁷⁷

The Liver regulates the quantity of Blood flow in the body.⁷⁸ A healthy Liver—with sufficient Blood flow—promotes courage, the ability to make decisions and step forward

with confidence. We refer to those in possession of such a capacity as “having gall” (the Gallbladder being the Liver’s yang partner) and those without it as being “lily-livered” (that is, having a pale—bloodless—Liver). An excess of Liver Blood, of courage, can manifest with anger; when the Blood is in a state of surplus, we say that “My blood was boiling.” But, as we established earlier, when the Blood is deficient, or the Liver’s capacity to draw it home is insufficient, we are prone to fearful retreat: “My blood ran cold.” Later branches of Chinese medicine might diagnose such a case as a “Gallbladder deficiency”; in classical times, the focus was more on the Liver. Thus, we find the following *Neijing* citations, from *Lingshu* 8 and *Suwen* 22, respectively:

肝藏血，血舍魂，肝氣虛則恐，實則怒。

The Liver stores the Blood, and the Blood houses the hun. When Liver qi is deficient, there will be fear. When it is in excess, there will be anger.

虛則目眈眈無所見，耳無所聞，善恐如人將捕之。

In cases of [Liver] deficiency, the eyes cannot see clearly and the ears cannot hear. There is a tendency toward fear, as if one were about to be apprehended.

On the other hand, when the Liver’s flow is not deficient but merely stagnant, fierce eruptions of fright are prone to occur. The Liver is in charge of “coursing and draining”—that is, ensuring the smooth and uninterrupted flow of the body’s substances. When the qi or Blood stagnates, a robust Liver attempts to push through the impediment, which can result in episodes of violent surges. These are the sorts of panic attacks conventionally linked to soldiers returning from the battlefield. The mind recalls a trauma and the body reacts combatively.

Some classical passages go so far as to classify the Liver as the primary organ of fright.

Suwen 4, for instance, states:

東方青色，入通於肝，開竅於目，藏精於肝，其病發驚駭。

The East direction. The color of cyan. It flows inward to the Liver and opens the orifice of the eyes. It stores jing-essence in the Liver. Its disease is the eruption of fright.

Let's consider a few cases in the *Neijing* that link Liver pathology to fright:

Suwen 32:

熱爭，則狂言及驚，脇滿痛，手足躁，不得安臥。

When [Liver] heat is confronted [by upright qi], there will be deranged speech and fright; fullness and pain of the rib-sides; restlessness of the hands and feet; and inability to achieve peaceful sleep.

Suwen 37:

脾移熱於肝，則為驚衄。

When the Spleen shifts heat into the Liver, there will be fright and nosebleed.

Suwen 43:

肝痺者，夜臥則驚，多飲數小便。

In the case of Liver bi-obstruction, when the patient lies down to sleep at night, she is frightened. She drinks copiously and urinates frequently.

Suwen 48:

肝雍兩脇滿，臥則驚，不得小便。

In the case of Liver congestion, there is fullness of both rib-sides; fright upon lying down to sleep; and inability to pass urine.

The Liver stores the *hun*, the ethereal soul, the yang partner to the yin *po*, the corporeal spirit. Ever active, the *hun* is prone to straying from the body, in the form of dreams, hallucinations, visions. It follows *shen*: “If *shen* is not still, integrated and well-rooted then the *hun* wanders.”⁷⁹ We've established that when the Liver is obstructed from its duty of “coursing and draining,” it attempts to push through the blockage; such friction

creates heat. In each of the above cases, the *hun* responds to this milieu of heat and conflict with fright.⁸⁰ Wang Bing cannot help but conclude: “The liver rules fright. The qi [of liver and fright] correspond to each other.”⁸¹ But why does the Liver trigger the fright response in the above cases, and not anger, which it also governs? Chinese medical physician Brandt Stickley argues that it is a matter of resources: When the Kidney and Liver yin is sufficient, anger has a root from which to spring upward; when it is lacking, eruptions of fright burst forth.⁸² Thus, although the fright response suggests greater Liver strength than the fear response (which points to outright Liver deficiency), there is still deficiency at the root.

The Wood phase corresponds with wind, which represents the paroxysmal nature of panic attacks. When substances stagnate, wind can develop. In the context of Jueyin disease, wind arises out of obstruction due to cold: when the Blood freezes, its motive force is compelled to depart its fluid substrate.⁸³ It frostily whips across and upward to wreak havoc upon the Earth realm, the chest, and the head, disturbing both gut and mind. On the other hand, in Shaoyang disease, which involves the Gallbladder organ, wind arises from a congestion of Ministerial Fire; this condition requires the harmonization of wind and fire via herbs like Chaihu and Huangqin.⁸⁴ In both Jueyin and Shaoyang disease, wind can manifest with temperature dysregulation; discomfort in the chest and rib-side; digestive disturbances; and mental-emotional upset—hallmarks of panic. See the “Harmonizing Wind and Fire” section in Part III for herbal approaches to Wood-type panic.

Collateral Counterflow: The Lung and Stomach

Panic. You open your mouth. Open it so wide your jaws creak. You order your lungs to draw air, NOW, you need air, need it NOW. But your airways ignore you. They collapse, tighten, squeeze, and suddenly you're breathing through a drinking straw. Your mouth closes and your lips purse and all you can manage is a croak... You want to scream. You would if you could. But you have to breathe to scream. Panic.

—Khaled Hosseini, *The Kite Runner*⁸⁵

Both the Lung and Stomach organ systems possess a primary directionality of descent.

The Lung streams qi to the organ systems below, while the Stomach transmits food and fluids down the digestive tract. Thus, pathology of either organ system tends to manifest as upward counterflow: coughing and panting on the one hand, and belching, nausea, and vomiting on the other. Ancient Chinese medical minds recognized how counterflow of these two organ systems can manifest in cases of panic. The *Suwen* presents the following links between respiratory and digestive pathologies and fear and fright.

Suwen 21:

有所驚恐，喘出於肺，淫氣傷心。

In cases of fright and fear, panting emerges from the Lung, and qi overflows to injure the Heart.

Suwen 23:

五氣所病...

胃為氣逆為噦為恐。

When the qi of the five [zang-organs] is diseased...In the Stomach, it causes qi counterflow, digestive reversal, and fear.

Suwen 30:

足陽明之脈，病，惡人與火，聞木音則惕然而驚。

When the foot Yangming [Stomach] vessel is diseased, one has an aversion to other people and to fire; when one hears the sound of wood, one becomes frightened.

Suwen 36:

肺瘧者，令人心寒，寒甚熱，熱間善驚，如有所見者。

Lung malaria causes a person's Heart to feel cold; when it is very cold, it [becomes] heat. When hot, one tends toward fright, as if one had seen [something alarming].

Suwen 45:

陽明厥逆喘欬身熱，善驚衄嘔血。

In Yangming reversal-counterflow, there is panting, coughing, and bodily heat; there is a tendency toward fright, epistaxis, and hemoptysis.

Suwen 64:

澹則病積時善驚。

When [the Yangming vessels] are rough, then the disease is one of accumulation, featuring a tendency toward frequent fright.

Both the Lung and Stomach organs dwell closely to the region of the Heart, so it makes sense that they can easily receive the affects of panic striking the Heart (or transmit diseases that distress the Heart). While the Lung and Stomach were not traditionally classified as primary organs of panic (the Lung is more closely linked with grief, and the Stomach with mania), the above lines make it clear that they can indeed become entangled in fight-flight-freeze dynamics. That certainly aligns with modern findings that respiratory and gastrointestinal disturbances often accompany panic presentations. Traumatized children, for instance, experience fifty times the rate of asthma as their peers,⁸⁶ and studies reveal a strong connection⁸⁶ between panic disorder and asthma in adults.⁸⁷ And, of course, the gut-brain link is clear; modern biomedical research has shown time and again how stress hampers digestion. Chronic activation of the adrenals (fight-or-flight response) and/or dorsal vagus complex (freeze response) is interwoven with an array of digestive maladies, from nausea to irritable bowel syndrome.^{88, 89}

By now we hopefully have a sense of how panic attacks were perceived through the eyes of our Chinese medicine forebears. Next, let's explore classical herbal treatment.

Diagnosis is only the beginning—we must choose the appropriate tools to tame that panicking piglet!

III. *Shanghan zabing lun* Herbal Therapy for Panic Attacks

At root, panic, like any other disease, can be understood as a problem of directionality. There is excessive downwardness and interiorization in the freeze response; and there is chaotic ascent in fright. With fear and fright, there is a tendency for *shen* to become unsettled and for yang to become unmoored and float upward and outward. Some Chinese herbs, being partial by nature, are able to allopathically address the problem by introducing proper directional dynamics—Longgu and Muli, for instance, descend and astringe in cases of excessive upwardness and outwardness. On the other hand, some herbs are chosen to address the root imbalance. Guizhi, as we will soon see, treats Heart yang deficiency underlying pathological upward surging. Thus, it is able to curb ascent despite being pungent.

Whether the individual herbs recommended below are treating the root or branch, the central effect of their formulas is *to create a safe interior space for the person to inhabit*. The panicked person does not feel safe in her body and so the herbalist seeks the best method of restoring a calm, grounded atmosphere in which to reside. Once that milieu is

established, the person can go about the business of cultivating more skillful ways of relating to herself and the world.

A selection of classical Chinese herbal remedies for panic from Zhang Zhongjing's *Shanghan zabing lun* are presented according to the themes below. (Please be aware that these themes are a convenient, if inexact, way for us to present the formulas; Zhang did not categorize his prescriptions in this way.)

- Heart yang deficiency
- Wood disharmony
- Deficiency of yingqi and Blood
- Yin deficiency
- Heat harassing the Heart
- Cold abundance
- Rheum

These formulas are at least a couple millennia in age. Even if we, as practitioners, choose not to employ them in their original forms, the study of their composition and application can guide us in our herbal thinking when treating panic. Each of the formulas is presented with its ingredients, their amounts, and a representative line from the *Shanghan zabing lun* (with *Shanghan lun* quotations abbreviated as *SHL* and *Jingui yaolue* passages as *JGYL*). In addition, brief notes are provided, so as to better differentiate their patterns. Unless otherwise noted, these notes derive from the teachings of Joon Hee Lee, *Shanghan* scholar and practitioner.

Tonifying Heart Yang: Cinnamon

Zhang Zhongjing's presentation of the treatment of panic centers around Guizhi, cinnamon. According to *Shanghan zabing lun* scholar Yoshimasu Todo, the main symptom that Guizhi treats is upward counterflow—when the physiological fire of the Heart fails to descend and penetrate the Water realm, instead leaking upward and outward in the form of anxiety, chest tightness, headache, palpitations, flushing, perspiration, and cold extremities. Line 15 from the *Shanghan lun* supports Todo's assertion; there, Zhang requires the presentation of upward counterflow in cases where Guizhi Tang, the herb's representative formula, is used:

太陽病，下之後，其氣上衝者，可與桂枝湯，方用前法。若不上衝者，不得與之。

*If, in a Taiyang disease, after purgation is used, qi surges upward: one can give Guizhi Tang, according to the previously-mentioned method. If there is no upward surging: one cannot give it.*⁹⁰

The addition of Guizhi as a single-herb modification for upward counterflow further bolsters this line of thought. In chapter 2, line 22 of the *Jingui yaolue*, after presenting Fangji Huangqi Tang, Zhang writes:

氣上衝者加桂枝三分。

For upward-surging qi: add three fen of Guizhi.

Thus, both the single herb and its namesake formula are recommended in the treatment of upward surging. Building on this theme, *Shanghan lun* line 117 (which calls for Guizhi jia Gui Tang) directly links the herb to running piglet:

所以加桂者，以泄奔豚氣也。

The reason for additional Gui[zhi] is to discharge running piglet qi.

Zhang is unequivocally proclaiming Guizhi to be the pre-eminent herb for the counterflow of fright. If we allow for the premise that Guizhi's primary function is the tonification of Heart yang, we can infer that the fright-counterflow found in Guizhi patterns is due to Heart yang deficiency. The Heart—suddenly frozen by trauma—expresses its shock via acute discharges, in the form of panic attacks. In this context, it makes sense to turn to warm and pungent Guizhi to thaw and strengthen the compromised Heart organ system.

From another perspective, we know that Guizhi possesses a Taiyang affinity, given its ubiquity in Taiyang formulas. The Taiyang Bladder channel represents the outer boundary, drawing upon the qi of cold Water to seal the periphery. Therefore, we might understand Guizhi to invigorate the Bladder—the yang of Water—both to summon protective qi (so as to ward off cold, traumatizing influences) and to bring warmth (and thus the transformation of fluids) to a frozen Water realm. Thus, Guizhi might well be addressing the Shaoyin axis by means of its partner conformation, the Taiyang.

On the other hand, if one were desiring to shepherd the warming effects of cinnamon directly to the Kidney, one could substitute Rougui for Guizhi. In fact, at times Zhang simply calls for “Gui,” without specifying whether he is recommending the twig or bark.⁹¹ Guohui Liu cites studies claiming that the Guizhi of Zhang's time was larger and more bark-laden than the modern version—“definitely similar to the [Rougui] we refer to

today, though it was not quite the same.”⁹² So, perhaps Zhang’s Guizhi had more of a Kidney-focused effect than is commonly thought.

Each of the following ten cinnamon-centric formulas can address panic:

- Guizhi jia Gui Tang
- Guizhi jia Longgu Muli Tang
- Guizhi qu Shaoyao Tang
- Guizhi qu Shaoyao jia Shuqi Longgu Muli Tang

- Guizhi Gancao Tang
- Guizhi Gancao Longgu Muli Tang

- Fuling Guizhi Gancao Dazao Tang
- Fuling Guizhi Baizhu Gancao Tang
- Fuling Guizhi Wuwei Gancao Tang
- Fuling Gancao Tang

The first four formulas derive from Guizhi Tang; the core of the middle two formulas is the pairing of Guizhi and Gancao; and the latter four formulas revolve around the important triad of Guizhi, Gancao, and Fuling.

桂枝加桂湯

Guizhi jia Gui Tang

Cinnamon Twig Decoction, with Cinnamon Twig Added

桂枝 Guizhi (*cinnamon twig*) 5 liang
芍藥 Shaoyao (*peony root*) 3 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 3 liang
甘草 Gancao (*licorice root*) 2 liang
大棗 Dazao (*jujube fruit*) 12 pieces

JGYL 8.3

發汗後，燒針令其汗，針處被寒，核起而赤者，必發奔豚，氣從少腹上至心，灸其核上各一壯，與桂枝加桂湯主之。

After the promotion of diaphoresis, fire-needling has caused the patient to perspire [again]. If the needling sites then contract cold, [leading to the formation of] nodules that rise and redden: [this means] running piglet will surely develop. For qi rushing upward from the lower abdomen to the heart: burn one zhuang of moxa atop each of the nodules; giving Guizhi jia Gui Tang governs.

**Line 117 of the Shanghan lun offers an almost identical passage.*

Notes: In the above line, a mistreatment using fire has drained the Heart. Heart yang deficiency paves the way for upward-surgings cold water. Furthermore, the introduction of heat has either (a) allowed for the invasion of exogenous cold, or (b) stirred endogenous cold without properly eradicating it; either way, the patient experiences cold at the surface. This formula seeks to rectify running piglet qi (and simultaneously release the exterior, although moxibustion might accomplish this function on its own) by increasing the amount of Guizhi in Guizhi Tang from 3 to 5 liang. We can employ Guizhi jia Gui Tang in cases of panic attacks featuring severe upward counterflow—headaches, flushing, palpitations, and aortic pulsation. The patient will typically have weak, floating pulse and a thin build. There might be a history of severe burns or drug abuse.

桂枝加龍骨牡蠣湯

Guizhi jia Longgu Muli Tang

Cinnamon Twig Decoction, with the Addition of Fossilized Mammal Bone and Oyster Shell

桂枝 Guizhi (*cinnamon twig*) 3 liang
芍藥 Shaoyao (*peony root*) 3 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 3 liang
甘草 Gancao (*licorice root*) 2 liang
大棗 Dazao (*jujube fruit*) 12 pieces
龍骨 Longgu (*fossilized mammal bone*) 3 liang
牡蠣 Muli (*oyster shell*) 3 liang

JGYL 6.8

夫失精家，少腹弦急，陰頭寒，目眩髮落，脈極虛芤遲，為清穀，亡血，失精。脈得諸芤動微緊，男子失精，女子夢交，桂枝加龍骨牡蠣湯主之。

Patients suffering from seminal emission will experience wiry tension in the lower abdomen; cold of the genital-head; dizziness; and hair loss. If the pulse is extremely deficient, hollow, and slow: this signals [diarrhea with] undigested food, blood-collapse, and seminal emission. In all cases where the pulse is hollow, stirring, and slightly tight: [one can expect] men to experience seminal emission and women to have sexual dreams; Guizhi jia Longgu Muli Tang governs.

Notes: Guizhi jia Longgu Muli is the first of four formulas that combine cinnamon with the two mineral substances “dragon bone” and oyster shell. Here, we are simply adding the minerals to the base of Guizhi Tang. The *Jingui* line focuses on its application in cases of severe deficiency: we are able to draw upon the minerals’ astringency to secure “leakage” in the form of seminal emission, dizziness, alopecia, and diarrhea. (We might also see excessive perspiration and urinary incontinence.) We can recruit this capacity for astringency to draw back the spirit in cases of panic; once the *shen* is returned to its proper abode, the minerals’ heaviness anchors it in place. Thus, Guizhi Tang tonifies Heart yang, while Longgu and Muli settle and secure.

桂枝去芍藥湯

Guizhi qu Shaoyao Tang

Cinnamon Twig Decoction, with Peony Root Removed

桂枝 Guizhi (*cinnamon twig*) 3 liang
甘草 Gancao (*licorice root*) 2 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 3 liang
大棗 Dazao (*jujube fruit*) 12 pieces

SHL 21

太陽病，下之後，脈促，胸滿者，桂枝去芍藥湯主之。

If, after purgation has been used, a Taiyang disease features a hurried pulse and fullness in the chest: Guizhi qu Shaoyao Tang governs.

Notes: By removing Shaoyao from Guizhi Tang, this formula is able to lift the therapeutic focus to the chest. Without the sour, astringent peony, the expansion-contraction balance of Guizhi Tang becomes heavily favored toward expansion. A deficiency of Heart yang is preventing the Heart from expressing outwardly, creating a milieu of excessive interiorization, in the form of panic manifesting with palpitation, tachycardia, tightness and fullness of the chest and neck, and headache. Compared with the first formula we discussed in this section, Guizhi qu Shaoyao Tang is more chest-focused, while Guizhi jia Gui Tang is more appropriate for severe counterflow.

桂枝去芍藥加蜀漆牡蠣龍骨救逆湯

Guizhi qu Shaoyao jia Shuqi Muli Longgu Jiuni Tang

Cinnamon Twig Decoction for Relieving Counterflow, with Peony Root Removed, and Dichroa Leaf, Fossilized Mammal Bone, and Oyster Shell Added

桂枝 Guizhi (*cinnamon twig*) 3 liang
甘草 Gancao (*licorice root*) 2 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 3 liang
大棗 Dazao (*jujube fruit*) 12 pieces
牡蠣 Muli (*oyster shell*) 5 liang
蜀漆 Shuqi (*dichroa leaf*) 3 liang
龍骨 Longgu (*fossilized mammal bone*) 4 liang

SHL 112

傷寒脈浮，醫以火迫劫之，亡陽，必驚狂，起臥不安者，桂枝去芍藥加蜀漆牡蠣龍骨救逆湯主之。

If, in a case of cold damage featuring a floating pulse, the physician uses fire to force [diaphoresis]: yang will collapse, leading to fright and mania, and disquiet whether one is upright or recumbent; Guizhi qu Shaoyao jia Shuqi Muli Longgu Jiuni Tang governs.

**This formula is also featured in Jingui yaolue 16, line 12.*

Notes: Here, we are building upon Guizhi qu Shaoyao Tang, adding the herbs Muli, Longgu, and Shuqi. Again the focus is the chest, but this pattern features a more extreme mental-emotional imbalance. Fire has severely disturbed the flow of qi and Blood, “collapsing” yang. Weak yang floats upward, causing fright, mania, and insomnia. Note the increased dosage of Longgu and Muli, which settle the mind, astringe the spirit, and calm abdominal pulsations. Shuqi is a phlegm-rheum herb; its presence helpfully points to the role of phlegm in Heart disturbances. The herb is commonly omitted by modern practitioners due to its lack of availability, but we can learn from Zhang’s decision to include it.

桂枝甘草湯

Guizhi Gancao Tang

Cinnamon Twig and Licorice Root Decoction

桂枝 Guizhi (*cinnamon twig*) 4 liang
甘草 Gancao (*licorice root*) 2 liang

SHL 64

發汗過多，其人叉手自冒心，心下悸，欲得按者，桂枝甘草湯主之。

After diaphoresis has been strongly induced, the patient’s hands are crossed over the heart. If there are pulsations below the heart, with a desire for pressure: Guizhi Gancao Tang governs.

Notes: One of the simplest of the classical formulas, Guizhi Gancao Tang treats Heart yang deficiency manifesting with palpitations/pulsations. In the line above, the patient’s desire for pressure on her chest suggests a need for external containment in the absence of adequate Heart yang. Note that the Guizhi-Gancao ratio in this formula is 4:2,

compared with Guizhi Tang's 3:2, reflecting a heightened need for yang tonification (but not as drastic as Guizhi jia Gui Tang's 5:2 ratio). Gancao is adept at treating mental urgency, and this function is magnified when the other three Guizhi Tang herbs are removed. There might be chest tightness, sensitivity to stimulation, and a tendency toward constipation.

桂枝甘草龍骨牡蠣湯

Guizhi Gancao Longgu Muli Tang

Cinnamon Twig, Licorice Root, Fossilized Mammal Bone, and Oyster Shell Decoction

桂枝 Guizhi (*cinnamon twig*) 1 liang
甘草 Gancao (*licorice root*) 2 liang
牡蠣 Muli (*oyster shell*) 2 liang
龍骨 Longgu (*fossilized mammal bone*) 2 liang

SHL 118

火逆下之，因燒針煩躁者，桂枝甘草龍骨牡蠣湯主之。

If, after an adverse fire treatment has been administered and purgation has been induced, there is vexation and restlessness due to the fire-needling:

Guizhi Gancao Longgu Muli Tang governs.

Notes: Just as Guizhi Tang and Guizhi qu Shaoyao Tang add Longgu and Muli in cases of increased mental-emotional imbalance, so here we add this pair to the Guizhi Gancao Tang base. “Clinically, this formula is widely applied to fear and fright.”⁹³ There is a Heart yang deficiency with floating yang which requires heavy, astringent herbs to harness and anchor the *shen*. We can look for palpitations and abdominal stirring. Note the smaller dosage of Guizhi in this line, suggesting milder yang deficiency.

茯苓桂枝甘草大棗湯

Fuling Guizhi Gancao Dazao Tang

Poria, Cinnamon Twig, Licorice Root, and Jujube Fruit Decoction

茯苓 Fuling (*poria*) ½ jin
桂枝 Guizhi (*cinnamon twig*) 4 liang
甘草 Gancao (*licorice root*) 2 liang
大棗 Dazao (*jujube fruit*) 15 pieces

**The preparation instructions direct the reader to use 甘瀾水 Ganlanshui (“sweet rippling water”), which is water that has been continuously churned with a ladle.*

SHL 65

發汗後，其人臍下悸者，欲作奔豚，
茯苓桂枝甘草大棗湯主之。

If, after the promotion of diaphoresis, the patient has pulsations below the navel: [it signals] the imminence of running piglet; Fuling Guizhi Gancao Dazao Tang governs.

**An almost identical passage is found in the fourth line of Jingui 8.*

Notes: The triad of Guizhi, Gancao, and Fuling is the theme for the final four formulas in this section. These herbs combine to treat weak Heart yang manifesting with a disturbance in water metabolism. In Ling Gui Cao Zao Tang, Guizhi and Gancao are recommended in the same ratio as Guizhi Gancao Tang (4:2); they combine to tonify Heart yang and moderate urgency. Dazao helps to relax hypertonicity by boosting Spleen qi—the Earth realm is strengthened so as to control Water. Fuling is the formula’s primary herb, given that it is placed first in the formula name and is recommended in a large dosage. Its percolative power drains excess water downward, relieving the Heart. The pattern might feature abnormal urination and, as the line informs us, abdominal pulsation.

茯苓桂枝五味甘草湯

Fuling Guizhi Wuwei Gancao Tang

Poria, Cinnamon Twig, Schizandra Fruit, and Licorice Root Decoction

茯苓 Fuling (*poria*) 4 liang

桂枝 Guizhi (*cinnamon twig*) 4 liang

甘草 Gancao (*licorice root*) 3 liang

五味子 Wuweizi (*schizandra fruit*) ½ sheng

JGYL 12.36

青龍湯下已，多唾口燥，寸脈沉，尺脈微，手足厥逆，氣從小腹上衝胸咽，手足痺，其面翕然熱如醉狀，因復下流陰股，小便難，時復冒者，與茯苓桂枝五味甘草湯，治其氣衝。

When, after ingesting Qinglong Tang, there is copious sputum; a dry mouth; a submerged cun-pulse and faint chi-pulse; reversal-counterflow of the hands and feet; qi surging upward from the lower abdomen to the chest and throat; bi-impediment of the hands and feet; gentle warmth of the face, as is found in the inebriated; and, as a result of flow returning downward into the yin region, difficult urination and episodic foggy-headedness: give Fuling Guizhi Wuwei Gancao Tang to treat the surging of qi.

Notes: In Fuling Guizhi Wuwei Gancao Tang, Fuling and Guizhi are recommended in equal and ample amounts; qi and water surge upward, requiring Heart yang tonification and disinhibition of water. Sour Wuweizi rectifies counterflow by gathering inward. The patient might present with cold of the extremities but warmth of the face; coughing and wheezing; allergies; headache; neck tightness; and brain fog. There might also be urinary dysfunction and abdominal pulsation.

苓桂朮甘湯

Ling Gui Zhu Gan Tang

Poria, Cinnamon Twig, White Atractylodes Rhizome, and Licorice Root Decoction

茯苓 Fuling (*poria*) 4 liang

桂枝 Guizhi (*cinnamon twig*) 3 liang

白朮 Baizhu (*white atractylodes rhizome*) 2 liang

甘草 Gancao (*licorice root*) 2 liang

SHL 67

傷寒，若吐若下後，心下逆滿，氣上衝胸，起則頭眩，脈沉緊，發汗則動經，身為振振搖者，茯苓桂枝白朮甘草湯主之。
If emesis or purgation has already been used in a case of cold damage, and there is counterflow-fullness below the heart; qi surging upward to the chest; dizziness upon rising; and a pulse that is submerged and tight: Fuling Guizhi Baizhu Gancao Tang governs. If diaphoresis were promoted [instead]: the channels would be stirred and the body would tremble.

**This formula is also found in lines 16 and 17 of chapter 12 of the Jingui yaolue. It warrants mentioning that line 16 calls for 3 liang of Baizhu, while SHL 67 recommends 2 liang of the herb.*

Notes: Ling Gui Zhu Gan Tang is renowned for treating dizziness due to phlegm-rheum collecting in the epigastrium. The pattern features epigastric *pi*-glomus, abdominal fullness and bloating, aortic pulsation, palpitations, shortness of breath, urinary issues, and, of course, upward surging. The formula strengthens Heart yang, dries the Spleen, and percolates dampness.

茯苓甘草湯

Fuling Gancao Tang

Poria and Licorice Root Decoction

茯苓 Fuling (*poria*) 2 liang
桂枝 Guizhi (*cinnamon twig*) 2 liang
甘草 Gancao (*licorice root*) 1 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 3 liang

SHL 356

傷寒，厥而心下悸，宜先治水，當服茯苓甘草湯，卻治其厥。不爾，水漬入胃，必作利也。

When a case of cold damage features reversal and pulsations below the heart: it is appropriate to first treat the water; one should give Fuling Gancao Tang. Only then can one treat the reversal. If it is not [treated] in such a way: the water will soak into the stomach, causing diarrhea.

**This formula is also found in line 73 of the Shanghan lun.*

Notes: Fuling Gancao Tang combines our triad of Guizhi, Gancao, and Fuling with a relatively large dose of fresh ginger. This formula treats cold-rheum accumulating in the middle *jiao* due to Heart and Spleen yang deficiency. Employing this formula in cases of panic would require the presentation of digestive reversal, in the form of nausea, vomiting, and/or belching. We can also look for abdominal distention, aortic pulsation, palpitations, anxiety, and an absence of thirst.

Harmonizing Wind and Fire: Shaoyang and Jueyin

Shaoyang disharmony assumes some combination of deficiency and excess—qi and Blood are weak, which leads to sluggishness of circulation and ultimately to a congestion that combusts into flames. This combination of *xu* and *shi* is implied by the constituents of Shaoyang’s representative formula, Xiao Chaihu Tang, which features a medley of clearing and tonifying herbs. In Shaoyang disease, stagnation occurs in the lateral zones of the body (along the Gallbladder and Sanjiao channels), affecting the body’s “pivot mechanism,” resulting in temperature dysregulation, rib-side distress, digestive disturbances, lymphatic congestion, and a scorching of the orifices of the head (which can manifest as dizziness, dry mouth and throat, and ear issues). The herbalist must dredge the qi pathways and re-introduce proper circulation. While we can consider a number of Chaihu formulas in the context of panic attacks—including Xiao Chaihu Tang; Chaihu Guizhi Tang; Chaihu Guizhi Ganjiang Tang; and Sini San—the main approach is Chaihu jia Longgu Muli Tang:

柴胡加龍骨牡蠣湯

Chaihu jia Longgu Muli Tang

Bupleurum Root Decoction, with Fossilized Mammal Bone and Oyster Shell Added

柴胡 Chaihu (*bupleurum root*) 4 liang
龍骨 Longgu (*fossilized mammal bone*) 1½ liang
黃芩 Huangqin (*scutellaria root*) 1½ liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 1½ liang
鉛丹 Qiandan (*minium*) 1½ liang
人參 Renshen (*ginseng root*) 1½ liang
桂枝 Guizhi (*cinnamon twig*) 1½ liang
茯苓 Fuling (*poria*) 1½ liang
半夏 Banxia (*pinellia rhizome*) 2½ ge
大黃 Dahuang (*rhubarb root & rhizome*) 2 liang
牡蠣 Muli (*oyster shell*) 1½ liang
大棗 Dazao (*jujube fruit*) 6 pieces

SHL 107:

傷寒八九日，下之，胸滿煩驚，小便不利，讖語，
一身盡重，不可轉側者，柴胡加龍骨牡蠣湯主之。

*By the eighth or ninth day of a case of cold damage, purgation has been used.
If there is fullness in the chest; vexation and fright; abnormal urination;
delirious speech; and heaviness of the entire body that makes it difficult to
turn to the sides: Chaihu jia Longgu Muli Tang governs.*

Notes: In this formula, we find Xiao Chaihu Tang (minus Gancao) with the addition of Longgu and Muli (our pairing for settling fright); Guizhi and Fuling (our pairing for upward surging and impaired water metabolism due to Heart yang deficiency); Dahuang (for accumulation); and Qiandan (to calm the Mind). We can look for the typical Chaihu presentation (rib-side distress, irritability, nausea, etc.) as well as anxiety and depression, pulsations/palpitations, and constipation. This formula is very popular in Japan for all manner of psycho-emotional issues. Modern practitioners typically omit Qiandan for its toxicity.

The main presentation of Jueyin disease features a state in which yin and yang, hot and cold, are not well-mixed, often resulting in the condition of heat above and cold below. There is thirst, abdominal pain, temperature dysregulation, loss of appetite, diarrhea, and,

of course, “qi upwardly striking the Heart” (to quote *SHL* 326). This environment is ripe for Wood-type panic, where fear and fright derive from Liver deficiency and congestion occurring at a deeper level than Shaoyang pathologies. Wumei Wan and Bentun Tang represent two herbal approaches to such patterns:

烏梅丸

Wumei Wan

Mume Fruit Pill

烏梅 Wumei (*mume fruit*) 300 pieces
細辛 Xixin (*asarum*) 6 liang
乾薑 Gan Jiang (*dried ginger rhizome*) 10 liang
黃連 Huanglian (*coptis rhizome*) 16 liang
當歸 Danggui (*angelica sinensis root*) 4 liang
附子 Fuzi (*aconite accessory root*) 6 liang
蜀椒 Shujiao (*Sichuan pepper*) 4 liang
桂枝 Guizhi (*cinnamon twig*) 6 liang
人參 Renshen (*ginseng root*) 6 liang
黃蘗 Huangbai (*phellodendron root bark*) 6 liang

**The preparation instructions direct the reader to mix the ingredients with 蜜 Mi (honey) to form pills.*

SHL 338

今病者靜，而復時煩者，此為藏寒。虯上入其膈，故煩，須與復止，得食而嘔，又煩者，虯聞食臭出，其人常自吐虯。虯厥者，烏梅丸主之。又主久利。

...When the disease features periods of peace punctuated by bouts of vexation: it signals that cold in the zang-organs [is causing] roundworms to ascend into the region of diaphragm, which results in vexation. Wait a while and it will cease. If, upon eating, there is nausea and increased vexation: [it means] the roundworms are smelling the malodor of food and ascending; the patient will experience frequent, unprompted vomiting of roundworms. For roundworm-reversal: Wumei Wan governs. It also treats chronic diarrhea.

**This formula is also found in JGYL 19.8.*

Notes: Wumei Wan treats “roundworm-reversal,” a form of Liver-Stomach disharmony marked by paroxysmal vexation and digestive upset. Beyond the context of parasitism,

we might apply this pattern to the presentation of Liver-type panic poking at the Earth realm. We should look for Jueyin Wood-wind disturbances that lead to heat in the upper body and cold below; nausea and diarrhea; dizziness; and qi periodically, upwardly surging to the chest. Huanglian and Huangbai strongly clear heat and descend, while six warm-to-hot and pungent herbs expel cold and bring warmth to the organs and the Blood; Renshen, meanwhile, secures the center. The eponymous herb homes to the Liver via its sourness and “stuns” parasites (and by extension “wind,” in the form of nervous system agitation).

奔豚湯

Bentun Tang

Running Piglet Decoction

甘草 Ganco (*licorice root*) 2 liang
芎藭 Xiongqiong (*Sichuan lovage root*) 2 liang
當歸 Danggui (*angelica sinensis root*) 2 liang
半夏 Banxia (*pinellia rhizome*) 4 liang
黃芩 Huangqin (*scutellaria root*) 2 liang
生葛 Sheng Ge (*raw kudzu root*) 5 liang
芍藥 Shaoyao (*peony root*) 2 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 4 liang
甘李根白皮 Ganligenbaipi (*white bark of the plum root*) 1 sheng

JGYL 8.2

奔豚氣上衝胸，腹痛，往來寒熱，奔豚湯主之。

When a case of running piglet features qi surging upward to the chest, abdominal pain, and alternating episodes of cold and heat: Bentun Tang governs.

Notes: Here we find the blood-tonifying triad of Danggui, Chuangxiong (referred to here by its ancient name of Xiongqiong), and Shaoyao—this brings to mind the role of Liver Blood deficiency in the engenderment of fearfulness. Additionally, the formula features a

collection of herbs to address both heat and cold-rheum disturbing the Heart: the Shaoyang herb Huangqin cools and clears; Gegen cools and raises the fluids (alleviating thirst and diarrhea); and Banxia and Sheng Jiang transform cold-rheum. Lastly, there is a large helping of bitter, cold Ligenpi (plum root bark), which is typically substituted with Sangbaipi (mulberry root bark) in the modern clinic. Wiseman contends that Ligenpi was originally included “to downbear running piglet qi and is the chief medicinal of the formula.”⁹⁴

Supplementing Yingqi and Blood

Depletion of the middle *jiao*—the source of postnatal qi and Blood—leaves the core of the body vulnerable to fear and fright. The qi- and Blood-deficient patient is prone to startling, fatigue, and palpitations. The formulas below nourish the center—the Spleen, Stomach, and Liver, in particular—thus fortifying the body against eruptions of panic.

小建中湯

Xiao Jianzhong Tang

Minor Decoction to Establish the Center

桂枝 Guizhi (*cinnamon twig*) 3 liang
甘草 Gancao (*licorice root*) 2 liang
大棗 Dazao (*jujube fruit*) 12 pieces
芍藥 Shaoyao (*peony root*) 6 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 3 liang
膠飴 Jiaoyi (*maltose*) 1 sheng

SHL 102

傷寒二三日，心中悸而煩者，小建中湯主之。

If, by the second or third day of a case of cold damage, there are palpitations and vexation in the heart: Xiao Jianzhong Tang governs.

**This formula is also found in SHL 100, and JGYL 6.13, 15.22, and 22.18.*

Notes: Another Guizhi Tang modification, Xiao Jianzhong Tang brings the focus to a deficient middle *jiao* by doubling the amount of Shaoyao and adding a helping of sweet, warm maltose. Xiao Jianzhong Tang simultaneously combines pungent and sweet flavors to benefit yang—stoking the physiological fire of the center—and sour and sweet flavors to benefit yin—in this case, strengthening the nutritive. The formula pattern features anxiety and palpitations; abdominal hypertonicity and pain; muscle spasms; weakness; loss of appetite; thirst for warm fluids; pallor of the face, lips, tongue, and nails; epistaxis; and a thin, slack, wiry pulse. The formula can easily be modified to focus on qi by adding Huangqi or on Blood by introducing Danggui.

甘麥大棗湯

Gan Mai Dazao Tang

Licorice Root, Wheat Berry, and Jujube Fruit Decoction

甘草 Gancao (*licorice root*) 3 liang
小麥 Xiaomai (*wheat berry*) 1 sheng
大棗 Dazao (*jujube fruit*) 10 pieces

JGYL 22.6

婦人藏躁，喜悲傷，欲哭象如神靈所作，數欠伸，甘麥大棗湯主之。

When a case of women's zang-organ restlessness features a tendency toward grief and a desire to weep, as if spiritually possessed, with frequent yawning and stretching: Gan Mai Dazao Tang governs.

Notes: The above line calls to mind *JGYL 11.12*: “When [abrupt episodes of] pathological crying disturb the *hun* and *po*, [it means] the Blood and qi are scant.” Gan Mai Dazao Tang addresses such emotional upheaval by tonifying the *ying*-nutritive of the Spleen and containing floating yang. It bolsters the Spleen with licorice and jujube so the organ can properly produce Blood, which serves as home to the spirit. As for wheat, the

Suwen links it to the Liver in chapter 4 and to the Heart in chapter 70. The grain's role in this formula is to astringe: "It is utilized here to control the dispersal of the ethereal and corporal souls."⁹⁵ The patient might exhibit anxiety, palpitations, insomnia, and night-sweating.

酸棗仁湯

Suanzaoren Tang

Sour Jujube Seed Decoction

酸棗仁 Suanzaoren (*sour jujube seed*) 2 sheng
甘草 Gancào (*licorice root*) 1 liang
知母 Zhimu (*anemarrhena rhizome*) 2 liang
茯苓 Fuling (*poria*) 2 liang
芎藭 Xiongqiong (*Sichuan lovage root*) 2 liang

JGYL 6.17

虛勞虛煩不得眠，酸棗仁湯主之。

For deficiency-taxation and deficiency-vexation with insomnia: Suanzaoren Tang governs.

Notes: Suanzaoren Tang is renowned for treating neurotic insomnia stemming from Liver dysfunction. Gathering and tonifying, sour jujube seed nourishes Liver Blood and reins in the wandering *hun*. Meanwhile, Zhimu clears heat and generates fluids; Chuanxiong brings warmth and movement to the Blood; Fuling rectifies water metabolism and calms the Heart; and Gancào harmonizes these actions. The formula thus moistens the Liver and tonifies Blood, courses qi and Blood, and clears constrained heat. The patient might exhibit exhaustion, irritability, night-sweating, palpitations, and dryness.

Nourishing Yin: Rehmannia and Lily Bulb

When the yin of the Heart, Liver, and/or Kidney is depleted, yang will tend to become untethered and float upward, bringing chaos to the mind/spirit. In such a case, panic tends to manifest with heat and dryness. It should be noted that Zhang Zhongjing did not write much about yin; his text mainly focused on the state of yang. Nevertheless, we can deduce from the nature of the herbs and the context of their formula lines that Dihuang and Baihe were his primary herbs for yin deficiency leading to fright.

炙甘草湯

Zhi Gancao Tang

Honey-Fried Licorice Root Decoction

甘草 Gancao (*licorice root*) 4 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 3 liang
人參 Renshen (*ginseng root*) 2 liang
生地黃 Sheng Dihuang (*fresh rehmannia root*) 1 jin
桂枝 Guizhi (*cinnamon twig*) 3 liang
阿膠 Ejiao (*donkey-hide gelatin*) 2 liang
麥門冬 Maimendong (*ophiopogon tuber*) ½ sheng
麻仁 Maren (*hemp seed*) ½ sheng
大棗 Dazao (*jujube fruit*) 30 pieces

SHL 177

傷寒，脈結代，心動悸，炙甘草湯主之。

When, in a case of cold damage, the pulse is knotted and skipping, and there are heart-stirring palpitations: Zhi Gancao Tang governs.

**This formula is also found in chapters 6 and 7 of the Jingui yaolue.*

Notes: In a sense, this formula, like Guizhi qu Shaoyao jia Shuqi Longgu Muli Tang, is building upon a base of Guizhi qu Shaoyao Tang. It adds a quartet of nourishing herbs—ginseng, rehmannia, donkey gelatin, and ophiopogon—as well as the vessel-moistening hemp seed (although some claim “Maren” actually refers to Heizhima—black sesame

seed—which is more substantiating). An “herbal yin transfusion,” the formula serves as the prototype for palpitations due to yin deficiency. The practitioner must ensure that the patient possesses enough yang to digest this thick formula.

百合地黄湯

Baihe Dihuang Tang

Lily Bulb and Fresh Rehmannia Root Juice Decoction

百合 Baihe (*lily bulb*) 7 pieces
生地黄汁 Sheng Dihuang Zhi (*juice of the fresh rehmannia root*) 1 sheng

JGYL 3.5

百合病不經吐下發汗，病形如初者，百合地黄湯主之。

If, in a hundred-union disease, neither emesis, nor purgation, nor diaphoresis has regulated the condition, and the expression of the disease is as it was in the beginning: Baihe Dihuang Tang governs.

Notes: Baihe Dihuang Tang serves as the representative formula in a series of lily bulb-based decoctions found in *Jingui 3*. These formulas treat Baihe disease, a mental-emotional imbalance resulting from the demise of the yin of the chest. Lily bulb moistens and cools the Heart and Lung, calming the *shen*. In the above formula, it is paired with Dihuang to cool the heat in the Blood and further enrich the yin fluids. Variations of this formula pair Baihe with Zhimu (anemarrhena rhizome), Jizihuang (egg yolk), Huashi (talcum), and Daizheshi (hematite).

Draining Heat and Cooling: Gardenia and Coptis

Cold and bitter, Zhizi and Huanglian are core herbs to relieve the Heart of distressing heat. The two formulas below are representative methods of employing these two herbs.

梔子豉湯

Zhizi Chi Tang

Gardenia Fruit and Fermented Soybean Decoction

梔子 Zhizi (*gardenia fruit*) 14 pieces

香豉 Xiangchi (*fermented soybean*) 4 ge

SHL 76

發汗吐下後，虛煩不得眠，若劇者，必反覆顛倒，心中懊懣，梔子豉湯主之。若少氣者，梔子甘草豉湯主之。若嘔者，梔子生薑豉湯主之。

...After the promotion of diaphoresis, and vomiting and diarrhea, there will be deficiency-vexation with insomnia. If the condition is severe: there will be tossing and turning, and anguish within the heart; Zhizi Chi Tang governs. If there is weak breathing: Zhizi Gancao Chi Tang governs. If there is nausea: Zhizi Sheng Jiang Chi Tang governs.

**This formula is also found in lines SHL 77, 78, 221, 228, 375, and JGYL 17.44.*

Notes: Zhizi Chi Tang eliminates constrained heat in the chest which afflicts the Heart with severe vexation, restlessness, and insomnia. The chest obstruction should be “formless”—that is, entirely subjective, without palpable signs of accumulation. The formula directs heat downward with bitter, cold Zhizi, and outward with cooling, venting Dandouchi. Given its proficiency in treating damp-heat in the Liver rising to harass the Heart, Zhizi Chi Tang and its derivative formulas might prove effective for those panic sufferers with a history of alcoholism. We can also look for an aversion to heat; sweating from the head; hunger with difficulty actually eating; and a red-tipped tongue with yellow coating.

黃連阿膠湯

Huanglian Ejiao Tang

Coptis Rhizome and Donkey-Hide Gelatin Decoction

黃連 Huanglian (*coptis rhizome*) 4 liang
黃芩 Huangqin (*scutellaria root*) 2 liang
芍藥 Shaoyao (*peony root*) 2 liang
鷄子黃 Jizihuang (*egg yolk*) 2 pieces
阿膠 Ejiao (*donkey-hide gelatin*) 3 liang

SHL 303

少陰病，得之二三日以上，心中煩，不得臥，
黃連阿膠湯主之。

When, in a Shaoyin disease acquired two or three days ago or more, there is vexation in the heart with insomnia: Huanglian Ejiao governs.

Notes: This formula treats cases of heat disturbing the Heart-Kidney relationship by reducing fire and nourishing yin. Huanglian and Huangqin strongly cool and descend; Jizihuang and Ejiao augment the Blood and yin; and Shaoyao—bitter, sour, and cool—performs both functions, cooling and nourishing. The formula helps Heart fire to properly descend into a stable Kidney yin. We can look for anxiety and palpitations; disturbed sleep; epigastric *pi*-glomus; oral canker sores; a thin, rapid pulse; and a red tongue with minimal coating.

Warming and Dispersing Interior Cold: Aconite and Evodia

Abundant cold both derives from and paves the way for the freezing response of trauma. Yang withdraws and the body becomes a tundra of dissociation. The use of hot herbs like Fuzi and Gan Jiang (for Kidney cold) and Wuzhuyu (for Liver and Stomach cold) can help thaw this icy inner landscape, so that its frozen fragments might be re-integrated into a coherent, secure sense of self.

乾薑附子湯

Gan Jiang Fuzi Tang

Dried Ginger Rhizome and Aconite Accessory Root Decoction

乾薑 Gan Jiang (*dried ginger rhizome*) 1 liang

附子 Fuzi (*aconite accessory root*) 1 piece

SHL 61

下之後，復發汗，晝日煩躁不得眠，夜而安靜，不嘔不渴，無表證，脈沉微，身無大熱者，乾薑附子湯主之。

After purgation has been promoted, diaphoresis is then induced. In the daytime, [the patient] experiences vexation and restlessness, with inability to sleep, but by night there is quiescence. There is neither nausea, nor thirst, nor any exterior signs. If the pulse is submerged and faint, and the body has no great heat: Gan Jiang Fuzi Tang governs.

Notes: Despite the prominent role of Kidney deficiency in the *Neijing* and *Nanjing* descriptions of panic, Zhang Zhongjing does not explicitly link Kidney deficiency to fear and fright. (However, in the cinnamon section, we did explore an interpretation of Guizhi as a stimulant for the Water realm.) Nevertheless, if a panic attack patient were to experience a Kidney yang deficiency at the root, one could straightforwardly tonify Kidney yang, as in Gan Jiang Fuzi Tang. In this formula pattern, the body's debilitated yang gets some assistance from the yang inherent in daytime, but rather than bringing harmony, it causes irritation; by night, yin consumes the person. We should look for loose stool, subjective cold, and fatigue. If yang begins to stray upward, flushing the face, we can consider adding Congbai (scallion white), creating Bai Tong Tang ("Scallion White Decoction for Connecting [Yin and Yang]").

吳茱萸湯

Wuzhuyu Tang

Evodia Fruit Decoction

吳茱萸 Wuzhuyu (*evodia fruit*) 1 sheng
人參 Renshen (*ginseng root*) 3 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 6 liang
大棗 Dazao (*jujube fruit*) 12 pieces

SHL 309

少陰病，吐利，手足厥冷，煩躁欲死者，吳茱萸湯主之。

When a Shaoyin disease features vomiting and diarrhea; reversal-cold of the hands and feet; and vexation and restlessness [that is so severe that the patient feels as if] she is about to die: Wuzhuyu Tang governs.

**Note that this formula is also found in lines SHL 243 and 378, as well as JGYL 17.8 and 17.9*

Notes: Wuzhuyu Tang addresses counterflow due to cold in the Liver and Stomach resulting in migraine, nausea, and psychoneurosis. Wuzhuyu warms the Jueyin Liver channel (which reaches the vertex) and downbears counterflow; Renshen and Dazao tonify the Earth realm to which the Wood is transferring pathology; and a large dosage of Sheng Jiang disperses cold fluid from the Stomach.

Warming and Transforming Rheum: Pinellia and Ginger

Zhang Zhongjing recognized rheum—cold, devitalized fluid—as a substance that can manifest as both the cause and the result of mental-emotional instability. On the one hand, rheum develops from inadequate Earth, which is not properly transforming and transporting. Viscous liquid tends to make its way from the digestive center to the chest; once there, it can muddy the clear radiance of the Heart. On the other hand, emotional chaos can impede the proper flow of qi and Blood, which will eventually vitiate the fluids. Chapter 12 of the *Jingui*, which focuses on rheum, emphasizes the use of warm

and pungent herbs to transform pernicious water. The main classical combination for such cases was Banxia (pinellia rhizome) and Jiang (ginger rhizome, whether dried or fresh). (Note that Ling Gui Zhu Gan Tang and Ling Gui Wuwei Gancao Tang, which reside in the cinnamon section above, are both found in *Jingui* 12, and could easily be placed in this section.)

半夏厚朴湯

Banxia Houpo Tang

Pinellia Rhizome and Magnolia Bark Decoction

半夏 Banxia (*pinellia rhizome*) 1 sheng
厚朴 Houpo (*magnolia bark*) 3 liang
茯苓 Fuling (*poria*) 4 liang
生薑 Sheng Jiang (*fresh ginger rhizome*) 5 liang
乾蘇葉 Gan Suye (*dried perilla leaf*) 2 liang

JGYL 22.5

婦人咽中如有炙臠，半夏厚朴湯主之。

When a woman feels as if there were a piece of broiled meat [lodged] in her throat: Banxia Houpo Tang governs.

Notes: Recommended in the “Women’s Miscellaneous Diseases” chapter of the *Jingui* for the phenomenon that would later become known as 梅核氣 *meihe qi* “plumpit qi”—globus hystericus in Western psychological terms—this formula treats cases of phlegm-rheum with emotional disturbance. On plumpit qi, Wu Jian writes: “This disorder derives from the knotting of qi and the condensing of the liquids by the seven emotions.”⁹⁶ The formula relaxes esophageal constriction by rectifying water metabolism. It reaches up to throat to relieve qi constraint (via Suye); warms and transforms phlegm-rheum and cold water (Banxia, Houpo, and Sheng Jiang); descends through the Yangming (Houpo and Banxia); and percolates downward and outward (Fuling).

甘草瀉心湯

Gancao Xiexin Tang

Licorice Root Decoction to Drain [the Region Below] the Heart

甘草 Gancao (*licorice root*) 4 liang
黃芩 Huangqin (*scutellaria root*) 3 liang
人參 Renshen (*ginseng root*) 3 liang
乾薑 Gan Jiang (*dried ginger rhizome*) 3 liang
黃連 Huanglian (*coptis rhizome*) 1 liang
大棗 Dazao (*jujube fruit*) 12 pieces
半夏 Banxia (*pinellia rhizome*) ½ sheng

SHL 158

穀不化，腹中雷鳴，心下痞硬而滿，乾嘔，心煩不得安。

Food is not transformed, [leading to] thunderous rumbling in the abdomen; a hard pi-glomus and fullness below the heart; dry heaves; and heart-vexation that cannot be pacified.

**This formula is also found in JGYL 3.10. Note that the Shanghan lun passage does not include Renshen in its list of ingredients, while the Jingui line does include the herb.*

Notes: This formula is a slight variation of Banxia Xiexin Tang, with an emphasis on mental-emotional urgency—thus the need for additional Heart- and Spleen-soothing licorice. The Banxia Xiexin Tang presentation features a mixture of excess and deficiency, heat and cold. Banxia and Gan Jiang transform the cold phlegm-rheum creating the obstruction at the center of the system. Huangqin and Huanglian cool and drain heat accumulating in the upper digestive tract, while the remaining three herbs treat the root of Spleen deficiency.

A Note on Minerals

Above, we have seen the medicinals Longgu (fossilized mammal bone), Muli (oyster shell), Qiandan (lead), Huashi (talcum), and Daizheshe (hematite) used as components of

panic-relieving formulas. Minerals possess an extraordinary ability to descend—a capacity which we can recruit in cases of upward-surg-ing panic. These heavy substances help to return the spirit, to anchor and calm. They also typically clear heat. The representative classical mineral formula might be Fengyin Tang, which consists of eight stone medicinals, for cases of epilepsy due to heat (see *JGYL* 5.3). Daoist priest and Chinese medicine teacher Jeffrey Yuen sees stones as treating the *jing*- or *yuan*-level of the person, helping her to make contact with her “curriculum”—her purpose in this lifetime. Stones are living events, evolving beings. Possessing a lifetime far longer than that of the human being, they assist us in tapping into our deeper, more enduring patterns.

Over the centuries, minerals have largely been phased out of our Chinese herbal formulas, often with good reason—many, like lead and cinnabar, are toxic. It might behoove us, however, to explore creative ways of incorporating such medicinals. Leslie Franks’s text *Stone Medicine*, which catalogues the internal and external applications of minerals, is an important step in this direction. Even if we exclude certain toxic minerals from our formula prescriptions, we can still apply those very substances via non-ingestive methods—for example, by taping them to channels; having patients wear them as pendants; or scraping them on the skin, *a la* guasha. Alternatively, we can share their charge with quartz crystals (which are known as “enhancers”), and then use those quartz crystals in elixirs or on the body. The quartz serves as a mediator, so that the patient is receiving the therapeutic effect of the medicinal stone without engaging it directly. In this way, we can “complete” our formulas—like, say, Chaihu jia Longgu Muli, which includes lead—while ensuring the safety of the patient.

In Conclusion

In researching the freeze and fight-or-flight responses from both a modern biomedical and classical Chinese medical perspective, I've come to view freezing as the more fundamental phenomenon. Fear is one of the five basic emotions in Chinese medicine, while fright is not. Freezing creates a pathway for fright—we see this in the amygdala's freezing of images to form the implicit memories that trigger fight-or-flight. The amygdala pulls events, people, or things out of the flow of reality and fixes them deep in the emotional brain. Thus, freezing is not only a distinct response to threat mediated by the dorsal vagal branch, but it also makes fight-or-flight possible. Fear is the root of fright.

Let's close by shifting our attention to those who find themselves overrun by fear and fright. To truly heal, panic attack sufferers must ultimately turn toward their panic. This process can take time. By gradually inviting panic into the light of awareness, “[o]ne begins to give name and form to one’s inchoate feelings, to gather one’s dissociative elements back into the self.”⁹⁷ The warmth of self-compassion thaws the frozen fragments of implicit memory into an integrated narrative, bolstering one’s sense of security and ease. Old information can be framed in a new way. Indeed, as excruciating as panic attacks can be, their chaos provides the opportunity for a re-orientation, even a leap in consciousness. (Pan was, in fact, known as “the leaper” for his ecstatic dance.) This is the silver lining of panic: its intensity can stimulate us to consciously establish an appropriate balance between the emotional and rational brain; doing so allows us to leave

behind chronic states of hyper- or hypo-arousal in favor of greater resilience, choicefulness, creativity, and even joy. Perhaps Pan was helping us after all!

As we have seen, Chinese herbalism can be of assistance in this process of re-orientation. Herbs possess the capacity to re-integrate a splintered body-mind system—via the reconciliation of the Kidney and Heart; the mollification of the Liver; the dispersal of pathogenic heat, cold, and phlegm-rheum; and the bolstering and balancing of Blood and qi, yin and yang. Herbs can help establish an inner space within which one feels safe to reside. Once a stable milieu is actualized, new, more skillful ways of being can be explored. Importantly, though, Chinese herbalism is just one of many tools the Chinese medical physician might have access to, including acupuncture, moxibustion, tuina, sotai, cranio-sacral, meditation, qigong, and taiji. Whatever the modality, the task is the same: to provide the opportunity for the panic sufferer to harmonize her haywire alarm system. It invites us, as practitioners, to be patient, attuned, and responsive. With time and attention, we can help the person transform her inner landscape from a warzone into a place of refuge.

Notes

¹ Pascoe W. Going under. From *The Sun Magazine* website.

² Panic. From the website *Dictionary.com Unabridged*.

³ Harper D. Panic. From the website *Online Etymology Dictionary*.

⁴ The depiction of Pan found in this section derives from information aggregated from the following four internet sources: (1) Mankey J. Pan: The god of all. From the blog *Raise the Horns*. (2) Morgana R. The great god pan. From the website *Sacred Wicca*. (3) Hoffman R. The origin of “panic.” From Hoffman’s website *Intelligent Medicine*. (4) Imko V. Pan and “homosexual panic” in turn of the century gothic literature. From College of Charleston’s *Chrestomathy* website.

⁵ Mankey J. Pan: The god of all.

⁶ From another perspective, Pan’s eroticism itself—drenched in pheromonal animality, lying outside the boundaries of heteronormative monogamy—might be interpreted as a source of terror. It has been argued, for instance, that the demigod was recruited in the gothic literature of the late nineteenth century—both as himself in such works as 1894’s *The Great God Pan* and in the form of “deviants” like Frankenstein’s monster and Dracula—to evoke the Victorian “homosexual panic.” (See Victor Imko’s piece in the “Works Referenced” section for more on this subject.)

⁷ This quotation was culled from the Sunbeams page of the *The Sun Magazine* website; issue 487.

⁸ *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*, 215.

⁹ *Ibid*, 215.

¹⁰ *Ibid*, 214.

¹¹ *Ibid*, 216.

¹² Panic attack. From *Wikipedia*.

¹³ Fight-or-flight response. From *Wikipedia*.

¹⁴ Schmidt NB, Richey JA, Zvolensky MJ, Maner JK. Exploring human freeze responses to a threat stressor. *J Behav Ther Exp Psychiatry*. September 2008; 39(3): 292–304.

¹⁵ *DSM-V*, 215, 217.

¹⁶ Van Der Kolk B. *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma*, 54.

¹⁷ The mother-infant studies of D.W. Winnicott, for instance, bear this out. Winnicott coined the phrase “primitive agony” to describe a foundational disposition toward panic resulting from inadequate parenting. (See Epstein M. *The Trauma of Everyday Life*, 30.)

¹⁸ *DSM-V*, 217.

¹⁹ Memon MA. Panic disorder differential diagnoses. From the website *Medscape*.

²⁰ Fallon BA, Nields JA, Parsons B, Liebowitz MR, Klein DF. Psychiatric manifestations of Lyme borreliosis. *J Clin Psychiatry*. July 1993; 54(7): 263-8.

²¹ Sherr VT. Panic attacks may reveal previously unsuspected chronic disseminated Lyme disease. *J Psychiatr Pract*. November 2000; 6(6): 352-6.

²² For Chinese medical insight into the neuropsychiatric effects of vector-borne diseases, we direct you to the work of Heiner Fruehauf. Four relevant articles are listed in the “Works Referenced” section.

²³ Panic Attack. From *Wikipedia*.

²⁴ *DSM-V*, 217.

²⁵ *Ibid*, 215.

²⁶ *Ibid*, 215.

²⁷ Wood C, Cano-Vindel A, Salguero JM. A multi-factor model of panic disorder: Results of a preliminary study integrating the role of perfectionism, stress, physiological anxiety and anxiety sensitivity. *Anales de Psicología/Annals of Psychology*. 2015; Vol 31, No 2.

²⁸ Bonevski D, Novotni A. Child abuse in panic disorder. *Med Pregl*. Mar-Apr 2008; 61(3-4): 169-72.

²⁹ Goodwin RD, Fergusson DM, Horwood LJ. Childhood abuse and familial violence and the risk of panic attacks and panic disorder in young adulthood. *Psychol Med*. June 2005; 35(6): 881-90.

³⁰ Yaseen ZS, Chartrand H, Mojtabai R, Bolton J, Galynker II. Fear of dying in panic attacks predicts suicide attempt in comorbid depressive illness: Prospective evidence from the National Epidemiological Survey on Alcohol and Related Conditions. *Depress Anxiety*. October 2013; 30(10): 930-9.

³¹ First MB, Tasman A. *Clinical Guide to the Diagnosis and Treatment of Mental Disorders*, 296.

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- ³² This quotation was culled from the Sunbeams page of the *The Sun Magazine* website; issue 488.
- ³³ Van Der Kolk, 60-61.
- ³⁴ Interestingly, the amygdalae accomplish this task, at least in part, via the olfactory sense.
- ³⁵ Epstein M. *The Trauma of Everyday Life*, 149-150.
- ³⁶ McCorry LK. Physiology of the autonomic nervous system. *Am J Pharm Educ.* August 2007; 71(4): 78.
- ³⁷ Schneiderman N, Ironson G, Siegel SD. Stress and health: Psychological, behavioral, and biological determinants. *Annu Rev Clin Psychol.* 2005; 1: 607–628.
- ³⁸ Fight-or-flight response. From *Wikipedia*.
- ³⁹ Panic Attack. From *Wikipedia*.
- ⁴⁰ *Ibid*.
- ⁴¹ Van Der Kolk, 85.
- ⁴² Schneiderman N, Ironson G, Siegel SD. Stress and health: Psychological, behavioral, and biological determinants. *Annu Rev Clin Psychol.* 2005; 1: 607–628.
- ⁴³ Ranabir S, Reetu K. Stress and hormones. *Indian J Endocrinol Metab.* January-March 2011; 15(1): 18–22.
- ⁴⁴ Lupien SJ, de Leon M, de Santi S, et al. Cortisol levels during human aging predict hippocampal atrophy and memory deficits. *Nature Neuroscience.* 1998; 1: 69-73.
- ⁴⁵ Schneiderman N, Ironson G, Siegel SD. Stress and health: Psychological, behavioral, and biological determinants. *Annu Rev Clin Psychol.* 2005; 1: 607–628.
- ⁴⁶ Van Der Kolk, 178.
- ⁴⁷ *Ibid*, 99.
- ⁴⁸ *Ibid*, 67.
- ⁴⁹ Panic Attack. From *Wikipedia*.
- ⁵⁰ Eugenides J. *Middlesex*, 424.
- ⁵¹ Porges SW. Orienting in a defensive world: Mammalian modifications of our evolutionary heritage. *Psychophysiology.* July 1995; 32(4): 301-18.
- ⁵² Porges SW. The polyvagal perspective. *Biol Psychol.* February 2007; 74(2): 116–143.

⁵³ Van Der Kolk, 82.

⁵⁴ Vickhoff B, Malmgren H, Aström R, et al. Music structure determines heart rate variability of singers. *Front Psychol.* 2013; 4: 334.

⁵⁵ Miller M, Fry WF. The effect of mirthful laughter on the human cardiovascular system. *Med Hypotheses.* November 2009; 73(5): 636.

⁵⁶ As an exercise, we can try applying the Polyvagal Theory to Chinese medicine. We might view the primal freeze response as the Water phase, Water being the first sequentially of the five phases and residing lowest in the body (like the earliest branch of the vagus nerve). In the next section, we'll link the Kidney to the action of freezing in fear. Water gives birth to Wood, which represents the fight-or-flight response, since Wood corresponds with the activity and aggression. Next in the generating cycle come Fire and Earth, which we can link with sociability, communion, connection, the mouth and tongue...this is the social engagement evolutionary phase of the vagal complex. Perhaps Metal represents a vagal stage to come!

⁵⁷ Levine PA, Frederick A. *Waking the Tiger: Healing Trauma*, 96-97.

⁵⁸ Biomedical research is suggesting links between the freeze response and cognitive changes such as dissociation, confusion, and difficulty concentrating. See, for instance: Schmidt NB, Richey JA, Zvolensky MJ, Maner JK. Exploring human freeze responses to a threat stressor. *J Behav Ther Exp Psychiatry.* September 2008; 39(3): 292–304.

⁵⁹ Epstein, 66-67.

⁶⁰ Van Der Kolk, 85.

⁶¹ In this paper, Chinese organ systems will be capitalized, since, as students and practitioners are well aware, they refer to more than just the anatomical structure. The term “Blood” and the five elemental phases (“Water”) will also be capitalized, in an attempt to differentiate them from their everyday Western meanings.

⁶² Fruehauf H. *The Five Organ Networks of Chinese Medicine*, 115.

⁶³ Rossi E. *Shen: Psycho-Emotional Aspects of Chinese Medicine*, 38.

⁶⁴ Fruehauf, 116.

⁶⁵ Note that in the final clause of this line, the Song Dynasty editors of the *Suwen* recommended the substitution of the character 下 *xia* “downward” for the character 不

bu “not.” This shifts the meaning of the end of the line from “the qi does not move” to “the qi moves downward.”

⁶⁶ Note that a synonym for 驚 *jing* is the character 懼 *ju*, which features a Heart radical with two eyes and a bird, suggesting the hyper-vigilant state of our avian friends. Just as with the horse and—as we will soon see—the piglet, a nervy animal is depicted to convey a sense of alertness.

⁶⁷ Remarque EM. *All Quiet on the Western Front*, 62-63.

⁶⁸ We will be connecting fright directly to the Liver later on. Given the upward-springing nature of the Wood phase, this connection bolsters the argument for fright as an expression of ascent.

⁶⁹ This passage from *Suwen* 47 is presented for its description of the upward momentum of fright; however, its implication of panic having prenatal (and thus transgenerational) consequences cannot be overlooked. This phenomenon has indeed played out in modern research. One study, for example, has found that one who was in utero while one’s mother was exposed to the World Trade Center attacks possesses a greater risk of developing PTSD. (Yehuda R, Engel SM, Brand, SR, Seckl J, Marcus SM, Berkowitz GS. Transgenerational effects of posttraumatic stress disorder in babies of mothers exposed to the World Trade Center attacks during pregnancy. *J Clin Endocrinol Metab.* July 2005; 90(7): 4115-8.)

⁷⁰ Unschuld PU, Tessenow H. *Huang Di Nei Jing Su Wen*, Vol. 1, 417.

⁷¹ Sawyer B. New pig parents. From the website *Mini Pig Info*.

⁷² In the above line from *Lingshu* 10, we find the phrase 心惕惕如人將捕之 *xin ti ti ru ren jiang bu zhi*: “The Heart becomes distressed, as if the person were about to be apprehended.” This phrase appears several times in the *Neijing* and, just like “running piglet,” colorfully captures the nature of the panic experience. Here, instead of *jing* “fright”, we find *ti ti* “distressed”, which similarly carries the “fight-or-flight” connotation.

⁷³ Later people seem to have conflated running piglet with a disease of another extraordinary vessel, the Dumai. The *Suwen* asserted that the Dumai can manifest the illness of *chongshan*, surging hernia, via its anterior branch. Texts of later periods would

combine *chongshan* and *bentun* into the category of *bentun chongqi*: “running piglet surging qi.” (Rossi, 146)

⁷⁴ Colburn SE, ed. *Anne Sexton: Telling the Tale*, 345.

⁷⁵ Wiseman N, Wilms S. *Jin Gui Yao Lue: Essential Prescriptions of the Golden Cabinet*, 409.

⁷⁶ Liu G-H. *Discussion of Cold Damage (Shang Han Lun): Commentaries and Clinical Applications*, 369.

⁷⁷ Shakespeare W. The tragedy of Hamlet, Prince of Denmark. From MIT’s website *The Complete Works of William Shakespeare*.

⁷⁸ Fruehauf, 17.

⁷⁹ Rossi, 56.

⁸⁰ As for the other symptoms cited in the above cases: The Liver channel traverses the flanks and genitalia and rises to the face, so pathology can manifest with rib-side distress, urinary issues, and nosebleed. In the case of *Suwen* 32, Liver heat is spreading to the Stomach (causing delirious speech) and engendering wind (rendering the extremities restless). Blood cannot peacefully return to the Liver at night, and so there is insomnia.

⁸¹ Unschuld PU, Tessenow H. *Huang Di Nei Jing Su Wen*, Vol. 1, 642.

⁸² Stickley B. Interview was conducted at the National University of Natural Medicine. January 2017.

⁸³ Givens M. *Herbs IV*. National University of Natural Medicine. November 21, 2014.

⁸⁴ *Ibid*, October 17, 2014.

⁸⁵ Hosseini K. *The Kite Runner*, 105.

⁸⁶ Van Der Kolk, 100.

⁸⁷ Hasler G, Gergen PJ, Kleinbaum DG, et al. Asthma and panic in young adults. *Am J Respir Crit Care Med*. June 2005; 171(11): 1224–1230.

⁸⁸ Creed F, Ratcliffe J, Fernandes L, et al. Outcome in severe irritable bowel syndrome with and without accompanying depressive, panic and neurasthenic disorders. *The British Journal of Psychiatry*. May 2005; 186(6): 507-515.

⁸⁹ Kaplan DS, Masand PS, Gupta S. The relationship of irritable bowel syndrome (IBS) and panic disorder. *Ann Clin Psychiatry*. June, 1996; 8(2): 81-8.

⁹⁰ Note that an alternative interpretation of line 15 posits that the phrase “qi surges upward” refers not to running piglet qi, but to the phenomenon of upright qi moving upward and outward to engage pernicious influences on the surface. See Liu, 58-59, for more.

⁹¹ See, for instance, *SHL* 96 or *JGYL* 3.14.

⁹² Liu, 364.

⁹³ Liu, 370.

⁹⁴ Wiseman & Wilms, 181.

⁹⁵ Scheid V, Bensky D, Ellis A. *Chinese Herbal Medicine: Formulas & Strategies*, 471.

⁹⁶ Rossi, 155.

⁹⁷ Epstein, 154.

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