

The Wisdom of Seeds: How These Tiny Wellsprings Provide Blueprints for Psychological Flourishing



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Seeds. These tiny, seemingly insignificant kernels give rise to the world’s mightiest forests, carry the promise of renewal and resilience, and perpetuate the circle of life. Sometimes referred to as wellsprings or fountains of life, seeds are packed with ancestral blueprints that ensure the survival of their species and, by extension, all species on the planet.

The author of Proverbs envisioned a wellspring as a symbol of wisdom and understanding, likening it to a flowing brook.[1] Proverbs 4:23 communicates that the wisdom of a wellspring protects our heart or well-being: “Keep your heart with all diligence, for from it flow the springs

of life.” [2] There is no mistaking the role of seeds in fostering life, wisdom, and inner well-being.

Our entanglement with nature

Western culture and religion have long seduced us with the worldview that, as humans, we are separate from and in constant tension with nature—a worldview that continues to promote practices of extraction, hyper-consumption, and destruction. Lori Pye, President of Viridis Graduate Institute, calls out this fallacy. “It is impossible to be disconnected from nature,” Pye emphasizes. “What we are disconnected from is the understanding that we are a part of nature.” [3]

Seeds bear witness to both our ecological and psychological entanglement with the planet’s cycles and processes, including energy exchanges, diversity, decay, renewal, change, and relationships—processes essential to sustaining life on Earth. These tiny wellsprings come equipped with an educational template for teaching both natural ecosystems and the human ecosystem to thrive, particularly through identifying and understanding deeply ingrained psychological narratives—the stories we internalize that reveal unconscious beliefs about our value and role in the world. These stories, whether harmful or nourishing, underpin the behavior patterns we enact in relationships, society, and toward the planet.

Our human psychological ecosystem suffers when we feel crushed or depleted by self-sabotaging, destructive narratives that hold us hostage to distorted or false perceptions of reality, robbing us of the ability to flourish psychologically. Sowing the wisdom of seeds within our psyche provides a framework for reconfiguring personal narratives that perpetuate destruction both within our psyche and the collective psyche of the planet.

Wildfires of the psyche

To illustrate, I take you back to the fall of 2022, when I began my second year of graduate studies in ecological psychology. The smoke of a nascent wildfire about an hour from where I live permeated the air and sprinkled my patio furniture with ash. I was contemplating an assigned discussion question that asked us to describe a psychological system or cycle within ourselves that mirrors a planetary, Earthly system or cycle. The sharp scent and visual evidence of the wildfire triggered this response.

“Destructive narratives have rampaged my psyche like wildfire, leaving burnt-out vestiges of fiery, chaotic, churning emotions and spent relationships. Narratives of flaming destruction and intense heat recklessly burn down everything in their path, leaving only a barren wasteland of my psyche and a scorched sense of self.”

“Controlled or prescribed burns allow for the dead detritus of damaging narratives to be burnt off and the soil to be exposed to the sunlight of new truths, from which new, rich, fertile soil can emerge for the planting of new seeds of wisdom and understanding—new growth.”

This example illustrates the use of ecological metaphors to gain insight into reframing destructive psychological narratives within a more objective and less judgmental context (second paragraph). Continuing with the post-fire theme, I have applied metaphorical wisdom to three characteristics of seeds: dispersal, signaling, and knowledge transfer.

Dispersal

Serotinous pinecones, such as those found on lodgepole or jack pines, disseminate seeds only under conditions of extreme heat. Serotinous, meaning late blooming or developing, refers to pinecones whose seeds are encased in a hard resin that melts when exposed to intense heat (122-140 degrees F or 50-60 degrees C). As the outer shell dissolves, the cone's scales separate and release regenerative seeds that are carried by wind and gravity for dispersal.[4]

To one degree or another, we all harbor seeds of detrimental or self-defeating narratives lodged deep in our unconscious psyche, such as feelings of not being good enough or believing we are unlovable. Unexpected life disruptions, incendiary family entanglements, or unspeakable tragedy may force these narratives to surface in the form of inappropriate, self-defeating, or harmful behavior. Only the intense heat of examination and psychological ‘composting’ can release regenerative seeds from hardened cones of destructive and self-sabotaging narratives, allowing them to disperse and reseed a depleted psychological landscape.

As we explore harmful narratives originating in dysfunction or trauma, we may ask ourselves what psychological seeds we are releasing from hardened cones of shame and guilt. Under the heat of examination and excavation, how can we put to death incendiary narratives of self-defeat? What behavior patterns need to die for a new generation of narratives to sprout?

Signaling

Communication in nature is essential to the survival and propagation of species. Birds and animals use specific calls and song patterns to attract mates or protect their territory. Chameleons and certain frogs lure potential egg-laying females by changing their skin color. Male primates use gestural communication to convey their intentions to females. The verbal or non-verbal messages we convey, consciously or unconsciously, signal to others our intentions, desires, and fears—we whistle to our dogs, flirt with potential mates, and bristle with anger. Without verbal and non-verbal indicators, communication would come to a standstill.

Seeds are no exception. Scientists at the Salk Institute in La Jolla, California, have discovered how plants and trees dying after a wildfire signal the next generation of dormant seeds lying in the soil to sprout. During a wildfire, burning plants and trees release chemicals in the smoke known as *karrakins* that bind with plant KAI2 proteins. The resultant molecular structure signals to dormant seeds that it is time to germinate. This signaling process transmits the forest's ancestral blueprints and nutrients to dormant seedlings, transforming the ecosystem from devastation to flourishing and extending the forest's life for generations to come.[5]

Joseph Noel, co-senior investigator and director of Salk's Jack H. Skirball Center for Chemical Biology and Proteomics, explains. "In plants, one member of this family of enzymes has been recruited somehow through natural selection to bind to this molecule in smoke and ash and generate this signal." Noel continues, "KAI2 likely evolved when plant ecosystems started to flourish on the terrestrial earth and fire became a very important part of ecosystems to free up nutrients locked up in dying and dead plants." [6]

Using this example, we can ask ourselves what verbal or nonverbal signals we are sending to one another and what we express in the world. Are we sending messages of self-defeat, exceptionalism, or exclusivity? What repetitive behavior patterns do we need to burn to reshape and germinate new narratives of renewal and flourishing?

On a societal and cultural level, are we signaling that we fear inclusion and diversity of others will sacrifice our needs and resources? Are we sending signals of anthropocentrism or biocentrism/ecocentrism signals on behalf of the planet to future generations?

Knowledge transfer (legacy)

In her life's work on tree communication, Professor of Forest Ecology Suzanne Simard has demonstrated that in a forest, individual trees are typically linked in kinship and communicate with one another through a hub or "mother tree."

Seeds encapsulate the essence of legacy in miniature, sprouting into intra-dependent forests whose members depend on one another to survive, thrive, and propagate. Simard found that injured or dying mother trees pass on their species' genetic legacy and wisdom to next-generation seedlings using chemical messages similar to those found in neurotransmitters in the human brain. These messages are transmitted through the intricate underground mycorrhizal network that connects trees and fungi.[7]

Simard elaborates, "When Mother Trees—the majestic hubs at the center of forest communication, protection, and sentience—die, they pass their wisdom to their kin, generation after generation, sharing the knowledge of what helps and what harms, who is friend or foe, and how to adapt and survive in an ever-changing landscape." [8]

"The older trees are able to discern which seedlings are their own kin," she reveals.[9]

The transfer of these historical archives carries significant implications for building resilience to climate change, particularly as Mother Trees carry forward genetic information from earlier climates.[10] As forests experience increased disruption from warming temperatures, this transfer of generational knowledge could ensure that future generations of forests will survive a changing climate and other disruptions.

Likewise, as we continue to sow narratives of supremacism and individualism within society, such as refusing to cultivate diversity and inclusivity, we fail to increase our resilience to growing threats such as climate change, future pandemics, war, and the danger of extinction.

Are we letting seeds of self-judgment, defeatism, and shame decimate our ecosystem and quell opportunities for developing resilience and diversity? Are we fostering kinship and community or isolating ourselves from others and our connection with nature? What ancestral knowledge are we passing on personally and as a member of the human species that furthers the flourishing of all life on the planet?

Sowing for the future

The centuries-old history of seed dispersal, signaling, and knowledge transfer provides a blueprint for navigating current ecological, societal, and psychological disruptions and threats, while also offering promise for the future of the planet. As we learn from seeds and cultivate new, more diverse psychological soil, we will sow seeds of kinship and flourishing, both ecologically and psychologically, for generations to come.

[1] Prov 16:22, Prov 18:4 King James Version.

[2] Prov 4:23 English Standard Version.

[3] Lori Pye, *Fundamentals of Ecological Psychology* (Routledge, 2025).

[4] Steve Nix, “Serotiny and the Serotinous Cone,” *Treehugger*, Updated January 21, 2020, <https://www.treehugger.com/serotiny-and-the-serotinous-cone-1342894>.

[5] “Smoke Signals: How Burning Plants Tell Seeds to Rise from the Ashes,” *Salk News*, April 29, 2013, <https://www.salk.edu/news-release/smoke-signals-how-burning-plants-tell-seeds-to-rise-from-the-ashes>.

[6] Salk News, “Smoke Signals.”

[7] Suzanne Simard. *Finding the Mother Tree: Discovering the Wisdom of the Forest*, (Alfred A. Knopf, 2021), Introduction, Kindle.

[8] Simard, *Finding the Mother Tree*, Introduction, Kindle.

[9] Simard, *Finding the Mother Tree*, Introduction, Kindle.

[10] Schiffman, Richard, ““Mother Trees’ Are Intelligent: They Learn and Remember,” edited by Mark Fischetti, *Scientific American*, May 4, 2021, <https://www.scientificamerican.com/article/mother-trees-are-intelligent-they-learn-and-remember/>.