

The Net of Fear

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Two things that define us as humans are how we treat each other and how we choose to react to life. Society has created a "normal" being and a being that fits into the category of "other." One of the most interesting things that I believe defines us as a culture is how we treat the diseased. Disease has always been something that is feared, the way it makes us treat the infected, and the way the infected affect us in reaction, and how we choose where they belong in our society. While studying disease and how it effects society I came to the conclusion that the reason we separate ourselves from those we think to be "sick" or "infected" is because of fear. I then studied the spread of fear in society, how it starts, how it travels through humanity and where it ends. I noticed that it begins within one person, and slowly spreads to the people connected to that original person. As the disease grows in society so does fear, spreading through people, connecting them through their fear (Fear-Wikipedia)(Mass Hysteria-Wikipedia). While studying the spread of fear I simultaneously examined the lifecycle of a mushroom. I explored the function of it, then the importance of the fungi. The lifecycle starts off with a spore that germinates in the soil while netlike roots, or mycelium, grow from this spore. The mycelium spreads from each spore, connecting with other spores until it seems that a whole forest is connected together by this net of roots (The Life Cycle of the Mushroom). The spread of fear in society seems to work the same way; thus I concluded that mycelium in nature can mirror and act as a metaphor for the way fear grows and spreads.

It all begins with a spore. This spore is released from a mushroom that is pushed up through the soil up to the surface, the reproductive organ of the mushroom. Spores are released into the wind and the soil. When the spore lands, it germinates and begins to grow.

On May 13th, 2009 John Smith traveled to a rainforest in the South American region on a travel tour. There he inhaled a fungal spore that had been released into the environment. A week later he traveled back to his hometown, New York City. Two weeks later John Smith began having symptoms. They began as mental differences. He developed OCD and felt the need to clean his body impulsively. His family and friends noticed him acting differently and distanced themselves from him in fear. He had become different, a term used to explain someone not the same as others. Symptoms grew, fever, stomach problems, rapid heart hearts, irritability and hallucinations. The infection grew, and the fear of the infection grew among John's family and friends. They feared for their loved one's health.

A mushroom released more than one spore into the ground. Once the environment became damp and there was enough bacteria to let one spore germinate, the others will soon follow. When the climate is right, the spores around the first spore germinate and begin to grow.

By May 20th John Smith had infected five other people who lived in New York City. But the symptoms do not develop until three to four weeks later. As the disease consumed new victims, fear spread to confidants and relatives. Along with the new victims, the fear contaminated John Smith's extended family and more distant friends.

The life of the spores continues. Each begins to grow their mycelium; tiny white roots sprout and reach out into the dark soil. The mycelium claims the ground around each small individual spore.

The disease grew, and new cases of infected appeared in Manhattan. As more were infected with the disease, more families were infected with fear. Relatives and friends worried and panicked for their loved ones' lives. Friends fraught with fear poisoned their families and their friends with fear, making them apprehensive about their families becoming infected as well. Each infected individual had a collection of people infected with fear. The acquaintances of the diseased began to connect and bond with apprehension.

As each spore's mycelium grows they begin to connect. They spread across the underground floor and the roots connect and fuse together. Individual spores begins to become one. This is a start of a net.

On May 25th the illness was noted as an outbreak; at least one person from an extended family knew one infected person. All of Manhattan, and a few others scattered around the city, were connected with fear. With half of the borough's population infected, people bonded with panic.

The mycelium net quickly begins to grow. The mycelium stretches it's roots and travels in the ground searching for more spores to bond with. It breaks through the hard soil making the dirt soft and letting oxygen in, letting the ground breathe, while claiming its territory in the ground. Each spore is going through the same growing ritual as the first. From the spore the mushrooms reproductive organ grows, a single mushroom cap. It pushes through the hard soil and vigorously comes up from the ground. Then a mushroom surfaces, now visible to the human eye.

The sickness traveled, as some infected traveled without knowing they were ill. It also developed in different countries and towns from people who inhaled the same type of spore as John Smith had. The growth of fear in these new places mimicked the growth of where it first appeared with the first cases. On June 2nd, news channels and journalist, began to pick up the story of this infectious disease. It became the main story on the news all over the world. Now that knowledge of this illness was made visible to society, the fear spread more rapidly.

Mycelium spreads for miles. Suddenly everything in the forest is connected. The underground is nearly overtaken by this net. Now every tree, grass, bush, and flower in the forest is in some way connected by the mycelium. Not one living plant lives and thrives without being bonded together by this organism. The above ground mushrooms, the reproductive organs, die and decompose. This death feeds the mycelium underground. With these nutrients, the mycelium grows and pushes more mushrooms up. The net spreads and more mushrooms appear on the surface as more deaths occur.

By the 5th of July the disease was labeled as an epidemic. The once small amount of fear turned into a worldwide panic. The new knowledge of this disease gave every human a reason to fear. As the spreading resulted in more deaths, the fear grew stronger. The fear of peoples loved ones getting ill became a strong paranoia. When people's lives were ending the deaths fed the panic, causing it to grow more powerful. A once mild fear became worse as the disease involved the loss of loved ones.

The mycelium moves quickly, thrives, and grows, producing more mushrooms. They sprout up from the ground everywhere claiming the forest floor, in turn shedding more spores, releasing them into the air to be carried throughout the forest. Once these new spores are released and land, they too will begin to settle into the soil to germinate. Later, their mycelium will bond and connect with the rest of the net, making every organism in the forest a part of it.

The infection was spreading quickly, moving too fast for people to control. More and more families and family members were becoming ill and dying. Once a person knew someone infected personally, they began to fear their own lives. Suddenly it was apparent to everyone that there was a high chance that they too could be infected.

Looking at mycelium underground it may look like a chaotic mess, roots erupting and reaching and twisting and connecting to each other. There appears to be no order; it looks like a web of twisted veins, rooting the mushroom fruit into the soil. But knowing the mycelium, you see that every root has a function. Each part of the mushroom is an organized cycle. Every part has a job and works together as an efficient network.

In the spread of this disease, once fear became a collective feeling, people needed someone to look up to for protection. They needed someone who would know how to fix things, someone who had answers. Naturally, they looked to the people that should know the most, doctors or the government. When they saw that these people did not have the answers they hoped for the panic grew stronger. With the disease spreading so rapidly finding the common symptoms or cause was difficult. The hospitals were in just as much of panic as the rest of society. The people struggled through the chaos of the mass hysteria looking to understand.

"Mycelium runs through our world, performing many other feats as well, but it is hidden and inconspicuous- a strange life form that has not attracted the same scientific attention as micro-organisms or plants or animals." (Paul Stamets, Mycelium Running). Although mycelium has been proven to be one of our most important organisms on planet earth, most people do not know how it functions, or even what it is. A plant will not live its life or reach full maturity without an association with mushrooms or mycelium. Not only is nature dependent on mycelium, it is also capable of many incredible and useful feats. Mushroom mycelium can be used to remove petroleum waste from soil, resulting in healthy soil and edible mushrooms. It can also be used as an energy source, to help cure illnesses, and as a natural pesticide for both your house and your garden. Artist Phil Ross has found a way to turn mushroom mycelium into a sustainable building material, making bricks strong enough to build green houses with. When dried, mushroom mycelium is nontoxic, fireproof, mold-proof and water resistant. It also traps more heat than fiberglass and is stronger than concrete (Phil Ross Website). Mycelium is a simple answer to a lot of our society's environmental panic. If only the knowledge of how important this organism could be to us was more widespread maybe we could make our earth a better place.

Fear can create panic and chaos among people. While in the midst of the situation it seems like an unorganized frenzy, from an outside look, fear is a calculated reaction from an organized system of the brain. Five parts of the human brain have one job that contributes to our cycle of fear. The thalamus decides where the information we see, hear, taste and touch goes, and the sensory cortex interprets this sensory data. This is the beginning step of fear; using our five senses, we gather information. The knowledge we obtain goes to our amygdala, which determines threat by decoding emotions through stored fear memories. Next, the hypothalamus activates our response to our fears: the "fight or flight" response. Fear then activates our nervous system, which causes physical responses. Such responses could be a faster heart rate, an increase in blood pressure, and/or rapid breathing (Fear and how it Works).

Although fear is just a working function like the life cycle of a mushroom, people still fail to recognize it as just that. When applied to a large amount of people, like society, the emotion can take over the way we think and act. These two natural systems that parallel each other each in their growth; the spread of fear in society mimics the spread of mycelium. We have distanced ourselves from nature and forgotten that our society, our way of separating ourselves from the rustic environment to an urbanization, mirrors simple systems of nature. This is one out of many examples that prove that our society is corrupt. We let our human nature take control of everything. Some people have noticed that the specific human emotion of fear is extremely intense and will use it to gain power. We blind ourselves with fear so when we see something that looks hopeless and incomprehensible, like a cure for a rapidly spreading disease, we forget it is just a function in our brain. We should not allow our emotions to have so much power over us in a time of panic. When blinded by fear we often do not see for ourselves, and follow the people that seem the least blind. During the beginning of the AIDS epidemic in the 1980s the disease was nick-named "The gay disease.(AIDS- Wikipedia)" In fear, we directed blame and hate to a group of our own people. Although the disease did not only infect homosexuals, our fear pushed us to make horrible assumptions. This process of studying the spread of fear and the spread of mycelium has revealed a broader outlook on society and nature; this comparison tells us that how we treat ourselves is how society works in relation to our environment.

Bibliography

Burns, Charles. *Black Hole*. New York: Pantheon Books, 2005. Print.

"Category:Parasitic fungi - Wikipedia, the free encyclopedia." *Wikipedia, the free encyclopedia*. N.p., n.d. Web. 2 May 2011. <http://en.wikipedia.org/wiki/Category:Parasitic_fungi>.

"Dancing mania - Wikipedia, the free encyclopedia." *Wikipedia, the free encyclopedia*. N.p., n.d. Web. 2 May 2011. <http://en.wikipedia.org/wiki/Dancing_mania>.

"Ergot Poisoning (LSD) - the cause of the Salem Witch Trials - PBS Secrets of the Dead." *Hiawatha Broadband Communications, Inc. | 58 Johnson Street Winona, MN 55987 (888) 474-9995*. N.p., n.d. Web. 2 May 2011. <<http://www.hbci.com/~wenonah/history/ergot.htm>>.

"Fear - Wikipedia, the free encyclopedia." *Wikipedia, the free encyclopedia*. N.p., n.d. Web. 2 May 2011. <<http://en.wikipedia.org/wiki/Fears>>.

"Industrial-Strength Fungus - TIME." *Breaking News, Analysis, Politics, Blogs, News Photos, Video, Tech Reviews - TIME.com*. N.p., n.d. Web. 2 May 2011. <<http://www.time.com/time/magazine/article/0,9171,1957474,00.html>>.

"Industrial-Strength Fungus - TIME." *Breaking News, Analysis, Politics, Blogs, News Photos, Video, Tech Reviews - TIME.com*. N.p., n.d. Web. 2 May 2011. <<http://www.time.com/time/magazine/article/0,9171,1957474,00.html>>.

Layton, Julia. "Discovery Health "How Fear Works"." *Discovery Health "Health Guides"*. N.p., n.d. Web. 2 May 2011. <<http://health.howstuffworks.com/mental-health/human-nature/other-emotions/fear.htm>>.

"Mas hysteria - Wikipedia, the free encyclopedia." *Wikipedia, the free encyclopedia*. N.p., n.d. Web. 9 May 2011. <http://en.wikipedia.org/wiki/Mas_hysteria>.

"Phil Ross." *Phil Ross*. N.p., n.d. Web. 2 May 2011. <<http://www.philross.org/>>.

"Podcast Episode: Living Green: Paul Stamets, Fungal Intelligence and the 21st Psychedelic Journey - "How Mushrooms Can Help Save the World." in our "11th Hour" edition. (EveryBody Inspired to Succeed." *Self Help Books, Audio, and Online Courses for personal growth and self improvement* "Personal Life Media". N.p., n.d. Web. 2 May 2011. <<http://personallifemedia.com/podcasts/224-living-green/episodes/2914-paul-stamets-fungal-intelligence-and-the-21st-psychedelic-journey-how-mushrooms-can-help-save-the-world-in-our-11th-hour-edition->>>.

Sontag, Susan. "Illness as metaphor ; and, AIDS and ... - Google Books." *Google Books*. N.p., n.d. Web. 2 May 2011. <<http://books.google.com/books?hl=en&lr=&id=ZZ806Vanu3IC&oi=fnd&pg=PA3&dq>>

=illness+as+metaphor&ots=G9x6VIwaWQ&sig=ipZF_c8Swkg3SU3puuJA1UQWZCM
#v=onepage&q&f=false>.

Stamets, Paul. *Mycelium running: how mushrooms can help save the world*. Berkeley, Calif.: Ten Speed Press, 2005. Print.

"The life cycle of the mushroom | Mushplanet." *Mushplanet* | . N.p., n.d. Web. 2 May 2011.
<http://mushplanet.com/cultivation_manual/life-cycle-mushroom.html>.

eon, Se Eun; Lee, Jaehwi; Lee, Eunji; Lee, Song Yi; Hong, Eock Kee; Kim, Young Eon; Cho, Jae Youl (2009). "Functional activation of macrophages, and monocytes. "Medicinal mushrooms - Wikipedia, the free encyclopedia." *Wikipedia, the free encyclopedia*. N.p., n.d. Web. 2 May 2011. <http://en.wikipedia.org/wiki/Medicinal_mushrooms>.

Joseph Patrick (2008). Encyclopedia of Pestilence, Pandemics, and Plagues: A-M. "Black Death - Wikipedia, the free encyclopedia." *Wikipedia, the free encyclopedia*. N.p., n.d. Web. 2 May 2011. <http://en.wikipedia.org/wiki/Black_Death>.

the, investigating. "deconcrete Â» growing bricks." *deconcrete* . N.p., n.d. Web. 2 May 2011.
<<http://www.deconcrete.org/2010/07/28/growing-bricks/>>.