

# Are We Born to be Afraid?

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Created *May 9 2008 - 7:19am*

Are you afraid of heights? Or closed spaces? Or snakes, bugs, and rats? Are you afraid of the water?

Well, you're not alone. Our prehistoric ancestors had the very same fears—which is why you are alive today.

What are the most common fears that we have?

Our most common fears are of snakes, bugs, mice, bats, heights and water. What do these have in common? They are dangerous.

Let's imagine that you are the evolutionary designer of a human being. Now, you are going to design a human who can survive in a primitive environment where there are tigers, lions, wolves, and poisonous snakes and bugs. It's an environment where starvation is the general rule. What will you build into the software in the primitive brain?

You will build in FEAR.



Fear is adaptive because it protects us. More importantly, it protected our ancestors. Our distant ancestors who were afraid of heights didn't fall off cliffs, those that feared wild animals didn't get eaten by a tiger, those that ran the fastest left the rest behind---and they survived. So, it is natural to be afraid of many of the things that we are afraid of. It's natural to have a fear of water---especially if you are a child---because you can drown.

In one study, 77 % of mothers of children who were afraid of water said their children were frightened the very first time they were confronted with a pool or lake water. In fact, the farther away from the ocean you live, the more likely you are to fear water. In another study, they tested kids over and over for years to determine what kinds of fears they had and what happened to them later. They found that kids who had fears of heights when they were younger---were less likely to fall and get injured later. That's because the fear that was built in protected the kids from falling.

Now this may not seem like news to you, but most psychologists have believed that fears are learned. Some might be learned---but many fears are built in and they protect us. Kids didn't have a fear of heights because they had fallen. No---they didn't fall because they had a fear of heights to begin with.



Let's take a closer look at fear of heights. A classic study, done many years ago, involved the following. Psychologists had a young infant on a table. Between two tables was a transparent plexiglass platform. Now, the baby could easily crawl across this plexiglass---but almost all the kids refused. That's because the plexiglass gave the impression that they could fall. They had a natural fear of heights.

They also tried to get kittens to cross. They were afraid and they huddled on one side. Then they tried baby ducks. Guess what? The ducks walked across. Not a quack of protest. Why? Because ducks can fly. What's to be afraid of?

Our fears have been built into us to keep us from getting killed—or from starving. In fact, research suggests that our genes can affect our ability to learn to be afraid.

But you might say, "I didn't have a fear of heights until last year. And I'm 25? If these fears are innate, then why wasn't I afraid before?"

Good question. One way to look at fears is that there is a "threshold effect". Some of your fears won't come out---won't be manifested---until your brain has matured, certain hormones kick in, and you've accumulated enough stress. This is why panic disorder and agoraphobia generally don't appear until early adulthood.

One “fear” that is very adaptive is to quickly learn to avoid poisonous foods. Rats and humans learn this after one experience. The research shows that we (rats or humans) almost immediately learn that the reason that we get sick is because of something that we ate---and then we avoid it forever. This is called “one-trial learning” for poison avoidance. We don’t have to “practice” this. If we eat some mushrooms and we get sick, we immediately learn to avoid mushrooms in the future. In fact, many of the changing food preferences for pregnant women are related to the potential toxicity of the foods. Nature doesn’t gamble with pregnancies.



Wouldn’t it make sense to have a fear of starvation? We do. That’s why ---when we are really hungry that we binge. Our ancient ancestors were scavengers---before they were hunters. They would wait for a tiger to kill an animal, eat its meal and then walk away stuffed. Then our ancient ancestors would scurry over, binge on as much of the meat as it could and run away at the first sight of another

wild animal. But binge eating made a lot of sense. That’s why our emotional brain kicks in when we are really hungry and we eat quickly—and we eat a lot. It’s also why we often have a preference for sweet or high-calorie foods or carbohydrates. It’s also why some people hoard food. In a primitive environment, it made sense to save excess food—for the long periods of deprivation.

Because of fears of not eating enough—and our natural tendency to overeat given the opportunity--- we are prone to excessive weight gain. Ironically, it would be adaptive for our ancestors to have a slower metabolism---in order to keep on whatever weight they had. The primitive man who had a fast metabolism and just burned off calories---starved to death. People who are overweight today had the most adaptive ancestors---they didn’t need a lot of calories to gain weight. The problem is that we live in a world with what seems like an infinite number of calories available all the time. That’s why our “starving emotional brain” makes us binge when we go a few hours with nothing to eat.

How about fears of open spaces? People who have “agoraphobia” know what this is like. “Agora” means “marketplace” in Greek---but people with this phobia often fear being out in the open---like walking down the street or across a field or in a shopping mall. Why would walking across an open field be frightening? Well, to our ancestors, walking across an open field (especially during the day) meant that any tiger out there could see you. Better to stay in the bushes and hide.

It’s interesting that rats have a fear of open fields and spaces. When they cross a room they prefer staying close to the walls—or under the furniture. This is true outside, too. That’s because when they are outside they are vulnerable to being attacked by cats—or, from the air, by owls and hawks. So, having a natural fear of open spaces makes sense.

How about the fear of closed spaces? Many people fear getting into an elevator---not because the elevator will crash—but because they fear getting “stuck”. Some people fear having the door closed in their bedroom at night. Why would a closed space be so frightening? There are three reasons. First, our ancient ancestors who lived in caves realized that caves are not safe. Imagine you are huddled in a cave at night, you hear the call of the wild outside---- wolves howling. It was very simple for wolves or tigers to go into a cave and kill and eat all the humans. So caves could be dangerous. Second, in a closed space there may not be any means of escape. You are vulnerable to attack by predators and by other humans. That’s why people with agoraphobia are always looking for the exit. When they sit in a movie theatre, they want to sit at the aisle seat—and close to an exit. “I want to be able to get out quickly”. Third, many people with a fear of closed spaces feel they won’t be able to breathe. And, again, this also makes sense. Spaces that are closed can cut off air and suffocate you. That’s why so many people with panic and agoraphobia hyperventilate. Their brain is telling them that they will suffocate---so they gasp for air.

Children have a lot of fears that adults often do not have. Would it make sense for evolution to build certain fears into young children? Yes. Infants have a fear of being left by their [parents](#)---especially by mom. Toward the end of the first year of life, this fear gets stronger. And his fear of strangers gets greater. When mom leaves the room the baby cries. If the baby can move, he tries to follow after mom. The baby clings to mom. Why would a fear of mom leaving the room be adaptive? Well, this fear keeps mom close to the child---and mom can not only feed the baby, but protect him from other dangers---such as animals or other people. So babies have a natural fear of being left alone—and fears of the dark. And mothers and fathers have a built-in ability to respond to the baby’s crying by going to the baby and holding it. The baby’s crying is annoying to the mother---and it’s a good thing it is. It assures that the mother will quickly go to the baby to comfort him. The most effective way to calm a baby is to hold it and feed it. And that is the most protective way to relate to the baby. Evolution is smart.



Think about some of your specific phobias. Are you afraid of heights, closed spaces, flying 35,000 feet up in the air, animals, bugs, snakes, rats? Are you afraid of strangers? Are you afraid of walking into a forest at night---alone? How do your fears make sense from an evolutionary point of view?

How could your fears have kept your ancestors alive?

Think about your fears as the right response at the wrong time. The fear worked 50,000 years ago. It’s simply out of date. You’re using outdated software in your brain.

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