

NEWS YOU DIDN'T KNOW YOU NEEDED

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HOW DO SPIDERS FLY WHEN THEY HAVE NO WINGS AND WHAT KIND OF WEB DOES A SPIDER SPIN WHEN HIGH

In my quest to bring you information you may not know you needed, here goes.

A recent article in The Wall Street Journal by Helen Czerski called Up and Away: How Baby Spiders Fly caught my eye. According to Czerski, who is a physicist, there is a scientific explanation for how baby spiders, also called spiderlings, can fly.

We all know spiders can spin silk to make webs.

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You may have seen a spider floating in the air on a silk thread in a behavior known as ballooning. Czerski wanted to understand how they can take off when there are no winds. So here comes the physics.



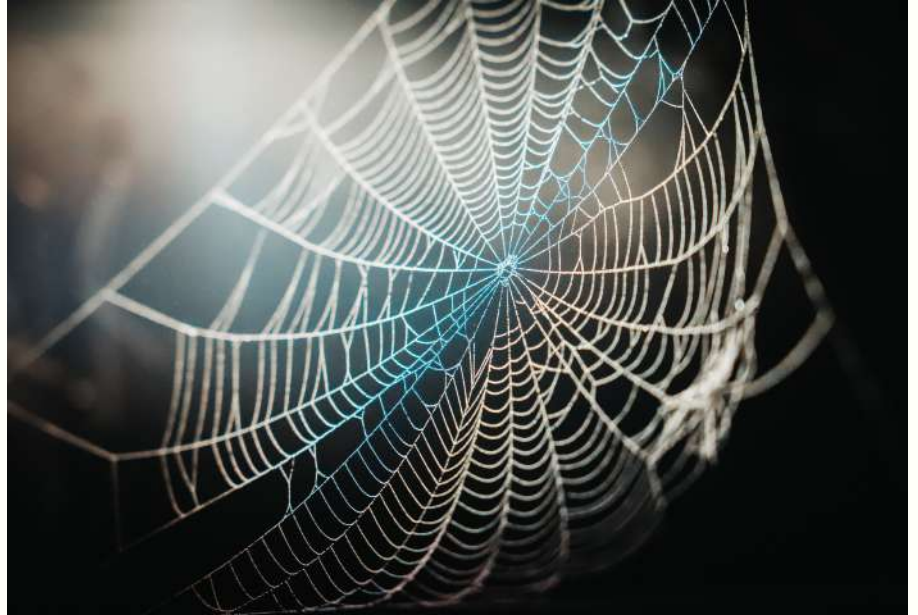
Thunderstorms create electrical charges which we see in lightning. Thunderclouds are continually accumulating positive electrical charges and create a layer of positive electrical charges in the air above the ground. However, the ground has a negative electrical charge. The negative electrical charge on the ground and the positive electrical charge in the sky creates a global electrical field which changes with the local weather. Spiders can sense when the electrical field is strong enough and they use it as a cue to prepare to fly. The spiders get their silk thread ready and as the electrical charge on the silk builds up, it is pulled by the global electrical field boosting the spider up into the atmosphere. Once off the ground, the spider can float to a safer place. Spiders have been spotted on their silk threads as high as two miles.



SETTLING CASES TWO SNEAKERS AT A TIME

If you want to know more about the silk spider's spin, you can read the book, *Spider Silk, Evolution and 400 Million Years of Spinning, Waiting, Snagging, and Mating* by Leslie Brunetta and Catherine Craig. This book explains a spider web can contain at least four different silk proteins and the many things spiders do with their silk production.

But really, it is amazing the topics you can delve into, including spider webs which most of us swat down with a broom handle.



I had a doctor in the past who had a poster on the wall showing a web spun allegedly by a spider high on marijuana. The spider's web was a confusing tangled mess with zero symmetry like a regular web should have. I wondered who took the picture, how they knew the spider was high or how they got the spider to smoke pot. So I did my own research into who started getting spiders high and who took those photos.

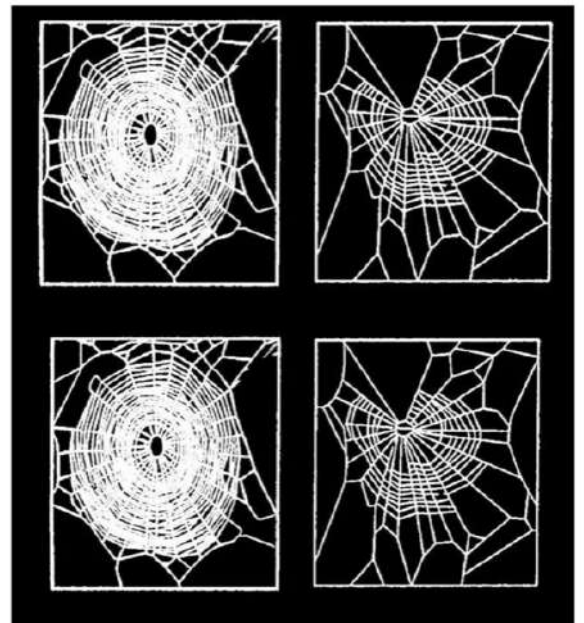


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It turns out author Mike Pearl wondered about this also and wrote an article called, *Have Scientists Learned Anything from Giving Drugs to Spiders?* The article explains that in 1948 the German zoologist Hans Peters wanted to make a documentary about spiders building webs but there was a problem. The spiders spun their webs in the middle of the night and Peters didn't want to stay up past 2:00 am to watch it happen. So he talked his pharmacologist friend Peter Witt into rigging up a system to give the spiders drugs in doses of sugar water all in the hopes that the spiders' scrambled brains would lose track of the time and spin their webs during normal work hours.

What happened instead is the spiders kept spinning their webs in the middle of the night but they were terrible at it and their webs were a mess.

Peter Witt became intrigued when he saw the crazy drug-induced webs and teamed up with other like-minded scientists to see how drugs would affect web-spinning if spiders were high



BEFORE MARIJUANA (LEFT), AND AFTER (RIGHT). ILLUSTRATIONS BY THE AUTHOR, TAKEN FROM THE ORIGINAL PHOTOGRAPHS.

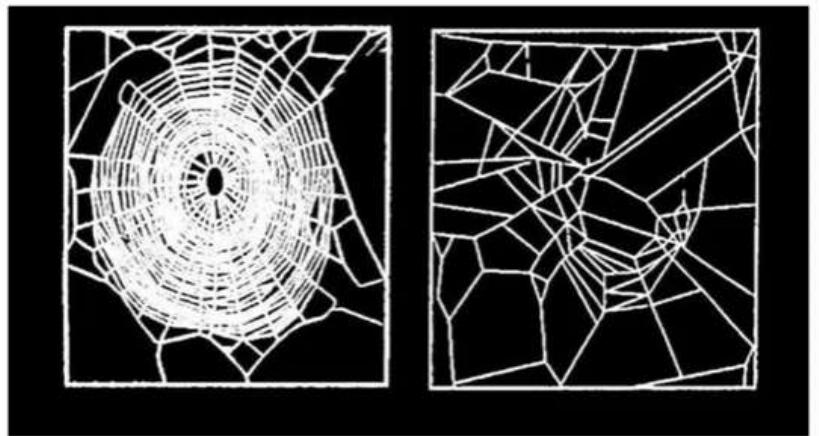


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Witt got a wild idea that if he fed the blood of people who were high on drugs, and depending on the drugs the people had imbibed, the spiders' webs would be different.

Peter Witt was imagining police stations could have a sort of "spider lab" where they could feed spiders the arrested person's blood, leave the spiders alone at night, and in the morning see what kind of web had been woven, thinking difference drugs would produce different spider webs. No surprise this premise never panned out and we don't have spider labs in police stations.

This exercise in getting spiders high did cause a run on seeing what other drugs would do to spider webs. It turned out spiders high on caffeine created the worst spider web production.



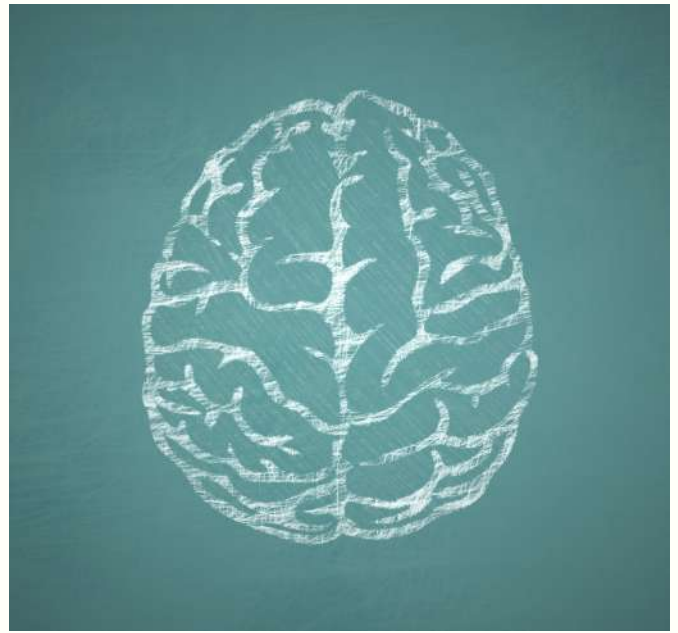
A SPIDER BEFORE (LEFT) AND AFTER (RIGHT) CAFFEINE.

Before you panic about what your morning joe is doing to your brain, the scientists point out your brain is not a spider brain.



SETTLING CASES TWO SNEAKERS AT A TIME

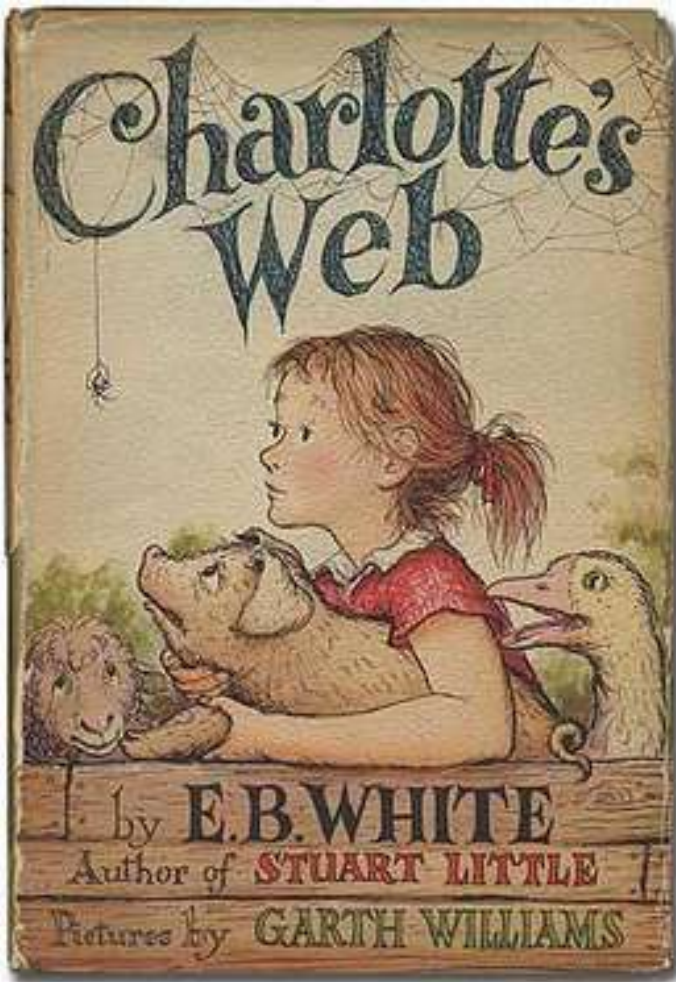
According to Linda Rayor, an entomologist at Cornell University who studies spider behavior, Witt's photos, (and the one in the doctor's office) might have been thought to leave the viewer thinking about the effects of drugs on the brain but that, according to Rayor, "It's not particularly valuable information." Spider brains are not human brains.



Another interesting fact is web-spinning behavior is not learned. Baby spiders' mothers are typically dead by the time a spider is born, let alone by the time the baby starts building webs. Baby spiders have to figure it out on their own. Rayor says the first couple times the babies spin a web it isn't as complicated and not quite perfect but they get better as they practice.



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Then there is the classic children's book *Charlotte's Web* where the protagonist spider named Charlotte becomes friends with Wilbur the pig. Concerned that Wilbur is in danger, she begins spinning messages in her web to communicate with the farmer who is thinking of slaughtering Wilbur. Charlotte spins messages on her web praising Wilbur in an effort to persuade the farmer to let Wilbur live.

Rayor says every time there is an adaptation of the book on TV, the phone starts to ring off the wall with people calling in claiming there is a spider in their garage trying to communicate with them by spinning letters in their web. (Maybe the spider is trying to say don't knock down my web because I help you by catching flies and mosquitos but somehow, I doubt it.)



SETTLING CASES TWO SNEAKERS AT A TIME

This is actually a known spider behavior called stabilimentum or web ornamentation. Stabilimentum is a spider's use of its thicker silk—the stuff they wrap around their prey—to spruce up its web in a couple of spots. It can look like a bunch of Capital “As”, “Vs”, “Ms,” and “Ws,”

Why do spiders want these Capital Letters in their webs? Some scientists think that by putting them in their webs they make a mostly invisible web, visual to attract prey but that doesn't make sense to me because that causes us, humans, to see it and knock it down. No one really knows.

Spiders will also repair their web if one of the radial lines (the straight lines that resemble the spokes on a wheel) gets broken. However, if the spider has moved on to weave the more intricate spiral lines and then the radial line gets damaged, they will just keep going and the web will be deformed without the radial line being fixed. According to Rayer, “The spiders can't go back. They don't have that kind of flexibility”. Or maybe I submit, spiders are pragmatic and at that point, the web is “good enough” even if somewhat whacky looking.

I hope this has given you something to discuss when small talk runs out.



SETTLING CASES TWO SNEAKERS AT A TIME

TALES OF LEGAL ASSOCIATES AND SECRETARIES AND WORKING IN A LAW FIRM IN THE 1980S

First the associates. I had some excellent associates and I had “the more difficult ones”. Just because you are smart and graduate from law school doesn’t mean you are going to make it as a trial lawyer. There is a certain amount of street smarts you need.

I had a female associate that I loved but who had a bad habit of getting in fights with the opposite side. One time I got a call to come to the courthouse and break up a fight she was in. That might have been my influence because I was somewhat combative in those early days too. (It was claimed, I deny, that I swatted the opposing lawyer with a yellow legal pad on my way to examine his witness.)

Then there was the associate so fearful of making a mistake, he just couldn’t/wouldn’t make a decision. He assumed if he didn’t make any decision, he would be safe because he wouldn’t be wrong. This is the type of associate that becomes a shadow outside of your office. But again I was the same when I was an associate. I worked for a partner that liked to ski and would leave for Colorado and never tell anyone, especially me.



SETTLING CASES TWO SNEAKERS AT A TIME

I had a light bulb moment one day when I figured out when the ski lifts closed and this is when I would start calling him and blowing up his phone.

I had the opposite type of associate from the type who won't make a decision. This type, Sam, (all names changed throughout this blog) would charge off and without asking, do unsolicited things, including filing legal motions. He made me a nervous wreck not knowing what he would do next. The worst was when he made a surprise visit during a trial. I was in trial in Houston (I lived in Galveston at the time) and was staying at the Lancaster Hotel. I was at dinner with the clients when Sam charged into the Lancaster restaurant dining room, beads of sweat dripping from his face, with his suit still in the see-thru plastic dry cleaners bag and the rest of his belongings in a grocery brown bag. Everyone's mouth, mine included, fell open. Needless to say, this was not the type of entrance I needed to impress my out-of-state corporate clients. Sam meant well but just because he did some research on the case didn't mean he was going to try the case with me.



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Then I had the associate, Debbie, that was very good but didn't take any shit from me. We were in trial and after a grueling backsliding trial day, we retreated, with our tails between our legs, back to the office. I barked something for her to do and Debbie made a face. Debbie flipped around and began to walk away. I said, "Don't take it personal. We are in trial mode." Debbie replied, "I don't take it personal; I have a personal life." Gulp, Ouch, and Touché.

Then I had a legal assistant that my law firm stuck with me because no one else in Galveston would work with him. I won't go into details but surmise it to say, he had to finally quit because of dementia, and not before the experience caused me to think I had dementia.



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Then there was the secretary. Holy shit. She was so high strung she would flip out over the slightest thing and anyone who has worked in a law firm knows it is not a passive Zen-like environment.



Finally, I tried to help by explaining to her that I was high strung and when she got high strung it made me more high strung and that was not a good thing. She looked at me like I was crazy and quit soon thereafter.

In the 1980s, pre-cell phones, the office phones had buttons that you pushed for the different phone lines. So if there were five phone lines, for example, there would be five buttons on the telephone. You could punch a button and be on the line and listen in. And just because a law partner is an esteemed member of society does not mean he is not capable of listening in. I will stop there.



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And then there was the receptionist, Bobbie, we had in the 1980s when I was working in the Galveston office. In those days, trial lawyers did a lot of work at the yacht club and the term “bar association” did not mean the ABA but rather meant being in a bar. Actually, we got a lot done in the bar because the judges were in there too drinking.

Bobbie, the receptionist, was a master at listening in to phone calls and knew a lot (way too much) about what was going on in the firm and I am not talking about the cases we were trying but rather what we were doing. We were mandated to work on Saturday morning, regardless of whether you wanted to or not. I was a baby lawyer and very green but it didn’t take me long to figure out some of the excitement was not about legal research but the bets being placed on sports teams. And during this time, Bobbie was taking it all in.



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This is typical Bobbie. She would ring my office and say, “That guy that always calls you is on line 3.” She knew good and well it wasn’t a client. Bobbie left the firm at one point and later wanted to return. This was one of the few times the partners were in total agreement when we all said together, in a loud chorus, “NO WAY!”

Those days in the 80s were fun and freewheeling. The firm had an office manager, Cassie, that liked to talk. Cassie really liked to talk. She was the preverbal type that when you asked her what time it is, Cassie would tell you how to build a clock. In partners' meetings someone would bring up a good idea about changes to the law firm management and we would get excited about an upgraded change. But then, one of the partners would nervously ask, “Who is going to tell Cassie about these changes and get her to make the changes?” Everyone would look at each other and there would be a deathly silence. No one had the guts or time to take on Cassie. We all knew what would happen. Cassie would talk the idea into the ground until the partner having the nerve to suggest it, would run for cover back to his office. So with no one wanting to take on this difficult challenge, good idea or not, the matter would die and we would forget about whatever change was proposed.

I better stop now. I do know where the bodies are buried but some of those skeletons may be mine. So with that, I am signing off.....



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MY FUNNY STORIES ABOUT SNAKES

My mother has a deathly fear of snakes. She cannot look at a picture of a snake or allow a fake one anywhere near her. She claims her justification for this dates back in time when we lived on a farm and we all went barefoot as much as possible. She claims she would walk on top of the garden hose- obviously not put up but left out in the yard -so she wouldn't get sticker burrs in her feet. The only thing is she claims she thought she was on top of the water hose but instead she was on top of a snake! Somehow, I doubt this but she is adamant about it.



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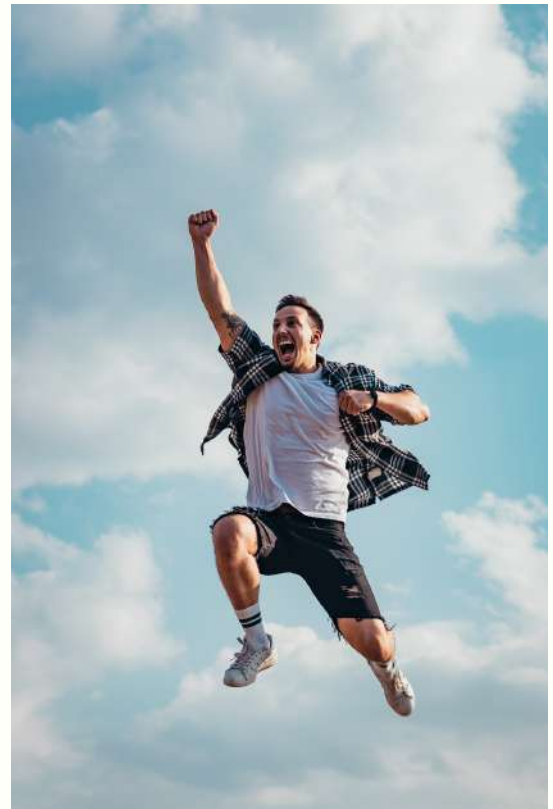
Another snake story is when a baby water moccasin decided to leave the friendly waters of Buffalo Bayou, slither across a busy street and moved into my fishpond. I panicked because of my goldfish, all with names such as Rocky and Rocky Junior. In my nervousness over their safety, I made the mistake of telling my mother. My dad thereafter called me and gently said, “Maybe that wasn’t a good idea because now your mother is insisting you dynamite and otherwise BLOW UP the yard to get rid of that snake.” Unfortunately even though my mother was in a different town many miles away from my fishpond, her fear of snakes was driving my dad crazy.

So, instead of blowing up my yard and fishpond, I went to the Academy store and bought a minnow trap. Minnow traps are what fishermen use to keep their minnows alive before popping them on their hooks. It is a metal open-wire cylinder with an inverted opening on both ends. Even though there is an opening on both ends, the minnow can’t figure out how to get out, and as it turns out, neither can snakes.



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So I put the minnow trap in my fishpond and the snake went in and couldn't get out. It drowned with its mouth clamped on the metal trying to bite its way out. When I informed my mother she said, "I am so proud of you Carla". Actually, she was more proud of me for this feat than anything else I had ever done. Law School is nothing in her eyes as compared to snake killing.



Inspired by my mother's awe, I thought I might as well share my accomplishment with my law firm that at the time wanted lawyers to share their latest achievements. I took a picture of the dead snake I had conquered and submitted it to the law firm under the achievement section. I still can't understand why they were not as enthusiastic as my mother. So no surprise my snake win never got reported as one of my accomplishments. Oh well, such is law firms.



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