

Are humans wired to survive?

by [Charles W. Bryant](#)

Hard-wired Human Survival Instincts

So are humans wired to survive? It sure seems like it. There are many examples of hard-wired human instincts that help keep us alive. Perhaps the most obvious case is the **fight-or-flight** response, coined by Harvard University physiologist Walter Cannon in 1915. When humans are faced with danger or stress, a biological trigger helps us decide whether to stay and fight or get the heck out of there -- flight.

When we're stressed or staring danger in the face, the brain's **hypothalamus** is activated. It initiates a series of chemical releases and [nerve](#) cell responses that gets us ready for the impending scenario. [Adrenaline](#) is released into the [blood](#) stream, our heart rate increases, blood is pumped more quickly into our muscles and limbs. Our awareness, sight and impulses all intensify and quicken. You can thank our [caveman](#) ancestors for this one. Early man faced a lot of dangers, and the fight-or-flight response evolved to help them evade or battle those dangers in order to survive. Today, it's what allows an ordinary Joe to rush into a burning building or a mother of three to lift a car off of one of her children -- a phenomenon known as **hysterical strength**. It also helps us out in non-life threatening situations like a boss screaming in your face or possibly fleeing -- or getting involved in -- a barroom brawl.

Another way we seem to be hard-wired to survive is in how we pick and choose our reproductive partners. The British Broadcasting Corporation (BBC) produced a show called "Human Instinct" that tested an interesting theory about how we pick our partners. You're probably thinking it's all about visual appeal. Would you believe it has more to do with your nose? Here's how it works: Humans all have different genes that help determine how our [immune systems](#) work. Some people are better at fending off certain sicknesses more than others. When we pick reproductive partners, they would ideally have a set of genes that supports an immune system different from our own. That way the offspring would get both sets of genes and be able to fight off a larger range of sickness and disease.

So that part is easy enough to understand. Here's where the nose comes into play. In its study, the BBC supposes that a human's [smell](#) has more to do with our instinctual attraction than sight. To test it, the BBC went to Newcastle University and recruited six women as test subjects. Their blood was tested and six genes were identified to indicate what kind of immune system they had. Then each woman wore a T-shirt to bed on consecutive nights. The shirts were placed in separate jars, and the show's host smelled each one to pick out which scent was most appealing to him.

The findings revealed that the two scents the host preferred shared none of his immune system genes. In this case, opposites attracted and the hypothetical baby they would produce would have the most wide-reaching immune system gene set. The host didn't know what any of these women looked like -- he only had his nose to do the work for him. The results indicate that humans have a hard-wired ability to choose a partner that would produce a robust, healthy baby and help to ensure the survival of the human race.

Anatomy of Survival

So we've seen that flight responses and our own scents play a part in our bid to survive. But did you know that a baby's cry is also a survival mechanism? Many animals are born with the ability to survive on their own. Humans are the only animals that are born almost completely defenseless and depend on parents to provide everything from safety and shelter to mother's [milk](#). The one thing a human baby has hard-wired into its system is the ability to [cry](#). No one teaches babies to cry. It's an automatic response to let the parents know that they need something. This fact is further illustrated by the notion that babies can change the pitch and volume level of their cry to indicate how serious their situation is.

Another hard-wired example is the fact that humans are instinctively turned off by bitter foods. Sugary foods typically supply energy, while many toxic plants have a bitter taste. If you feed a baby some sweet banana mash, she'll probably eat it up. If you give her some mushy rhubarb, she'll most likely spit it out. While rhubarb isn't dangerous, it's bitter, and our natural hard-wired instinct tells us to spit it out because it could be toxic.

You also can see how food plays a part in all of this by looking at humans' [diet](#). Our most robust ancestors lived on fatty diets that were high in [calories](#). After all, it takes a lot of caloric energy to hunt and forage all day. Those who ate this rich diet lived longer than those who didn't and reproduced more as a result. Humans still instinctively crave that high-calorie diet, even though our days of hunting are pretty much over. You may not want to admit it, but you crave that meat and potato more than the beet salad -- unless of course, you're a [vegetarian](#). However, a lot of vegetarian foods are shaped and flavored like meat. Is this further evidence that we all crave the same meat-rich diet as our distant cave-dwelling cousins? Perhaps.

A study published in the Proceedings of the National Academy of Sciences indicates that humans are also hard-wired to notice trouble. The study's subjects watched images of various outdoor scenes, two at a time. The second image was slightly different from the first. The changes involved a variety of things, from living animals and humans to inanimate objects like cars and wheelbarrows. The results showed that we identify changes much faster and more accurately if they're living things. Nearly 90 percent of the living changes were spotted, compared with 66 percent for inanimate objects. In other words, we're naturally wired to look out for living things. Just as our ancestors scanned the landscape for the charging wildebeest, we're still on alert for anything that could potentially be a threat.

If you want to learn more about the human psyche and how we evolved over the years, visit the links on the next page.

"AT FIRST I WAS AFRAID. I WAS PETRIFIED."

Talk about wired to survive. In June 2008, a two-year-old toddler in Sacramento, Calif., survived for nearly a week after his mother passed away in their house -- by eating cat food. Officers responded to a call from a Child Protective Services social worker who was checking on the chronically-ill mother. They found that she had died about six days earlier and that the son ate whatever he could find within his short arm's reach. Officers called it a miracle, but it sounds like the boy simply did what all humans are wired to do -- survive.

Sources

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Respond to these questions after reading the text:

1. What is one way that our brains are “wired to survive” according to the article? Give an example from the article of how our brain reacts in situations using that particular skill.
2. According to the article, how do humans survival skills affect the way we choose a partner? Cite evidence from the article.
3. How do foods play a part in our survival mode according to the article? Give specific examples.
4. According to National Academy of Science, we are programmed to notice trouble around us, how is this useful for humans to survive? Give an example.
5. Give an example of a time when you felt as if you were in danger and had to survive. What coping mechanism helped you to avoid the
6. situation?
7. Out of the ways that we learned that humans are “wired to survive”, which one would you be interested in learning more about? Then looking at the sources this author used, which source would be best for you to locate to learn more about your topic and why?

After reading the article and answering the questions, use your phone to take this quiz over “Could you survive in the wilderness?” <http://adventure.howstuffworks.com/survival/wilderness/survival-quiz.htm>