

- You'll see a video about the work of neurobiologist Robert Sapolsky, author of the book *Why Zebras don't get Ulcers*. Are the statements below True or False, according to the video?
1. Wild animals experience stress for much shorter periods than humans. ____
 2. Sapolsky compares baboons to westerners because they stress one another out. ____
 3. During stressful situations, energy is entirely directed to the immediate survival needs. ____
 4. Stress response in humans takes longer to switch off for biological reasons. ____
 5. Sapolsky himself has difficulties coping with stress. ____

Stress response - savior to killer

- Watch the video again and circle the words or phrases that were actually used. If you're a normal mammal, what stress is about is three minutes of **desperate / screaming** terror on the savannah, after which it's either over with or you're over with.

Over the last three decades, Stanford University neurobiologist Robert Sapolsky has been **improving / advancing** our understanding of stress, how it **impacts / affects** our bodies, and how our social **position / standing** can make us more or less susceptible. Most of the time, you can find him teaching and researching in the high-achieving, high-stress world of brain science.

But that's only part of his story. For a few weeks every year or so, Sapolsky **shifts / moves** his lab to a place more than 9,000 miles away, on the plains of the Masai Mara reserve in Kenya, East Africa.

You live in a place like this, you're a baboon, and you only have to spend three hours a day getting your calories. And if you only have to work three hours a day, you've got nine hours of free time every day to **dedicate / devote** to making somebody else just miserable.

They're not being stressed by lions chasing them all the time. They're being stressed by each other. They're being stressed by social and psychological **turmoil / tumult** invented by their own species. They're a perfect model for westernized stress-related disease. Because what stress is about is somebody's very intent on eating you or you are very intent on eating somebody and there's immediate crisis going on.

When you run for your life, basics are all that matter. Lungs work overtime to pump **huge / mammoth** quantities of oxygen into the bloodstream. The heart races to pump that oxygen throughout the body, so muscles respond instantly.

You need your blood pressure up to deliver that energy, you need to turn off anything that's not essential: growth, reproduction, you know, you're running for your life, this is no time to ovulate, tissue repair, all that sort of thing; do it later if there is a later.

When the zebra escapes, its stress response shuts down. But human beings can't seem to find their off switch.



We turn on the exact same stress response for purely psychological states: thinking about the ozone layer, the taxes coming up, mortality, 30-year mortgages, we turn on the same stress response and the **key / basic** difference there is we're not doing it for a real physiological reason, and we're doing it **all the time / non-stop**. After a while, the stress response is more damaging than the stressor itself, because the stressor is some psychological nonsense that you're falling for. No zebra on Earth, running for its life, would understand why fear of speaking in public would cause you to secrete the same hormones that it's doing at that point to save its life.

I'm studying (*) stress for thirty years now and I even tell people how they should live differently. So, presumably I should have incorporated all of this. And reality is like I'm **unbelievably / incredibly** stressed and type A, and poorly coping and... like why else would I study this stuff eighty hours a week?

No doubt, everything I advise is going to lose its credibility if I **drop dead / keel over dead** from a heart attack in my early fifties. Nah, I'm not good at dealing with stress. You know, one thing that works to my advantage is I love my work; I love every aspect of it, so that's good. **Nonetheless / Nevertheless**, this is pretty clearly a different place than the savannah in East Africa, you know? You can do science here, that's very different and more interesting in some ways. You can have hot showers on a more regular basis, that's a more interesting, varied world in lots of ways, but, huh, that's a lot out there that you sure miss.

(*) *I've been studying* is the correct form

