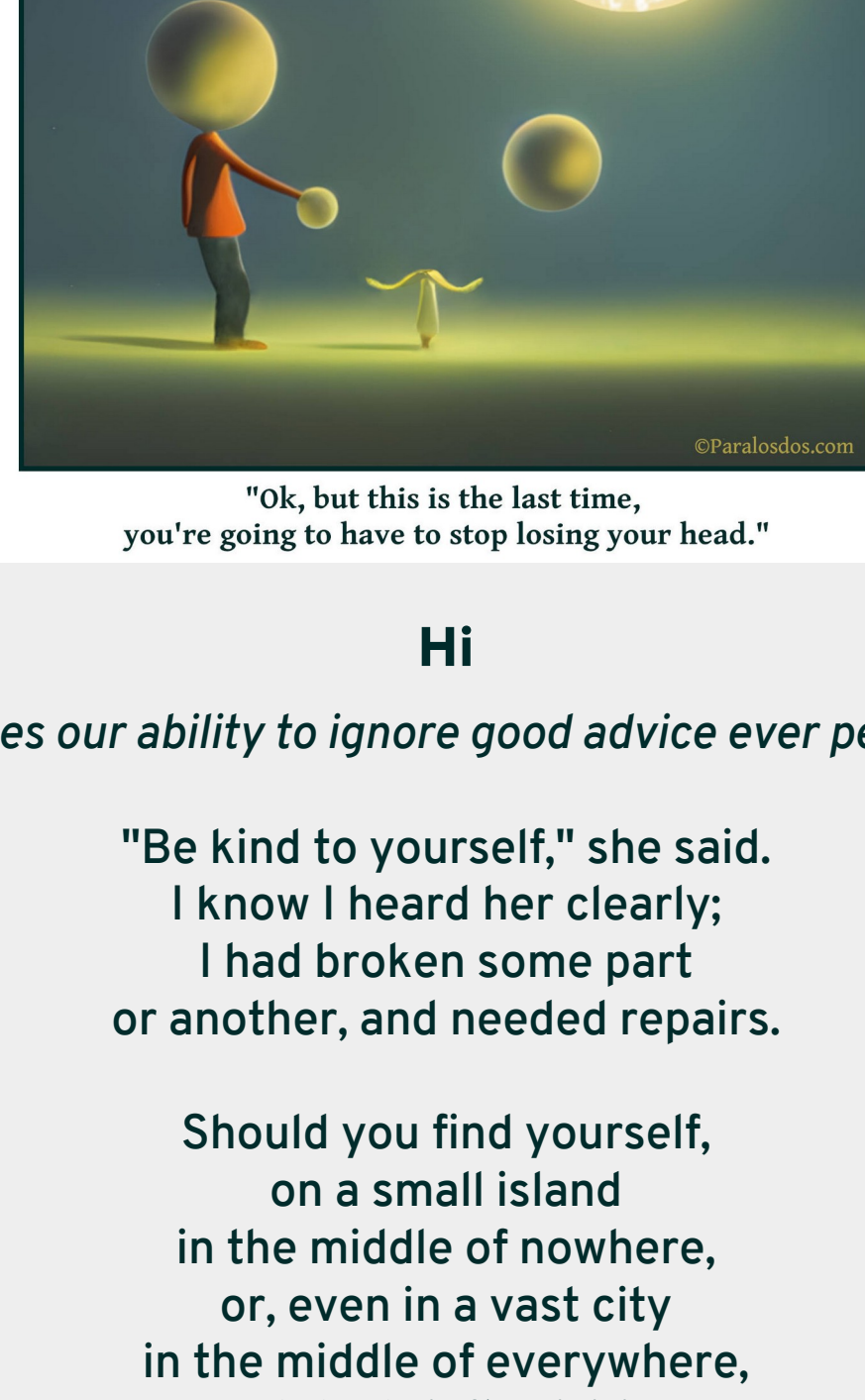


# Change Happens

Have a great day,  
find your way

## The Alien Life



"Ok, but this is the last time,  
you're going to have to stop losing your head."

**Hi**

*Does our ability to ignore good advice ever peak?*

"Be kind to yourself," she said.  
I know I heard her clearly;  
I had broken some part  
or another, and needed repairs.

Should you find yourself,  
on a small island  
in the middle of nowhere,  
or, even in a vast city  
in the middle of everywhere,  
and the briefly visiting  
fixer upper of parts speaks,  
you must listen.

I don't know if she was  
as beautiful then as her  
words have made her now,  
I believe she was.

That is how  
I came to receive  
the best advice  
I ever ignored.

*Trying to regenerate*

## Stem cells: What they are and what they do

*"Stem cells are a special type of cells that have two important properties. They are able to make more cells like themselves. That is, they self-renew. And they can become other cells that do different things in a process known as differentiation. Stem cells are found in almost all tissues of the body. And they are needed for the maintenance of tissue as well as for repair after injury."*

....

*There are various types of stem cells. Embryonic stem cells are the most versatile since they can develop into all the cells of the developing fetus. The majority of stem cells in the body have fewer abilities to give rise to cells and may only help maintain and repair the tissues and organs in which they reside. "*

- A nicely presented primer on stem cells. If you don't have any understanding of them, this is a good place to start. Modern stem cell research and use has roots back to 1956 and the first bone marrow transplants. Stem cells play a critical role in our internal physical existence. It also serves as a good reminder of the basics if you wish to re-engage the topic. I feel like the use of stem cells has a bit of a mysterious Frankenstein element to it that is misleading. The most effective stem cells are embryonic, usually derived from early stage embryos taken from in vitro fertilization. This is where it gets controversial, the idea that embryos may be grown for, essentially, parts.

*Flying in empty*

## How Voyager 1 is still bringing us surprises from the very edge of our solar system

*"The problem related to one single chip in the FDS, which contained some of its computer's software code. The chip had broken, and therefore so had the data."*

*But with Voyager sitting more than 24 billion kilometres from Earth, further away than Pluto and the most distant human-made object ever made. A trip to the repair shop would be impossible.*

*Instead, Nasa engineers divided up the important bits of code and moved them elsewhere in the FDS, making other parts of the computer pick up the extra work that would have been done by the broken chip. That was a complicated process because it also meant updating all of the spacecraft's code so that it knew where the altered parts of the code had been moved to. "*

- Voyager 1, and 2. Anyone who has ever closed their eyes and imagined travelling through space has to be interested in this. Voyager 1, famous taker of the pale blue dot picture and the furthest we have, by ingenuity and extension, ventured beyond our rock. For me, the most mind bending thing is that it has been moving at 61000 kilometers per hour (38000 mph) since 1977 and still won't leave the Oort Cloud, our solar neighbourhood, for another 30000 years. We are an unimaginably long way from going anywhere that might be truly inhabitable. Mars bubble aside.

*Calmly breathing*

## What is box breathing?

*"The unconscious body, or the autonomic nervous system, refers to the functions that take place without any thought, such as the heart beating or the stomach digesting food. This system can be in a "fight, flight, or freeze" or "rest and digest" state.*

*In fight, flight, or freeze, the body feels threatened and reacts to help the person escape or avoid danger. Among other things, the body releases the hormones adrenaline and noradrenaline. These set off a cascade of reactions, which include making the heart beat faster, speeding up breathing, and boosting blood sugar levels.*

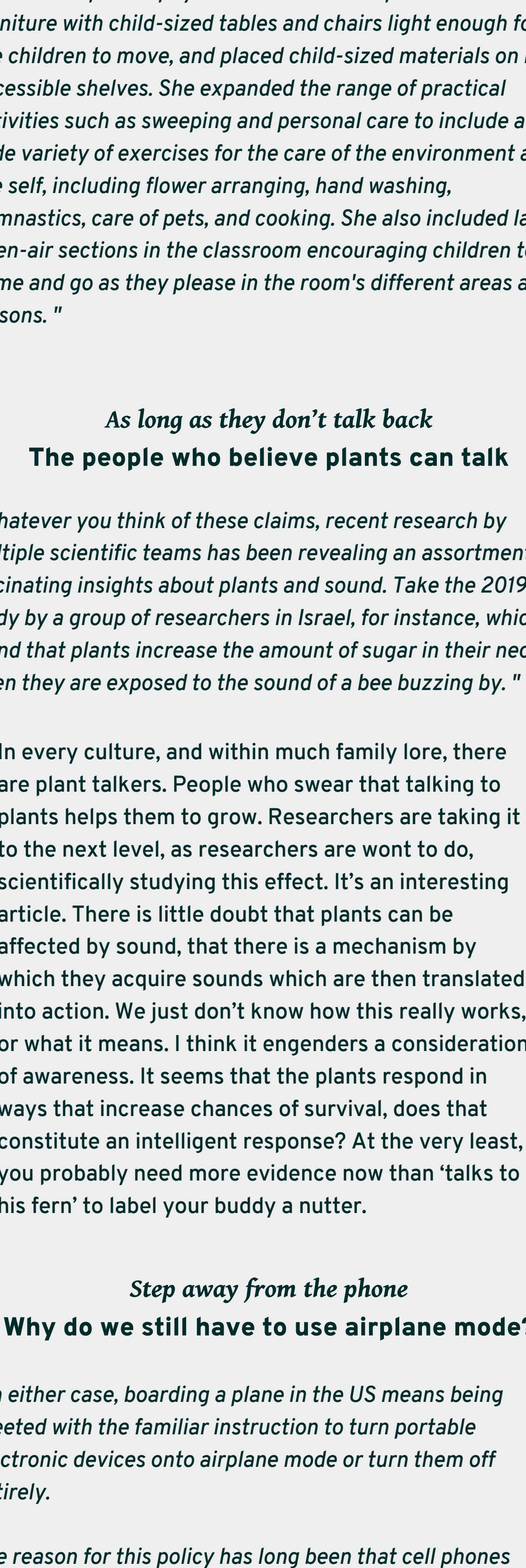
*Being in this state of stress for too long or too often has adverse health consequences. The physical impact of this state can cause wear and tear on every system in the body. "*

- A year or so ago, I put in an article on box breathing. I'm including a similar article because it's a fantastically useful tool for alleviating stress in a moment. Simple and really effective in controlling inner tension and centering yourself, in reclaiming some calm. Nothing fancy, no voodoo about it. It's just an effective method of using focussed breathing to feel better.

**January 6, 1907**

**Maria Montessori**

**Casa dei Bambini**



## Wiki Rabbit Hole

*"In this first classroom, Montessori observed behaviors in these young children which formed the foundation of her educational method. She noted episodes of deep attention and concentration, multiple repetitions of activity, and a sensitivity to order in the environment. Given a free choice of activity, the children showed more interest in practical activities and Montessori's materials than in toys provided for them and were surprisingly unmotivated by sweets and other rewards. Over time, she saw a spontaneous self-discipline emerge.*

*Based on her observations, Montessori implemented a number of practices that became hallmarks of her educational philosophy and method. She replaced the heavy furniture with child-sized tables and chairs light enough for the children to move, and placed child-sized materials on low, accessible shelves. She expanded the range of practical activities such as sweeping and personal care to include a wide variety of exercises for the care of the environment and the self, including flower arranging, hand washing, gymnastics, care of pets, and cooking. She also included large open-air sections in the classroom encouraging children to come and go as they please in the room's different areas and lessons. "*

*As long as they don't talk back*

## The people who believe plants can talk

*"Whatever you think of these claims, recent research by multiple scientific teams has been revealing an assortment of fascinating insights about plants and sound. Take the 2019 study by a group of researchers in Israel, for instance, which found that plants increase the amount of sugar in their nectar when they are exposed to the sound of a bee buzzing by. "*

- In every culture, and within much family lore, there are plant talkers. People who swear that talking to plants helps them to grow. Researchers are taking it to the next level, as researchers are wont to do, scientifically studying this effect. It's an interesting article. There is little doubt that plants can be affected by sound, that there is a mechanism by which they acquire sounds which are then translated into action. We just don't know how this really works, or what it means. I think it engenders a consideration of awareness. It seems that the plants respond in ways that increase chances of survival, does that constitute an intelligent response? At the very least, you probably need more evidence now than 'talks to his fern' to label your buddy a nutter.

*Step away from the phone*

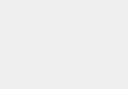
## Why do we still have to use airplane mode?

*"In either case, boarding a plane in the US means being greeted with the familiar instruction to turn portable electronic devices onto airplane mode or turn them off entirely.*

*The reason for this policy has long been that cell phones might interfere with aircraft systems. But the EU lifted its long-standing ban on cell phone usage in airplanes in 2022-- so why are Americans still required to use airplane mode?"*

- An article about why airplane mode is still being used in the US. On flights in Europe, Mexico, and in many other places, they've stopped using it. I included this simply because I can't understand why anyone would want people to be able to have a conversation on a phone on a plane. To me, the idea of people squawking into their phones in the confinement of a flying machine is horrifying. The loud talkers sharing their stupendous insights and the vast importance of their interaction at 35000 feet. Nope. I am content with the odd baby crying, some random coughing and the thrum of the engines.

it's your life  
you understand



*Please feel free to forward Change Happens to anyone you think might enjoy it and have a most excellent day*