

Memory of Gravity

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I used to play with a swing a lot. After school, I swung away in a quiet corner of the school yard. Higher and higher to the sky. Further and further from the ground. My favorite part was to jump off from a moving swing and land on the ground. The brief moment of being in the air before landing was magic to me. Throwing myself from a swing, I knew what would receive me was not the sky, but the ground. There was mutual trust between my feet and the ground. When my feet touched the ground, I confirmed the trust, dashing back to the swing to fly again.

At the time, I didn't think that I was playing with gravity, but I could sense that there was an attraction between me on a swing and the ground. Gravity is attraction. In order to digest that idea, I need a little help from my memory of playing with a swing. The attraction exists among particles, among planets, among galaxies. Gravity is one of the four faces of a major force of the universe. Since the Big Bang, the oscillation of energized particles have generated radiation. Webs of electrons' orbits fabricate conductive material in which the migration of electrons generate electricity. The creation of these patterns of flow of electricity makes polarity, and gravitational force exists in-between the polarities.

Gravity has been a significant character in the story of the universe. Gravity determines the universe's expansion rate: If the expansion rate were too great, everything would have turned out to be dust. If the gravitational force was too strong, everything would have been crashed

to pieces. Gravity determined the characteristics of galaxies: If gravity were too strong and didn't give enough time for primordial clouds to slowly transform their gaseous material, there would have been only lifeless elliptical galaxies, but no spiral galaxies, such as our Milky Way galaxy, with the potential for life forms. In our solar system, gravity determined the emergence of life on Earth: If Earth were as small as Mercury, Venus, Mars, and Pluto, the crust of Earth would have been too strong, and the current of material for further chemical reactions would not have happened. If an attraction between the Sun and Earth were too weak, Earth would have been too far from the Sun to receive enough energy to cause chemical reactions for the birth of life.

In the miraculous balance of gravity, life emerged on Earth. On Earth, gravity keeps us on the ground, and ever since the emergence of human civilization, there have been a human desire to take off from the ground and reach the sky. In ancient mandaras, the tree of life grows from the ocean, breaks the ground, and touches the sky. The story of the Tower of Babel exemplifies the human attempt to reach the sky where people believed that the gods lived. Gothic architecture pierces the sky. Wrights' innovation of air plane afforded humans to see the ground from God's eyes, and the creation of spacecraft made it possible to see Earth in space though our own eyes. Gravity is a kind of love that has made our existence possible. But with advancements in technology, we now defy gravity to see more, to know more, and to be something else. I swung between the ground and the sky. I could play with gravity as a young person, but as I grow older, I forget how to dance with this universal force. I forget the strong bond between me and Earth. I wonder if all those technological developments have made us forget that gravity is attraction, bond, and love.

Gravity taught me how to move, walk, and run. I began to walk before my first birthday. I didn't crawl enough. My legs were not strong enough. My motion was discoordinated. When I ran, I stumbled a lot and cried a lot. Of course I didn't think that I was given a second chance to learn how to ground myself with my legs. Now I think so. For humans to stand up, it was necessary to achieve a new balance with gravity, and it took time. We see infants' attempt to stand up as a natural developmental stage of human beings. I wonder what makes infants stand up. In other words, what did we inherit from the first

human who decided to stand up on the ground? What motivated humans to stand up in the first place? Was that just an accidental event? Was that a result of genetic mutation? Did they stand up to protect themselves? Did they stand up out of curiosity? Reasonable suppositions, but I am not convinced.

An image comes to my mind. It is Brian standing in the middle of the class with his arms up to the air, saying, "Use me up!" He said that he changed his career in order to fully utilize his creative potential. He didn't want to cut off any part of his personality.

What Brian meant by saying "Use me up!" is a total dedication of oneself to the universe.

I think that humans stood up to make that statement. In order to achieve total involvement in the universe story, humans had to stand up. By standing up, humans started to actively engage in the dynamic process of the universe. The universe seeks effective ways of using free energy. Our ancestors heard that desire of the universe and stood up to be an agent to actualize the universe's dream.

The universe speaks to us, and memories of Earth makes us respond to the universe. In the process of the birth of a star, a series of fusion took place. Through these fusion reactions, hydrogen was converted into helium, helium into carbon, carbon into oxygen, and in the end into iron. Iron cannot be used as nuclear fuel. Since the emergence of iron, a star no longer generates outward radiation pressure. When the Sun uses up its reserves of energy to offset gravity, gravity will crash the Sun. I feel that the Sun's dream of expansion pushed humans to stand up and keeps pushing newborns to stand up.

We inherit all the memories of Earth and its inhabitants which existed before us. In water, I recall their memories. I feel vibrant. Cells of my skin sing old forgotten songs of prokaryotes and eukaryotes. When I think that about 60% of the human body is water, it seems natural for me to feel home in the water. Being in the water reminds me of a different kind of dance with gravity. Strong bonds among water molecules push me up to the surface, and I float. In each stroke, I feel the smooth flow of water on my sides. My body moves horizontally with grace. I wonder if I stay in the water long enough, might grow fins between my fingers as domesticated pigs let their hair grow when released to the wilderness.

Some mammals, such as whales, decided to live in the water. In the

water, I envy them and curse our ancestral decision to come out to the land and challenge gravity. I retrieve to the water. I rest in the water. I play with water and go back to the ground. It was in the water where I grew strong. Before my school year, I spent a lot of time in my bed. I periodically had bronchitis. As I grew little older, my condition got better. Yet, I could not develop much trust in my body. I saw myself as weak and fragile and my body as something which I could not control. When my mother sent me to swimming lessons, and I loved it. I kept myself at the bottom of the pool and held my breath as long as possible. When I could not hold my breath any longer, I kicked the floor and let my body move upward. In the water, I played with gravity differently. I looked forward summer when I could play with the sun and water. I was no longer pale. I became a sun-baked child. Water gave me confidence and stability to be with gravity on the land.

Gravity is attraction. Being in the attraction with this human forms seems so natural, so I haven't really thought about the fact. As I reflect upon the history of life on Earth as well as my own childhood memory, I see a long learning process behind this seemingly natural phenomena. Some species dared to come out from the ocean to be a part of this learning process. On land, humans chose to stand up to devote themselves to the universe as one form of free energy. Gravity is attraction, bond, and love. We, living creatures, have always sought ways to achieve new relationship with this universal force. Doing so, we have complexified ourselves and cultivated our potential. In order to know my potential, I left home for Tokyo and eventually for California. I loved my family, but had an urgency to be away from them. I needed to differentiate myself from them in order to be my own planet. My parents' love gravitated me, but I knew that the gravity might crash me down if I didn't decide to stand up with my own legs and begin my own journey.

When I swung in a quiet corner of school yard, as it was getting dark, I could hear my mother saying "Dinner is ready" in my mind. I run back home. I was drawn to home by psychological gravity. And the further I go, the more I feel that gravity. I am away from my family and my culture, yet I am a part of it. I suppose that what astronauts experience when they go into space is this psychic gravity. Seeing Earth underneath and being separated from the planet, they recognize that they are a part of it. Gravity brings us back home. Gravity reminds us where we belong. Gravity tells us what we are.

We are unique expression of the universe's unfolding creativity. Each species is a dream child of the universe. The universe differentiates itself for richer understanding of itself and deeper unity within itself, and we are a part of this process. Each species exists for one another to reveal its own destiny. Whales live an aqua life which humans didn't choose. They nourish other potentialities in which humans cannot flourish. A whale may say to me, "I will tell you a story of life under water, so you tell me your own story. Don't envy me, but live your life fully on land, and write your own chapter in the story of the universe." The universe is so profound that any one entity cannot manifest its full potential. So, we need each other. Each species, planet, and galaxy tries to find its own tunes to create rich layers of harmony in the universe. Each dances with different rhythms. Gravity holds all these diversities together, making the existence of the universe possible.

"Every profound new movement makes a great swing also backwards to some older, half-forgotten ways of consciousness," says D. H. Lawrence.

"Standing up" is a great movement in the human history. The movement altered human consciousness forever. Standing up and freeing their hands, humans became tool makers. With sophisticated tools, we now make use of electricity and radiation. But not gravity. Perhaps, rethinking our relation with gravity, we can remember "some older, half-forgotten ways of consciousness." A swing moves back and forth. A tree develops roots as well as branches. We cannot just project ourselves to the sky and conquer it by technology. We need to know how to ground ourselves on Earth. "Grounding" means to me, being a part of Earth with all the history behind it. Remembering Earth's memory of gravity and remembering our ancestral decision to stand up, we can move forward with the rest of Earth/universe community. Gravity is attraction, bond, and love. Swinging back and forth in time, I find that gravity is everywhere in the memory of the universe, Earth, and my childhood. And the memory of gravity gives me courage to say, "Use me up!" to the universe.

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