

President HIRANO's 2013 Entrance Ceremony Address

Be strong enough to make your dreams come true

First of all, I would like to heartily welcome you to Osaka University. I also offer my sincere congratulations to your parents. All of you are embarking on a new life, a life full of promising prospects. For me, as President of Osaka University, this is a supremely happy moment.

Let me now talk a little about Osaka University where you will spend the coming years.

Although officially the government set up the university, in actuality, local people arranged the funds and temporary operational expenses for its founding. Thus, in essence, Osaka University was founded thanks to persons involved in the university and to the enthusiastic support of Osaka citizens wishing for an imperial university.

Osaka University's roots reach back to Tekijuku, a private "place of learning" founded in 1838, by the doctor and scholar of Western sciences, OGATA Koan. SHIBA Ryotaro, a graduate of Osaka School of Foreign Languages, the predecessor of Osaka University of Foreign Studies, wrote at the beginning of his novel *Kashin* that Teijuku was the predecessor of Osaka University and that OGATA Koan was the founder of Osaka University.

More than 1000 students came to Tekijuku from all over Japan and studied day and night. Students included FUKUZAWA Yukichi who served as the school head and founded Keio University in later days, NAGAYO Sensai who served as the school head following FUKUZAWA and built the foundation of Japanese medical care system and public health system, HASHIMOTO Sanai who was killed at the age of 25 in the Ansei Purge, SANO Tsunetame who found Hakuaisha, the predecessor of the Japan Red Cross, OMURA Masujiro who created a modern military system for the Meiji government, OTORI Keisuke who diplomatically confronted the Western powers, and IKEDA Kensai who served as the first dean of the Faculty of Medicine at The University of Tokyo in 1810. Thus, Tekijuku produced persons who were active as leaders in various fields.

TEZUKA Osamu, a graduate of Osaka University's School of Medicine and a manga artist famous for his works such as *Black Jack* and *Tetsuwan Atom* [Mighty Atom], wrote about his roots in his work, *Hidamarinoki* [Trees in the Sun]. Osamu's great-grandfather, TEZUKA Ryoan was the doctor of Western medicine in *Hidamarinoki* and he studied under OGATA Koan with FUKUZAWA Yukichi.

Koan's spirit is symbolized in his motto "for people, for all that is, for the nation, and for the path." Tekijuku students played a major role in the modernization of Japan in the early Meiji Period. Tekijuku was opened as a place of learning medicine, but not all students aimed to become doctors.

NAGAYO Sensai who served as the school head following FUKUZAWA and built the foundation of Japanese medical care system and public health system, wrote: “Although Tekijuku was a school for learning medicine, actually, it was a place to read and study Western books. Not only doctors, but also military scientists, military engineers, botanists, chemists, those hoping to learn Western learning entered this school.”

Students were interested in chemistry as well. One of the students collected horse hooves and tried to produce ammonia by steaming and roasting them in the yard at Tekijuku. The smell was so bad the students ran out into the streets where they were yelled at by people and barked at by dogs. So they rented a humble boat on the Yodo River and continued experimenting, trying to produce ammonia.

FUKUZAWA Yukichi wrote about this episode in his biography.

Conducting smelly experiments on the boat was a good idea, but when the smoke rose and the wind blew, the smell was blown to the land and people there complained about it. Whenever the people on the land complained, students moved the boat, moving up and down the river. Upstream from Tenjinbashi and Tenmabashi, to Tamaebashi downstream. They did experiments on the boat moving about on the river.

I can imagine the comical scenes of the students conducting experiments as the boat was moved up or down the river in response to the people complaining about the stink.

FUKUZAWA wrote, “Students learning Western learning in those days may have looked wild, but actually they read books and studied on the quiet and gained actual experience as well.” As shown in his memoirs, student in those days were interested in a variety of things in order to acquire new knowledge.

Young people who studied at Tekijuku were stimulated by the free and vigorous academic atmosphere and foresight and became a driving force for carving out the new era called the Meiji Restoration. Tekijuku’s spirit was passed on to Osaka Provisional Hospital and later this same spirit infused the founding of Osaka Medical School and Osaka Prefecture Medical College. Eventually this led to the establishment of Osaka Imperial University in 1931 with two schools, Medicine and Science, the 6th imperial university.

At the time of the start of our university in 1931, the freshmen of the Schools of Medicine and Science numbered 86. Now, 80 years later, Osaka University, to which we welcome you, is top in undergraduate admissions in Japan.

NAGAOKA Hantaro, the first president of Osaka University and the father of particle physics in Japan and who advocated the Saturnian model of the atom, left a saying that is written on a scroll decorating my office: “Do not lick the sake lees.”

Sake lees are the residue left after making sake. They refer to something that is no longer

needed, to spiritless remains. One might say that “Do not lick the sake lees,” means “Do not copy only the shape without drinking the passion of the creator.” This is the attitude of learning that I want you to learn at Osaka University inherited from Tekijuku — seek the essence.

Osaka University provides an environment where you always can conduct advanced and unique research. However, you need to seek for such opportunities yourself. If you would be unique, an attitude to ascertain the essence of things is needed. You need to cultivate the sensitivity so that you can see questions, illegitimacy, changes that you may overlook while sitting around. Besides classes, there are many opportunities to learn outside of one’s classes at Osaka University, for example, in club activities, NPO activities, overseas training in summer holidays, and more. Graduate school students will have many opportunities to pursue the true essence in natural and social phenomenon through experiments and field studies. You must not let these chances pass you by.

Whether you will make use of such chances depends on your sensitivity, curiosity, powers of observation, investigation, persistence, concentration, and inspiration. Your teachers will not teach you one by one as they may have in high school. Faculty members are themselves studying day and night to find the answers for numerous issues. Just listening, sitting in class will not enable you to see the true essence of things. And, of course, it would be most unusual if the true essence of matters came looking for you. True essence is suddenly revealed to those who have been asking for and are ready to meet it. Then, how can we cultivate the ability to see the true essence? Zhuangzi describes this scene in his writings:

Once upon a time, I, Chuang Chou, dreamt I was a butterfly, fluttering hither and thither, a veritable butterfly, enjoying myself to the fullest, and not knowing I was Chuang Chou. Suddenly I awoke, and came to myself, the veritable Chuang Chou. Now I do not know whether it was then I dreamt I was a butterfly, or whether I am now a butterfly dreaming I am a man.

Does a butterfly in the dream dream Zhuangzi or is Zhuangzi a butterfly? And in response to the question of what is the truth, Zhuangzi said that there was no absolute truth. What is It is also Other, what is Other is also It. There they say, “this is true and that is false” from one point of view; here we say, “this is true and that is false” from another point of view. Are there really It and Other? Or really no It and Other? In this way, when changing viewpoints, it’s difficult to say which is right and which is wrong. Ways to look at things vary by viewpoint.

Furthermore, Zhuangzi said that such relative ways of viewing things did not count and that what mattered most was to enjoy something as it was. For me he seems to say that this moment, the point between the past and the future, matters. We can get a glimpse of the

essence of what matters in his way of thinking.

Zhuangzi says “the knowing of not knowing” is of importance. The duality of relative opposites such as good and bad, justice and injustice, beauty and ugliness, two opposing concepts can have opposite meanings when viewed from a different perspective. However, this judgment is made based on human knowledge. As long as humans make judgment with their knowledge, they cannot go beyond the limit of knowledge. Humans bind and twist an unfettered way of living with their value judgments, the product of knowledge.

Viewing beyond the scope of knowledge, not being bound by knowledge, in other words, accepting things as they are — this is what he called “the knowing of not knowing.”

What you have learned is only a part of knowledge, a view from one perspective. As Zhuangzi said, when viewing a matter from a different viewpoint, one can see the same thing differently. I want you to see things, with awareness of problems, not from one perspective but from multiple perspectives. Then you may see the essence of the matter there.

Have you heard of Christopher Lloyd’s book *What on Earth Happened?* It was translated into Japanese and published last year. This book describes the 13.7 billion-year history from the birth of the universe to present day in a straightforward and persuasive manner, covering a wide range of topics such as physics, geology, historiography, biology, folklore, and religious studies.

The story depicts the harmonious relationship between humans and nature during an extraordinary long period in the 13.7 billion years. This book makes you think about the transcendent, the universe, the earth, humans, your lives, and cultivating your personal philosophy.

He wrote that during the Earth’s 4.6-billion-year history, catastrophes, wiping out 90 percent of all life on earth, have occurred at least five times. The most recent cataclysm was the extinction of the dinosaurs 65.5 million years ago. It has been predicted that humans will trigger the Sixth Extinction in the history of the Earth. His book is full of interesting topics.

As an immunologist, I found it most intriguing that the domestication of animals such as dogs and cows may have allowed animal microbes to infect humans, causing infectious diseases such as smallpox and influenza. Contagious diseases have had a great impact on human history and, in some cases, brought down civilizations such as the Inca Empire. I was very interested in his theory that the collapse of the Inca Empire was the result of the domestication of animals and resultant changes in the natural environment in which animals and microbes had coexisted.

In the last chapter of his book, he wrote about humans’ destruction of biodiversity and the population explosion during the 60 years following WWII, which, by comparing Earth’s 4.5 billion-year history to a 24-hour period, is only 0.001 second. He also suggested that warnings

by Marx, Malthus, and Darwin could become a reality. This book caused me to think again that we humans must humble ourselves and live in harmony with nature. At the same time, I found myself reassessing the miraculous fact that I live on the earth at this moment and strengthened my resolve to live in this moment.

The Great East Japan Earthquake and the ensuing accidents at the nuclear power plants in 2011, the global economic crisis, political turmoil in the world, terrorist attacks in Algeria — humans are facing unprecedented global-scale disasters. Modern society rooted in affluent material civilization that started with the industrial revolution has rapidly changed everything on a global scale in return for human prosperity. The depletion of fossil fuels is now a real problem. Nuclear power had been regarded as the trump card in energy policy, but its risks are now clear. Environmental problems such as global warming and the spread of infection are recognized as new risks.

Furthermore, developments in medicine and improvements in the social environment have resulted in an exploding world population. In addition to food problems, in the developed countries in particular, a rapid response to aging societies is needed. We must give up the idea of conquering nature with science and technology as we have done in the past and we must think about living in harmony with nature.

Likewise, we have conducted research with the belief we somehow could sidestep unavoidable issues such as aging, disease, and death through advances in bioscience and medicine. We must change such ways of thinking and review how to live a safe life while reconciling ourselves to these problems.

There is no other time but now for us to see beneath appearances and ascertain the true essence of all things. The idea of overcoming these problems through the power of science and technology is only a fantasy. We need to see the true essence within these problems and devise measures to cope with them. Humans must acquire the wisdom to resolve critical challenges to the future raised in *What on Earth Happened?* We have no future without ascertaining the true essence of all things.

It's you who will create the future. I hope you have great dreams. This year is the 175th anniversary of Tekijuku's founding by OGATA Koan who passed away 150 years ago. For me as President of Osaka University, my dream is that in 2031, Osaka University would celebrate its 100th anniversary as one of the top ten universities in the world. In the 2030s, many of you will be active as world leaders. Today you will begin to write a new page in the history of Osaka University with us. Please join us in reaching for the goal of becoming one of the top ten universities in the world by our 100th Anniversary.

Dreams cannot be achieved easily. We may even think that it's impossible to have a dream come true. Of course, this impossibility is why we call a dream a dream. People often stop

pursuing their dreams because dreams are like a mirage that we may never become reality. However, if you hold on to your dream and make every effort to achieve it, one day, someday, that dream just might come true. I have led my life with this. I hope you continue onward and upward to make your dream come true.

You have now reached the top of a big mountain, your admission to Osaka University. What are you thinking as you stand at the top of this mountain? You may look at the new view in front of you or look back upon the long road that brought you to this day. Or you may look up at the mountains before you that you have yet to climb. Each of you sees a somewhat different view, but what is common to all of you is that the scene you see is one that you've never seen before.

Whenever I talk with students or young people, I tell them the importance of reaching the top of the mountain. By reaching the top of the mountain, we become able to see something that we cannot see by only climbing part way. I'm sure that there are many mountains in your way — challenges and difficulties that you must overcome, desires and dreams that you want to come true. Filled with dreams and hopes, people climb mountains, make efforts to conquer troubles and difficulties.

We don't know how high the mountains in our lives are before we reach the top. The most important thing is, however, even if the mountain that you have reached the top of is low, once you are at the top, you can see a view that you have never seen before. There, you can have a view of the path you came on and the mountain that you will conquer next. However, in life there are no signs when we climb our personal mountains. Nobody knows how much farther it is to the top. However, once we reach the top, then and only then do we know we have reached it. The top of the mountain suddenly unfolds in front of the person who has believed in it and made the effort, similar to the inspiration that strikes the person who is ready to receive.

I'm sure that now you feel the happiness and significance of being at the top of this mountain as you survey the view dominating the foreground — the future. There is a big difference between the person who, even if only once, reached the top of the mountain after a difficult climb and the person who only went half way. I hope you will not forget this experience and make the effort to climb new mountains one by one and reach the top of every mountain that you decide to climb. We have ups and downs in life. Even when you fall to the bottom of a valley, you should think of it as a chance to climb the next mountain and aim for it. I hope you will always have hope and dreams and reach to the top of your mountain.

In *Zhuangzi* by Zhuangzi, there is the following passage:

In the northern darkness there is a fish and his name is K'un. K'un is so huge I don't know how many thousand miles he measures. He changes and becomes a bird whose

name is P'eng. The back of P'eng measures I don't know how many thousand miles across and, when he rises up and flies off, his wings are like clouds all over the sky. When the sea begins to move, this bird sets off for the southern darkness, which is the Lake of Heaven. He beats the whirlwind, leaps into the air, and rises up ninety thousand miles, cutting through the clouds and mist, shouldering the blue sky, and then he turns his eyes south and prepares to journey to the southern darkness. The little quail laughs at him, saying, "Where does he think he's going? I give a great leap and fly up, but I never get more than ten or twelve yards before I come down fluttering among the weeds and brambles. Where does he think he's going?" Such is the difference between big and little.

There is a big world that a person living in a small world cannot imagine. The short-lived is never able to comprehend the long-lived. The mushroom of a morning does not know what a day is. Likewise, the short-lived cicada does not have the concept of a year. Can people understand the meaning of a thousand years, let alone 13.7 billion years?

I believe you have infinite possibilities for your future. Forget neither this moment nor the excitement that fills you now. Hold tight to the dream, the determination, that fills you now and, like a great bird, spread your wings and fly high. Be strong and make your dreams come true.

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President of Osaka University