

Winning an Ig Nobel Prize While Upside-Down

Kyoto, Japan, 23 September 2016

Ritsumeikan University, Kyoto, one of Japan's top private academic and research institutes, announces that one of our professors Atsuki Higashiyama was awarded Ig Nobel Prizes today.

Professor Atsuki Higashiyama, Ritsumeikan University College of Letters, studied the perceived size and perceived distance of objects when looking through one's legs. A topic so imaginative that it was awarded at the 26th First Annual Ig Nobel Prize Ceremony at Harvard University. The [Ig Nobel Prizes](#) "honor achievements that make people LAUGH, and then THINK" and have been awarded to 10 unusual scientific achievements every year since 1991.

Professor Higashiyama, along with Professor Kohei Adachi of Osaka University, won this year's Perception Prize for their 2006 paper "Perceived size and perceived distance of targets viewed from between the legs: Evidence for proprioceptive theory." The paper studied perceived size and perceived distance of objects when the viewer is inverted, like peering through the legs. When looking at objects from this inverted position, the depth between the objects appeared more flattened and the objects themselves appeared smaller at far distances compared to normal upright viewing condition. This between-leg effect did not occur when the viewer wore goggles that rotate vision 180 degrees while remaining upright. But this effect did occur when the viewer wore the goggles while inverting the body. These findings support the proprioceptive theory that this visual change is due to the inversion of the upper body, not just rotating the retinal image.

Interested in trying this on your own? Professor Higashiyama suggests a great location for upside-down observing in our main campus's prefecture. The location is called Amano Hashidate meaning "a bridge to the heaven." While it's a beautiful scene when viewed upright, this natural land bridge in Kyoto is also commonly viewed from between one's legs, so it appears like a stairway to the sky. Professor Higashiyama's research gives evidence that this upside-down viewing creates the famous stairway illusion.

Professor Higashiyama has been researching human senses and perceptions for 40 years. He hopes to inspire young students and researchers to study topics that interest them, as well as issues that "no one else will take up." Maybe one day it will lead to another Ritsumeikan member winning an Ig Nobel Prize! He is truly honored for the recognition, and Ritsumeikan University is proud to have him in our community.

We will hold a memorial lecture event to celebrate Professor Higashiyama's deserved award upon his return. Further details will be announced later.

Biography

Born in Kasai City, Hyogo Prefecture in 1951, he studied in Department of Human Relations, Faculty of Literature, Osaka City University (B.A. 1974), Department of Psychology, and Graduate School of Letters, Osaka City University (M.A. 1976, withdrawal from Ph.D.

program in 1978).

Then, he was teaching at Department of Human Sciences, Osaka Prefecture University as assistant, lecturer and as associate professor. (Received Ph.D in Letters in 1983)

He joined Ritsumeikan University, College of Letters in 1996.

Research Achievements

(a) Research Papers

- Anisotropic perception of slant from texture gradient: Size contrast hypothesis
Attention, Perception, & Psychophysics, 78/2, pp. 647 – 662 (February 2016)
Co-authored by Tadashi Yamazaki
- The effects of luminance, size, and duration of a visual line on apparent vertical while the head is being inclined in roll
Attention, Perception, & Psychophysics, 77/2, pp. 681 – 691 (March 2015)
Co-authored by Takashi Murakami

(b) Research Presentation

- Apparent depth in glass, bronze, and nickel mirrors: Color effect
Presented at the 39th Annual Meeting of European Conference on Visual Perception
(Aug 30, 2016)
Co-authored by Seiichi Tsuinashi

Further information

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<http://en.ritsumei.ac.jp/news/detail/?id=85>

About Ritsumeikan University

Ritsumeikan University is one of Japan's foremost private academic institutes for education and research with roots going back to Prince Saionji's private academy of the same name, established in 1869. It was officially founded in 1900 by his protege, Kojuro Nakagawa, as the Kyoto Hosei Gakko (Kyoto School of Law and Politics), later to take on the name "Ritsumeikan". The name is derived from a passage in the Jinxin chapter of the Discourses of Mencius, and means "a place to establish one's destiny through cultivating one's mind."

<http://en.ritsumei.ac.jp/>

Source: Ritsumeikan University, Office of Public Relations

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