My experience and interests in working with diversity

I was educated in Taiwan until undergraduate school, and came to the United States for graduate study. The US education experience has opened a door for me to a very different culture and a much more diverse society. In the US, there are people from a wide variety of backgrounds of ethnicities, genders, nationalities, cultures, and religions. Universities in the US attract people, both students and faculty, from all over the world. As an astrophysicist, I am fortunate to be able to work with people from all kinds of nationalities and backgrounds, and have the chance to travel to many places in the world.

The Neil Gehrels *Swift* Observatory (*Swift*) that I worked with has an international consortium from the US, UK, and Italy. For my research and my supportive work for *Swift*, I have worked closely with people from US, UK, Italy, France, Germany, Japan, India, China, Korea, Russia, Australia...etc. In addition, I work with students with different ethnicities, religions, nationalities, and backgrounds. I think the most valuable thing I have learned from these experiences is to simply treat each person as a unique individual, regardless of their background.

Working with a diverse group

Treating everyone equally does not mean being insensitive to differences. On the contrary, it is important to be aware of what you might not know. I learned from my extensive experience of both the Taiwanese and US culture that working in a diverse group is not trivial and cannot be achieved without effort.

The Taiwanese/Chinese and US culture are generally immensely different. In addition to the well-known distinctions, such as listening is highly encouraged in the Chinese culture while speaking up is crucial in the US culture, my favorite example comes from a research article that I came across¹, which explains a lot of my struggles when communicating with my US colleagues.

This research pointed out that in the Chinese wording structure, the important information is always placed at the end of a sentence, while in English, it usually depends on the tone of where the emphasis is. The article gives an example, "Sue cleaned the room". When reading in Chinese with the same structure, the focus would be put on the final part, that the room is cleaned. If one would like to emphasize the person who cleans the room, the more common/precise way to convey that in Chinese would require reorganizing the sentence to something like "the one who cleaned the room was Sue".

Even though I knew this difference in principle, it literally took me a decade of living and working in the US to finally begin to grasp the true effects and nuances from this cultural difference. Even nowadays, I found myself commonly using structure like "the one who

¹ A summary of the research can be found at <u>https://www.core-</u> <u>corner.com/Web/Main.php?stat=a 3nn46iT</u> (only available in Chinese).

cleaned the room was Sue", which could be viewed by my US colleagues as less concise and less effective. In hindsight, I wonder how many times when I thought my US colleagues were not listening and interrupting, it was actually because they thought I had already finished my point.

This example strikes me of how deep these subtleties penetrate through our mind and affects how we communicate and perceive the world. Despite being fluent in English, a lot of the communication actually happens beneath the surface of each sentence.

Teaching to a diverse group

- What I have learned from my experience

1. While it is impossible to fully understand the difference in each culture and personality, what I have learned is to be sensitive to different cultures, backgrounds, and personalities, to recognize that there are things we do not know about others, and to never simply assume that others have an ill intention.

2. While our behavior is deeply affected by our background, be it cultural, religious, or educational, each person is a unique and complex identity. Recognizing the potential cultural differences described above helps me consciously modify my sentence structure to better communicate with people who tend to say important things first. However, this does not mean that whenever my sentence is cut off, I should simply attribute to the US culture. In fact, I have also encountered plenty of US colleagues who patiently wait until I finish my long and convoluted sentences.

3. The best way to learn how to work with a diverse group, is by working with a diverse group. It is hard to imagine things you do not know, and sometimes the best way to explore the unknown is by running into it.

I hope to apply these things I learned to create a truly inclusive and supportive learning environment. I hope to be able to treat all my students without labels, and at the same time, recognize and assist their individual needs in different ways of learning.

- What I am still learning

In order to reach out to people with even wider backgrounds beyond the regular college students and scientists, I started to regularly volunteer in the science class at a local high school (Northwood High School) through the AAAS/STEM program², and also participate in a mentoring program through a non-profit organization called "Generation Hope³". While the ideology and the goal of these activities seems amazing and practical, in reality, I found that these volunteering activities are very different than what I originally expected.

² <u>https://www.aaas.org/programs/STEM-volunteers</u>

³ <u>http://supportgenerationhope.org/generation-hope-19</u>

For example, it did not take long for me to realize that the students and I have completely different expectations of the tutoring role. While I envision an inspiring learning environment through tutoring, I realized that my students were expecting someone who helps them do their homework (or more precisely, do their homework for them). I ran into cases where students were 40 minutes late for our meeting, or simply did not show up. I have had troubles even scheduling regular meetings with my student, when the student usually ignores my emails until the day before the exam.

How do I get a student interested in a subject if I do not even have a chance to talk to the student? How do I communicate to them that learning is not just for exams, while these students might not have enough financial freedom and time to invest for a non result-driven education?

Although I have yet to find answers to any of the above questions, I have learned that there is a much more complex world, and the true education takes time and a long-term commitment.

"No student left behind, but teach to different student (有教無類,因材施教)." -- Confucius

This is a famous quote that all Chinese students learned when growing up. I did not truly understand the meaning until I started to work with a diverse group of students. I wish that through constant learning and listening from different people, we could ultimately provide an education where no student is left behind.