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EDITORIAL
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Editorial: The Emory-Tibet Science Initiative, a Novel Journey in Cross-Cultural Science Education

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Editorial on Research Topic

The Emory-Tibet Science Initiative, a Novel Journey in Cross-Cultural Science Education

Perhaps the greatest global challenge of the 21st century is how to effectively communicate—across cultures, ideologies, disciplines, and experiences. The current pandemic is a dramatic illustration; we are one world, bound together by biology, economics, and environment, yet riven by suspicion of science, by religious and racial conflict, cultural and political divisions. And we see the cost in lives, money, energy, and social capital. The need for models of "positive globalization"—strategies for and examples of meaningful and symbiotic integration and communication—has never been greater.

The Emory-Tibet Science Initiative is just such a model (Emory Tibet Science Initiative, 2020). ETSI is an historic collaboration—between American and monastic universities, science and religion, and different worldviews. The accompanying introductory editorial outlines the Dalai Lama's views on science and Buddhism and his reasons for initiating and inspiring the project (Nusslock et al.). ETSI has built a comprehensive modern science curriculum integrated into the traditional monastic training of displaced Tibetan Buddhist monks and nuns in India, the first significant change to their curriculum in six centuries. The project, now in its second decade and involving hundreds of scientists and thousands of monastics, provides a rich and rare opportunity for exploring challenging communication issues: (1) questions of cultural and literal translation; (2) best practices in teaching science and engaging research across cultures and within a religious community; and (3) the impacts of bi-directional education, prompting new understandings of culturally-relevant pedagogy at both American and monastic universities.

This special issue addresses the broader problem of how to most effectively teach and communicate—across vastly different cultures and ways of thinking—in pursuit of learning. Few "experiments" in recent times provide a better laboratory on a larger scale for addressing this question than ETSI. We feature many scholars from both the Buddhist and scientific communities who have built and maintained the science curriculum, laboratories, and physical, social, and intellectual infrastructures in the monasteries and nunneries over the last many years. This includes three different stakeholder groups: monastic instructional leaders, Tibetan interpreters and translators, and scientists and philosophers from the Global North.

For ETSI, Tibetans translate the teachings in real time and translate dozens of texts and teaching materials. Physicists, biologists, neuroscientists, and philosophers of science develop curricula, teach the monastics, and engage them in research projects in India and the US. Monastic instructional leaders mastered science and English at Emory, then returned to

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their home institutions to teach their peers. These three stakeholder groups have navigated different ways of knowing as well as communicating to collectively identify how to best support monastics' science learning.

This collection features an introductory overview from the perspective of the Dalai Lama, the catalyst and inspiration for this project, and reflective essays and research articles addressing key components and ongoing lessons of ETSI from representatives of all its constituents. Science educators describe and explore novel pedagogies, approaches, and techniques they develop to teach and engage monastics on the ground. Others explore how their monastic teaching deeply impacts how and what they teach back at their home institutions, changing the way they think about their own science and even how they develop their research programs. Two monastic science students themselves write essays that combine scientific and Buddhist insight. The ETSI translation team of lay and monastic educators and scientists discusses the rich tradition of translation in Tibetan Buddhism and their creation of a new Tibetan science dictionary (cite).

Articles co-written by American or European scientists with monastics (both monks and nuns) or lay Tibetan scientists and educators illustrate the symbiotic maturation of the project. A team of American and Tibetan scientists and monastics analyze the effects of learning science on the monastics' views of science and their lives, and how the monastics mediate across worldviews. A neuroscientist and one of his former monastic students dive deep into consciousness, one of the areas Tibetan Buddhism most readily engages science. Science educators write with a monk and a nun about the power of metaphor and narrative in teaching science across cultures.

American and Tibetan researchers characterize monastic mental states through a nuanced translation of a self-administered "Western" mental health screening tool; effective cross-cultural communication requires that we understand where mental states potentially align and diverge. The use of drawing to learn concepts in biology reveals the mental models drawn from monastic cultural references.

In sum, the fruits of the Emory-Tibet Science Initiative and the collection assembled here reveal how two groups separated by seemingly disparate cultures, beliefs, and distance find common ground, how deep cross-cultural communication both enhances the ongoing work and understanding within each culture *and*, at the same time, creates a novel space for exploration and discovery.

AUTHOR CONTRIBUTIONS

AE wrote the initial draft with JZ making significant contributions. MB, GH, RN, and LN providing insightful additions, edits, and suggestions for revisions. All authors contributed to the article and approved the submitted version.

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