

WHO IS A “SCIENTIST”?



Hidden Intersections Fall 2021: Week #2

1 WHAT IS “WESTERN”
SCIENCE?

2 HOW DOES CULTURE,
IDENTITY SHAPE
SCIENCE?

“WHEN SCIENCE BECAME WESTERN” BY MARWA ELSHAKRY

- What did you think of the article? Was there any idea or concept that was new to you? Anything you liked, anything you disagreed with?
- According to the author, how has the “story of science” changed throughout history and across different regions? How was western science combined with local tradition?
- How do you think the labels “Western” and “Non-western” might influence the narratives we tell about science and its development?
- What do you think of the idea there are many sciences, of which our modern conception of “science” is but one?
- As STEM students, does the idea of de-centering “Western” concern you? Intrigue you?

“The ‘indigenous peoples’ of the modern West-- those most at home in Western societies-- have culturally distinctive belief patterns in which scientific rationality plays a central role. These ‘natives,’ like all others, have trouble even recognizing that they exhibit culturally distinctive patterns of belief.”

SANDRA HARDING, “WHOSE SCIENCE? WHOSE KNOWLEDGE?”

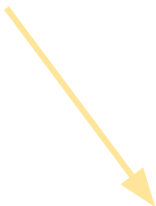
INDIGENOUS KNOWLEDGE MEETS SCIENCE TO TAKE ON CLIMATE CHANGE

HINDOU OUMAROU IBRAHIM



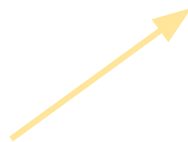
“RISE AND FALL OF THE DINOSAURS: A NEW HISTORY OF THEIR LOST WORLD” BY STEVE BRUSATTE

“Dinosaurs were the chosen ones. It was their manifest destiny to take on weaker species, best them, and establish a global empire.”



“This all sounded a little arm-wavy. Could we somehow compare explicitly how dinosaurs and pseudosuchians were evolving in the Late Triassic? Was there a way to test whether one group was more successful than the others?”

“Far from being superior warriors slaying their competitors, dinosaurs were being overshadowed by their crocodile-line rivals... you probably would have bet on one of these other groups, most likely those pesky crocodile-line archosaurs as the ones who would eventually become dominant, grow to massive size, and conquer the world.”



IDENTITY: A TRANS COMING OUT STORY
ABIGAIL THORN (PHILOSOPHY TUBE)



“So we cannot meaningfully talk about “women and science” or “women and knowledge” without exploring the different meanings and practices that accumulate in the life of someone who is a woman at any particular historical intersection of race, class, and culture.”

SANDRA HARDING, “WHOSE SCIENCE? WHOSE KNOWLEDGE?”

**HOW MIGHT THIS
APPLY TO YOUR
FIELD?**

“I faltered and asked myself whether... I was searching for something that does not exist. Is it ridiculous to read race and gender into physics? Into theories of gravity, the standard model, simulations of supernovae and galaxy mergers? After all, the kinds of knowledge produced in each of these fields could not possibly be further from each other.”

LAUREN MARIETTA CHAMBERS, “A DIFFERENT KIND OF DARK ENERGY: EVIDENCE FOR PLACING RACE AND GENDER IN PHYSICS”

**CAN YOU THINK OF EXAMPLES WE SEE
IN PHYSICS, ASTRONOMY, CHEMISTRY,
EARTH SCIENCES?**

BIBLIOGRAPHY

Here is a list of the sources I referred to in this presentation, along with some suggested further resources. All the books are available through the Berkeley Library, and I will upload all articles to Bcourses.

Books:

- **Whose Science? Whose Knowledge?** By Sandra Harding
- **Sister Outsider: Essays and Speeches** by Audre Lorde
- **Rise and Fall of the Dinosaurs: A New History of Their Lost World** by Steve Brusatte

Articles:

- **When Science Became Western: Historiographical Reflections** by Marwa Elshakry
- **A New Kind of Dark Energy: Evidence for Placing Race and Gender in Physics** by Lauren Marietta Chambers

Videos/Talks:

- **Indigenous knowledge meets science to take on climate change** by Hindou Oumarou Ibrahim
- **The case to recognize indigenous knowledge as science** by Albert Wiggan
- **Identity: A Trans Coming Out Story** by Abigail Thorn (Philosophy Tube)