

# Evidence and Inquiry Certificate

The College of Natural Sciences Honors Center  
*Home of Polymathic Scholars*

## The Female Body in Science and Society

*"Throughout history, the female body has been worshipped, objectified, and policed, often all at the same time."*

**Ananya Kodali**

Natural Sciences

Neuroscience

● ***Describe your field of study. What are some of the questions you would like to answer, and what academic disciplines do you think will be useful in answering them?***

In my field, “The Female Body in Science and Society,” I will explore cultural expectations surrounding female bodies throughout history and the degree to which these expectations are shaped by science. By the female body, I am referring to physical traits that have been associated with femininity. I intend to look at these traits through the lenses of science, exploring female anatomy, physiology, and health, and society, a broad term that encompasses human communities in any time period or region of the world.

Because the ability to reproduce was long viewed as the only valuable female trait, the physical body has always held unique social importance for women. Though the ideal standard for the woman’s body has changed throughout history, it has been influenced by fertility cues such as breast size and waist-to-hip ratio. The degree to which a woman’s body corresponds to the societal standard directly affects her role in society, though that role is always shifting. Throughout history, the female body has been worshipped, objectified, and policed, often all at the same time.

Like most academic fields, biology has long been run exclusively by men. For this reason, many misguided studies about the female body were long accepted as fact. The Greek philosopher and scientist Aristotle believed that women were simply disfigured men, citing, incorrectly, that women had fewer teeth and skull sutures. In 1873, Harvard professor and doctor Edward Clarke popularized a theory that excessive thinking would damage the female reproductive organs. Though most such studies have since been disproven, they have left an indelible impact on philosophy, sociology, healthcare, and policy. Even today, gender bias in science has not faded; women are still underrepresented in research settings and as subjects in clinical trials.

I want to study the female body in science and society independently in order to understand the feedback loop between them. How is the study of female biology and healthcare impacted by gender bias, and how are gender roles in society affected by biased science? In my field, I will explore these questions within a single society and also compare their answers across cultures and time periods. I will draw on the fields of Philosophy, Sociology, Anthropology, and Women’s and Gender Studies.

● ***Why are you interested in studying this topic?***

For most of my childhood, my access to music, the Internet, and television was limited. My immigrant parents were wary of exposing their children to the skin and scandal of American culture. As I finished middle school, though, their efforts waned. I began a game of catch-up, studying pop culture as diligently as I did everything else. Of all the things I absorbed during that time, one image stands out: Kim Kardashian’s bare butt splayed across a magazine cover. I don’t remember how I found it, but I remember being very scandalized and a little awed. My awe faded later as I realized that near-naked female bodies were everywhere, from the cover of a Beyoncé album to the models on my Instagram feed. But that photo and the commentary it received, both critical and congratulatory, caused me to first consider the female body, and by extension, my body, as something to be culturally dissected.

Around the same time, in my biology class, we were dissecting rats. I was fascinated; finally, I could see and touch the structures I had only read about before. As a child, I had sketched in human anatomy books and learned about disease from my doctor mother. Anatomy was an art form, a complex puzzle, and an engine for biological function. The anatomy I was uncovering in class had once powered the dead rat just as mine powered me. During the dissection, our first task was to determine whether the rat was male or female, which we could only do by inspecting its genitalia. How strange, I thought, that this distinction should be so simple for a rat yet so complex for humans. For the female rat, sex could be reduced simply to a biological structure, but for a human woman, the physical body is defined by a load of sociocultural baggage.

The question has lingered with me ever since: What does it mean, really, for a human body to be female?

- Name two faculty with research interests in your area. Include their home**
- and relevant research interests. If a research interest isn't obviously related to your**
- topic, explain its relevance.**

Dr. Martha Selby: Department of Asian Studies, Center for Women's and Gender Studies  
Dr. Selby's work explores representations of women, birth, and disease in classical Indian medicine. This study examines the female body in the science and culture of a specific society, one that I may choose to focus on within the broader scope of my field.

Dr. Shannon Cavanaugh: Department of Sociology, Center for Women's and Gender Studies  
Dr. Cavanaugh's work explores notions of gender, body, and social context in girls' transition to adulthood, predominantly in a U.S. context. Her work explores the physiological factors of puberty as well as the social value attached to a woman's body, a double-pronged approach similar to the one that I plan to take in my own field.

**Explain how each course is relevant to this field. What do you hope to learn from**

Primary Courses

**WGS 301**

**FERTILITY AND REPRODUCTION**

For a large part of history, the female body was viewed largely as a means to childbirth. This course explores changing views and means of childbirth in the United States, exploring the consequences of both political conflict and scientific advances such as surrogacy.

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**ANT 349C****HUMAN VARIATION**

This class aims to explore the differences and similarities in the evolution of human populations. For a long time, science has been wielded as a tool to rationalize discrimination against women and other groups. I am interested in exploring the truth of human variation and the extent to which it can be used to justify ideas about female psychology and physiology.

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**PHL 324R****PHILOSOPHY OF RACE AND GENDER**

A topic that is both incredibly difficult for me to understand and central to my field is the distinction between sex and gender. In this class, I will explore historical and modern theories about these topics and gain insight into the theory and issues facing transgender communities.

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**SOC 333K****SOCIOLOGY OF GENDER**

This class explores the roles of women and men in American social institutions as well as the classification of certain behaviors as masculine or feminine. This is important for the society component of my field, in which I aim to understand gender expectations in society, and it will help me understand what defines the female body in this particular society.

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**WGS 340****LATINA FEMINISM AND HEALTH**

By taking this class, I aim to understand Latina feminism and apply it to the contemporary issue of health justice across a range of issues (diabetes, mental health, obesity, transgender health, etc.) I will broaden my horizons by exploring gender in a cultural context I am unfamiliar with, and I will also be able to draw scientific connections with women's health.

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**ANT 3220****GENDER, SEXUALITY, AND THE FAMILY IN  
INDIAN RELIGIONS AND CULTURES**

Again, I want to expand my cultural understanding of gender and sexuality, albeit in a context I am more familiar with. In this class, I will explore gender roles in historical Indian texts and contemporary Indian society.

