

HEB Thesis Hypothesis-driven research

The most successful and intellectually satisfying HEB theses tend to emerge from the following process. Reflect on topics that have excited you most during your time at Harvard. How do those topics relate to a broad question, fundamental to human evolutionary biology? Who in HEB could serve as an advisor for that question?

Next, in collaboration with the advisor, narrow your subject to a specific question that you could hope to answer, or a phenomenon that you could hope to explain, given the timeframe, resources, and expertise of an undergraduate thesis. Identify multiple hypotheses (potential answers to your question or explanations for your phenomenon) that lead to expectations for what you *should* find if a given hypothesis is correct.

Then do your research and analysis, building the case for and against each hypothesis. Do you find those expectations or not? You won't definitively answer your question - as we can never prove anything in science - but you will determine the most likely explanation given the available evidence. The best we can do in science!

Topic:

Broad question fundamental to human evolutionary biology:

Specific question that your thesis will investigate:

H₁: Hypothesis 1

Expectations for what you will find in the data, if H₁ correct:

H₂: Hypothesis 2

Expectations for what you will find in the data, if H₂ correct:

H_n

Sources of evidence, methods of testing:

What will you analyze to determine whether H₁ or H₂ is more likely?

- general methods: experiments, observations, model-building, literature review
- types of evidence: experimental results, behavioral observations (humans, primates), anatomical or physiological markers, genetics, fossils, artifacts, historical sources