

Notes on ANT100: Introduction to evolutionary anthropology

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1 Introduction to Evolutionary Anthropology

Anthropology The global and holistic study of human culture and biology.

1.1 What Do Evolutionary Anthropologists Study?

- Primatology
 - The scientific study of our closest extant biological relatives: non-human primate species.
- Paleoanthropology
 - The multidisciplinary study of the biological evolution of humans and non-human primates.
- Human Variation
 - Study of human variation to determine spatial and temporal variation in human features.
- Medical Anthropology

- The study of how social, environmental, and biological factors influence health, and illness of individuals at the community, regional, national, and global levels, is a recent addition to evolutionary anthropology.
- Forensic Anthropology
 - Focuses *only* on the skeletal remains of humans.

1.2 How Do Evolutionary Anthropologists Conduct Their Research?

Three types of research: *descriptive*, *causal* and *applied*.

- **Descriptive research** involves *collecting data* about the study subjects or objects.
- **Causal research** involves looking for one thing that *causes* another thing to happen or change.
- **Applied research**, in which, a scientist determines the means by which a specific, recognized need can be met.

1.2.1 What's a theory?

A **scientific theory** is a well-substantiated explanation of some aspect of the natural world that incorporates facts, laws, predictions, and tested hypotheses.

1.2.2 What's a Hypothesis?

A **hypothesis** is a *testable* statement about the natural world that a researcher uses to build *inferences* and *explanations*. A hypothesis must be **falsifiable**.

1.2.3 The Scientific Method

Sequences of scientific methods:

1. **Observation** of the phenomena.
2. Formulation of a **hypotheses** concerning the phenomena.
3. Development of **method** to test the validity of the hypothesis.
4. **Experimentation**.
5. Draw the **Conclusion**.

1.3 Development of Evolutionary Concepts

1.3.1 Historical Contributors

Carl Linnaeus *Father of modern **taxonomy**.*

Georges-Louis Leclerc A naturalist. Original idea: *species changed and evolved after they moved away from the place where they were created.*

Jean-Baptiste Lamarck

Georges Cuvier helped establish the scientific disciplines of **comparative anatomy** and **palaeontology**.

James Hutton contributed to founds of **geology** as a science.

Carles Lyell