

Glossary of select terms:

Adaptation: A trait that has evolved by natural selection, via enhancing reproductive success (an individual's relative genetic representation in subsequent gene pools) in a particular social, cultural, and physical environment.

Allee effect: A phenomenon in population biology whereby reproductive success increases with population size.

Cultural evolutionary theory: The branch of human behavioral biology that emphasizes separate, but linked, systems of cultural and biological inheritance.

Emic: An insider's viewpoint or account.

Environment of evolutionary adaptedness (EEA): "The" (or a range of) environments to which humans are supposedly evolved. Proponents of "mismatch" arguments frequently reference something like an EEA when they suggest that our bodies and brains evolved for hundreds of thousands of years in an environment that is very different from the one in which we live today. HBEers tend to be more skeptical of mismatch arguments than other perspectives in human behavioral biology.

Evolutionary demography: The branch of evolutionary biology that attempts to understand how evolution has impacted human and non-human populations, including in relation to fertility, mortality, and migration, but also determinants and outcomes related to these key demographic variables.

Evolutionary psychology: The branch of human behavioral biology that attempts to understand how psychological mechanisms that underpin behavior evolved.

Fitness: Another (less useful, in our opinion) term for "reproductive success". It refers to one's proportional genetic representation in subsequent generations.

Human behavioral ecology: The branch of human behavioral biology that is most closely linked to ethology and animal behavior. It anticipates flexibility in human behavior across a range of environments and posits that many contemporary behaviors are adaptive, at least in small-scale, non-industrialized settings.

Ideal despotic distribution: A model of habitat settlement that predicts higher quality territories being held by dominants, who grant access based on what subordinates are able to offer in return.

Ideal free distribution: A model of habitat settlement that predicts the distribution of individuals across a landscape. The model anticipates that individuals will do so in ways that minimize competition for resources while maximizing reproductive success.

Life history theory: The branch of evolutionary biology that attempts to understand how tradeoffs in competing bodily functions (e.g., growth, reproduction, and somatic maintenance) lead to variation in the timing of key life events (e.g., birth, age at first birth, marriage, menopause, death, etc.)

Maladaptation: A behavior or trait that is not associated with reproductive success or has negative impacts on reproductive success. For example, many argue that contemporary low fertility is maladaptive.

Mismatch: The idea that traits that were beneficial in one environment are no longer beneficial due to adaptive lag. For example, preferences for sugar are likely beneficial in environments where sugar is scarce, but not in environments where it is abundant.

Naturalistic fallacy: Appealing to what is “natural” or “biological” to justify moral positions. For example, if one were to condone polygyny *because* it is biologically commonplace in animals, one would be committing the naturalistic fallacy. Moral positions *may be* informed by scientific and biological ones, but they are distinct; much of what arises in nature (e.g., urinating in public) is often deemed morally inappropriate, highlighting the potential problems with such appeals.

Optimality/ optimization: Theoretical models that use a currency (typically reproductive success or relevant proxy), a decision set, and constraints to model what decision is “optimal” across a range of possibilities. Every hypothesis used by HBEers is, at heart, driven by optimization logic, even if it is not always made explicit.

Optimal foraging theory: The branch of evolutionary behavioral biology that attempts to understand, using optimization frameworks, how humans find and process foods across a range of environments and personal circumstances.

Parental investment theory: A theory in evolutionary biology concerned with optimal allocations of resources across offspring.

Phenotype: A trait that is “observable” (i.e., can be acted on) by evolution. Phenotypes range from molecular, to biological systems, to behavioral, to cultural systems.

Phenotypic gambit: The assumption that it is reasonable to ignore mechanisms when focusing on the evolutionary dynamics of traits.

Piecemeal approach: Examining phenotypes or behaviors one by one, rather than as series of intercorrelated traits.

Principle of allocation: The fact that a resource devoted to one task cannot simultaneously be devoted to another, competing task. The principle of allocation underlies much of life history theory.

Reproductive success: Genetic representation in subsequent generations. This is mathematically well defined, but notoriously difficult to measure.

“Strategy”: A decision that is informed by natural selection and made in an attempt to enhance reproductive success. It need not be conscious to be defined as a strategy.

Unilineal/ progressive evolutionism: The idea that organisms can be placed in a linear, progressive sequence from less to more evolved. Although there are sometimes “ratchet” effects in evolution that are consistent with linear processes, unilineal evolutionism has been rejected in favor of the Darwinistic, tree-like view.