

# AWARENESS OF DEATH AND PERSONAL MORTALITY: IMPLICATIONS FOR ANTHROPOGENY

## Glossary

### AWARENESS & PSYCHOLOGY

**Funeral:** Intentional, ritualistic disposal of the deceased. May include behaviors such as placement of grave goods (artefacts and/or natural materials such as flowers) and positioning of interred body(ies).

**False Beliefs:** The ability to recognize that others can have beliefs about the world that are diverging. An important component of Theory of Mind.

**Intentionality:** The power of minds to be about, to represent, or to stand for, things, properties and states of affairs. Refers to the ability of the mind to form representations and should not be confused with intention. Beliefs about others' beliefs display what is sometimes known as "higher-order intentionality."

**Mind Over Reality Transition:** Hypothetical singular phase in human evolution in which Mortality Salience and maladaptive death anxiety were triggered by acquiring extended Theory of Mind, but stabilized by simultaneous acquisition of Reality Denial in the same minds.

**Mortality Salience:** Conscious understanding and realization of personal mortality.

**Optimism Bias:** An almost universally human cognitive bias that seems to cause individuals to believe that they are at less risk of experiencing a negative event and more likely to experience a positive outcome compared to other people.

**Psychological Evolutionary Barrier:** The mental equivalent of a physiological evolutionary barrier (such as the difficulty of evolving from an aquatic existence to living on land). A hypothetical concept.

**Reality Denial:** A subconscious defense mechanism characterized by refusal to acknowledge (or rationalization of) unwanted or unpleasant facts, realities, thoughts, or feelings. *Related Term:* "Denialism."

**Self-Awareness:** Conscious knowledge of one's own character, feelings, motives, and desires.

**Terror Management Theory:** A concept in social psychology that proposes the existence of a basic psychological conflict that results from having a desire to live but realizing death is inevitable.

**Theory of Mind (ToM):** The ability to attribute mental beliefs, desires, intentions, and perspectives, etc.—to oneself and to others—and to understand that others have beliefs, desires, intentions, and perspectives that are similar or different from one's own. ToM can exist in a continuum from basic recognition of mental states of another individual, all the way to extended ToM, the interactive understanding amongst the minds of many other individuals. *Related or overlapping terms:* "Intentionality;" "Attribution of Mental States;" "Inter-subjectivity;" "Mind-Reading;" "Perspective Taking;" "Other-regarding Impulses."

### NON-HUMAN ANIMALS OF INTEREST

**Canids (Canidae):** Carnivorous lineage that includes domestic dogs, wolves, foxes, jackals, dingoes, and other extant and extinct dog-like mammals.

**Ungulates:** Any typically herbivorous and hoofed mammal belonging to a diverse group that includes both perissodactyls (odd-toed ungulates including horses and rhinos) and artiodactyls (even-toed ungulates including cattle, pigs, giraffes, camels, deer, hippos). Recent discoveries indicate cetaceans evolved from early artiodactyls.

**Elephants (Elephantidae):** Large herbivorous mammals recognized by their long trunks, tusks, large ear flaps, and pillar-like legs. Elephants are found throughout sub-Saharan Africa, South Asia, and Southeast Asia and consist of three species, the Africa bush elephant (*Loxodonta africana*), the African forest elephant (*L. cyclotis*), and the Asian elephant (*Elephas maximus*).

**Cetaceans (Cetacea):** A clade of aquatic mammals consisting of whales, dolphins, and porpoises.

**Corvids (Corvidae):** The family of stout-billed passerine birds (an order of birds characterized by an arrangement of toes with three forward and one backward to facilitate perching) including the crows, ravens, rooks, jackdaws, jays, magpies, treepies, choughs, and nutcrackers.

**Corvus brachyrhynchos:** The American crow.

### RELATED BRAIN STRUCTURES & THEIR STUDY

**Amygdala:** A roughly almond-shaped mass of gray matter inside each cerebral hemisphere, involved with the experiencing of emotions, including fear.

**Hippocampus:** The elongated ridges on the floor of each lateral ventricle of the brain, thought to be a center of emotion, memory, and the autonomic nervous system.

**Positron Emission Tomography (PET) Neuroimaging:** A functional imaging technique used to observe metabolic process in the body.

**Functional Magnetic Resonance Imaging (fMRI):** A neuroimaging technique for measuring and mapping brain activity that is noninvasive and safe. The phenomenon of nuclear magnetic resonance (NMR) is used to generate a signal that can be mapped and turned into an image of brain activity.

[More Anthropogeny Terms on the Other Side](#)



## **EVOLUTION & ANTHROPOGENY**

**Admixture:** Breeding between isolated populations.

**Allele:** Alternative variant gene forms at the same locus (location on the chromosome).

**Anatomically Modern Humans:** *Homo sapiens* dating back to almost 200,000 years ago that are within range of the skeletal features of modern *Homo sapiens*.

**Archaic *Homo sapiens*:** Earlier forms of *Homo sapiens*, anatomically distinct from modern humans.

**Behaviorally Modern Humans:** Current *Homo sapiens*, a population of hominins who evolved in Africa 200-100,000 years ago, developed a suite of behavioral and cognitive traits that distinguished them from other hominins in and outside Africa, which likely allowed them to replace all other related hominins across the planet, with some interbreeding but no surviving hybrid species.

**Clade:** A group of organisms consisting of a common ancestor and all lineal descendants and represent a single branch on the "tree of life."

**Conspecifics:** Members of the same species.

**Cumulative Cooperative Culture:** In human culture, the accumulation of cultural modifications over time ("ratchet effect") resulting from social learning, active teaching, social motivations for conformity, and normative sanctions against non-conformity.

**Denisovans:** An extinct hominin population contemporary with Neanderthals that hybridized with ancient humans. Knowledge of Denisovan morphology is limited to two small fossils found in Siberia.

**Developmental adaptation:** An irreversible biological characteristic acquired during growth and development in a stressful environment.

**Gene Flow:** Movement of alleles between populations.

**Genetic adaptation:** A biological characteristic with a heritable basis that improves reproduction and/or survival and results from evolution by natural selection.

**Genetic Drift:** Loss of alleles by chance.

**"Great Apes":** A taxonomic family that was once incorrectly used to denote chimpanzees, bonobos, gorillas and orangutans, but not humans.

**Genotype:** The two alleles at one or more diploid loci.

**Hominid:** A classification comprising all modern and extinct "Great Apes" and humans.

**Hominin:** A classification comprising modern and extinct human species, and all immediate ancestors (includes the genera *Homo*, *Australopithecus*, *Paranthropus* and *Ardipithecus*).

***Homo*:** The genus that comprises the species *Homo sapiens*, which includes modern humans, as well as several extinct species classified as ancestral to or closely related to modern humans.

***Homo erectus*:** An extinct hominin species with fossil evidence from 1.9 million (possibly earlier) to 70 thousand years ago and found from Africa to Indonesia. May have been the first hominin to leave Africa. *Homo erectus* DNA may be present in other hominin species due to archaic admixture.

**Hybridization:** Breeding among recognized species.

**Introgression:** Transfer of alleles between species.

**Locus (pl. Loci):** A unique physical position on a chromosome.

**Maladaptation:** A genotypic or phenotypic trait that is (or has become) more harmful than helpful in determining survival and reproductive success (in contrast to an adaptation, which is more helpful than harmful).

**Middle Pleistocene:** A period of geological time (781-126,000 years ago). An important time for the diversification of hominins, including the emergence of Neanderthals and *Homo sapiens*.

**Morphology:** Shape or form (outward appearance) of an organism.

**Neanderthals:** An extinct Eurasian hominin species that existed from 500,000 to 30,000 years ago and interbred with ancient humans, but left behind no true hybrid species.

**Phenotype:** Observable traits of an organism (result from interactions between genes and environment).

**Phylogeny:** Historical relationships of species or genetic loci.

**Population:** A defined group of similar individuals among whom interbreeding occurs.

**Primates:** A group of mammals that include humans, apes, monkeys, and prosimians.

**Selection:** Allele frequency change over time caused by the different replication rate of specific alleles.

**Species:** A population that can produce viable and fertile offspring. (debated definition)