

Glossary for “The Tragedy of the Commons”:

Implicit, (p 26. Column 2): Implied though *not plainly expressed*; naturally or necessarily involved in, or capable of being inferred from, something else, (*OED*, 2.a; emphasis added).

assumption, (p 26.2): *That which is assumed or taken for granted*; a supposition, postulate (*OED*, II.11).

professional and semi-popular scientific journals, (p 26.2): I suspect what Hardin had in mind here were magazines like *Popular Mechanics*, *Popular Science*, *National Geographic*, and such. Not, in short, academic science journals such as you could cite in any university paper you might write.

prophecy (p 26.2): *To foretell or predict future events*; to make a prediction or prophecy (*OED*, 1.b).

class (p 26.2): A set or category of things (*OED*, I.2.a.)

null class (p 26.2): An empty set (think back to high school maths or computer science).

Intuitively (26.3): by immediate perception or direct mental apprehension; without the aid of intermediate ideas (*OED*, 2).

Malthus (27.1): “an English economist, cleric, and scholar influential in the fields of political economy and demography” who in 1798 wrote *An Essay on the Principle of Population*. Therein he “laid the ‘...theoretical foundation of the conventional wisdom that has dominated the debate, both scientifically and ideologically,[12] on global hunger and famines for almost two centuries’” (*Wikipedia*).

exponentially (27.1): In a manner characterized by increasingly rapid growth or change; more and more rapidly; ever increasingly (*OED*, 2.b).

per capita (27.1): For each person or head of population; in relation to people taken individually; on an individual basis (*OED*, 1).

finite (27.1): Having bounds, ends, or limits; bounded, limited; opposed to infinite (*OED*, 2.a).

Bentham (27.1): an English philosopher, jurist, and social reformer regarded as the founder of modern utilitarianism (*wikipedia*).

sufficient (27.1): used here in contraposition to *necessary*.

incommensurable (27.3); Having no common standard of measurement; not comparable in respect of magnitude or value (*OED*, 2.a).

natural selection (28.1): The evolutionary theory, originally proposed by Darwin, of the preferential survival and reproduction of organisms better adapted to their environment (*OED*).

weighting (28.1): *Statistics*. To multiply the components of (an average) by compensating factors; to treat (the components of any numerical quantity) similarly (*OED*, 2.d).

synergistic effects (28.1): Effects (i.e. results) greater than anticipated; in this use greater than can be anticipated.

nonlinear variation (28.1): *Statistics*. Linear relationships between variables are relationships where an increase in one variable is associated with a predictable increase in another variable. Thus, a **nonlinear variation** describes a relationship where an increase in one variable results in an unpredictable change in the other.

exorcize (28.2): To drive away (an evil spirit) by the invocation or use of some holy name; to call forth, expel. Const. *from, out of* (*OED*, 1).

demography (28.2): the study of human populations (*OED*, 1.a).

[Adam Smith's] *The Wealth of Nations* (28.2): First published in 1776, the book offers one of the world's first connected accounts of what builds nations' wealth (*wikipedia*).

laissez-faire (28.2): A phrase expressive of the principle that government should not interfere with the action of individuals (*OED*).

fecundity (28.3): The faculty of reproduction, the capacity for bringing forth young; productiveness (*OED*, 1).

epicyclic 31(1): A curve described by a point on the circumference of a circle as it both revolves around its centre and moves along the circumference of another circle (*OED*, noun 1).

millenniums 31(2): A millennium is one thousand years. Hardin's using the English version of the plural here. The Latin version would be *millennia*.

welfare state 31(2): a form of government in which the state (or a well-established network of social institutions) protects and promotes the economic and social well-being of its citizens (*wikipedia*).

Homo contraciens & Homo progenitivus 32(1): Each, literally: "pregnant man" & "progenitor man" (translate.google.ca). When used together, I suspect C.G.Darwin is trying to distinguish between the foreseeable and the unforeseeable: something along the lines of a linear vs a non-linear relationship.

Exosomatically 32(2): outside the body (*OED*, exosomatic), "in an exosomatic manner" (*wikipedia*).

Pathogenic 32(2): Producing physical disease; of or relating to the production of physical disease (*OED*).

"quid pro quo" 33(2): Literally, "what for what"; conventionally "this for that."

“A Madison Avenue man” 33(3): Madison Avenue is the heart of New York City’s advertising district. Think Don Draper in the HBO show *Mad Men* (get it? Madison Avenue men).

“status quo” 34(1): the existing state of affairs (*OED*); the world as it is.

For group definition:

“no technical solution” (first used p 26, column 1):

“conventionally conceived” (26.3):

“a criterion of judgement” (28.1):

“difficulties in discounting the future” (28.1):

“Education can counteract the natural tendency to do the wrong thing, but the inexorable succession of generations requires that the basis for this knowledge be constantly refreshed.” (29.2):

“the tragedy of the commons” 29(3):

“Quit custodies ipsos custodies?” 31(1):

“double bind” 32(3):

“psychologically pathogenic” 33(1):