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Humans, Animals, and Metaphors

ABSTRACT

This article examines the ideological implications of different interpretations of the statement “Humans are animals.” It contrasts theories that regard humans as literally sophisticated animals with those who interpret the statement metaphorically. Sociobiological theories, bolstered by metaphors in the dictionary of English emphasize competitiveness and aggression as features shared by humans and nonhuman animals. Other theories emphasize symbiosis and cooperation. Some of these theories are prescriptive—metaphor patterns in English reflect the strong tendency to regard animal behavior as something for humans to avoid. Conversely, sociobiologists suggest it is natural and right to behave like animals, the naturalistic fallacy. Other cultural theories suggest that the statement is only metaphorical; our differences from animals are what make us most human. The article notes the tendency to metaphorically project the values and structures of current human society onto the animals being studied, serving the interest of those who, in power, benefit from the status quo.

This article explores aspects of the role metaphors play in our conceptualization of nonhuman animals and how this relates to our conceptualization of humans. The “metaphor” HUMAN IS ANIMAL is worth discussion because this issue promises to be one of the major ideological battlegrounds in the twenty-first century, because of the rise of neo-(social)-Darwinism, and the new eugenics.

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Literary metaphors are often original. But the metaphors discussed in this article are of a conventional kind, having their metaphorical meaning, as well as their literal meaning, listed in the dictionary. My recent research on conventional metaphors in contemporary English can be found in an interactive database called *Metalude* (Goatly, 2004), a relatively exhaustive listing of metaphorical lexis. Readers of this article may find consulting *Metalude* helpful in considering the ideas in this article. My metaphors are organized in groups called metaphor themes, henceforth labeled by a formula in capital letters, such as *MONEY IS LIQUID*, where the first part of the formula is called “Target,” the actual topic referred to, and the second “Source,” what the topic is being compared with. The features shared by Target and Source, upon which the comparison depends are called “Grounds.”

Unlike original metaphors, conventional metaphors do not unsettle our modes of perception, feeling, or action, since they have achieved currency as an acceptable way of constructing, conceptualizing, and interacting with reality. We no longer take much notice, for example, when someone says of an argument “I don’t buy that,” since *buy* is now a conventional metaphor with a meaning something like “accept, agree with.” The fact that it has become current means that it works to convey a latent ideology that ideas and beliefs are a commodity, which we choose and shop around for according to our needs or desires. However, as we shall see, when looking at the pejorative animal metaphors for humans, metaphorical effects are not limited to the conceptual. They also have emotional force, which makes them value-laden and ideologically attitudinal.

One argument in this article is that metaphorical and other interpretations of *HUMAN IS ANIMAL* construct and reproduce ideologies and justify or reproduce certain behaviors (Fairclough, 1989, Gibbs 1999a). I wish to raise awareness of these latent ideologies, and of how they may be structuring and influencing our attitudes and behavior toward animals and our fellow humans.

**Interpreting the HUMAN IS ANIMAL Metaphor**

What are the possible interpretations of the theme *HUMAN IS ANIMAL* or, taking an example from Morris (1967) the statement “humans are naked apes”? (p. 9). This might receive a literal interpretation, as a hyponymic statement,
‘Humans are one kind of ape.’ This view suggests that what we share with animals is much more important than what we don’t share. Or we might opt for various kinds of metaphorical interpretation. Depending on one’s beliefs and ideology, one might see more or fewer Grounds of similarity between the Target (humans) and the Source (animals/apes). So if one were to see many salient and important Grounds the metaphor would, perhaps, approximate to a literal statement, paraphrased, “Humans are more or less animals/apes.” At the other extreme the differences would be more important than the similarities so the interpretation would be ‘Humans are in a few minor respects similar to animals/apes.’ Human nature could be much more dependent on culture, society, discourse, language, symbolism, indeed, metaphor itself. There are, of course, various mid-points between these two extremes. So there are at least three interpretations of “humans are animals.”

Humans are one kind of animal; Humans are more or less animals; Humans are not animals but are in some/few respects like animals.

However, there are two complications to this scheme. Although one may agree that there are important similarities between humans and animals, one may disagree about what these similarities are. Some zoologists see animals as fiercely competitive and aggressive and evolution as based upon the struggle for existence, whereas others put much more stress on the symbiotic nature of evolution. Secondly, such statements can be expressions of desirability and idealism, rather than of a perceived reality. HUMAN IS ANIMAL might, for example, give us the interpretation ‘Human is ideally in only a few minor respects like an animal’. We will present the metaphorical evidence that it has been common in Western thought to regard humans behaving like animals as reprehensible. But the idealistic view can also be associated with the other positions too: ‘Humans are ideally like animals.’ This is known as the “naturalistic fallacy,” the idea that what is true must also be good.

This article begins with theories at the hyponymic or literal statement end of the spectrum, first those that stress grounds of competitiveness and aggression, which often seem to project features of human society on to animals, and then those that give equal weight to co-operativeness. Next we consider the lexical evidence in English of the traditional idea that humans are ideally different ideally different from animals. Finally we sketch theories that claim that humans are very different from animals, because of language and culture.
Human as a Kind of Animal or More or Less Animal—Selfish, Competitive, and Aggressive

Laland and Brown in Sense and nonsense (2002) give a table summarizing the various attempts within zoology and evolutionary social theory to impose MAN IS ANIMAL as a more or less literal hyponymic statement. All these approaches regard humans as sophisticated animals.

In sociobiology, from which most of these theories stem, humans are simply sophisticated animals. It follows that animal behavior is natural to humans, and socio-biology generally regards it as competitive and aggressive. Lorenz in On aggression (1963) claimed that “fighting and war are the natural expression of human instinctive aggression” (quoted in Laland and Brown, 2002, p. 60). Thornhill and Palmer, in The natural history of rape, suggest that “rape . . . should be viewed as a natural, biological phenomenon that is a product of the human evolutionary heritage” (quoted in Ryan, 2002, p. 254). Sociobiologists have linked aggression to DNA. In Demonic males: Apes and the origins of human violence Wrangham and Peterson (1996) find a natural inclination of the human male to be aggressive—to be “demonic.” This inclination is “written in the molecular chemistry of DNA” (p. 63).

This emphasis on competitiveness, if not aggression, runs through many theories in Table 1. From our metaphor-theoretic perspective, we should note how frequently activity in general is metaphorically referred to by Sources of competition and aggression. In Metalude, DEVELOPMENT/SUCCESS IS MOVEMENT FORWARD (advance, progress, leap, go a long way) grows into the more competitive ACTIVITY/COMPETITION IS A RACE (in the running, quick/slow off the mark, jump the gun, the favorite, jockey for position, make the running, outdistance etc.). And there is a very prolific set of metaphor themes in English that construct activity as competition: ACTIVITY IS GAME (player, opponent, team, beat at their own game, loser etc.) with the sub-headings ACTIVITY IS BALL GAME (kick off, on the ball, set/start/get the ball rolling, play ball, whole new ball game, level playing field, move the goalposts, own goal etc.); CARD GAME (play your cards (right), strong suit, an ace up your sleeve, follow suit, trump, hold all the cards, show your hand etc.); BOARD GAME (game of chess, checkmate, endgame, the die is cast, go back to square one, stalemate, gambit, pawn etc.); GAMBLING GAME (at stake, stakeholder, up the ante, hit the jackpot, when the chips are down etc.). On the aggression side Metalude
gives details of ACTIVITY IS FIGHTING (battle, fray, front, crusade, campaign, fight for, fight a losing battle, take up the cudgels for, strike a blow for, freelance, spearhead, etc.), and SEX IS VIOLENCE (chopper, weapon, shoot your load, lady-killer, hit on, conquest, etc.). It is likely that these extremely widespread and frequent metaphors have influenced or at least reinforced the theories in Table 1.

<table>
<thead>
<tr>
<th>THEORY</th>
<th>Human sociobiology</th>
<th>Human behavioral ecology</th>
<th>Evolutionary psychology</th>
<th>Memetics</th>
<th>Gene-culture evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIEW OF HUMANS</td>
<td>Sophisticated animals</td>
<td>Sophisticated animals characterized by extreme adaptability</td>
<td>Sophisticated animals guided by psychological adaptations (Pinker)</td>
<td>Sophisticated animals manipulated by cultural parasites</td>
<td>Sophisticated animals guided by genetic and cultural information</td>
</tr>
</tbody>
</table>

* (Laland and Brown, 2002, p. 302)

For example, the sociobiologist Trivers uses economists’ mathematical models of game theory to argue that reciprocal altruism evolved to reap the benefits of altruistic exchanges and moralistic aggression evolved to punish cheaters (Laland & Brown, 2002, pp. 84, 85). We behave apparently selflessly to those who do not share our genes because we calculate that at some time in the future they may repay the favor. (This theory might be reinforced by THINKING/CONSIDERING IS CALCULATING (reckon, add up, calculate on, amount to, put two and two together, count on, the bottom line, deduction, factor, a plus, account for etc.) and AFFECTION/RELATIONSHIP IS MONEY/WEALTH (credit, short-change, repay, pay back, owe, indebted to, settle accounts etc.)). “Game” theory is, by the way, a rather infelicitous metaphor since real games are always zero-sum. Hence the need to contradict the implications of the metaphor and to talk of “win-win” situations.

Many of these theories accept, with Darwin, that life is a struggle in which only the fittest survive. This idea has also been used as a justification of imperialism and a spur to eugenics, contra Pinker (2003). In The descent of man, Darwin (1871/2004) advised against vaccination as injurious to the human
race because it preserved weaklings (quoted in Ryan, 2002, p. 37). Herbert
Spencer ruled out welfare, since eliminating “unfit” individuals would benefit
the human race (Ryan, 2002, p. 35). Madison Grant in The passing of the great
race (1916), read in translation by Hitler (Ryan, 2002, p. 46), advocated the
sterilization of social failures “beginning always with the criminal, the diseased,
and the insane, and extending gradually to types which may be called weak-
lings rather than defectives, and perhaps ultimately to worthless race types”
(Marks, 2002, p. 286).

Eugenics obviously got a bad name in the mid-twentieth century, but the pre-
sent possibility of genetic modification or engineering has given it a new
impetus. “The horizons of the new eugenics are, in principle, boundless. For
the first time in all time, a living creature understands its origin and can under-
take to design its future” (Midgeley, 1998, p. 56). This kind of eugenics ulti-
ately derives from the notion that humans are simply highly evolved animals.

According to Dawkins’ The selfish gene (1990) human behavior can be explained
by the drive to pass on our genes, and this explains why we favor relatives,
with whom we share more genes, over others who share less genetic mate-
rial. “If you accept that evolution is all about selfish genes, the group has no
role to play. Survival of the fittest means survival of the fittest DNA. There
is no such thing as society.” (Lynn Dicks, quoted in Ryan, 2002, p. 242).

**Animals Are More or Less Humans**

Selfish gene theory quite clearly links to the economic and political philosophies
of Reaganism-Thatcherism. Since animals only look after their own genes—
themselves and those closely related to them, and since we are simply sophis-
ticated and adaptable animals, the theory leads us to the conclusion: “There’s
no such thing as society. There are individual men and women, and there are
families” (Thatcher, 2002, p. 426). This belief led Thatcher to attempt to abolish
the “nanny state”; nannies are not related to us, and therefore make unnatural
carers.

The links between selfish-gene theory and Thatcherite economics is just one
example of a subconscious tendency to reverse the equation or metaphor so
that animals are viewed through the lens of human society. Max Black (1962)
claims in his interaction theory that metaphor involves a two-way transfer,
not only from Source to Target, but also from Target to Source, e.g. “Man is a wolf” makes wolves become more like men. Within our HUMAN IS ANIMAL “metaphor” we see such a reversal: traits of human societies are projected onto the animal groups investigated. For example, observational studies of chimp “societies” had various fashionable views of contemporary western society projected onto them: in the 1960s Goodall perceived chimps as gentle, by 1971 in In the shadow of man as a hippie commune, but by the 1980s other zoologists saw them as selfish strategists and violent, sometimes infanticidal, and by the 1990s as multicultural. (Marks, 2002, pp. 163ff.).

Projection of philosophical, political, and economic theories onto the animals being studied applies to Darwin’s evolutionary theories in general. Stephen Jay Gould said that natural selection “was essentially Adam Smith’s economics read into nature”, and Karl Marx noted,

> it is remarkable . . . how Darwin recognizes among beasts and plants his own English society with its division of labour, competition, opening up of new markets, ‘inventions’, and the Malthusian struggle for existence. It is Hobbes’ bellum omnium contra omnes. (Ridley, 1997, p. 252)

Similarly, following McGinnis, Pinker makes an explicit link between US society and its constitution and theories in evolutionary psychology. The idea of self-interest is enshrined in the right to “life, liberty and the pursuit of happiness”. The emphasis upon trade reflected the evolutionary biologists’ theory of reciprocal altruism, and was emphasized in the Commerce Clause of the constitution, which allowed Congress to remove trade barriers imposed by the states. The idea in evolutionary game theory that cheaters should be discouraged was reflected in the Contracts Clause. And the Takings Clause prevented the government from “cheating” by confiscating property from the more productive citizens. The drive for human aggression was counteracted by the War Powers Clause, giving Congress and not the President the power to declare war. (Pinker, 2003, pp. 296-298). Pinker is suggesting that the writers of the U.S. Constitution recognized the reality of human and animal nature. I would suggest the opposite—the ideological bases of US society give a framework for the interpretation of animal/human nature.

Conceptualizing the animal world by projecting the state of current society onto it is very useful to those in power who wish to maintain the status quo,
because they can then argue that it is natural for humans to behave in this way. The danger might be, of course, that this leads to an abdication of responsibility for ultra-competitiveness, violence and war.

**Human as More or Less Animal—But Co-Operative and Symbiotic**

Most of the theories mentioned above stress the competitive struggle for survival. However, one interesting challenge to the Darwinian account of evolution is Ryan’s *Darwin’s blind spot: Evolution beyond natural selection* (2002).

Though accepting the “naturalistic” view that human nature shares a great deal with animal nature, unlike the neo-Darwinians, Ryan (2002) perceives co-operative qualities and principles in animal nature, manifest in symbiotic relationships.

Symbiosis... brings a wonderful new perspective on life in general and human society in particular. From the very beginning, evolutionary theory has been applied to many fields of human affairs, such as sociology, psychology, and even politics. Such interpretations, viewed from a Darwinian perspective alone, lead to an excessive emphasis on competition and struggle. Most damaging of all, the social Darwinism of the first half of the twentieth century led directly to the horrors of eugenics. The rise, once more of social Darwinism is therefore a source or worry to many scientists, philosophers, and sociologists. (Ryan, 2002, p. 6)

Most important for evolutionary theory is endosymbiosis, where one organism lives inside another or becomes part of it. This was essential to plant evolution.

In the early stages of plant life on earth an amoeboid protist was infected by or ingested a cyanobacterium—the ingestion or infection failed and a new endosymbiosis took place which incorporated the cyanobacterium as a chloroplast, leading to the forerunner of all plant cells—the green alga. (Ryan, 2002, p. 147)

The contribution of symbiosis to plant and animal life and their evolution is enormous. Since the only living organism that can feed without relying on other organisms to pre-process its food is the bacterium “all life must ultimately depend on the prior existence and continuing presence of... autotrophic
bacteria” (Ryan, 2002, p. 68). The result is that “every herbivore . . . could have evolved only in symbiotic partnership with its gut-based internal zoo of cellulose-degrading microbes” (Ryan, p. 167).

The crucial point about some kinds of endosymbiosis is that they can transfer genetic material from one organism to another. For instance, in 2001 scientists at the Pasteur Institute discovered that resistance to the drug streptomycin had been transferred from one plague bacillus to another through the mediation of a mobile genetic unit, or plasmid (Ryan, 2002, p. 141).

Recognition of endosymbiosis as a mechanism of genetic transfer, demands reassessment of traditional evolutionary theory. Unlike natural selection, which acts on gene mutations to modify existing genes over a long period, formative symbiotic unions can merge together thousands of genes into a new hybrid organism very quickly. And the creative force of these symbiotic mergings is one which leads towards ever more biological and genetic complexity, a complexity not predicted by natural selection (Ryan, 2002, p. 92).

The complexity also involves increasing interdependence. In a sense, the boundaries between classes of organisms become blurred. “The interdependence of organisms in symbiotic associations . . . blurred the boundaries of taxonomic definition: where did the individual organism begin and end if genetic material could arrive from beyond the cell walls and change an organism’s heredity?” (Ryan, 2002, p. 82). Sorin Sonea (1983) has suggested that the individual kinds of bacteria can be thought of as the cells of a “global super-organism”, which has evolved over years of fluid symbiotic relationships.

Ryan (2002) wrote his book as a riposte to neo-Darwinians, and he too draws conclusions about human nature from the scientific theories. For example, he dismisses the reciprocal altruism theory of Trivers because he believes we have discovered a deep-seated instinct for co-operation and even self-sacrifice, born out of symbiosis:

Does anybody seriously believe that a man breaking into a blazing house to save the lives of the screaming children inside does so because he stops to think that one day those children might rescue him? . . . Does the boy or the girl who dies trying to save a dog from drowning under the ice on a wintry lake really calculate that, once rescued, the dog might one day pad to his or her rescue? . . . It seems more likely that important co-operative
behaviors, embedded in our human genome—such as love, friendship, and “togetherness”—carry a potential for self-sacrifice in extreme circumstances.

(p. 248)

If, adopting the naturalistic fallacy, we wish to draw conclusions from this retort to neo-Darwinism, the Grounds of comparison (metaphor) or classification (hyponymy) become rather different from those in the Darwinian theories. We are not simply programmed by our animal inheritance to participate in an aggressive struggle for existence, but are weighted towards symbiotic co-operation, not only between ourselves and others in society, but between ourselves and the rest of the living and non-living universe.

**Humans May Be in Many Respects like Animals, but Ideally Are Different**

There is a long tradition, in Western philosophy and cosmology, of regarding animals as inferior to humans. The classical and medieval view is well summed up by Tillyard in *The Elizabethan world picture* (1959) (Table 2). Topmost in the hierarchy were purely spiritual beings, God and the angels. Just below them, and in an ambiguous situation, were humans, partly spiritual and partly animal. They had the free will to choose between these two natures, and the main feature distinguishing them from animals was their ability to use reason to control their will. By foregoing reason and abandoning themselves to irrational emotion, they would become like animals, and descend in the hierarchy (Lakoff & Turner, 1989).

**Table 2: The Medieval Hierarchy of Being**

<table>
<thead>
<tr>
<th>GOD</th>
<th>ANGELS</th>
<th>MAN</th>
<th>ANIMALS</th>
<th>[PLANTS</th>
<th>MINERALS]</th>
</tr>
</thead>
</table>

The idea of the superiority of humans over animals was boosted by Lamarckian views of evolution, in which later forms were thought superior.
Each species could then move up the ‘chain of being’, which culminated in human beings. . . . Lamarck’s view of evolution was linear and progressive, with species having an inherent striving to evolve greater complexity, with the pinnacle of creation being human beings. (Laland & Brown, 2002, p. 40).

Darwin, too, is constantly using the word “improvement” to talk about natural selection and readily adopted Spencer’s phrase “the survival of the fittest”.

The biologist Romanes, in 1882, made an interesting comparison between phylogenetic development, the evolutionary development of life forms, and ontogenetic development, the development of the individual human during the early stages of its life, as shown in Table 3:

<table>
<thead>
<tr>
<th>Human development</th>
<th>Equivalent to</th>
<th>Psychological ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sperm and egg</td>
<td>Protoplasmic organisms</td>
<td>Movement</td>
</tr>
<tr>
<td>Embryo</td>
<td>Coelenterate</td>
<td>Nervous system</td>
</tr>
<tr>
<td>Birth</td>
<td></td>
<td>Pleasure and pain</td>
</tr>
<tr>
<td>1 week</td>
<td>Echinodermata</td>
<td>Memory</td>
</tr>
<tr>
<td>3 weeks</td>
<td>Larvae of insects</td>
<td>Basic instincts</td>
</tr>
<tr>
<td>10 weeks</td>
<td>Insects and spiders</td>
<td>Complex instincts</td>
</tr>
<tr>
<td>12 weeks</td>
<td>Fish</td>
<td>Associative learning</td>
</tr>
<tr>
<td>4 months</td>
<td>Reptiles</td>
<td>Recognition of individuals</td>
</tr>
<tr>
<td>5 months</td>
<td>Hymenoptera</td>
<td>Communication of ideas</td>
</tr>
<tr>
<td>8 months</td>
<td>Birds</td>
<td>Simple language</td>
</tr>
<tr>
<td>10 months</td>
<td>Mammals</td>
<td>Understanding of mechanisms</td>
</tr>
<tr>
<td>12 months</td>
<td>Monkeys and elephants</td>
<td>Use of tools</td>
</tr>
<tr>
<td>15 months</td>
<td>Apes and dogs</td>
<td>Morality</td>
</tr>
</tbody>
</table>

*(Laland and Brown, 2002, p. 45)*

This widespread and persistent view that humans are somehow at the pinnacle of creation has given rise to a general pattern among HUMAN IS ANIMAL metaphors: the great majority are negative and pejorative. Below, is a fairly comprehensive list of all these derogatory metaphors, divided into the categories of the Metalude database.
HUMAN IS MAMMAL: **bat**—silly, annoying or unpleasant person; **bear**—bad-tempered person; **dumb coyote**—Indian or mixed-blood person; **elephantine**—enormous; **harebrained**—foolishly impractical; **harelip**—birth defect of a divided top lip; **herd**—group of people en masse; **jackal**—person who takes advantage of what others leave; **mole**—insider who spies; **rabbit**—talk continuously and boringly; **runt**—small, weak person; **skunk**—unpleasant, unkind person; **paw**—touch roughly, sexually; **fawn**—flatter, praise insincerely; **weasel out of**—avoid doing something you don’t want to.

HUMAN IS COW: **cow**—unpleasant woman; **bovine**—slow or stupid; **bull-headed**—obstinate, without considering other people’s feelings; **bullpen**—cell or secure area where prisoners are temporarily detained; **calf-love**—immature love between young people; **cattle-market**—beauty contest; **beef**—complain and protest vigorously and persistently.

HUMAN IS SHEEP: **sheep**—unthinking imitator or over obedient person; **black sheep**—someone who brings shame to a family; **mutton dressed as lamb**—older woman trying to look young; **bleat**—complain; **pull the wool over someone’s eyes**—deceive someone by giving false information.

HUMAN IS MONKEY: **monkey**—mischievous or badly-behaved child; **monkey around with**—play or interfere with irresponsibly; **monkey business**—dishonest or bad behavior; **make a monkey out of**—make appear foolish; **ape**—stupid, awkward person; **go ape**—behave in an uncontrolled fashion; **gorilla**—rough and violent man.

HUMAN IS DOG: **dog**—unpleasant untrustworthy person; **dog in the manger**—person who prevents others enjoying things they don’t want themselves; **in the doghouse**—suffering from disapproval or rebuke; **bitch**—unpleasant, unkind woman; **cur**—worthless, cowardly man; **puppy love**—immature love; **fox**—clever, cunning, and secretive person; **vixen**—unpleasant woman; **outfox**—be more cunning than; **wolf**—sexually predatory man; **wolf down**—eat greedily; **wolfish**—sinister or threatening (of a man); **a wolf in sheep’s clothing**—deceitful and cunning person; **poodle**—someone too willing to support or be controlled by others; **hound**—follow someone menacingly to obtain something; **bark**—speak or give orders loudly and roughly; **bay**—demand greedily; **yap**—talk continuously and annoyingly.
HUMAN IS CAT: *alley-cat*—prostitute or slut; *cat*—spiteful or backbiting woman; *catty*—spiteful; *cat-burglar*—thief who climbs silently to rob houses; *copycat*—imitator lacking originality; *fat cat*—greedy and wealthy person; *man-eater*—promiscuous woman with large sexual appetite; *have kittens*—get worried or upset; *pussyfoot*—behave indecisively; *wildcat*—unofficial, risky.

HUMAN IS HORSE: *horsy*—with an ugly face like a horse (of women); *horse around*—behave noisily and stupidly; *horseplay*—rough, noisy behavior; *ass*—stupid person; *coltish*—young, energetic, and awkward; *dark horse*—someone who keeps secrets, especially their own surprising ability; *donkey*—silly, stupid person; *donkey-work*—hard, boring part of a job; *mule*—carrier of illegal drugs; *mulish*—stubborn.

HUMAN IS PIG: *pig*—greedy or fat person; *pig*—unpleasant, difficult person; *swine*—unpleasant, unkind person; *pig-headed*—obstinate in support of a plan/idea; *pig out*—eat excessively; *male chauvinist pig*—sexist man; *hog*—greedily monopolize; *roadhog*—selfish, dangerous driver.

HUMAN IS RODENT: *lemming*—thoughtless imitator; *rat*—disloyal, deceitful person; *rat on*—betray by giving secret information; *rat race*—ruthless competition for success; *ratty*—bad tempered, irritable; *pack-rat*—compulsive collector or hoarder; *shrew*—bad-tempered woman; *shrewish*—bad-tempered (of women); *vermin*—disgusting people, harmful, and dangerous to society.

HUMAN IS REPTILE/AMPHIBIAN: *reptilian*—unpleasant (of a person); *snake*—unpleasant, untrustworthy person; *a snake in the grass*—untrustworthy person; *viper*—untrustworthy person; *lizard*—lazy person; *lounge lizard*—lazy person who likes to socialize and be patronized; *toad*—unpleasant, unattractive, or evil man; *toady*—flatterer who seeks their own advantage; *tortoise*—slow-moving person; *chameleon*—person that changes opinions to please other people; *dinosaur*—very old-fashioned person; *dragon*—frightening woman.

HUMAN IS INSECT: *butterfly*—person who enjoys social pleasures, especially flirting; *drone*—unproductive member of society; *gadfly*—person who deliberately annoys or challenges people in authority; *louse*—nasty, dishonorable person; *nit*—foolish, stupid person; *nitwit*—idiot; *queen bee*—self-important
woman; sting—make hurtful criticisms of; wasp—white Anglo-Saxon Protestant; waspish—angry and unpleasant in manner or harshly critical.

HUMAN IS FISH: a cold fish—person who is unfriendly or negative in emotions; an old trout—old, ugly woman; jellyfish—cowardly person; shark—dishonest person; loan shark—rapacious money lender; queer fish—strange person; come the raw prawn—try to deceive by pretending ignorance; urchin—small, rough child.

HUMAN IS BIRD: bird-brain—stupid person; dolly bird—attractive, unintelligent, young woman; jailbird—(regular) prisoner; cuckoo—foolish, mad; dodo—old fashioned, conventional, and inactive person; jay—stupid, over-talkative or showy person; magpie—obsessive collector of worthless items; mopoke—stupid person; old crow—old or ugly girl or woman; ostrich—person who refuses to face unpleasant facts; parrot—repeat without understanding; peacock—man proud of his appearance; stool pigeon—informer, a criminal who gives information to the police; turkey—foolish, slow, and stupid person; vulture—person ready to exploit a situation; brood—think silently about topics with negative feelings; crow—boast noisily; flap—state of anxiety.

HUMAN IS CHICKEN: chicken—coward; chicken out—refrain from through fear; cock of the walk—confident or arrogant man; cocky—unpleasantly and rudely confident; hen-pecked—controlled and a little frightened by your wife.

HUMAN IS WATERBIRD: albatross—person who causes problems or brings bad luck; booby—dull or stupid person; booby prize—prize given as a joke to the person who comes last in a competition; booby trap—practical joke designed to catch the stupid or unwary; coot—rather silly person; cormorant—greedy, insatiable person; gaggle—group of silly people; gannet—greedy person; goose—silly person; gull—easily deceived person; lame duck—ineffective person; swan around—wander around in a leisurely and irresponsible manner.

The negative emotional slant of these metaphors reinforces the ideology of human superiority and disdain for animals, making it very difficult for us to conceive of animals and humans as having equal rights to exist, or for animals to be worth our sympathy. (We note, incidentally, the tendency for the sex specific pejorative metaphors to apply to females).
To elaborate the latter point, Ekman has noted the widespread strategy to distance one racial or ethnic group which is being made to suffer by referring to them as animals: “Sometimes a person or a group of people—the Bosnian Muslims, the Jews, the American Indians, the African slaves, the Gypsies—may be regarded as not being really human, not like the rest of us. They may be called animals, to show how little they matter, as a defence against sympathy” (Ekman, 2000, p. 91). Charles Kingsley called the Irish “white chimpanzees” (Marks, 2002, pp. 69-70).

**Human Is in Some/Few Respects like an Animal**

A poem by Edwin Muir (1965) is a useful introduction to what, in the view of some, separates us from animals.

*The animals*

They do not live in the world,
Are not in time and space.
From birth to death hurled
No word do they have, not one
To plant a foot upon,
Were never in any place.
For with names the world was called
Out of the empty air,
With names was built and walled,
Line and circle and square,
Dust and emerald;
Snatched from deceiving death
By the articulate breath.
But these have never trod
Twice the familiar track,
Never, never turned back
Into the memoried day.
All is new and near
In the great unchanging Here
Of the fifth great day of God,
That shall remain the same,
Never shall pass away.
On the sixth day we came.

This poem is relevant in two ways. First, that language is probably the most important ability that distinguished humans from animals. And second, that the world and history are created in our minds by human language, and do not have an existence that we can access except through language. The upshot of this is that people will classify and thereby create experience in various ways, according to their particular interests and cultural and linguistic inheritance. Human classification through language is not value-free, indeed categorization (\textit{kategorein} meant ‘to accuse’ in ancient Greek) is a function of power. For example, Linnaeus, one of the great early “scientific” classifiers, favored breast-feeding by mothers and was against wet-nursing, and so chose the possession of milk-producing breasts as the criterion for his class—\textit{mammalia}. He also had the problem of deciding on how to classify apes and humans—apes are very much like us and very much unlike us simultaneously. Traditionally in zoology, humans are classified as \textit{hominoidiae} along with great apes (chimps, gorillas, and orang-utans). The bases for this classification are teeth, lack of tail, position, mobility of the shoulder, and structure of the trunk. But difference from the apes could have been emphasized: We have two hands rather than four. We have a mental life which is quite distinct that has led to, among other things, technology, the ability to imagine—even to the extent of weeping over fictions—and, of course the development of and dependence on language and discourse (Marks, 2002, pp. 21, 22). And it is language that is the necessary means of cultural elaboration and transmission. While there have been attempts to teach chimpanzees and bonobos to use sign language, with some success at the level of individual signs, the syntax they have acquired is extremely limited.

In \textit{The construction of social reality} the philosopher John Searle (1995, p. 228) suggested that there is a more or less “continuous story that goes from an ontology of biology to an ontology of culture.” However, he suggests that the brute facts of nature can be distinguished from the institutional facts of culture and that central to this is the institution of language. Language allows us to impose on brute physical entities, such as sounds or marks on paper, a symbolic function. And language is essential for constructing all other institutional facts such as money, marriage, government, and universities. Language creates culture.
The recent trend is to bolster the hominoidiae classification by recourse to figures about the amount of DNA shared. But as Marks (2002) points out,

Unfortunately, it has become fashionable to stress that chimpanzees and humans must have staggeringly similar psychologies because they share 98.4% of their DNA. But this misses the point: genomes are not like cake recipes . . . A creature that shares 98.4% of its DNA with humans is not 98.4% human, any more than a fish that shares, say, 40% of its DNA with us is 40% human. (p. 43)

We are, after all, at least 50% water!

If we are similar but distinguishable from a gorilla ecologically, demographically, anatomically, mentally—indeed in every way except genetically—does it follow that all the other standards of comparison are irrelevant and the genetic comparison is transcendent? (Marks, 2002, p. 191)

Not only are we distinct mentally and culturally from other members of the class hominoidiae, but according to Mithen (2003), remarkably distinct from the other members of the homo genus.

All members of homo—other than H. sapiens—had domain-specific mentalities, the most advanced appearing in the Neanderthals. Homo sapiens, however, had the capacity to make mental links. Not only could they combine different types of knowledge, but they also had the capacity to think in metaphor—a capacity that underlies the whole of science, art and religion . . .

With this extraordinary change in mentality came the ability to create new types of material culture . . . replete with symbolic meanings . . . But material culture was no longer simply a product of the mind: it had become a major shaper of the mind. The cultural environments that we humans create around ourselves are of critical importance to the elaboration—if not the origin—of cognitive fluid thought. Paintings on cave walls, written texts and mathematical symbols support the complex ideas that are so important to human minds, but which are difficult to grasp, recall and transmit to others . . . the earliest modern humans learned to extend their minds beyond their brains. They escaped from the restrictions that biology imposes upon human thought. (pp. 40, 41).

We create artifacts with symbolic meanings and thereby establish cultural environments that in turn shape the human mind, for example cave paint-
ings and mathematical symbols. For Mithen we have taken a huge leap beyond our biology, and our use of metaphor underlines the fact that \textit{human is animal} is no more than a metaphor, in which there are minor Grounds of comparison. Mithen reminds us that among the major shapers of the mind are the metaphor themes by which we think.

According to some commentators and historians, the whole movement known as social reconstructionism has been seen as an attempt to distance humans from their biology.

What the available evidence does seem to show is that ideology, or a philosophical belief that the world could be a freer and more just place played a large part in the shift from biology to culture. . . . The main impetus came from the will to establish a social order in which innate and immutable forces of biology played no role in accounting for the behavior of social groups. (Degler, 1991, p. viii)

Fromm (1983) also argues that one of the two crucial factors in the human evolution and human nature, besides the size of the brain, was the “ever decreasing determination of behavior by instincts” (p. 122). In addition, Fromm also relates this to the development of religion.

Lacking the capacity to act by the command of instincts while possessing the capacity for self-awareness, reason, and imagination—new qualities that go beyond the capacity for instrumental thinking of even the cleverest primates—the human species needed a frame of orientation and an object of devotion in order to survive. (p. 123)

\textbf{Summary and Conclusion}

The question we addressed in this article was to what extent \textit{human is animal} is a statement of hyponymy (‘a human is a kind of animal’) or a near identity statement (‘humans are more or less animals’), or whether it is a metaphor of some kind (‘humans are like animals’), and if the latter, what the Grounds of comparison are and how extensive they are (Table 4). We have ranged over theories in socio-biology that largely stress the identity statement or hyponymy, regarding what distinguishes us from animals as insignificant, to theories that, while debunking the criterion of the percent-
age of DNA shared (Marks, 2002), stress our difference from our biological ancestors due to the development of symbols, including language and metaphor and institutions (Searle, 1995; Mithen, 2003), or emphasize our need to escape from our biological heritage, like social-reconstructionism. Most theories that accept human is animal as the best explanatory model take as the Grounds of the model/metaphor the aggression and competitiveness on which Darwinian theories of evolution are based, and we saw how this might be related to metaphor themes activity is fighting, activity is game and thinking/considering is calculating. The only exception to this emphasis on competition and aggression is Ryan (2002) who stresses the symbiotic principle behind evolution as an equally important potential Ground shared by the Source and Target in human is animal.

Table 4: Summary of Approaches to the human is animal Statement/Metaphor

<table>
<thead>
<tr>
<th>Semantics</th>
<th>View of Humans</th>
<th>Grounds</th>
<th>Theory</th>
<th>Proponents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Is Animal’ As Hyponymic Approximation</td>
<td>Sophisticated animals</td>
<td>Competitive &amp; aggressive</td>
<td>Human Sociobiology</td>
<td>Wilson, Lorenz, Wrangham &amp; Peterson</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Is Animal As Metaphor With Few Grounds</td>
<td>Just as much institutional as animal/biological</td>
<td>Co-operative &amp; competitive</td>
<td>Symbiosis</td>
<td>Ryan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Human Is Animal As Metaphor With Few Grounds</th>
<th>‘Construction of social reality’</th>
<th>Searle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not animal simply because of sharing DNA</td>
<td></td>
<td>Marks</td>
</tr>
<tr>
<td>Cultural being due to symbolic environment</td>
<td></td>
<td>Mithen</td>
</tr>
<tr>
<td>Should become less animal in the cause of a free and just society</td>
<td>Competitive &amp; aggressive social-reconstruction</td>
<td>Fromm</td>
</tr>
</tbody>
</table>
We have noted a prescriptive, rather than descriptive, tendency in many of the theories and discussions. The most common animal metaphors for humans are pejorative, suggesting that it is desirable to distance ourselves from animals, both conceptually and emotionally. But those arguing from an opposite direction, espousing the naturalistic fallacy, suggest that it is pointless to appeal to cultural or religious values for which there is no instinctual basis.

In terms of our practical behavior toward animals, we may also note that there is no necessary correlation between regarding animals and humans as quite different and the mistreatment of animals. According to biocentrism, any form of life has an intrinsic worth equal to any of the others. We could emulate the Burmese attitude to animals as described by H. Fielding Hall (1920), quoted in Schumacher (1999):

> To him men are men and animals are animals, and men are far the higher. But he does not deduce from this that man’s superiority gives him the permission to ill-treat or kill animals. It is just the reverse. It is because man is so much higher that he can and must observe towards animals the very greatest care, feel for them the very greatest compassion, be good to them in every way he can. (p. 86)

We can perhaps re-look at the question of animal metaphors in a slightly different way. Even scientists who claim some kind of objectivity for their discipline are actually driven by the value-laden metaphors that they use for nature. Man then becomes a Source for animal Targets rather than vice-versa, as we saw in the case of Darwin using English bourgeois society with its division of labor, entrepreneurship and competition for resources as a Source for the animal/plant Target, and Pinker (2003) seeing the U.S. Constitution as a model for biological behavior. This is a way of making aspects of human society seem natural, as they are shared by animals, and serves the interests of those wielding power in such societies. Harvey (1996) points out,

> We see in short only those values which our value-laden metaphors allow us to see in our study of the natural world. Harmony and equilibrium; beauty, integrity and stability; co-operation and mutual aid; ugliness and
violence; hierarchy and order; competition and the struggle for existence; turbulence and unpredictable dynamic change; atomistic causation; dialectics and principles of complementarity; chaos and disorder; fractals and strange attractors; all of them can be identified as “natural values” not because they are arbitrarily assigned to nature, but because however ruthless, pristine and rigorously “objective” our method of enquiry may be, the framework of interpretation is given in the metaphor rather than the evidence. (p. 163)

Indeed Kuhn (1993) and Pylyshyn (1993) in slightly different terms, point out that scientific models work as metaphors predicting various hypotheses or Grounds that may then be tested. The program of research is driven by the metaphor, and different metaphors will highlight or predict different attributes of the phenomenon under investigation. With a Target as complex and multi-faceted as ‘animal’ there is enormous scope for different Source metaphors derived from different concepts of humanity and different social and cultural systems within which that humanity takes its shape.

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Notes

1. Correspondence should be addressed to Andrew Goatly, Associate Professor of English, Lingnan University, Hong Kong. E-mail: goatly@Ln.edu.hk
2. “... a neo-liberal political ideology” that “...emerged as Reaganism-Thatcherism in the 1970s and then spread to almost all state-level and international institutions as the ‘Washington Consensus’” (Chase-Dunn, C., & Gillis, B., 2003).

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