MARY MIDGLEY

Every age has its pet contradictions. Thirty years ago, we used to accept Marx and Freud together, and then wonder, like the chameleon on the tartan, why life was so confusing. Today there is similar trouble over the question whether there is, or is not, something called Human Nature. On the one hand, there has been an explosion of animal behavior studies, and comparisons between animals and men have become immensely popular. People use evidence from animals to decide whether man is naturally aggressive, or naturally territorial; even whether he has an Aggressive or Territorial Instinct. On the other hand, many sociologists and psychologists still seem to hold the Behaviorist view that man is a creature entirely without instincts, and so do existentialist philosophers. If so, all comparison with animals must be irrelevant. (To save space, I have had to simplify both these party lines here, but if anyone thinks I am oversimplifying the behaviorist one, I can only ask him to keep on reading New Society.) On that view, man is entirely the product of his culture. He starts off infinitely plastic, and is formed completely by the society in which he grows up. There is no end to the Possible variations between cultures; what we take to be man's instincts are just the deep-dug prejudices of our own society. If we form families, ear the dark, or jump at the sight of a spider, these are just results of our conditioning. For Existentialism, at first sight the scene is very different, because the existentialist asserts man's freedom and will not let him call himself the product of anything. But Existentialism too denies hat man has a nature; if he had his freedom would not be complete. So Sartre insists that "there is no human nature. . . . Man first of all exists, encounters himself, surges up in the world, and defines himself afterwards. If man as the existentialist sees him is not definable, it is because to begin with he is nothing. He will not be anything until later, and then he will be what he makes himself."

For Existentialism there is only the Human Condition, which is what happens to man and not what he is born like. If we are afraid of the dark, it is because we choose to be cowards; if we care more for our own children than other people's it is because we choose to be partial. We must never talk about human nature or human instincts.

In this paper I want, first, simply to draw attention to this dialectic, which can certainly do with intelligent attention from all sides. Second, I want, myself, to work from the animal behavior angle, which I think is extremely interesting and has not yet been fully used by philosophers. One reason for this is undoubtedly the fear of fatalism; another is the appalling misuse of terms like "instinct" and "human nature" in the past; the third is the dottiness of some ethological propaganda. To dispose of the last first; if we vetoed every science that has had some lunatic exponents we could quickly empty the libraries. What is needed in such cases is to sort the wheat from the chaff. To quote Konrad Lorenz:²

... if I have to confess to a sneaking liking for, and even a feeling of gratitude to, my adversaries, I think it only fair to confess that some of my allies make me squirm. Desmond Morris, who is an excellent ethol-ogist and knows better, makes me wince by over-emphasizing, in his book *The Naked Ape*, the beastliness of man. I admit that he does so with the commendable intention of shocking haughty people who refuse to see that man has anything in common with animals at all, but in this attempt he minimizes the unique properties and faculties of man in an effectively misleading manner; the outstanding and biologically relevant property of the human species is neither its partial hairlessness nor its "sexiness," but its faculty for conceptual thought—a fact of which Desmond Morris is, of course, perfectly aware. Another writer who makes me

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^{*} Philosophy, vol. 48 (1973), pp. 111-35.

¹ Existentialism and Humanism, 28.

² On *Aggression*, 3.

To that mass of knowledge, Lorenz himself adds a clear view of the conceptual scene typical, it must be said, of scientists who have had the foresight to get themselves educated on the continent and not in England or America. (This is also true of Tinbergen and Eibl-Eibesfeldt and of that splendid old person Wolfgang Kohler.3) Because of this, and for simplicity, I shall address myself largely to his arguments, and particularly to his book On Aggression, without suggesting that he is either isolated or infallible. Like him, however, I have a difficulty of method. The point of my argument is to show how and in what cases comparison between man and other species makes sense, but I must sometimes use such comparisons in the process. Those to whom it is a matter of faith and morals not to consider them, have a problem. I think the circle will prove virtuous, but in advance I suggest the following test. Comparisons make sense only when they are put in the context of the entire character of the species concerned and of the known principles governing resemblances between species. Thus: it is invalid to compare suicide in lemmings or infanticide in hamsters on their own with human suicide or infanticide. But when you have looked at the relation of the act to other relevant habits and needs, when you have considered the whole nature of the species, comparison may be possible and helpful.

Now for the other objections.

- 1. About the fear of fatalism I shall not say much, because it seems to me quite misplaced here. The genetic causes of human behavior need not be seen as overwhelming any more than the social causes; either lot is alarming if you treat it as predestined to win, but no one is committed to doing that by admitting that both lots exist. Knowing that I have a naturally bad temper does not make me lose it; on the contrary it should help me to keep it, by forcing me to distinguish my peevishness from moral indignation. My freedom, therefore, does not seem to be particularly threatened by the admission, nor by any light cast on the meaning of my bad temper by comparison with animals.
- 2. Words like "instinct" are another matter. Ethologists, particularly Lorenz and Tinbergen, have put in a lot of work on these terms, and I think they are now fit for use again. They are used, not wildly but in a definite and well-organized way, in the detailed, systematic, gruelling studies of animal behavior which have been made by trained zoologists in this century, and have been given the name of Ethology. I shall discuss the use of the terms later.

The general point is that animals clearly lead a much more structured, less chaotic life than people have been accustomed to think, and are therefore, in certain quite definite ways, much less different from men. (There is still plenty of difference, but it is a different difference.) Traditionally, people have congratulated themselves on being an island of order in a sea of chaos. Lorenz and company have shown that this is all my eye and Bishop Wilberforce. There follow various changes in our view of man, because that view has been built up on a supposed contrast between man and animals which was formed by seeing animals, not as they were, but as projections of our own fears and desires. We have thought of a wolf always as he appears to the shepherd at the moment of seizing a lamb from the fold. But this is like judging the shepherd by the impression he makes on the lamb, at the moment when he finally decides to turn it into mutton. Lately, ethologists have taken the trouble to watch wolves systematically, between meal-times, and have found them to be, by human standards, paragons of regularity and virtue. They pair for life, they are faithful and affectionate spouses and parents, they show great loyality to their pack, great courage and persistence in the face of difficulties, they carefully respect each other's territories, keep their dens clean, and extremely seldom kill anything that they do not need for dinner. If they fight with another wolf, the fight ends with his submission; there is normally a complete inhibition on killing the suppliant and on attacking females and cubs. They have also, like all social animals, a fairly elaborate etiquette, including

³ See *The Mentality* of *Apes*, esp. chs vii and viii.

subtly varied ceremonies of greeting and reassurance, by which friendship is strengthened, cooperation achieved and the wheels of social life generally oiled. All this is not the romantic impressions of casual travellers; it rests on long and careful investigations by trained zoologists, backed up by miles of film, graphs, maps, population surveys, droppings analysis and all the rest of the contemporary toolbag. Moreover, these surveys have often been undertaken by authorities which were initially rather hostile to the wolf, and inclined to hope that it could be blamed for their various troubles. Farley Mowat, doing this work in the Canadian Arctic, had his results rejected time and again because they showed that the sudden drop in the numbers of deer was *not* due to wolves, who had not changed their technique in a number of centuries, but to hunters, who had.⁴

Actual wolves, then, are not much like the folk-figure of the wolf, and the same goes for apes and other creatures. But it is the folk-figure that has been popular with philosophers. They have usually taken over the popular notion of lawless cruelty which underlies such terms as "brutal," "bestial," "beastly," "animal desires," etc., and have used it, uncriticized, as a contrast to illuminate the nature of man. Man has been mapped by reference to a landmark which is largely mythical. Because this habit is so ancient, and so deep-rooted, I shall say a little more about it before turning to the philosophic arguments in question. Consideration of its oddity may perhaps prevent us dismissing the whole topic in advance. The fact that some people are silly about animals cannot stop the topic being a serious one. Animals are not just one of the things with which people amuse themselves, like chewing-gum and water-skis, they are the group to which people belong. We are not just rather like animals; we are animals. Our difference from our relatives may be striking, but the comparison has always been, and must be, crucial to our view of ourselves. It will matter if, as I believe, the gap comes in a slightly different place from where tradition puts it, as well as being rather narrower. The traditional view has certainly distorted argument in ethics, and may have caused mistakes about the possibilities open to humanity.

Turning back then to wolves: the contrast of the ethologist's fully documented picture with the traditional view of the wolf needs no comment. I have read a chatty journalistic book on wolves, whose author described in detail how wolves trapped in medieval France used to be flayed alive, with various appalling refinements. "Perhaps this was rather cruel," he remarked, "but then the wolf is itself a cruel beast." The words sound so natural; it is quite difficult to ask oneself; do wolves in fact flay people alive? Or to take in the fact the only animal that shows the slightest interest in doing this sort of thing is *homo sapiens*. Another complaint that the author made against wolves was their Treachery. They would creep up on people secretly, and then they would attack so suddenly that their victims did not have time to defend themselves. The idea that wolves would starve if they always gave fair warning never strikes him. Wolves, in fact, have traditionally been *blamed* for being carnivores, which is doubly surprising since the people who blamed them normally ate meat themselves, and were not, as the wolf is, compelled by their stomachs to do so.

The restraint apparent in wolves seems to be found in most other carnivores, and well-armed vegetarian creatures too. Where murder is so easy, a species *must* have a rigorous inhibition against it or perish. (Of course this inhibition is not a morality, but it works in many ways like one.) Animals less strongly armed do not need this defence. Lorenz⁵⁵ gives chilling examples from Roedeer and Doves, in both of which species stronger members will slowly murder any weaker one if they are kept in captivity with it, because these creatures in a free state save themselves by running away, and not by relying on the inhibition of the victor. And it is painfully clear that Man is nearer to this group than to the wolf.

Man, before his tool-using days, was pretty poorly armed. Without beak or horns, he must have found murder a tedious and exhausting business, and built-in inhibitions against it were

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⁴ Farley Mowat, Never Cry Wolf; Murie, The Wolves of Mount McKinley.

⁵ King Solomon's Ring, 192.

therefore not necessary for survival. Then, by the time he invented weapons, it was too late to alter his nature. He had already become a dangerous beast. War and vengeance are primitive human institutions, not late perversions; most cosmogonies postulate strife in Heaven, and bloodshed is taken for granted as much in the Book of Judges as in the *Iliad* or the Sagas. There may be non-aggressive societies, as anthropologists assure us, but they are white blackbirds and possibly (as I shall argue later) not so white as they are painted. It seems likely that man shows *more* savagery to his own kind than any other mammal, though among the beasts Lorenz mentions, rats are certainly a competitor. They, it seems, will normally try to kill any rat they meet of another tribe, but in compensation they never kill or seriously fight rats of their own tribe. Rats cannot therefore compete with Cain, or Romulus, still less with Abimelech the son of Gideon, who murdered, on one stone, *all* his brothers, to the number of three-score and ten.⁶ An animal who does this is surely rightly labelled "dangerous."

Yet he has always believed otherwise. Man, civilized Western man, has always maintained that in a bloodthirsty world he alone was comparatively harmless. Consider the view of the African jungle given by Victorian hunters. The hunter assumed that every creature he met would attack him, and accordingly shot it at sight. Of course he didn't want to eat it, but he could always stuff it (in order to triumph over his human enemies) and anyway he assumed it was noxious; it would be described in his memoirs as "the great brute." Drawings even exist of Giant Pandas cast in this totally unconvincing role—and shot accordingly. Yet in these days game wardens and photographers habitually treat lions as familiarly as big dogs. It is understood that so long as they are well fed and not provoked they are no more likely to attack you than the average Alsatian. Much the same seems to hold to elephants and other big game. These creatures have their own occupations, and, unless seriously disturbed, are not anxious for a row. Gorillas in particular are peace-loving beasts; Schaller visited a tribe of them for six months without receiving so much as a cross word, or seeing any quarrelling worth naming. In this case, and no doubt in others, Victorian man was deceived by confusing threatening behaviour with attack. Gorillas do threaten, but the point is precisely to avoid combat. By looking sufficiently dreadful, a gorilla patriarch can drive off intruders and defend his family without the trouble and danger of actually fighting. The same thing seems to hold of other simians, and particularly of Howler Monkeys, whose dreadful wailing used to freeze that white hunter's blood. For howlers have reduced the combat business to its lowest and most satisfactory terms. When two groups of them compete for a territory, they both sit down and howl their loudest, and the side which makes the most noise has won. That nervous White Man, with his heart in his mouth and his finger on his trigger, was among the most dangerous things in the jungle. His weapon was at least as powerful as those of the biggest animals, and while they attacked only what they could eat, or what was really annoying them, he would shoot at anything big enough to aim at. Why did he think they were more savage than he? Why has civilized Western man always thought so? I am not surprised that early man disliked wolves. When an animal tries to eat you, you cannot be expected to like it, and only a very occasional Buddhist will co-operate. But why did he feel so morally superior? Could he not see that the wolf's hunting him was exactly the same as his hunting the deer? (There are tribes which do think in this way: but it is Western thought that I am exploring.) As Lorenz remarks, people are inclined to disapprove of carnivores even when they eat other animals and not people, as though other animals all formed one species, and the carnivores were cannibals. "The average man," he says, "does not judge the fox that kills a hare by the same standard as the hunter who shoots one for exactly the same reason, but with the severe censure that he would apply to a game-keeper who made a practice of shooting farmers and frying them for supper." This disapproval is very marked on the occasions when foxes do kill for sport or practice, destroying more hens than they can eat. You would not guess, to hear people talk at such times, that people ever hunted foxes. In the same way, it makes a very disreputable impression when Jane Goodall⁸ reports that the chimpanzees she watched would occasionally catch and eat a baby

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⁶ Judges, IX, 5.

⁷ G. Schaller, *The year of the Gorilla.*

⁸ Jane van Lawick Goodall, My *Friends the Wild Chimpanzees*.

baboon or colobus monkey, though they all lived amicably together most of the time and the children even played together. But what else goes on on the traditional farm?

> Sing, Dilly dilly duckling, come and be killed, For you must be stuffed, and my customers filled.

The reason why such parallels are hard to see is, I suggest, that man has always been unwilling to admit his own ferocity, and has tried to deflect attention from it by making animals out more ferocious than they are. Sometimes the animals themselves have been blamed and punished. Such customs as the flaying of wolves were probably intended as punishments, though it might be hard to separate this intention from magic. And certainly the Wickedness of animals has often been used to justify our killing or otherwise interfering with them. It is a cock-eyed sort of Justification, unless Beasts were supposed capable of Deliberation. We Would probably do better to invoke our natural loyalty to our own species than to rely on our abstract superiority to others. But I am more interested for the moment in the philosophic use of the Beast Within than in our treatment of Beasts Without.

The philosopher's Beast Within is a lawless monster to whom nothing is forbidden. It is so described both by moralists like Plato, who are against it, and by ones like Nietzsche, who are for it. Here is a typical passage from Book IX of the *Republic*, where Plato⁹ is talking about our nastier desires. These

. . . bestir themselves in dreams, when the gentler part of the soul slumbers, and the control of Reason is withdrawn. Then the Wild Beast in us, full-fed with meat and drink, becomes rampant and shakes off sleep to go in guest of what will gratify its own instincts. As you know, it will cast off all shame and prudence at such moments and stick at nothing. In phantasy it will not shrink from intercourse with a mother or anyone else, man, god or brute, or from forbidden food or any deed of blood. It will go to any lengths of shamelessness and folly.

Consider how odd the image is, in spite of its familiarity. Why not say, have these thoughts in my off moments"? Why not at least the Other Man within? What is gained by talking about the Beast?

Here is Nietzsche, ¹⁰ speaking of the Lion whom he invokes to break the chain of convention:

To create for himself freedom for new creation—for this the Lion's strength is sufficient, To create for himself freedom, and a holy Nay even to duty; therefore, my brethren, is there need of the Lion.

Once it loved as holiest Thou Shalt—Now it must see illusion and tyranny even in its holiest, that it may snatch freedom even from its love—

For this there is need of the Lion. . . .

But in the world there is no such beast. To talk of a Beast is to talk of a thing with its own laws. If lions really did not draw the line at anything—if they went about mating with crocodiles, ignoring territory, eating poisonous snakes and killing their own cubs-they would not be lions, nor, as a species, would they last long. This abstract Beast is a fancy on the level of the eighteenth century's abstract Savage, whether Noble or otherwise. (Dr. Johnson: Fanciful people may talk of a mythology being amongst them, but it must be invention. . . . And what account of their religion can you suppose to be learnt from savages?¹¹) What anthropology did for this myth, ethology now does for the Beast myth. Kipling's Law of the Jungle is nearer to reality than this fancy of the moralists. What is particularly odd is that

⁹ Republic, IX, 571c.

Thus Spake Zarathustra; Discourse of the Three Metamorphoses. ¹¹ Boswell, *Life of Johnson*, Everyman 2, 34.

beasts are supposed to be so given to sexual licence. It really should not have needed Desmond Morris to point out that, among animal species, *homo sapiens* gives an exceptional amount of time and attention to his sexual life. For most species, a brief mating season and a simple instinctive pattern make of it a seasonal disturbance with a definite routine, comparable to Christmas shopping; it is exactly in human life that it plays, for good or ill, a much more serious and central part. With no other species could a Freudian theory ever have got off the ground. Gorillas, in particular, take so little interest in sex that they really shock Robert Ardrey: 12 he concludes that they are in their decadence. Yet Tolstoy, 13 speaking of the life of systematic sexual indulgence, called it "the ideal of monkeys or Parisians."

If then there is no Lawless Beast outside man, it seems very strange to conclude that there is one inside him. It would be more natural to say, the beast within us gives us partial order; the business of conceptual thought will only be to complete it. But the opposite, a priori reasoning was the one that prevailed. If the Beast Within was capable of every iniquity, people reasoned, then Beasts Without probably were so too. This notion made man anxious to exaggerate his difference from all other species, and to ground all activities he valued in capacities unshared by the animals, whether the evidence warranted it or no. In a way this evasion does the species credit, because it reflects our horror at the things we do. Man fears his own guilt, and insists on fixing it on something evidently alien and external. Beasts Within solve the Problem of Evil. It does him credit, because it shows the power of his conscience, but all the same it is a dangerous fib. It is my contention that this use of the Beast Within as a scapegoat for human wickedness has led to some bad confusion, not only about Beasts (which might not matter) but about Man. I suspect that Man began to muddle himself quite badly at the point where he said "The Woman beguiled me, and I did eat," and the Woman said the same about the Serpent. . . .

Aristotle, though in general he was much more convinced of man's continuity with the physical world than Plato, makes some equally odd uses of the contrast between man and beast. In the Nicomachean ethics¹⁴ he asks what the true function of man is, in order to see what his happiness consists in, and concludes that that function is the life of reason because that life only is peculiar to man. I do not guarrel for the moment with the conclusion but with the argument. If peculiarity to man is the point, why should one not say that the function of man is technology, or the sexual goings-on noted by Desmond Morris, or even being exceptionally ruthless to one's own species? For in all these respects man seems to be unique. It must be shown separately that this differentia is itself the best human quality, that it is the point where humanity is excellent as well as exceptional. And it is surely possible a priori that the point on which humanity is excellent is one in which it is not wholly unique—that at least some aspect of it might be shared with another race of beings? Animals are, I think, used in this argument to point up by contrast the value of reason, to give examples of irrational conduct whose badness will seem obvious to us. But unless we start with a particular view about the importance of Reason in conduct, we shall not necessarily agree. If we prefer, among humans, an impulsively generous act to a cold-blooded piece of calculation, we shall not be moved from our preference by the thought that the generous act is more like an animal's. Nor ought we to be. The claims of Reason must be made good, if at all, within the boundaries of human life itself. They could be strengthened by race-prejudice only if it were true, as sometimes seems to be suggested, that animals were, in fact, invariably wicked. . . .

I have been suggesting that animal life is much more orderly, and ordered in a way closer to human patterns, than tradition suggests. People may grant this, and still ask what it means to attribute this order to Instinct. This must of course be gone into before the term can sensibly be applied to people.

¹⁴ Nicomachean Ethics I, 7

¹² Robert Ardrey, *African Genesis*, 126-127; Schaller, *The Year of the Gorilla*.

¹³ L. Tolstoy, *The Kreutzer Sonata*, ch. ii. For further comparison of human sexuality with that of other primate species, see Wickler, "Socio-Sexual Signals," in |f- Morris, *Primate Ethology*, 1967. Also, in spite of certain crass and obvious errors, *'he Naked Ape*. Eibl-Eibesfeldt in *Love and Hate* sets the whole problem very well in context.

A very useful piece of terminology here is that of Closed and Open Instincts. Closed instincts are behavior patterns fixed genetically in every detail, like the bees' honey-dance, some birdsong, and the nest-building pattern of weaver-birds. Here the same complicated pattern, correct in every detail, will be produced by creatures which have been carefully reared in isolation from any member of their own species, and from any helpful conditioning. Genetic programming here takes the place of intelligence; learning is just maturation. Open instincts on the other hand are general tendencies to certain kinds of behavior, such as hunting, treeclimbing, washing, singing or the care of the young. Cats, for example, tend naturally to hunt, they will do so even if deprived of all example. They do it as kittens when they do not need food, and they will go on doing it even if they are kept fully fed; it is not just a means to an end. But their hunting is not a single stereotyped pattern, it covers a wide repertory of movements; a cat will improve greatly in its choice of these during its life, it can invent new ones and pick up tips from other cats. In this sense hunting is learnt. The antithesis between nature and nurture is quite false and unhelpful here; hunting, like most activities of higher animals, is both innate and learnt. The creature is born with certain powers and a strong wish to use them, but it will need time, practice, and (often) some example before it can develop them properly. Other powers and wishes it does not have and will find it hard to acquire. For instance, swimming is outside the usual range of both cats and monkeys; in spite of their great agility it does not suit them, as it suits men and hippopotami; example will not usually bring them into the water, and they might starve if their food lay beyond it.

Open instincts of this kind are the main equipment of the higher animals. It is to them that we must attribute all the complex behavior which makes the wolf's social life so successful; monogamy, cleanliness, cub care and inability to attack the helpless are loose patterns, but they are built in. Open and closed instincts however are clearly not distinct kinds of things; they are the extremes of a scale with many grades between. For instance, besides the birds with a fixed song pattern, there are others with various powers of imitation. Mocking birds imitate other birds' song and also non-bird noises; their programming is obviously a more complicated matter than a cuckoo's, and must include some power of selection. But imitating itself *is* an instinct with them; they will do it untrained and you cannot teach them to compose instead. Nest-building with the higher animals is like this; they have no fixed stereotype, like the weaver-birds, but a nest they will have, and if there is nothing to build it of they will do the best they can without. 15

Rats will carry their own tails repeatedly into a corner, still showing the same peculiar movements they would use if they had proper materials. In this way, every gradation is found from the stereotype to the quite general tendency. At the narrow end, perhaps we can say that no instinct can ever be completely closed. Even the weaver-bird must vary things a bit according to the branch and his materials; even the dancing bee adapts to the state of her digestion. At the wide end, what shall we say? Will the notion of Open Instincts make sense when applied to people? Or does it then become so wide as to be vacuous?

When behaviorists say that man has no instincts, they always mean closed instincts. They point to his failure to make standard webs or do standard honey-dances, and ignore his persistent patterns of motivation. Why do people form families? Why do they mind about their homes and quarrel over boundaries? Why do they own property? Why do they gamble, boast, show off, dress up and fear the unknown? Why do they talk so much, and dance, and sing? Why do children play, and for that matter adults too? Why is nobody living in the Republic of Plato? According to Behaviorism, because of cultural conditioning. So (Question 1) who started it? This is like explaining gravitation by saying that whenever something falls, something else pushed it; even if it were true, it wouldn't help. Question 2; why do people ever *resist* their families? Why do they do what everybody is culturally conditioning them *not* to do? I have never seen a proper behaviorist answer to that one, but I gather it would go in terms of subcultures and

 $^{^{\}rm 15}$ W. H. Thorpe, introduction to Lorenz's King Solomon's Ring.

cultural ambivalences, of society's need for a scapegoat and suchlike. It is a pleasing picture; how do all the children of 18 months pass the news along the grapevine that now is the time to join the subculture, to start climbing furniture, toddling out of the house, playing with fire, breaking windows, taking things to pieces, messing with mud and chasing the ducks? For these are perfectly specific things which all healthy children can be depended on to do, not only unconditioned but in the face of all deterrents. Just so, Chomsky asks Skinner how it comes about that small children introduce their own grammatical mistakes into speech, talking in a way that they have never heard and that will be noticed only to be corrected. In dealing with such questions, the behaviorist's hands are tied by his a priori assumption. The ethologist, on the other hand, proceeds empirically, which is why I think we ought to like him. When he finds some activity going on among the species he studies, he doesn't look for reasons to regard it as something else, he simply starts photographing and taking notes. He sees it done, and from detailed observation of the context and comparison with other activities he gradually moves towards explaining its relation with other things which are done. (Thus; when herring gulls¹⁶ meet at the borders of their territories they constantly turn aside and pull grass. This is like nest-building behavior, but the bird does not use the grass. Instead it follows other patterns which commonly issue in fighting, and at times does fight. Having thoroughly studied all the things it does, and compared them with its conduct on other occasions, the ethologist tries the hypothesis that this is Displaced Aggression—it is working off its anger on the grass—but does not accept this without careful comparison with other displacement activities and a full analysis of the term and its physiological implications.) He is not postulating any central cureall explanation. This is where he is better off than many previous people who have made use of the term "human nature." This term is suspect because it does suggest cure-all explanations, sweeping theories that man is Basically Sexual, Basically Selfish or Acquisitive, Basically Evil or Basically Good. These theories approach human conduct much as a simple-minded person might approach rising damp. They look for a single place where the water is coming in, a single source of motivation. This hydraulic approach always leads to incredible distortions once the theorist is off his home ground, as can be seen if you look at Marxist theories of art or Freudian explanations of politics. To trace the water back to its only possible source means defying the laws of motion. The ethologist on the other hand doesn't want to say that human nature is basically anything; he wants to see what it consists of. (Even Robert Ardrey doesn't say that man is basically territorial.) So, if we must still talk hydraulics, he proceeds more like a surveyor mapping a valley. He notes a spring here, a spring there; he finds that some of them do tend to run together (as, for instance, a cat uses tree-climbing for hunting and caterwauling in courtship). If he finds an apparently isolated activity, with no connexion with the creature's other habits, he simply accumulates information until a connexion appears. Thus the "suicide" of lemmings turns out to be, not an isolated monstrous drive, but part of a very complicated migration pattern. (Lemmings are good swimmers; they often do cross rivers or reach islands, but the reason they set off is that they cannot stand being overcrowded, a condition which drives them to all kinds of desperate escape behaviour. 17) Thus the grass-pulling gulls were not moved by an isolated monstrous drive for Destruction, but by the interworking of two patterns of motivation—fear and aggression which are connected in certain definite ways in their lives in the context of nesting, and can be roughly mapped to show the general character of the species. Understanding a habit is seeing what company it keeps. The meaning is the use. The only assumption made here is the general biologist's one that there ought to be some system in an organism, some point in any widespread plant or animal habit. This is justified merely by its success. The Nature of a Species, then, consists in a certain range of powers and tendencies, a repertoire, inherited and forming a fairly firm characteristic pattern, though conditions after birth will vary the details quite a lot. In this way, baboons are "naturally hierarchical animals," since they travel in bands with a leader and what is pleasingly called a Senate of Elders, and show carefully graded dominance behavior down to the meanest baby baboon. This is not "disproved" by showing that it is not necessarily a brutal "peck order," nor that the hierarchy

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¹⁶ N. Tinbergen, *The Herring Gull's World*, 1953, 68.

¹⁷ See W. Marsden, *The Lemming "Year;* W. Elton, *Voles, Mice and Lemmings.*

vary a great deal with different species and conditions. ¹⁸ Investigating these subtleties merely strengthens and elucidates the idea of a natural hierarchical tendency. Nor is it disproved by finding an occasional baboon who is disrespectful or lax about his dignity; baboons "naturally" have fur, and finding a few going bald will not disprove it. ...

I had better end by saying that I do not of course expect all the facts relevant to the nature of man to be turned up by ethologists. Other disciplines, equally relevant to moral philosophy, have suffered under rather similar tabus. Of course they should not be thought to take over the subject, but all are relevant; we certainly need history, neurology and all the social sciences. If we want to know what is good for man we must know what are his possibilities and roughly what is the price to be paid for each option. But among these studies, perhaps the resistance to ethology has been particularly strong and irrational. As Lorenz remarks, human pride had already taken two nasty knocks from Darwin and Freud; there may be real difficulty in undergoing the third and agreeing that *homo sapiens* is not just mildly interested in animals; he IS an animal. . . .

18 For the variations, see Rowell, "Variations in the Social Organization of Primates," in D. Morris (ed.). *Primate Ethology.*