Beast and Man

“Beast and Man is a brilliant and persuasive attempt to set us in our animal context, to show us to ourselves as at home in the world, and to indicate a morality for society without religious absolutes—a morality of which we see the rudiments in our brother species.”

The Observer

“A wonderful breath of fresh air and a book for non-philosophers as much as for philosophers. Mary Midgley explores the relation between men and other animals in an original but common sense way which has even more relevance to bioethical controversies today than it had in 1978 when it was published. It forms an introduction to the kind of ‘green’ philosophy now developing in Europe and America, and it has certainly strongly influenced my own thought, both practical and philosophical.”

Mary Warnock

“…an extremely elegant, penetrating and thought-provoking text…. It is beautifully written, stimulating and innovative.”

R.D. Martin, Reader in Physical Anthropology, University College London
TO MY SONS,

with many thanks for making
it so clear to me that the
human infant is not blank paper
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MARY MIDGLEY
NEWCASTLE UPON TYNE
INTRODUCTION TO REVISED EDITION

RETROSPECTIVE: THE DEBATE

Is it worthwhile trying to build bridges across disputes and constantly getting shot at from both sides? That has been my occupation since 1978, when *Beast and Man* first came out. I have to admit that it hasn’t transformed the world. Polarized, tribal debating is a very deep human habit, highly resistant to efforts at reconciliation. Stephen Jay Gould has said (resignedly) that, since feuding goes so deep, one might as well drop the notion of bridge-building altogether, and simply try to balance things by plumping for the less disastrous of the two extremes that are contending in any given debate.

He has a point. Yet, even during the most ferocious feuds, some people do actually want to resolve the issues as well. When controversy has raged for a while and has sent both sides into absurdly extreme positions, fatigue and disillusion sometimes make attempts at reconciliation seem downright welcome. This is what happened during the 1960s and 1970s in the dispute about whether there was, or was not, something called Human Nature.

Both the positions that were being most loudly offered had grown increasingly fantastic and hard to swallow. On the one hand—roughly speaking, the left hand—social scientists were still insisting that human nature did not exist at all. Human beings were pure products of their culture, originally indeterminate items, infinitely malleable, dough or blank paper at birth, shaped only by education. This position—drawn originally from empiricist philosophers—was seen as the only possible defence against racism, sexism and authoritarianism. It had the firm backing of Marxists (who were then still very influential), of behaviorist psychologists, of sociologists and of many educational theorists.

On the other hand—the right one—the traditional racists, sexists and authoritarians who had given Human Nature such a bad name in the first place, were still quite active and influential. Their most up-to-date prophets were then the popular exponents of ethology, such as Robert Ardrey and Desmond Morris. These writers combined lively and persuasive comparisons between people and animals with strong emphasis on just those alarming motives that the traditional right had always stressed in human nature—namely, aggression, territory and dominance. Konrad Lorenz, who was actually a much more serious and less one-sided theorist, was widely seen as simply one of this party, while Niko Tinbergen was ignored.

In 1975, however, Edward O. Wilson’s *Sociobiology, A New Synthesis* came out, changing the scene profoundly. Wilson carried heavier scientific guns and added a new kind of feud because he called up strong feeling for and against “science” itself. Lorenz,
Morris and Ardrey had not been academic partisans declaring war on other studies. (Ardrey was a playwright, while Morris and Lorenz, though good zoologists, had been mainly known as popularizers.) Wilson, by contrast, wrote tribally as a campaigning biologist and an outspoken academic imperialist. He was reductive. He did not just offer to explain human life by animal comparisons. He claimed that his methods—which he justified largely from population genetics—would reshape, displace and finally “cannibalize” the entire social sciences and humanities. And though he was not explicitly political, he did not trouble to defend his “genetic determinism” against the political interpretations that people were naturally inclined to put on it.

THE WILD PROJECT OF MEDIATION

No wonder a monumental row followed. I came into this bullring myself, rather to my surprise, in 1976 when Wilson’s tome suddenly landed on my desk. I had then, as I supposed, already finished writing *Beast and Man*. I had started writing it because, after reading the ethologists—especially Tinbergen and Lorenz—I thought that they were making new and very useful contributions to the enquiry about the difficult subject of human motives.

I thought that these contributions ought to be digested, not spat out in disgust. They could (I believed) bring much-needed light to moral philosophy, which was my official academic business. They were surely relevant to philosophical questions about the relation between body and mind, between motivation and rationality, between humanity and nature. They could help to answer queries on these topics already launched by psychoanalytic thinkers, queries which I also considered important. I thought (and still think) that the Freudian tradition is better at asking questions than at answering them—but then, asking them is often the more important task. And, since Freudian concepts are often accepted for guidance in common life, it is damagingly artificial to exclude them from academic discussion.

I was astonished, then, at the social scientists’ shocked and defensive response, their determination to retreat from the whole subject behind the species barrier. So I wrote, first an article \(^1\) and then, at the request of the Cornell Press, a book, to suggest a more realistic position which might bring the warring factions together. The core of that book lay, and still lies, in Part IV (on the distinctive Marks of Man) and especially in Chapter 11 on Rationality, though later additions have distracted many readers’ attention from those topics, probably also making the book longer than it ought to be.

Cornell liked my draft, but told me to read Wilson. I can’t say that I was pleased to get a book the size of a paving stone, full of technical detail, along with an equally weighty pack of cuttings about the surrounding dispute and firm instructions to “put in something

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about all this.” But I saw at once that the job must be done, and done not casually but properly. The mess that was developing was a philosophical mess, however little most of the warriors involved might think so. It concerned the general relations between concepts, something which few of them were used to considering and which their ingrained habits of specialization made it hard for them to see.

There were certainly times in the next few months when I felt like throwing the whole package out of the window and following it myself. But I gradually saw that two very important things had happened. First, the presence of inherited behavioral tendencies throughout the animal kingdom had indeed been documented with a thoroughness that would be hard to ignore, along with good reason to suppose that these tendencies extended to human beings as well. Second, that thesis was couched in language which made it almost impossible for many people to accept it. This was a language much cruder and more provocative—more ideologically loaded—than that of the ethologists. It was bound to be both catchier and more politically divisive. It would make the previous polarization worse. The resulting feud was likely to distract attention almost completely from the serious enquiries into human and animal motivation that the ethologists had started.

SCIENCE TANGLED WITH IDEOLOGY

What then was this ideology which was now, somewhat misleadingly, proclaimed as the up-to-date form of Darwinism? If I call it rightwing I do not, of course, mean that it was statically hierarchical, “conservative” in the style of old-fashioned authoritarians. It wasn’t. Instead—to put things crudely—it was biological Thatcherism, romantic and egoistic, celebrating evolution as a ceaseless crescendo of competition between essentially “selfish” individual organisms, each making “investments” for its own separate advantage, organisms whose attempts to “manipulate” one another provided the whole dynamic of development. In fact, it offered scientific respectability to the myth that power resides essentially in competitive commercial mobility, the myth that is now the creed of “the right,” replacing the earlier, feudal belief in static power vested in the inheritance of land. (The strange fate of the words right and left is another large question which cannot be dealt with here.)

In essence, of course, this picture was not so new. It went back to Social Darwinism—to Herbert Spencer’s one-sided, sweeping exaltation of individual freedom over community and especially to his veneration for free-enterprise economics. That simple message got into the water-supply in the United States at the end of the nineteenth

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2 I have discussed its exuberant and often off-putting additions to Darwin’s actual thesis in “Darwinism and Ethics” in Medicine and Moral Reasoning, eds K. W. M. Fulford, Grant Gillett and Janet Martin Soskice (Cambridge University Press, 1994).
century, when Spencer’s works outsold all other philosophers throughout the country. It remains endemic there at the back of many people’s minds, so that scientists like Wilson who repeat it are usually unaware that it has any particular source.

Spencer, however, had spoken as a philosopher, not as a natural scientist. He knew little about biology, and his views were plainly meant in the first place as comments on human life. On that plane, as social doctrines, they have obvious faults and they have always been well criticized. But Wilson seemed now to give Spencer’s story a quite new standing, allowing it to bypass these criticisms. He showed it as a biological thesis about the whole nature of life. Spencerism seemed now to get the scientific respectability that Spencer himself could never have given it. The drama was moved away from the familiar scenery of human competition—where its limitations had been clearly visible—to population genetics, to the remote prospects, not of individuals, but of hordes of competing genes for selfishness, altruism, spite, and the like.

Wilson’s argument here was often mysterious, partly because much of it was technical, but more deeply because the nontechnical part was so intensely metaphorical. Strong, colourful words like “selfish”, “spiteful” and “manipulative”, which were central to the story, were acknowledged to be metaphors. Yet their rhetorical effect was evidently intended as part of the thesis, and they were often used in an unmistakably literal sense as well. This was the strange brew about which I endeavored to say something in Beast and Man. In 1976, too, Richard Dawkin’s book The Selfish Gene came out (though I did not see it till later), compounding the sense of drama by insistently personifying the genes themselves. It declared that selfishness, whatever that might be, was not just transmitted by genes but also actually belonged to them. Genes were not only—as Wilson had said—the real scene of the process but also its only active agents. Humans and other animals were not agents but the genes’ helpless vehicles, though they were still, also, themselves selfish: “we are born selfish.”

SOCI BIOLOGY AND MARXISM

All this, of course, was not going to go away. Looking back now over the time since the first publication of this book, I have the impression that this new ideology has played a role in our intellectual lives very similar to the one which Marxism played in the thirty

years after the war. Like Marxism, Sociobiology has been powerfully attractive because it claims to be a comprehensive system, simplifying the world by a universal formula and heartening its disciples by calling them to tribal warfare on its behalf. Like Marxism too, it can be used to justify injustice, because it promises rosy results in the future (this time through “trickle-down” effects and also, on some accounts, through longterm evolution). Again like Marxism, it claims scientific authority, and has been defended by technical arguments so elaborate as to give its more learned supporters a great feeling of security.

Sociobiology does not, of course, have the idealistic appeal of Marxism. The absence today of any popular political doctrine with that kind of appeal is a serious loss to all of us. It leaves the idealistic young with no obvious first stage on their intellectual journey unless they can take a religious course. No doubt this is why more of them are now taking that kind of course—often a Buddhist rather than a Christian one. Right-wing political doctrines do not actually have to be ostentatiously cynical just because they are rightwing. They needn’t be guided only by

Mammon, the least erected spirit that fell
From Heaven—

but recent ones have largely been so.

In compensation for its weakness in this kind of attraction, Sociobiology possesses a scientific flavour which is apparently stronger and more in tune with present-day tastes than that of Marxism. Like Marxism, however, Sociobiology has proved quite hard to defend at an academic level. In its own chosen disciplines, its scientific critics have cut it down to size without much difficulty for the relatively learned public. Wilson’s claim to speak for the whole of biology, still more for the whole of genetics, was always a wild one. Sociobiological genetics has proved to be particularly casual and has come in for a good deal of damning criticism, but it is by no means the only weak spot. Altogether, in contemporary scientific discussions of evolution, the ions of Wilson’s school now occupy a relatively modest place.

But of course Sociobiology does not depend for its influence on scholarly validation, any more than Marxism did. Though the general authority of science is important to it, it depends at root on representing the temper of the age. It survives just in proportion as that temper has remained intensely individualistic, romantic, optimistic, egoistic and competitive. At government level, there is still a surprisingly strong unreasoned faith in competition, in the salvation that is supposed to flow from market forces. The economism of this faith is very close to that of Marxism, which is no doubt why people convert so easily from one to the other. And the end of the Cold War naturally tended to bolster that faith. In this sort of atmosphere, sociobiological attitudes and jargon have prospered.

THE REMARKABLE PERSISTENCE OF DYNASTIC AMBITION IN LIONS

One area where the continued prosperity of these attitudes and jargon does really surprise
me is over animal behavior. Today’s ethologists seem to have bowed to this strange view of what is “scientific” and abandoned their own distinctive tradition to an extent that is somewhat remarkable. The otherwise admirable David Attenborough is not alone in this odd form of piety. Serious scientific articles, as well as TV programs about animals, now all have an obligatory section proving that the behaviour discussed—however obviously futile it may be—must have been selectively advantageous to the creature’s ancestors, since sociobiological theory insists that it must be so—a doctrine known as “panselectionism.”

Parts of this discussion are usually couched in language that expressly credits the animal with sociobiologically approved motives informed by full knowledge of its genetic prospects—“the lion is trying to spread his genes more widely”—and so forth. The fact that this is supposed to be a metaphor is plainly usually forgotten. This empty story is thus allowed to supersede the serious enquiry into the animals’ real motives which Tinbergen and Lorenz had begun to pioneer. 4 Discussion of evolutionary prospects—which is in itself important and necessary—is conflated with talk of motives in a way that seriously hampers both.

Of course, the authors do always contrive to find some optimizing explanation for even the most damaging traits, because their theory demands it. Yet that success is plainly just a testimonial to their own ingenuity and persistence. This kind of speculation often resembles the wilder suggestions of the psychoanalysts and is as immune to empirical verification. It would be interesting, in fact, to see whether it is possible to invent any trait so disadvantageous that it could not be whitewashed in this way. Like the theologians who used to find divinely chosen functions for wasps and nettles, sociobiologists are driven by their faith to accept whatever improbable story of concealed advantage they finally manage to invent. 5 As has often been pointed out, the words God or Providence can be substituted for natural selection in these Just So stories without changing their sense at all.

4 I have discussed this muddle about motives in “Darwinism and Ethics” (see note 2) and in “Gene-Juggling” (see note 3) as well as in the Introductory Chapter to Heart and Mind, pp. 18–24, and more fully in Beast and Man. That recurrence is not just obsessive nitpicking. I seriously believe that this distortion of the whole topic of motives is a major cultural disaster, with repercussions all over the place.

5 A common case is that of animals (often birds) that produce two offspring, the larger of which promptly and regularly kills the smaller. This “strategy” is usually explained as insurance against the possible death of the larger twin. But (as many human insurance-buyers can attest) calling something insurance does not prove that it is good value. No actuary has ever been fetched in to balance out the cost of constantly producing a wasted twin against that of occasionally losing a year’s offspring by death. Dogma apart, there is thus no reason for rejecting the more natural explanation—namely, that there simply has not happened to be a mutation which would either produce single births or make the newborns less destructive.

A striking recent example of this oddity can be seen in an otherwise thoughtful and impressive article called “When Hyenas Kill Their Own” by Laurence Frank in New Scientist, March 5, 1994. Spotted hyenas usually have twins, the elder of which (especially if both are female) regularly attacks the younger savagely as soon as they are born, sometimes killing it and often doing it grave
What, then, should really be said about such cases of imperfect adaptation? Darwin, like all other unprejudiced students of evolution, freely admitted that there were many such cases and he saw that they made no difficulty for his theory. That theory did not claim that adaptation would be perfect, merely that it must have been adequate for survival. It is adequate provided that surviving traits are not so damaging as to destroy the species, which they may well not do where there is only moderate competition. Thus, giant pandas have been able to make out as a species despite their inefficient digestion and their freakish habit of eating only a single species of bamboo. Presumably they could do this because there was no great competitive pressure forcing them to change. In fact, the pandas (like many imprudent people) had a niche large enough to accommodate their quirks. No one need make any tortuous efforts to prove that these animals’ drawbacks are really a devious strategy providing hidden assets all the time.

Sociobiologists have claimed so insistently to be Darwin’s representatives on this matter that it seems worthwhile to cite here two passages where he put his own position beyond doubt in *The Origin of Species*:

> Nor ought we to marvel if all the contrivances in nature be not, as far as we can judge, absolutely perfect, and if some of them be abhorrent to our ideas of fitness. We need not marvel at the sting of the bee causing the bee’s own death; at drones being produced in vast numbers for one single act, with the great majority slaughtered by their sterile sisters…The wonder indeed is, on the theory of natural selection, that more cases of the want of absolute perfection have not been observed. 6

And, thirteen years later:

> As my conclusions have lately been much misrepresented, and it has been stated that I attribute the modification of species exclusively to natural selection, I may be permitted to remark that in the first edition of this work, and subsequently, I

permanent injury. Over half of the mothers are thus left bringing up a single cub which (not surprisingly) grows faster and does better than the remaining twins. Frank explains this aggressiveness, which wears off after a few weeks, as due to an imbalance of hormones at the time of birth—a flood of androgens reaching the cubs before they have developed other factors that would counter it. Clearly he is inclined to rest content with this causal explanation. Custom, however, calls on him also to contrive a teleological story that will explain “the evolutionary role of this behaviour,” that is, not just its effects but how there is at some point a pay-off for somebody. As often happens, this discussion is complicated and inconclusive. It does not answer the obvious question, “Why go on having twins at all?” It considers the idea that “twin sisters seek to eliminate each other as infants in order to avoid going on to compete intensely as adults” but, finding a difficulty there, ends with the rather limp suggestion that “female spotted hyenas are capitalising on an extreme form of infant behaviour that is largely beyond their control.” (They are *what*)

placed in a most conspicuous position—namely at the close of the Introduction—the following words, “I am convinced that natural selection has been the main, but not the exclusive means of modification”. This has been of no avail. Great is the power of misrepresentation. 7

—words as near to downright bitterness as that patient man ever wrote.

Sociobiology, however, cannot tolerate any such admission of complexity. Because it is essentially reductive, it insists on a single, crude explanation for every aspect of evolution. For it, the notion of competition as an all-powerful, incessant pressure, a quasi-physical force explaining every development, is central. Its theorists can no more leave room for any other evolutionary factor than Marxist theorists could admit the possibility of gradual social reform.

THE SHIFT TO ENVIRONMENTAL CONCERN

What else, however, has been happening to the temper of our age? Obviously, within the time since first publication of this book there has been a great increase in concern for the environment, following on a steep increase in the dangers that make that concern necessary. (Interestingly, Wilson himself has now followed up his earlier book Biophilia by moving largely into work on this issue.) That change is in general surely adverse to much in the sociobiological attitude. Environmentalism absolutely requires a social rather than an individualist standpoint. It is much more interested in cooperation than in competition. It also uses a wider perspective which makes concentration on the human economic model look oddly narrow and arbitrary. The same bias towards co-operation seems in general to flow from the recent developments of feminism. It is true that there are some feminists who prefer to join in the competitive frenzy on the principle of “if you can’t beat ’em, join ’em.” But probably they too would prefer to move towards a less competitive world, if they saw some hope of doing so.

Another interesting recent change is an increased attention to extinction rates. That increase probably bears some relation to environmental alarms. Scientists used to think that these rates had to be gradual and constant—that the Victorian belief in catastrophes was contrary to reason. But this idea has given way before evidence of disasters caused by volcanic activity or climatic changes, possibly indeed started by impacts from outer space. That change reinforces the general awareness of outside nature as a factor to be respected and reckoned with. It shows still more clearly how inadequate a purely social, competitive model is to represent the whole vast evolutionary process.

ADMITTING OUR CONTINUITY WITH NATURE

Yet of course there are also good things in Sociobiology. It does in principle emphasize our continuity with the rest of nature. It resists the strange segregation of humans from their kindred that has deformed much of Enlightenment thought, a segregation which has indeed terribly delayed our realization of environmental damage itself. It can be linked, too, with increasing public concern about the suffering we inflict on animals. This concern has grown especially fast in the last decade, and it is interesting that Richard Dawkins has come out in support of it. 8

It is, then, surely time for the political left, and for intellectuals in the social sciences and humanities, to see that our continuity with nature is an important fact in the world, a fact quite distinct from those objectionable ideologies—not just the sociobiological one—that have, at one time and another, distorted and exploited it. This distinctness between the fact of continuity itself and the twisting of it to justify abuses is something that I have continually tried to make clear, both in Beast and Man and in most other things that I have written.

During the years since the publication of Beast and Man, there has certainly been some progress here. In principle, many social scientists are now willing to admit that some aspects of human behavior do indeed flow from innate tendencies. And they see that, if so, it may be very important to understand these tendencies. Accordingly, they are beginning to find it worthwhile to take biological evidence on such matters seriously instead of defending their tribal frontier staunchly, as they used to, against all such information offered from outside. 9

EQUALITY IS NOT SAMENESS

In particular, they have begun to see that political equality does not have to mean sameness. It does not call on us to treat each person as a standard, unvarying, dough-like product at birth. What it requires instead is that people, despite their natural differences, should all be fairly treated. Thus, for instance over gender, there is nothing offensive in admitting the obvious fact that our hormonal constitution produces natural differences of temperament. The offensive move comes in

8 For instance, in The Great Ape Project, eds Paola Cavalieri and Peter Singer (St. Martin’s Press, 1994) Chapter 7. Dawkins’s contention there is peculiar but undoubtedly zoophilous.

9 One very helpful contribution to this enquiry is The Tangled Wing: Biological Constraints on the Human Spirit by Melvin Konner (Heinemann, 1982). The author, a biological anthropologist, manages to arbitrate the feud remarkably well.
exalting one gender over the other—in supposing that what is different must be worse. Different is not worse; it is just different. Feminist thought does in fact admit this difference, indeed has often celebrated it, honoring the distinctive contribution of women. It seems therefore rather odd that there is still constant controversy about this—still a dogged, automatic habit of objecting when any new documentation of the natural difference comes up.

I do find this persistent, mindless kind of feuding depressing, more especially when I happen—as I often do—to share the practical political aims of the feuders. It is indeed in many ways very important to rethink traditional notions of the relations between men and women, and especially to help poor and disadvantaged women. But trying to do this by arguing that women are really indistinguishable from men is irrelevant, misguided and wasteful.

That homogenizing approach to equality—so popular in the Enlightenment—flows from an unrealistic attempt to treat people as abstract, standard social entities, divorced from nature. It enforces the sharp division between mind and body, between culture and nature, between thought and feeling, which is the bad side of our inheritance from the Age of Reason. (My book *Heart and Mind; The Varieties of Moral Experience* discusses the many troubles caused by this set of divisions.)

In modern times Science, because of its tremendous prestige, has been invoked to dramatize all these splits in a way that often has little to do with any real scientific work, but that seems to bring an unanswerable authority to the side that can exploit it. This reductive move adds a damaging warfare between the “two cultures” to the general chaos, deepening the gaps already opened by specialization between different studies and generally fragmenting the intellectual scene in a way that wastes endless time and resources.

**ISSUES THAT PERSIST**

As I say, it was worry about these wasteful divisions that made me start to write *Beast and Man* in the first place. Looking at the book today, I wish it had become more out of date than it seems to have done. Of course it contains mistakes and some things in it look odd—for instance, the unsuspecting use of masculine nouns and pronouns. (What changes in our language can we expect the next decade to bring? It would save us all a lot of bother to know in advance.) But on the large issues of entrenched distortions of controversy, things seem only to have moved very slowly. The huge scale of modern

10 I have discussed this issue in an article “On Not Being Afraid of Natural Sex Differences” in *Feminist Perspectives in Philosophy*, eds Morwenna Griffiths and Margaret Whitford (Macmillan 1988) and more fully in *Women’s Choices; Philosophical Problems Facing Feminism*, Mary Midgley and Judith Hughes (Weidenfeld & Nicolson, 1983).
11 Methuen University Paperback 1981, St. Martin’s Press in the U.S.
academic life gives an extraordinary inertia to attractive errors and in particular to feuds, once they are established.

Thus, though B. F. Skinner is dead and social scientists now disavow many of his views, the temper of behaviorist psychology still lingers as a ground-bass through an extraordinary range of social-science thinking. It, like Sociobiology, has profited immensely by claiming to be scientific, and the successive erosion of its various claims to that title has done little to weaken its influence. So I think that the arguments presented against it in *Beast and Man* can still be useful. Again, the rise of cognitive science has extended confidence in machine-models of the mind in a way that has given new life to some very old mechanistic mistakes which I discussed there.

As for ethics, the idea of an unbridgeable conceptual gap between facts and values no longer dominates moral philosophy. But elsewhere its destructive influence is still very wide, so that repair work is still needed. The emotivist and existentialist arguments that I largely considered in this book are of course no longer in fashion. But the subjectivist and relativist positions that they expressed are still with us and have not found more intelligible prophets. So these older doctrines, which are at least dramatic and clearly presented, may perhaps still provide a reasonably suitable ground on which to tackle those views.

**POSTMODERNISM?**

More recent forms of subjectivism and relativism now mostly go under the umbrella name of postmodernism. Some of them are expressed in language so esoteric, so steeped in the influence of decadent forms of Marxism and poststructuralism, that they seem designed for academic controversy rather than for any application to life. So perhaps it does not matter much that *Beast and Man*—which is written in ordinary English because it is meant to be about ordinary life—does not mention them.

This is, of course, not meant as a dismissal of everything that has happened to come under that umbrella. The name *postmodernism* is also used, more widely, for a great range of perfectly reasonable, more or less pluralistic views, views that quite sensibly emphasize the complexity of the world and attack simple, reductive forms of explanation. Under this wider umbrella my own ideas may indeed find a place. 12 But I still think that the name postmodernism is a thoroughly noxious one. It is bad because it means nothing except new fashion. The mistake that the post-impressionists (or their popularizers) made in not bothering to think out what positive cause they wanted to stand for but merely asking to be considered different from their predecessors, has been repeated much too often. Maybe the art world has to put up with it, but we don’t need to do so on wider topics.

12 I have discussed the general issue of reductivism in Part Two of *The Ethical Primate* and in an article called “Reductive Megalomania”, Chapter 9 of *Nature’s Imagination*, ed. John Cornwell (Oxford University Press, 1995).
Modernism itself was always a jumbled notion, a confused term of praise centring much more on fashion than on any particular thesis or commitment. The idea of a single new movement that would contradict all the various views that have been called “modern” has been a wild one. And now that postmodernism’s own faults are becoming obvious—now that we constantly hear of the need to move to “postpostmodernism”—it does seem to be time to drop the umbrella. We can’t go on playing this game for ever. We need a more helpful, more specific language. We need, in fact, to call each movement or artistic style by a name with a meaning, one that really suits it.

LEFTOVER BUSINESS

(1)

Evil

Two problems left over from Beast and Man always seemed to me to need further treatment. The first was this very point about moral objectivity and the reality of evil. By insisting, in my discussion of animal nature, on lightening the fear of our natural motives, on showing our constitution as tolerable, I ran the risk of seeming over-optimistic, of neglecting its dark side. I needed to avoid this danger of making morals look optional—the danger (into which Aristotle slips in his more casual moments) of suggesting that we humans, provided we are nicely brought up, don’t really need any morality at all…. And since Nietzsche, from a very different standpoint, had made this very suggestion—since, too, a whole raft of popular prophets were now following him in declaring that morality was an embarrassing and out-of-date survival—since, in fact, mindless, dogmatic moral skepticism was the postmodern flavour of the month, it seemed important to do something about this.

In Heart and Mind, then, I approached this big topic by discussing the unrealistic division between thought and feeling which makes morality look so unworkable, and in one chapter of that book (“On Trying Out One’s New Sword”) I dealt directly with the problem of objectivity. I then came back more fully to that problem in Wickedness, and again later in Can’t We Make Moral Judgments? If I were still teaching regular courses in moral philosophy I would now start them with this issue, which today is surely central.

(2)

Freedom

The second problem was our freedom. Because we have all been brought up on a picture of the cosmos as a vast, ineluctably grinding machine, any attempt to stress our continuity

14 Bristol Press (now Duckworth) 1991, St. Martin’s Press in the U.S.
with the rest of nature tends to produce fatalism because it tends to make us feel like cogs. Sociobiologists have openly drawn these fatalistic conclusions, insisting explicitly on our helplessness. But even without their support this tendency has been very strong for more than a century. Our attempts to grasp the meaning of our freedom have constantly been blocked by a guilty sense that we must not tamper with the machine-picture because it is stamped as final by Science.

Now of course, Science today is in fact no longer fully satisfied with the machine-picture. Physics—the original source of this model—has found for some time that it works badly for many purposes, and has moved on to supplement it by other patterns of thought. What follows from this is not some kind of postmodern slop, loosening all connexions of thought so that anything goes. It is something far more interesting, namely, that there is more than one kind of legitimate explanation. Things must be talked about in different terms for different purposes. A botanist, a carpenter and a forester use different concepts in talking about the same tree. This difference does not stop them understanding one another. But the connexions between their various sets of concepts must be established by relating them, not by forcing a single mold of thought onto these radically different ways of thinking. The connexions cannot be imposed by reduction.

This has always been true, and to some extent philosophers used to know it. But the urge to unify by reduction is immensely strong, and, since Newton’s time, the temptation to do it through modern science has proved almost irresistible. Kant did a great deal to show us how to resist that temptation, and more recently Wittgenstein has done more. But the doctrines of both have been over-simplified and straitjacketed in ways that continue to protect reducers from their attacks. Scientific reductionism is thus still a powerful and irrational force hindering our thought about freedom and responsibility, making it hard for us to accept our situation as active citizens of the physical universe. These are the difficulties which I have tried to discuss in my most recent book, The Ethical Primate. 15

AGENDA: TROUBLE ON THE BUILDING-SITE

Those five books, then, contain my central thoughts about motivation and moral psychology—about the relation between fact and value, between what we are actually like and how we ought to act. This has always been my main concern. It is a big topic—so big, in fact, that modern specialization often makes it hard for academics to see it at all, let alone to get funded today for thinking about it. It is, however, a topic deeply relevant to everyday life. Since it is also one that is quite hard to think about, it needs professional attention as well as everyday commitment. Work on it goes best where those two approaches are brought together.

I have myself been exceptionally lucky here in having the chance to work in this area during a long and disorganized life, before the present battery-egg system of academic

production was brought in. Future historians will surely find it hard to believe that this system was actually accepted in practice—that, in this highly sophisticated age, academic work was assessed essentially in quantitative terms, by number of publications and sometimes even by number of pages published.

The point is not just that this arrangement encourages industrious mediocrity. It is that anyone, however gifted and original, who has to keep publishing at this rate is forced to choose small topics—usually negative ones—and to treat them at disproportionate length. Quality is indeed supposed to be kept up by requiring publication in “reputable journals.” But the sheer mass of print flooding out is such that most of it cannot hope to find readers anyway. Nobody has time for such endless reading, even if it were likely to be useful. Many journals are therefore bound to be merely reputable cold-stores for eggs that everybody knows will never be eaten.

To change the metaphor, the most respectable reason that could be given for the present system would presumably be based on an analogy with bricks. Its defenders would claim that knowledge comes ready packed in discrete units, each of which can best be provided in one article by a separate researcher, while a distinct caste of more leisured sages at the top decides how to put them together. Now there probably are indeed some areas of “normal science” where things can go on for a time in this way. And it is true that research in the sciences more often involves teamwork than it does in the arts. But the system’s success obviously depends crucially on a supply of high-quality sages to run the teams. How can this supply possibly be kept up when the only training available for aspiring sages is to work as brickmakers?

Over fifty years ago, the biologist C. H. Waddington already suggested that this supply did indeed seem to be failing and that something ought to be done about it:

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Scientists have tended to refuse to see the wood for the trees…. There have been an army of bricklayers piling brick on brick, even plumbers setting up super WC’s, and heating and lighting engineers installing the most modern equipment; but they have all united to shoo the architect off the building site, and the edifice of knowledge is growing like a factory with a furnace too big for its boilers, its precision tools installed in a room with no lighting, and anyhow with no-one who knows what it is supposed to manufacture. ¹⁶

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Have things improved since Waddington’s time? They have not. The current system, into which we have insensibly drifted, manages to combine to a surprising extent the worst of both worlds—the mindless pedantry that can afflict academe with the mindless worship of quantity in productivity that infests commerce. This system is not forced upon us by fate. It could be altered. There are undoubtedly people somewhere who are in a position to do something about it. It is very hard for those who are still involved in the lower levels of the system to protest against it. But those of us who are no longer ourselves liable to be ground to pieces in its cogs ought surely to shout that change is needed.

THE ROLE OF PHILOSOPHY

Contrary (then) to much academic thought today, there is nothing unprofessional in attending to large issues. Background thinking—large-scale conceptual engineering—and the foreground thinking that deals with the details are interdependent. Each needs the other. Large questions are unavoidably part of professional academic business, especially (of course) of philosophic business, since the general connexion of concepts is the province of philosophy. Somebody has to attend to it. Those scientists who today complain that philosophy is intruding in big questions raised in the sciences are themselves engaged in doing philosophy of science. They may do it very well, but they can’t really expect to have so large a field entirely to themselves. 17

Most useful progress in the past, both in philosophy and in the wider reaches of other subjects, has been made by people who did not mind starting enquiries that went beyond one area, enquiries so large that they themselves obviously could not finish them, and perhaps nobody else could either. Philosophers do not need (as Geoffrey Warnock once put it) to keep biting off much less than they can chew. Over-specialization here has been harmful, as I tried to make clear in Wisdom, Information and Wonder. 18 Correspondingly, in Evolution As A Religion 19 and Science As Salvation 20 I have pointed out how the unwillingness of specialized scientists to attend critically to the wider, imaginative penumbra of their ideas has led to some very odd myths coming to be accepted as part of science.

The dangers of today’s grotesque academic over-specializations are, I think, now beginning to be realized. Efforts are certainly being made to set up better interdisciplinary cooperation. I hope that from both sides—from the humanities and the sciences and from many different branches of both—younger and more gifted people will be able to carry on these kinds of enquiry which (in ways whose inadequacies I entirely realize) I have been trying to pursue for the last twenty years.

17 For instance, Steven Weinberg in a chapter called “Against Philosophy” (Chapter 7 of his book Dreams of a Final Theory, Hutchinson Radius, 1993). See also Lewis Wolpert, The Unnatural Nature of Science (Faber & Faber, 1992) pp. xiii and 106.


19 Methuen, 1985.

INTRODUCTION TO FIRST EDITION

We are not just rather like animals; we are animals. Our difference from other species may be striking, but comparisons with them have always been, and must be, crucial to our view of ourselves. This is a general book about how such comparisons work and why they are important. The gap between man and other animals comes, I believe, in a slightly different place from the one 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.

Many people dislike using concepts evolved for talking about animal behavior to describe the human scene. The first use of such concepts, however, is the uncontroversial one of telling us more about animals themselves. This knowledge alone directly alters our idea of man, because that idea has been framed, traditionally, by contrast with a profoundly ignorant and confused idea of other species. We can now do something to correct this ignorance and confusion. The kind of animal that careful observation shows us does not seem by any means so obviously incomparable with men as the travesty we are used to.

Still, people have a lot of obvious and important things that other species do not—speech, rationality, culture, and the rest. Comparison must deal with these. I have tried to discuss some of the most important of them, not attempting at all to deny their uniqueness, but merely to grasp how they can occur in what is, after all, a primate species, not a brand of machine or a type of disembodied spirit. I have tried to show these capabilities as continuous with our animal nature, connected with our basic structure of motives.

Obviously, this attempt must invade the territory of a dozen subjects. But the project still belongs to philosophy, because finding how the basic concepts of any inquiry work is a philosophical problem. Of course this does not mean that a philosopher must always be brought in to do it. Scientists of the caliber of Newton or Darwin do their own philosophizing. And we all, in our thinking, work out to some extent our own system of concepts. Philosophy, like speaking prose, is something we have to do all our lives, well or badly, whether we notice it or not. What usually forces us to notice it is conflict. And on the matter of our animal nature a pretty mess of conflicts has arisen—between different elements in the common-sense tradition, between common sense and various learned studies, among those learned studies themselves, and between all these and the remarkable facts turned up by those who, in the last few decades, have taken the trouble to observe dispassionately the behavior of other species.

I first entered this jungle myself some time ago, by slipping out over the wall of the tiny arid garden cultivated at that time under the name of British Moral Philosophy. I did so in an attempt to think about human nature and the problem of evil. The evils in the world, I thought, are real. That they are so is neither a fancy imposed on us by our own
culture, nor one created by our will and imposed on the world. Such suggestions are bad faith. What we shall abominate is not optional. Culture certainly varies the details, but then we can criticize our culture. What standard do we use for this? What is the underlying structure of human nature which culture is designed to complete and express? In this tangle of questions I found some clearings being worked by Freudian and Jungian psychologists, on principles that seemed to offer hope but were not quite clear to me. Other areas were being mapped by anthropologists, who seemed to have some interest in my problem, but who were inclined (at that time) to say that what human beings had in common was not in the end very important; that the key to all the mysteries did lie in culture. This seemed to me shallow. It is because our culture is changing so fast, because it does not settle everything, that we need to go into these questions. What shapes, and what ought to shape, culture? I then came upon another clearing, this time an expansion of the borders of traditional zoology, made by people studying the natures of other species. They had done much work on the question of what such a nature was—recent work in the tradition of Darwin, and indeed of Aristotle, bearing directly on problems in which Aristotle was already interested, but which have become peculiarly pressing today. What I found here seemed to me, and still seems, enormously important, though there are great difficulties in connecting it neatly with other things we know, without being slick and oversimple. This book is an attempt to work out some of these connections.

I have tried to write without technical terms. Because so many disciplines border the topic, I think it must necessarily be discussed in plain language. This is not at all a piece of condescension, a translation of learned matter into rougher and less suitable terms. Each subject evolves technical language to suit its own assumptions. These may well be good enough to use within that subject, and still serve badly for relating it to its neighbors. On very general questions of method, therefore, it is important to force oneself to write and speak plain English. As everyone used to the academic scene knows, the boundaries between subjects recognized at any time have grown up partly by chance—they commemorate strong pioneering personalities, bits of teaching convenience, even the flow of research money, as well as real principles of investigation. The true structure of the problems may cut right across them.

But besides this general consideration there is a special one about discussions of motives. Like many areas of moral philosophy, this is ground already familiar to common sense. Making up a terminology here is not at all like making one up for biochemistry or nuclear physics. The facts are not new. People have been trying to understand their own and other people’s motives for thousands of years. They have thrashed out quite a sophisticated terminology, namely, the one we use every day. Of course it needs refining and expanding, but to by-pass it and start again as if it were all ignorant babble is arrogant and wasteful. B. F. Skinner has demanded a brand-new technical language for psychology, on the ground that “the vernacular is clumsy and obese.” 1 What elegant slimness technical language may possess, however, is bought at the price of reinforcing prejudice. Jargon always tends to make unwelcome facts unstatable. We can all see this when we look at other people’s jargon. It is just as true of our own. In this book, I have used a few technical terms in ethology 2 because I am talking about them; they stand for concepts that are useful to all of us, but new, and they need explaining. Some of them are, in any case, entering common language. Apart from them, I try to stick to ordinary
Consideration of motives brings up the matter of free will. I had better say at once, that my project of taking animal comparisons seriously does not involve a slick mechanistic or deterministic view of freedom. Animals are not machines; one of my main concerns is to combat this notion. Actually only machines are machines. Nothing else is made by human beings from parts and for purposes entirely supplied by themselves. Nothing else therefore can be understood simply by reading off those parts and purposes from the specifications. The model of comparison with machines is useful enough in some simple animal contexts, notably for explaining insect behavior. At any higher level it is an incubus. The motivation of the more advanced creatures is enormously more complex than the tradition supposes. That is why it can, as I am suggesting, throw light on human motives. But understanding and explaining motives does not compromise freedom; nor does even predicting acts necessarily do so. A person seriously committed to a political cause may vote predictably, and intelligibly, in an election. He does not vote less freely than someone who flips a coin at the last minute. So if we find comparison with animals any help in understanding motives, it will not mean that conduct is not free. And since animals are not (as Descartes supposed) automata, the issue of freedom does not make comparing man with other species a degrading irrelevance.

Man has his own nature, not that of any other species. He cannot, therefore, be degraded by comparison, if it is careful and honest, because it will bring out his peculiarities, it will show what is unique about him as well as what is not. 3 Certainly he is more free than other species. But that extra freedom flows from something natural to him—his special kind of intelligence and the character traits that go with it. It is not, and does not have to be, unlimited. (In fact, unlimited freedom is an incoherent notion.) It is not something added by his own will after birth, or by some external force called culture.

A very recent controversy closely related to this theme has changed the scope and balance of my book. I had completed the first draft before I came across Edward O. Wilson’s remarkable tome, Sociobiology, 4 and the suggestion arose that I should add some comments on it.

What Wilson says on many points rounds out and completes admirably what I want to say. On others I differ from him sharply. Both the agreement and the difference light up my theme. His book is an immensely comprehensive survey of social life throughout the

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2 The term ethology, first coined by Konrad Lorenz and his followers to describe their own studies of animal behavior, and disowned by some who disagreed with him, is now quite generally used for all systematic animal behavior studies. The convenience of having this single word, together with some progress in settling disputes, make this use helpful, and I shall follow it.
3 For further criticism and a line on the controversies now current, see R. A. Hinde’s works listed in the bibliography. Opposition to Lorenz’s line may be found there, also in T. C. Schneirla’s paper “Some Conceptual Trends in Comparative Psychology” (Psychological Bulletin, No. 3, 1952), and at a popular level in Ashley Montagu’s works. But I think we should probably trade off Montagu against Robert Ardrey, stop squabbling, and take it that we are all trying to discuss the same world.
animal kingdom. The determined combination of breadth with scholarly thoroughness is most impressive. Because it is so encyclopedic, because it bears hallmarks of academic respectability unmistakable to the most obtuse, it has got through even to many of those who still persisted in believing that the study of social behavior in animals was something thought up on a Saturday afternoon by Robert Ardrey. On the other hand, the book has run into opposition of a political kind from people who believe that any notion of inborn active and social tendencies, if extended to man, threatens human freedom.

I take this opposition extremely seriously; I believe it to be thoroughly misconceived, and very dangerous to human freedom itself. The notion that we “have a nature,” far from threatening the concept of freedom, is absolutely essential to it. If we were genuinely plastic and indeterminate at birth, there could be no reason why society should not stamp us into any shape that might suit it. The reason people view suggestions about inborn tendencies with such indiscriminate horror seems to be that they think exclusively of one particular way in which the idea of such tendencies has been misused, namely, that where conservative theorists invoke them uncritically to resist reform. But liberal theorists who combat such resistance need them just as much, and indeed usually more. The early architects of our current notion of freedom made human nature their cornerstone. Rousseau’s trumpet call, “Man is born free, but everywhere he is in chains,” 5 makes sense only as a description of our innate constitution as something positive, already determined, and conflicting with what society does to us. Kant and Mill took similar positions. And Marx, though he officially dropped the notion of human nature and often attacked the term, relied on the idea as much as anybody else for his crucial notion of Dehumanization.

People have been strangely determined to take genetic and social explanations as alternatives instead of using them to complete each other. Combining them without talking nonsense is therefore by now fearfully hard work. But there is no future in refusing to try, and no value in starting a game of cops-and-robbers whenever anybody else does. Wilson works from the zoologist’s angle, and is often naive in his use of general concepts. The cure for this shortcoming is not to abuse him for trying, but to do the job better. He speaks not just for himself, but for a multitude of scientifically trained people who want to extend the methods they know over a wider territory. Where these methods help, others should accept them; where they do not, people should show why. No dogfights are called for. As far as academic territory is concerned, it has to be admitted that Wilson asks for trouble by offering to take over ethics and psychology as part of his subject on his way to putting the “bio” into sociology. (“Having cannibalized psychology, the new neurobiology will yield an enduring set of first principles for sociology”—p. 575.) But then, those concerned with all these subjects have for some time asked for trouble themselves by grossly neglecting the genetic angle. They cannot really complain if somebody tries to fill the vacuum they leave.

Where politics is concerned, however, Wilson offers no grievance at all. For every political purpose, but particularly for reforming and revolutionary ones, we need to

5 *Social Contract*. Bk. 1, chap. 1.
understand our genetic constitution. The notion that reformers can do without this understanding is a bizarre tactical aberration, closely comparable to that of the Christian church in the nineteenth century when it rejected the theory of evolution—and indeed rather like its similar rejection of Galileo in the seventeenth. In both these cases, the church exhausted, distorted, and discredited itself in order to combat a quite imaginary danger. Most Christians today readily accept that the earth does not have to be in the middle of the universe, and that God, if he could create life at all, could do it just as well through evolution as by instant fiat. Many would add that this more complex and organic performance is the greater miracle. They have not for some time needed to retain, as a literal statement of fact, the story in Genesis 1 and 2, which, besides contradicting itself, contradicts many other things that clearly have to be believed. Neither do reformers and revolutionaries now need to retain the dogma that man is indeterminate. In fact, they need it like a hole in the head. That dogma, in its sociological form, where it says that man is entirely the product of his society, must, as I have suggested, destroy all the central arguments for freedom. In its Existentialist form, where it says that we create ourselves out of nothing, it does not make sense.

These somewhat sweeping remarks merely sketch in telegraphic form points I shall be discussing at length in this book. I am taking both Wilson’s position and the arguments brought against him seriously. As to the opposition, I admit to some personal concern. Like most people who have spent time and caught colds on plenty of leftwing demonstrations, I am unhappy when I see the comrades tearing off down a useless blind alley. There are real things in the world that require their attention. What should trouble everybody, however, is the waste and distraction caused by such futile contentiousness. The strange habit of misrepresenting one’s opponent’s statements in order to prove that he does indeed belong to the dreaded opposition has been carried to extraordinary lengths against Wilson. There is plenty wrong with his book, and what is wrong can be answered—although answering it does involve some hard thinking. There is also plenty right. Wilson, originally an expert on insect populations, does have a bias toward noticing inherited tendencies and ignoring causes that operate after birth. But that bias is overdue as a counter to its opposite. And he repeatedly explains that he does recognize the importance of social conditioning in man. Indeed he even tries to explain it, and that gets him into even more trouble.

Every attack on him I have seen protests strongly at his saying that “human beings are absurdly easy to indoctrinate; they seek it,” and “men would rather believe than know” (Sociobiology, p. 562). Now this seems simply to be an explicit statement of the force of social conditioning, which is the very fact he is accused of neglecting. People are indeed very easily indoctrinated by their societies. That is what makes their nature so much harder to study than that of other species. But anyone who holds that we really have no nature is surely forced to believe that we are, not just absurdly, but infinitely easy to indoctrinate, since we can have no inborn tendencies that either deflect or resist the process. No doubt the word indoctrinate sounds harsh. For the normal business of

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6 A point admirably and sympathetically made by Theodosius Dobzhansky in discussing the ambiguities of inherit (Mankind Evolving [New Haven, 1962], chap. 2).
cultural acclimatization we might choose a milder one, keeping indoctrinate for the instilling of false opinions. But then—as everyone not wholly satisfied with the present state of the world must surely agree—people do very often hold false opinions. There are many iniquitous and confused societies around, kept going by the fact that people do absorb without criticism the beliefs of those around them. They would not do so if they did not feel the need for some sort of belief, or if they did not mind disagreeing with everyone in sight, or if they insisted on clear proof before they ever accepted a suggestion. Wilson simply points out that there is a general human tendency to pick up any belief that is current. He does not say that it is irresistible. But it certainly is one thing that has to be assumed to explain social conditioning. And it becomes especially relevant when people are perpetuating a bad society, one which fails to “reward” them with anything more palpable than the sense that they are agreeing with their neighbors and are supporting the honored status quo. Yet (as Wilson says) this same openness and suggestibility in us is a necessary condition of our building up any sort of culture. It is natural and useful. Acknowledging this does not commit us to saying that it is irresistible, or that it ought never to be resisted, or that it is the only tendency we have in relation to culture, or that it is always a good thing. Just what it does commit us to is the kind of question I shall be asking in this book.

In Part I I shall look at the suggestion that man is so different from other species as not to have a nature at all. I shall ask what this can mean. I shall try to size up the difficulties of thinking straight about the species barrier, and to clean up awkward concepts like Instinct, Purpose, and Nature itself. I conclude that, if we understand it properly, the acknowledgment that we have a nature does not harm human dignity.

In Part II I ask how this nature ought to be studied. Here we have to consider the generous offer of Wilson and other biologists to take over the job. Many people share his suspicion that any decent inquiry is a part of some physical science, and ought to be conducted as such. I shall point out how much hard background thinking we need here which is not part of science itself, though it is necessary if science is to be properly done, and is itself “scientific” in the sense of being disciplined, methodical, and appropriate. I then demonstrate this point practically by clearing up a tangle of concepts, among them “the selfish gene” and “inclusive genetic fitness,” which spoil Wilson’s useful book and retard the general understanding of evolution.

In Part III, I turn to the practical consequences. Can our understanding of our nature affect our lives? I look at the puzzling but deep-rooted notion of a fixed upward direction in evolution. Social Darwinists and “evolutionary moralists” have hoped to use this as a direct practical guide. But the facts of evolution cannot guide us directly. They matter only insofar as they can help us to understand our nature, our emotional and rational constitution. Yet our understanding of that does give us practical guidance. Facts about it are directly relevant to values. Values register needs. It is a mistake to suppose that there is some logical barrier, convicting such thinking of a “naturalistic fallacy” (Chapter 9).

Those interested in this melancholy subject can find some of the material in question in BioScience, 26 (1976), no. 3 (“Sociobiology—Another Biological Determinism”), and in the letters column of The New York Review of Books, November 13, 1976.
We are not, and do not need to be, disembodied intellects. We are creatures of a definite species on this planet, and this shapes our values.

Part IV is really the core of the book. There I take it for granted that the general notion of our having a nature has been vindicated, and consider the relation of its various parts. I look at the traditional marks of man, such as speech, rationality, and culture, and try to show how we might view them, not as alien or hostile to the underlying emotional structure in which we so much resemble other species, but as growing out of and completing it. Reason and Emotion are not antagonists.

Part Five is a brief conclusion, pointing the way to further work. There I bulldoze, somewhat hastily, some more of the fences that have been held to prevent our seeing ourselves as in any serious sense a part of the biosphere in which we find ourselves, with the idea of showing how fatal—to our real dignity as well as to our survival—must be any insistence on radical isolation. I conclude that man can neither be understood nor saved alone.

MARY MIDGLEY
1980
Part I
Conceptual Problems of an Unusual Species

The broad-backed hippopotamus
Rests on his belly in the mud;
Though he seems so firm to us,
He is merely flesh and blood.

Flesh and blood is weak and frail,
Susceptible to nervous shock;
While the True Church can never fail,
For it is based upon a rock.

—T. S. Eliot, *The Hippopotamus*
HAVE WE A NATURE?

UNDERSTANDING OUR MOTIVES

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 turkey carpet, 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. Moreover, we are still much influenced by Freudian psychology, which depends on the notion of instinct. On the other hand, many sociologists and psychologists still hold what may be called the Blank Paper view, that man is a creature entirely without instincts. So do Existentialist philosophers. If man has no instincts, all comparison with animals must be irrelevant.

(Both these simple party lines have been somewhat eroded over time, but both are still extremely influential.)

According to the Blank Paper 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 then no end to the possible variations among cultures; what we take to be human instincts are just the deep-dug prejudices of our own society. Forming families, fearing the dark, and jumping at the sight of a spider are just results of our conditioning. Existentialism at first appears a very different standpoint, because the Existentialist asserts man’s freedom and will not let him call himself a product of anything. But Existentialism too denies that man has a nature; if he had, his freedom would not be complete. Thus Sartre insisted 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

For a good modern revision of Freudian views in relation to ethology, see Anthony Storr, Human Aggression (New York, 1968). I discuss instincts further myself in chap. 3.

cowards; if we care more for our own children than for other people’s, it is because we choose to be partial. We must never talk about human nature or human instincts. This implicit moral notion is still very influential, not at all confined to those who use the metaphysic of essence and existence. So I shall sometimes speak of it, not as Existentialist, but as Libertarian—meaning that those holding it do not just (like all of us) think liberty important, but think it supremely important and believe that our having a nature would infringe it.

Philosophers have not yet made much use of informed comparison with other species as a help in the understanding of man. One reason they have not is undoubtedly the fear of fatalism. Another is the appalling way terms such as *instinct* and *human nature* have been misused in the past. A third is the absurdity of some ethological propaganda.

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 set would be alarming if treated as predestined to prevail. But no one is committed to doing that by admitting that both sets 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 normal 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.

As for words such as *instinct, drive* and the *nature* of a species, ethologists have done a great deal of work here toward cleaning up what was certainly a messy corner of language. Much more is needed, and I shall try to do a little of it. Such words must somehow be reorganized, not just thrown away. They are necessary if we are to talk either about other species or about our own.

As for the bizarre uses that have sometimes been made of ethology, if we were to veto every science that has some lunatic exponents, we could quickly empty the libraries. What we must do in such cases is sort out the wheat from the chaff, and particularly observe just what sort of argument each point belongs to, what job it is doing. R. A. Hinde, a particularly fair and patient ethologist, remarks that in the present state of his science, “Superficial generalizations of wide validity and precise ones of limited scope are complementary to each other, and both are necessary.” 3 He can say that again, and (as he obviously intends) without any offensive flavor to the word “superficial.” Ethology is still being *mapped*. It is at the “descriptive phase.” Whatever we are studying, it is universally agreed, we have to describe it sufficiently before we can usefully experiment on it. And the “descriptive phase” of any science is not something to be hurried through by blindly “collecting facts,” ready-made, as a matchbox collector gathers matchboxes. It is more a time for hard thinking—for inventing concepts. *What counts as a fact depends on the concepts you use, on the questions you ask.* If someone buys stamps, what is going on can be described as “buying stamps,” or as the pushing of a coin across a board and the receiving of paper in return—or as a set of muscular contractions—or one of stimulus-response reactions—or a social interaction involving role-playing—or a piece

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of dynamics, the mere movement of physical masses—or an economic exchange—or a piece of prudence, typical of the buyer. None of these is the description. There is no neutral terminology. So there are no wholly neutral facts. All describing is classifying according to some conceptual scheme or other. We need concepts in order to pick out what matters for our present purpose from the jumble of experience, and to relate it to the other things that matter in the world. There is no single set of all-purpose “scientific” concepts which can be used for every job. Different inquiries make different selections from the world. So they need different concepts.

People may still wonder, however, why we should need, for understanding human life, concepts developed to describe animal behavior. Perhaps I can best bring out the reason by glancing at a problem we often have when we try to understand human motivation—the shortage of suitable conceptual schemes.

Consider the case of someone (call him Paul) who buys a house with an acre of land, though he can scarcely afford it, instead of one without. How should we describe this “scientifically”? What should we say he is doing? Plenty of economic descriptions are available. He might be meaning to grow turnips to sell or to supply his household; he might be speculating for resale, or buying as an investment or as a hedge against inflation. It is interesting that even at this stage, where all the alternatives are economic, we already need to know his motive in order to decide among them. The “facts” of the particular transaction are not enough to classify it, or explain it, even economically, unless they include motives. 4 (Motives, of course, are not just his private states of mind, but patterns in his life, many of which are directly observable to other people.) We cannot say what he is doing until we know why he does it.

Now, what happens if the motives are not economic? Paul, it turns out, is not trying to make money out of the land at all. When asked, he says that he bought it to secure his privacy. He hates being overlooked by strangers. As his whole conduct is consistent with this, we believe him. Besides believing, however, we still need to understand this motive. That is, we want to see how it fits into the background of his life, and of human life generally.

Shall we accept a simple Marxist interpretation, that he is showing off his riches to establish his class status? This will not get us far. Of course people do show off for that reason. But merely saying so does not account for the particular forms showing off takes. The ostentatious rich buy big cars, because those are what most people would like to have if they could. They do not usually display their status by burning themselves to death on piles of paper money in the streets. And it is the basic taste that we are trying to understand. Explaining motives by ostentation is always producing a box with another box inside it. We must ask next; why display that? This was the weakness of Thorstein Veblen’s view of art as conspicuous expenditure to impress the populace. As later and more subtle Marxists have pointed out, if art is to be worth displaying, it has to have a real point in the first place. 5 Of course a particular ostentatious person can display things he sees no point in. Whole groups within a society may do it; many Romans thus collected Greek art. But this is still parasitical. It depends on acknowledging the authority

4 The question what “facts” are is not so simple as it might look. See pp. 106, 170 (note 3).
of people who do see the point, and treating them as the norm. It needs too, I think, an explicit doctrine that the thing itself actually is valuable, with reasons given. Thus, the more people explicitly praise pictures, or horses, or yachts, or abbeys to pray for one’s soul, the more likely other people with no genuine taste for these things are to want them. But this wanting is a by-product of the praise. It is not what the praise itself is about. Ostentation, in fact, is just one of the cure-all political explanations which people produce for motives and which turn out circular. The most central case is power. The desire for power is necessarily secondary to other desires, because power is power to do certain things, and valuing those things has to come first. Those who really pursue power just for its own sake are neurotics, entangled in confusion by habit and destroying their own lives. Hobbes realized this:

So that in the first place, I put for a general inclination of all mankind, a perpetual and restless desire of power after power, that ceaseth only in Death. And the cause of this is not always that a man hopes for a more intensive delight than he has already attained to; or that he cannot be content with a moderate power: but because he cannot assure the power and means to live well, which he hath present, without the acquisition of more.  

This puts power in its place as an insurance. But Hobbes still made it central and probably never realized how much this circular psychology limited the value of his political theory. I suspect that Marx’s position was similar. Nietzsche, when he made the Will to Power a primary motive, did try to give it a more direct meaning. He thought of power as straightforward dominance over other people—indeed, more specifically still, delight in tormenting them—which is certainly clearer, but happens to be false, except of psychopaths.

Now Paul certainly might be just being ostentatious, buying land he did not want, solely because he saw other rich men doing so. But if so, his case would be a parasitical one, and we should need to shift our attention, if we wanted to understand the motive, to some rich man who actually did want the stuff. This same consideration works even more strongly against another equally fashionable, and more respected, shortcut, the notion of conformity. He bought it, some say, because his society had conditioned him to value it.

5 For example, Ernst Fischer in The Necessity of Art, tr. Anna Bostock (Penguin, 1963).

6 Leviathan, Pt. 1, chap. 11. The character of Widmerpool in Anthony Powell’s series The Music of Time is a splendid study of someone who “cannot be content with a moderate power,” having really decided, as Powell says, to “live by the will.” The philosopher who is most reliably clear on the point that power is only a waiting room for actuality is Aristotle.

7 See, for example, The Genealogy of Morals, tr. Walter Kaufmann, Essay 2, sec. 6, end, where he makes the totally false claim that “apes…in devising bizarre cruelties anticipate man and are, as it were, his prelude.” Also Beyond Good and Evil, sec. 229. Nietzsche always regarded the fascination with power as a sign of strength, though it seems quite as plausible to say, with Hobbes, that it is a sign of weakness.
do almost anything to be like the neighbors. But their existence depends on having neighbors who are not like them, who make positive suggestions. If the neighbors too did not care what they did apart from conforming, there would be nobody to generate the standards that everybody conforms to. Society is not a subsistent Being, a creative divinity. Not everybody can always be at the receiving end of culture.

Paul, we will say, knows what he is doing, to the extent that what moves him actually is the motive he mentions, not his class or society. Indeed, both may disapprove of what he does, and he himself may even be rather puzzled by his motive, in the sense that its strength surprises him, and that it is not explicitly linked to his value system. In this sense, he does not quite know what he is doing. He needs further understanding of what his motive means or amounts to. We all have motives sometimes that put us in this quandary, which is why we badly need to understand our motives better.

His motive then really is the wish for privacy. He “hates being overlooked by strangers.”

I have picked this motive because it is one on which all the main traditional theories of motive are particularly unhelpful—a fact that may well leave Paul, if he is an educated fellow, puzzled, defensive, and even somewhat ashamed of its force. Freud does supply us with the notions of voyeurism and exhibitionism. But these are positive tastes. How will they explain anybody’s dislike of being looked at? Certainly there could be an inversion here, a horror of sex. If someone has a morbid and excessive fear of being looked at, we might suspect that it linked up with a disturbance of his sexual life, and there would be ways to check this suspicion. But perfectly normal people want privacy; indeed, everybody sometimes does so unless he is a gravely deranged exhibitionist. And since we do not need (as Freud did) to balance a contemporary concealment of sex by dragging it forcibly into every explanation, we can ask dispassionately whether there is evidence for a sexual motive of any explanatory value. This must be something more than the mere sexual aspect which (as Freudians rightly point out) most motivation can be found to have if you really look for it. All the main strands of human motivation—affection, fear, aggression, dominance, sex, laziness—pervade our lives and have some influence in shaping all our actions. Sexual behavior itself can obviously have its aggressive, frightened, or domineering aspect. But sexual motivation does not seem to help us in understanding the notion of privacy.

Freud’s weakness here can be seen in his startlingly perverse and insensitive way of interpreting the nightmare of his patient the Wolf-Man. As a child of five or less, this man had dreamed that, as he lay in bed, his window fell open of its own accord, and he saw six or seven white wolves standing in the walnut tree outside and staring at him intently. Freud ruled that this dream was not a dream about being stared at all, but about staring, and that it stood for a (hypothetical) occasion when the child must have

8 Such a situation can be seen in the U.S.S.R., where the demand for country houses, though ideologically incorrect, is still strong.

watched his parents making love. It does not matter much here that Freud’s preferred view was probably wrong, since the Wolf-Man, as a Russian aristocrat, not a middle-class Viennese, would not have been sharing his parents’ bedroom. What matters is Freud’s overlooking the distinct and primitive horror of being stared at. The patient emphasized two things about his dream, which, he said, “made the greatest impression on him, first, the perfect stillness and immobility of the wolves, and secondly, the strained attention with which they looked at him.”

Both these things Freud simply transmuted into their opposites. The stillness, he said, must be regarded as standing, contrariwise, for “the most violent motion,” namely that of the copulating parents, and the attention had to be that of the child himself staring at them. By these principles of interpretation, anything can, quite literally, mean anything.

In citing Freud at his least helpful I do not mean to travesty him. Of course he was often more sensible than this. But on many puzzling topics, many whole areas of life, he had really nothing helpful to say, because he was not interested in them for themselves at all, only in using them to round out a particular view of sex. And in considering many of these, parallels with other species can be helpful. Staring is one such case. It might seem a small matter, but it is part of a most important complex.

Being stared at produces horror widely, not only in man, but in a great range of animal species. In most social creatures, a direct stare constitutes an open threat. Normal social approaches to those one does not know well always proceed somewhat indirectly, with various forms of greeting to show one’s friendly intentions, interspersed with intervals of turning away and appearing occupied with something else. And eye contact in particular is at first limited to brief glances, often broken off and renewed. To stare steadily while you approach someone, or to stand still staring after he has seen you, is as direct a threat as can be made. Why this should be so is an interesting field for inquiry. It may well have something to do with the fact that predators naturally stare fixedly at prospective prey before jumping on it. And they are of course regarding it as an object, not as a possible friend—which is just the effect a direct stare conveys to a human being. Whatever the cause, so strong and so general is this tendency that a number of species have been able to exploit it by developing eyelike spots on their bodies, with which they frighten off their enemies. Many species of butterfly have separately developed detailed and lifelike eye-spots on their wings. Displaying these effectively frightens off predators, some of which never attack such a butterfly again. And this effect has been shown to vary according to how closely the spots actually resemble eyes. Human beings, of course, deliberately produce a similar device by painting eyes on things. “Staring eyes have a threatening effect, and spellbinding eye-spots are therefore widely used as protective devices on uniforms, ships, houses and the like.”

11 Claustrophobia and agoraphobia are other examples. They, too, seem to be primarily disorders of our spatial orientation.

Also in advertisements. But because pictures stay still, we are not so much upset by their staring. When a live human being does it, it is most unnerving. Those stared at often feel as much attacked as if they had been actually abused or hit. This is not a cultural matter. I have seen a cheerful baby eight months old burst into tears and remain inconsolable for some time on being stared fixedly at by strange aunts, although the aunts were only vaguely curious and absentminded. Dogs too, as is well known, can be “stared down.” People sometimes take this as evidence that they recognize men as their superiors, but all it actually shows is that, if you exhibit hostility to someone smaller than yourself, he will dislike it and probably go away. Dogs do not stare at each other except in the challenge to a fight, when the stare appears, along with the obligatory slow, steady approach, the growl, and the bristling hair, as a natural expression of hostility. And the primates seem to avoid the direct stare strongly.

Thus it would be little comfort, if one were overlooked by staring neighbors, to know that they were merely curious. The stare is not just a threat. It constitutes an actual intrusion.

Are we any further on with understanding what is worrying Paul? I certainly think so. If people, like other creatures, quite directly and naturally mind being stared at, this in part explains his touchiness on the subject. But what, you may wonder, about the numerous people who live at close quarters, overlooked, and do not mind it?

We should notice that it is primarily strangers who cause alarm. People in small primitive societies know everybody around them well. So do people in stable modern neighborhoods like villages, or indeed old-fashioned slums. They do not always like the closeness, and may move out. But at least they have had time to settle into a more or less tolerable relation with those around them, and there is likely to be some mutually accepted code about not doing irritating things like staring. Moreover they know a great deal about each other already, so curiosity will not be so much of a problem. All the same, some privacy usually is provided. And where communities grow bigger, more of it is at once needed. Chinese and Indian cities have long been large and confusing, full of strangers. For that reason, the houses became highly defensive—usually closed in by solid outer walls. More clothes are worn; women are locked up; manners, too, become defensive.

And everywhere, not just in our society, rich people who have made good in crowded cities move out and make space round themselves. 14

This matter of what is called personal space is just one part of the complex set of patterns now discussed under the general heading of territorial instincts. I shall say more about it later, though not as much as I should like. 15 All I am concerned to do at the moment is to point out that there really is a range of phenomena here which needs describing, and that animal comparisons help because concepts for describing similar behavior already exist in that area, and turn out, on the whole, quite applicable. Earlier theories of instinct

14 See further development of this point at the end of chap. 3.
15 I am fairly baffled about fitting adequate examples into this book, because the explanatory power of such notions depends on following through the whole system of concepts.
ignored the matter, without actually denying it. They could leave it alone because, for one thing, nobody was trying to change people’s lives radically in this respect. But so drastic have social changes been in this century that it becomes necessary to state all kinds of facts about our animal nature which used to be taken for granted—for instance, that we cannot live properly in infinite crowds or in conditions of ceaseless change.

WHAT WE CAN ASK OF OUR CONCEPTS

I am suggesting that we badly need new and more suitable concepts for describing human motivation.

The alarming truth is, of course, that it is not only animal behavior studies that are still in the descriptive phase. Certainly, a particularly deep snowfall of virgin ignorance has till lately been observable there. People in general never knew very much about animals; they had various motives for distorting what they did know, and when in the last two centuries we in the West mainly moved into towns, we cut ourselves off from what little we might ever have discovered. (That is why the recent renaissance of this subject interests us so much.) It might seem, on the other hand, that we know plenty about that much-described matter, human conduct. So we might, if we had always asked the right questions and had not been more anxious to deceive ourselves than to learn the truth. But we can always do with new questions. People like Nietzsche, Freud, and Marx, by asking new questions, have taught us much, and it is yet further questions, and a more intelligent connecting of questions, that we still need.

Merely naming an impulse as territorial may tell you quite a lot about it, just as naming it as sexual may. But you will understand much more if you have an adequate idea of how territory works generally, and still more if you know how it works in a given species, how it relates there to other motives like dominance, affection and aggression. All these general motives are groupings of particular impulses. Personal space is only one aspect of territory. But it is one that matters greatly to all advanced social creatures, including those with no fixed home. And staring is only one form of intrusion.

Freud should never be dismissed as “unscientific” on the simple grounds that he did not make detailed predictions that could be falsified in experiment. What he was providing was concepts. His general question: “What is the structure of human instinct?” was a perfectly sensible one. His answer was oversimple and overconfident, but his suggestions still make excellent indicators of where inquiry can start—of what, for instance, must be wrong, but points the way to what is right. He made “good mistakes”—a most useful habit, the value of which is perhaps more familiar to philosophers than to scientists. He made possible the making of concepts.

A good concept-maker has to be a man of great general intelligence and wide interests, or he cannot make connections with other fields and is liable to produce a scheme that some other study will shatter. But he needs also, and quite as much, to be more or less soaked in, committed to, involved with, and generally crazy about his subject. A long phase of fairly omnivorous observation, of deep receptiveness and genuine wonder, is
needed to appreciate the formal peculiarities of the thing one is dealing with, to see what about it should be laid hold on for description. That background of experience is the strength of Konrad Lorenz, Niko Tinbergen and their school. They have been animal people all their lives. Their involvement in the concrete has, as Hinde justly says, “ensured that explanatory concepts have been chosen to suit the phenomena studied, rather than vice versa” —an advantage that is rarer than it ought to be.

But we still have the problem of relating the study of animal behavior to other ways of studying man. *Homo sapiens* is an animal. (At least he is not a machine, or an angel, or a fairy, or even something from Vulcan. 17 ) So it would really be odd, would need a lot of accounting for, if comparative methods that make good sense over the wide range of other terrestrial species suddenly simply had no application to him at all. But *Homo sapiens* is already marked out as the property of the social sciences. And they are because of their early history to some extent committed to the view that he has no nature, or none that can be important, that his behavior (apart from a few simple physical needs) must be understood entirely in terms of his culture.

The thing we must keep in mind here is that there is room for all methods. As my small example of stamp-buying shows, no one way of studying mankind has a monopoly or needs one. Innate factors can be ignored for some purposes because they are taken for granted, without therefore vanishing from the scene.

What each method has to do is to establish its usefulness. It must fill a need. It seems obvious to me that we do need to understand human motives better, both what they are and how they connect. There is a load of common-sense lore about them, some of it excellent, some confusing, some worthless. But the intellectual systems that have tried to organize it work mostly by reducing many motives to one or a few basic ones—sex, self-preservation, power. They tidy one province, but then they distort themselves in an effort to take over the whole. Human life simply contains more motives, even more separate groups of motives, than they allow for. We have to work out their natural relations, not hack or wrench them to fit Procrustes’ bed. Comparison with other species shows possible groupings more subtle and more helpful than these flat reductions. Certainly this comparison itself must not be used reductively. We must not say “university departments are really only territories.” “Only” is an exaggeration. But with that word removed, the remark can still be useful. Similarly, a reviewer put the question: “on Desmond Morris’s own principles, should not his book *The Naked Ape* be seen as the dominance display of a rising male, eager to gain followers and compete for leadership of the troop?” Well, among other things, yes. And so should *Eminent Victorians, Language, Truth and Logic,*


17 The common use of the word *animal* which contrasts it with *man* is obscure. I have so used it for convenience sometimes, even in this book, but it must never be forgotten that we do not have a clear basis for it, as we do if we oppose *animals* to vegetables, minerals, or machines. Drawing analogies “between people and animals” is, on the face of it, rather like drawing them “between foreigners and people” or “between people and intelligent beings.”
Les Demoiselles d’Avignon,\textsuperscript{18} and half the papers in periodicals. Human contentiousness is a fact. We could never keep our heads in the babble of controversy if we did not know how to allow for it. Indeed it is just those readers least aware of the deliberately polemical, challenging element in works such as these who are most likely to be drawn in by it, to involve themselves in the amusing but irrelevant game of cops-and-robbers that the authors want to play, rather than sticking to the central questions about the value of what is being said or done.

Still, we say, these motives belong to human beings. Why should we need to look outside the human scene to understand them?

Because, (as I have just suggested,) our cultures limit so subtly the questions that we can ask and reinforce so strongly our natural gift for self-deception. When we ask why something that is normal in our culture is being done, official answers are always prompt. Spaniards tend not to be short of reasons for bullfighting, Romans for gladiatorial games, totalitarians for torture, Erewhonians for punishing illness. To break this circle, to make our local presuppositions stand out, fabulists have long used animals. They rely on the shock of a different context to make a familiar pattern visible at last. It often works. But of course its value depends on the power of the fabulist’s own imagination, on his being able himself to take a new point of view. The device has a different kind of force when facts are used rather than fiction. When other human cultures are found acting at cross-purposes to ours or caricaturing it by pushing its vices to startling excess, we are impressed, and quite rightly. Here, in fact, we already accept the value of looking away from the familiar scene in order to understand it. Many notions first evolved for the study of primitive peoples have been found useful for the study of more complex ones like ourselves, who did not know they had these things because they never thought to ask, but had already half-formed puzzles to which these notions provide the answer. (Examples are initiation rites and crisis rites generally, competitive giving, conspicuous expenditure.) And many half-formed suspicions about our own society have been shaken up and clarified into valuable insights by comparison with strange cultures.

What happens with patterns first spotted in animals is very similar. Someone first detects a pattern in animal behavior—he finds, that is, a notion that unifies and makes sense of a common sequence of behavior, say, displacement activity, or dominance displays, or redirected aggression. He then looks at the human scene and sees something similar. So much is traditional. The further things which are needed, and which are now being vigorously developed, are a careful, thorough, disciplined procedure for making the original observations of animals precise and a subtler technique for checking the different sorts of variation in different species and linking them to their different sorts of causes.

The value of animal comparisons here depends on a simple point about what understanding is, which I think has come home to the public much more quickly than it has to the theorists. \textit{Understanding is relating;} it is fitting things into a context. Nothing

\textsuperscript{18} For Picasso’s polemical intention in this picture, and its success, see E. Gombrich, “Psycho-Analysis and the History of Art,” in his \textit{Meditations on a Hobby Horse} (London, 1963). This whole essay is of enormous interest for my theme.
can be understood on its own. Had we known no other animate life-form than our own, we should have been utterly mysterious to ourselves as a species. And that would have made it immensely harder for us to understand ourselves as individuals too. Anything that puts us in context, that shows us as part of a continuum, an example of a type that varies on intelligible principles, is a great help. People welcome seeing how animals behave, either directly or on film, in just the same way in which a man who had begun to practice, say, mathematics or dancing on his own would welcome seeing others who were already doing it, though differently. There has been an arbitrary principle, laid down for a variety of reasons in European thought, that only human activities can concern us in this sort of way. It is false. It comes out entertainingly when people deeply involved with owls, otters, and whatnot are interviewed for television. Toward the end of the proceedings the animal person is asked, rather solemnly, “And what do you think is the point of (or the justification for) spending time on these creatures?” Far from replying, “Just what brought you here, chum—I like them. They have a life akin to mine, but different—they make me feel more at home in the world—they fill the gap between me and the dead things I have to manipulate—they help me to understand myself,” he usually answers that they are educational for children (but why? except on the grounds just mentioned) or—and this passes as a perfectly respectable reason—that nobody has succeeded in breeding them in these latitudes before. The really monstrous thing about Existentialism too is its proceeding as if the world contained only dead matter (things) on the one hand and fully rational, educated, adult human beings on the other—as if there were no other life-forms. The impression of desertion or abandonment which Existentialists have is due, I am sure, not to the removal of God, but to this contemptuous dismissal of almost the whole biosphere—plants, animals, and children. Life shrinks to a few urban rooms; no wonder it becomes absurd.

COULD PEOPLE BE BLANK PAPER?

I am sure then that the contribution of ethology is useful and that it can be fitted in without damaging anything worth keeping in the social sciences—though it certainly conflicts with the still influential Blank Paper theory. This theory, though first popularized by Locke, was brought to its extreme form by John B. Watson, the founding father of behaviorism, and was a cornerstone of the original version of that doctrine. Locke himself had meant by it merely that we are born without knowledge: “Let us then suppose the mind to be, as we say, white paper, void of all characters, without any ideas; how comes it to be furnished?…To this I answer in one word, from EXPERIENCE; in

19 Just because this is our tradition, many people think of it as obvious common sense. It became the tradition, however, as a result of a deliberate and sustained campaign by Christian thinkers, using some very strange material gathered from Rationalist philosophers, to crush a natural respect for animals, and for nature generally, which they saw as superstitious. John Passmore in his book Man’s Responsibility for Nature (London, 1971) gives a careful and fascinating account of this strange process, which explained to me many things I had always found incomprehensible.
that all our knowledge is founded.” 20 He had never doubted that we had instincts—that we were born adapted to act and feel in specific ways. However, Locke did supply the language for this further step, and Watson went on to take it. Man, he declared, had no instincts. This mysterious news was remarkably well publicized; there seems to be nobody who studied any sort of social science in English-speaking countries between the wars who was not taught it as gospel. Its obscurity, however, has made it increasingly a nuisance and no sort of a help to inquiry. Not only do people evidently and constantly act and feel in ways to which they have never been conditioned, but the very idea that anything so complex as a human being could be totally plastic and structureless is unintelligible. Even if—which is absurd—people had no tendencies but the general ones to be docile, imitative, and mercenary, those would still have to be innate, and there would have to be a structure governing the relations among them.

Sensible psychologists have accordingly tended more and more to admit that people do have some genetically fixed tendencies. What makes this admission hard, however, is the very strong impression still prevalent that we have to choose between considering these tendencies and considering outside conditions, that we must be either loyal innatists or faithful environmentalists. This polarization seems much like holding that the quality of food is determined either by what it is like when you buy it or by how you cook it, but not both. Thus Skinner, who in his early work simply ignored innate determining factors, 21 has now for some time admitted that they exist, but still doesn’t want them studied, on the ground that they cannot be altered. Knowledge of them, he says, “is of little value in an experimental analysis because such a condition cannot be manipulated after the individual has been conceived. The most that can be said is that knowledge of the genetic factor may enable us to make better use of other causes.” And again, “since we cannot change the species of an organism, this variable [species-status] is of no importance in extending our control, but information about species-status enables us to predict characteristic behavior, and, in turn, to make more successful use of other techniques of control.” 22

How would our inability to effect changes be received as a reason for not studying the weather, or indeed the laws of chemistry? Of course there is nothing wrong with wanting one’s knowledge to be useful. But from that very angle, knowing what one cannot change matters as much as knowing what one can. Skinner appears to admit this so fully at the end of these two quotations that one expects him to move on to saying that psychology will have to study both. But he never does. In Beyond Freedom

20 Essay Concerning Human Understanding, Bk. 2.1.2.

21 The index to The Behavior of Organisms (1938) has no entries under instinct, innate, inherited, genetic, or any similar term, and though the book has a section on Drive, the concept is reduced to the ideas of frequency and intensity. Yet the behavior discussed in that book was almost entirely that of rats, so arguments against applying such notions to humans were not in any case relevant. Watson’s simple and popular doctrine had deflected attention from the topic entirely. Halcyon days.

and Dignity (1971) he may still be seen apparently holding himself bound, even after recognizing the two complementary aspects, to make an agonizing, and indeed unintelligible, choice between them:

The ethologists have emphasized contingencies of survival which would contribute these features [aggressive instincts] to the genetic endowment of the species, but the contingencies of reinforcement in the lifetime of the individual are also significant, since anyone who acts aggressively to harm others is likely to be reinforced in other ways—for example, by taking possession of goods. The contingencies explain the behavior quite apart from any state or feeling of aggression or any initiating act by autonomous man. [pp. 185–186, my italics]

An explanation that quite patently can work only for repetitions of aggressive acts, and then only for those that were rewarded in the first place, is placidly extended to account for all such acts, including the unrepeated originals. More generally, the formula of smooth transition from “x as well as y” to “therefore not y” reappears constantly, as where he says: “For ‘instinct’ read ‘habit.’ The cigarette habit is presumably something more than the behavior said to show that a person possesses it; but the only other information we have concerns the reinforcers and the schedules of reinforcement which make a person smoke a great deal” (p. 196). More information obviously does exist—for instance, on the one hand, about the effect of nicotine on the human organism, and on the other, about people’s innate tendency to suck things. That information, however, is not supposed to concern psychologists. Again, he remarks: “The perceiving and knowing which arise from verbal contingencies are even more obviously products of the environment.... Abstract thinking is the product of a particular kind of environment, not of a cognitive faculty” (pp. 188–189). So why can’t a psychologist’s parrot talk psychology?

There is simply no need to take sides between innate and outer factors in this way. We can study both. What behaviorism, it seems, still needs is to complete its metamorphosis from a dogmatic, fighting, metaphysical creed to an impartial method of study. The strength of behaviorism is that it is a form of empiricism, that is, an assertion of the primacy of experience over dogmatic theoretical principles in forming our knowledge. So, when it finds a dogmatic theoretical principle blocking our recognition of obvious and pervasive aspects of experience, its interests lie in ditching that principle, even when it happens to be a homegrown one. This has already been done in the matter of admitting data from private experience, something that Watson ruled out on metaphysical grounds as “the myth of consciousness.” In Beyond Freedom and Dignity Skinner admits reality here admirably, speaking of “the indisputable fact of privacy; a small part of the universe is enclosed in a human skin. It would be foolish to deny the existence of that private world” (p. 191). The question is simply, as he goes on to say, how best to describe it, what conceptual scheme to fit it into. And the same thing is true of innate tendencies.

One thing that hampers a lot of other people besides Skinner here is the tantalizing notion of a single cause. Discussions on the cause of some phenomenon—say, Truancy, Wife-beating, or the Decline of the Modern Theater—often begin by listing a number of alternative possible causes, and go on to try to eliminate all of them but one. On this list
there is often now something called “the genetic cause.” But as it is not adequate alone to produce the effect, it gets eliminated in an early round of the competition and is heard of no more. But *everything* that people do has its internal as well as its environmental aspect, and therefore its causes in the nature of man as well as outside him. Picking out “the cause” often does mean, as Skinner suggests, looking for something that we can change. But in order to see what change is going to be any use to us, the internal factor ought *always* to be investigated, because it is not isolated, but connected with a complex system that will respond in one way or another to anything that we may do. Ignoring it because we cannot alter it really would be rather like ignoring the weather, or the shape of the earth.

I am suggesting, tentatively, that there has been a quiet, but on the whole benign, change in the meaning of the word *behaviorism*. People who call themselves behaviorists now often seem to mean simply that they study behavior. The *ism*—the defense of a creed—seems to have matured into a more modest *ology*—a name for the topic studied. Such gradual changes are benign because they allow crude positions to be made more subtle without a public outcry. But they are more benign still when they can become explicit. If one drops the general dogma that the only causal factor which can affect behavior is more behavior, there is really no reason why what affects it should not be inherited, why there should not be innate tendencies. Whether there are is an empirical question, not a matter of party loyalty. 23

Behaviorists could afford to be less defensive. Their becoming so would be a great help in the joint exploring expeditions by various disciplines which are now needed to map the disputed area. At present, social scientists tend to appear on these occasions loaded with weapons and protective clothing—technical language, unnecessary assumptions, and control experiments of doubtful relevance—while Lorenz usually turns up speaking ordinary language and using a very wide frame of reference—wearing, as it were, only binoculars, jeans and a pair of old tennis shoes, but with an excellent homemade map. 24 I try not to let my delight at this spectacle bias me. I know he is in some ways oversimple, and has made mistakes. But I still think he has a far better idea of the *kind* of problem he is up against than most of those present. He has understood that it is no use, at present, trying to make anything look final. And the view he takes of professional rigor is the right one. Rigor is *not* just a matter of ducking down inside the presuppositions of one’s own subject and defending them against all comers, but of understanding them so fully that one can relate them to those needed for other inquiries. We do not just have to verify our hypotheses carefully, but also to form them intelligently. As they are bound to tie up with matters that we do not know yet, and indeed with the general structure of human thought, this requires collaboration. It cannot be properly carried out in private, between consenting colleagues who stay within the confines of a single subject.

23 I shall say some more about behaviorism, and particularly about the question what behavior is, in chap. 5.

24 This applies particularly to *King Solomon’s Ring* (New York, 1952), which some people fail to recognize as a serious and seminal book, simply because it is nontechnical and delightful to read. In his technical papers Lorenz can be as hard to understand as any other scientist.
Lorenz and his party have, however, a difficulty about method which also dogs me constantly in this book. The point of my discussion 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. I think the circle will prove virtuous, however, if it abides by the following rule: 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. 25

This would not be true if the Blank Paper view that “man has no instincts,” that there simply was no innate determining element in human behavior, were right. But it cannot be right. It is not even clear that it can be meaningful. 26

25 The thorough, painstaking background surveys with which the field observers I quote support and explain their conclusions are a necessary supplement to what I say. I refer to only a few, for the sake of simplicity, but there are now a great many good ones. About the lemmings, see p. 55, below. About the principles for comparing species, I say a little more in chap. 13, in the section on intelligence and instinct. For good and full discussions, see Eibl-Eibesfeldt, Love and Hate, chap. 3, also Lorenz, On Aggression (New York, 1963), chaps. 4–6, and many astute observations in Tinbergen’s Study of Instinct (Oxford, 1961).

26 For an admirable and moderate discussion of the matter, see Love and Hate, chap. 2.
2

ANIMALS AND THE PROBLEM OF EVIL

TRADITION AND REALITY

What then is the main point that emerges from the detailed, systematic, grueling studies of animal behavior that have been made by trained zoologists in this century, and have been given the name of ethology?

The general point is that other animals clearly lead a much more structured, less chaotic life than people have been accustomed to think, and are therefore, in certain definite ways, much less different from men than we have supposed. (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 eyewash. 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 the 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 lamb chops. Recently, ethologists have taken the trouble to watch wolves systematically, between mealtimes, and have found them to be, by human standards, paragons of steadiness and good conduct. They pair for life, they are faithful and affectionate spouses and parents, they show great loyalty to their pack and great courage and persistence in the face of difficulties, they carefully respect one another’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 encounter normally ends with a submission. They have an inhibition about

1 Notice the word *normally* here. It has to be used or understood in describing the life of any plant or animal; there are always exceptions. Because putting it in every line is tedious, one sometimes omits it, and this must, it seems, be the reason why many people firmly believe that Lorenz said that animals never murder others of their species, or at least that wolves never do so. This belief is a complete mistake. Lorenz describes such inhibitions as needing to be *adequate* (that is, to the purpose of preventing extinction) and says that the *most reliable* ones are found among “the most bloodthirsty predators.” But “the most reliable” examples of anything do not have to be infallible. And in fact he explicitly emphasizes that “there is no absolute reliance on these inhibitions, which may occasionally fail” (*On Aggression*, p. 129) and gives examples, including infanticide in foxes (p. 119). Similarly in *King Solomon’s Ring* he writes of “the innate, instinctive, fixed inhibitions that prevent an animal from using his weapons indiscriminately against his own kind” (p. 196, my italics). Roe deer and solitary carnivores do use them indiscriminately; wolves and even hyenas do not.
killing the suppliant and about attacking females and cubs. They have also, like all social animals, a fairly elaborate etiquette, including subtly varied ceremonies of greeting and reassurance, by which friendship is strengthened, cooperation achieved, and the wheels of social life generally oiled. Our knowledge of this behavior is not based upon the romantic impressions of casual travelers; 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 who were initially rather hostile to the wolf and inclined to hope that it could be blamed for 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, which had not changed their technique in a number of centuries, but to hunters, who had. 2

Actual wolves, then, are not much like the folk-figure of the wolf, and the same is true 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,” and so on, and have used it, uncriticized, as a contrast to illuminate the nature of man. Man has been mapped by reference to a landmark that is largely mythical. Because this habit is so ancient and so deep-rooted, we had better look a little more closely at its oddity before turning to the philosophic arguments in question.

I once read a chatty journalistic book on wolves, which described in detail how wolves trapped in medieval France used to be flayed alive, with various appalling refinements. “Perhaps this was rather cruel,” the author 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 that the only animal that does 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, he said, and then 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 struck 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 social carnivores, and well-armed vegetarian creatures too. Where murder is so easy, a species must have an adequate inhibition against it or perish. 3 (Of course this inhibition is not a morality, but it works in many ways like one.) Solitary animals and those less strongly armed do not need this defense. Lorenz gives chilling examples from roe deer


3 Again, adequate does not mean total. Since Lorenz wrote, much observation has been made of lions, a species whose inhibition is much less strong—but then, so is their sociality. For other carnivores and their customs, see Sociobiology, pp. 246–247. Wolves and wild dogs clearly are somewhat special. But the point here is not how widely the inhibition works in any given carnivorous species. It is that it does not work adequately in man. If it did, we should not need law or morality to restrain violence.
and doves, in both of which species stronger members will slowly murder weaker ones if kept in captivity with them, because in a free state these creatures save themselves by running away, not by relying on the victor’s inhibition. And it is clear that man is in some ways nearer to this group than to the wolf.

Man, before his tool-using days, was poorly armed. Without claws, beak, or horns, he must have found murder a tedious and exhausting business, and built-in inhibitions against it were therefore not necessary for survival. By the time he invented weapons, it was too late to alter his nature. He became 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 perhaps not so white as they are painted. It seems possible that man shows more savagery to his own kind than most other mammal species. 4 Rats (which Lorenz mentions) are certainly competitors. 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 (Judges 11:5). An animal that did anything remotely similar would (surely rightly) be labeled “dangerous.”

Current fashion brushes off the suggestion of so labeling man by ruling that such conduct is not due to nature, but to society. This misses the point. We are not now asking the small question whether a particular man, or even a particular group, picked up a practice from others or invented it. We are asking a much larger one; how did these proceedings originate for the human race as a whole? How are they psychologically possible, and indeed hard to eradicate, when many culturally induced things come and go lightly, and many others cannot be culturally induced even with the utmost effort and good will? For this inquiry, nature and culture are not opposites at all. We are naturally culture-building animals. But what we build into our cultures has to satisfy our natural

4 See p. 47 for the nonaggressive societies. Wilson flatly denies that man shows more savagery, saying “murder is far more common and hence normal in many vertebrate species than in man… even when our episodic wars are averaged in” (Sociobiology, p. 247). How does one check such things? Certainly, since Lorenz wrote, evidence has come in that some animals are bloodier than had been supposed. No doubt this should be cheering to the human race. Beyond this, Wilson suggests that a Martian zoologist, visiting “a randomly picked human population” would probably see little violence. But he probably would not see much theft or sexual activity either, yet both go on. Those of us who lead protected lives do not find it easy to believe in serious wife- and child-beating, but they are evidently quite common. And how would one compute the chances of his running into a riot, a raid, or a massacre, let alone a war? These cannot just be averaged in; they are qualitatively special. The main point however, is not to set up a contest of merit, but to make it plain that man resembles other species in having a serious problem to solve here. It is rather common now to resist this suggestion by claiming that the frequency of aggression is just an invention of the poets and historians. Were this true, it would be absolutely extraordinary: what motive, other than aggression itself, could account for such monstrous misrepresentation?
pattern of motives.

It is also suggested that any excess of savagery in us over other species is merely due
to our general power of carrying everything we do further, through culture and technology, than they. We build more thoroughly and better than the bee and the beaver; thus, too, we kill more thoroughly. There is certainly much in this. But the question still remains: which things do we choose to develop in this manner? Not every activity receives this sort of attention; for instance, only lately has the physical science necessary for medicine been developed. But the glorification of fighting is extremely widespread and ancient. Now if we compare the value of these two things for human life, this glorification needs explaining. What culture has an epic poem celebrating the achievements of its great healer—or even of its engineer, architect, or inventor? Is not a creature with this bias rightly labeled “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 on 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 of elephants and other big game. These creatures have their own occupations, and, unless seriously disturbed, are not anxious for a fight. Gorillas in particular are peace-loving beasts; George Schaller visited a tribe of them for six months without receiving so much as a cross word or seeing any quarreling worth naming. In this case, and no doubt in others, Victorian man was deceived by confusing threatening behavior 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 the other simians, and particularly of howler monkeys, whose dreadful wailing used to freeze the white hunter’s blood. Howlers have reduced combat 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 that makes the most noise wins. 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, or even to eat your dinner, you cannot be expected to like it, and only a very occasional

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5 See *Men and Pandas* by Ramona and Desmond Morris (London, 1966). Giant pandas are of course wholly vegetarian, and defend themselves only if cornered.

Buddhist will cooperate. But why did man 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 that do think in this way, but it is Western thought that I am exploring.) And the superior feeling persists. 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 humans ever hunted foxes. In the same way, it makes a very disreputable impression when Jane Goodall reports that the chimpanzees she watched would occasionally catch and eat a baby 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 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 to be 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 is 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 cockeyed sort of justification unless beasts are 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. Still, people do manage to think in this way. Their reasoning is certainly not always easy to follow. Ramona and Desmond Morris show, in a most interesting survey of medieval attitudes, how apes were regarded, not just as hideous, but as “evil and ridiculous”—as failed and degraded human beings. Moreover, “the ape’s capacity for imitation gave rise to the odd notion that he deliberately copied human actions in order to convince people that he was really one of them…. He became the prototype of the impostor, the fraud, the hypocrite and the flatterer.”

Once something is taken as the prototype of a particular quality, it is not easy to be convinced that it is not an instance of it. Nor do people seem to have tried hard to be clear on such points. The Morrises give interesting examples of the ritual execution of animals along with certain types of criminal, such as the medieval practice of hanging an ape and a dog on the gallows when a Jew was hanging.

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7 King Solomon’s Ring, p. 183.
8 In the Shadow of Man (Boston, 1971). See her index, under Predatory Behavior.
executed. No doubt the animals executed were not exactly supposed guilty of a particular crime. But they were prominently pushed into the category of those for whom punishment was fitting; wickedness was deemed their climate. And there are not, I think, compensating instances of animals that symbolized virtue being rewarded. Nor do people seem to have hesitated to eat doves, lambs, nightingales, or any other creatures on account of their symbolic value.

Various philosophers have protested that I cannot be right in supposing that animals were thought of as evil. It would, they quite properly point out, be a gross confusion to mix up using something as the symbol of a vice with actually attributing a vice to it, and everybody knows that animals are as incapable of vice as they are of virtue. Why should I suppose that people were really as silly as this? Now because the evidence for a confusion tends to be confused, it is not always easy to clear up this kind of doubt. I was reflecting whether I was indeed wrong when a couple of things made me suspect that I was not. The first was a television documentary on sharks, which, though perfectly sensible on the whole, began, emphatically, with the words, “These are the world’s most vicious killers.” Vicious? (No evidence appeared in the film, incidentally, to suggest that sharks ever kill except in hunger or self-defense. The number of people they kill in the world yearly came out at twenty-six; the number of sharks people kill was not given, but was clearly vastly higher.) The second, nastier and more detailed, was a journalist’s account of an expedition with a crocodile-hunter:

“Got him now,” he cried. He shook water from his hair and beard.
“We’ve got two wops [darts] in him; we can play him like a fish. Tire him out.” Finally we made the crocodile drag the skiff with him. He had no respite.
“That hook’s caught right down in his gut. We’ll have to be careful, or we’ll kill him!”

With the dawn the crocodile sought refuge in deep water. “He’s trying to stay down, now,” said Craig. “He doesn’t like this daylight business…. Harass him like this, and he’ll have to come up every half hour or so.”

“He’s got the morality of a laser beam,” said Craig as we sat there…. “The croc emerging from the egg will snap at anything that moves, no matter if it’s a leech or a human leg.” As he spoke he was tugging on a harpoon line, trying to coax the beast below to move. “He’s a dedicated killing machine, the killer of any fish or animal or bird.”

This is ordinary, typical, present-day, vernacular speech and thinking; a great deal more like it has appeared in the public excitement over the film Jaws. If anyone can find a convincing meaning for it which does not involve dramatizing simple and primitive carnivores into conscious criminals just to boost human vanity, I shall be relieved and delighted. Terms like machine and laser beam ought to rule out such an idea.

10 Ibid., p. 31.
11 Observer color supplement, 15 February 1976, my italics.
That they do not is an indication of the very confusion I complain of. Crocodiles, and particularly baby crocodiles, are indeed not highly advanced creatures; nor are sharks. For them, as for all carnivores, prey is simply food, not an enemy or a victim, and to speak of their snapping reflex as mechanical would not be too misleading. But the words I have italicized leave no doubt that the hunter still manages to think of it as their conscious deliberate choice to outrage the known rights of others. And the only possible reason for mentioning a human leg is a persuasion that this is something at which even a newly hatched crocodile could, if not very depraved, be expected to draw the line. Of course this is silly. My point is that such silliness is neither rare nor unimportant. Consider again a very ordinary item from the Guardian, October 4, 1976. Under the headline “‘ANIMAL’ MOTHER GAOLED,” the account began: “An unmarried mother who brutally beat up her three young children was told by a judge when he sent her to prison for two years on assault and wounding charges, ‘You behaved like a wild animal.’” The judge could not, it should be noticed, have meant “wild animals too occasionally do the sort of thing you have done.” He had to mean “usually.” If wild animals usually did that, their evolution would have petered out long ago.

In case anyone feels that only the ignorant populace think like this, we might note too a passage in Wittgenstein’s “Lecture on Ethics.” Wittgenstein is contrasting trivial accusations that can be laughed off with utterly serious ones where no such avoidance is possible. The serious case goes like this: “Suppose I had told one of you a preposterous lie and he came up to me and said, ‘You’re behaving like a beast...’”

There is nothing unusual about confusing a symbol with the thing symbolized, about projecting a fantasy. It is so common and yet so deadly a fault that we need constantly to scan our thought for it, and can probably never do so enough. We are always seeing people who are unlike ourselves as threats or monsters. Our children are to us symbols of hope—so we tend to expect them to be hopeful, and to be upset if they fail to be so. At other times we may see them as threats, symbols of a world that does not need us—and then we are inclined to attribute to them hostile motives. Parents too get treated as animated symbols, whether of repression or security, rather than as individuals. And the literature of misogyny, from the Christian Fathers onward, is a prize museum of this sort of muddle. Mixing up a symbol with an attribution is, in fact, normal, in the sense in which failing to think hard is always normal. Among human beings, it is often best checked by the victim, the walking symbol himself, who can say, “Hey, look—I am not that, but me.” But though animals can demonstrate the same point clearly to those who will take the trouble to visit them at home, we urban people do not very often do so.

There is, moreover, a special reason for maneuvering animals into the position of instances and not only symbols of evil. We rightly connect the thought of

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12 For the radical distinction between predation and aggression, see Lorenz, On Aggression, p. 24.

13 Philosophical Review 74 (1965), 3–12.

virtue with that of our own species, because the virtues of that species are the ones that concern us. *Human* and *humane* are words of praise. Being *inhuman* is something terrible. It is easy from here to connect the notion of vice with other species. The use of words like *brutal, bestial, beastly* shows how readily we do this. And the temptation to treat the symbol as an attribution is the greater because distancing the quality protects our own self-esteem.

This way of thinking might, of course, have been balanced by favorable symbolizing, by occasions when we saw crocodiles, or still more, other animals such as lions, as embodiments of courage, patience, and other virtues. But favorable symbols too are read as attributions, and they tend to lead to venerating the beast, something that Jewish and Christian monotheism has always fiercely resisted. Monotheism does have a relatively hospitable side, a tradition in which animals can be seen as fellow-servants of God, or as aspects of his glory. But it has also a sharply exclusive and destructive side, in which the Lord tolerates no rival for our regard. In this mood, the church often and explicitly insisted that all plants and animals must be viewed merely as objects given to man as his instruments, that to have any sort of regard for them in themselves was sinful and superstitious folly. What is interesting is that many of those scientific humanists who most sternly rejected Christianity have continued this second tradition—but with man himself taking the place of the jealous God. Thus Marx in the *Grundrisse*, said that “the great civilizing influence of capitalism” lay in its rejection of the “deification of nature.” Thus it was that “nature becomes for the first time simply an object for mankind, purely a matter of utility.”

The effect is an asymmetry about animal symbols. Favorable symbols are carefully demythologized, so that beasts shall not compete, first with God, then with man. It is not officially supposed that we ought to respect or be nice to actual lions or lambs on account of the Lamb of God or the Lion of Judah. But no similar trouble is taken in this tradition about unfavorable symbols. I do not mean that many learned persons would now say with the seventeenth-century writer Edward Topsell that “serpents are the most ungentle and barbarous of creatures.” But at the vernacular level the kind of remark I have just mentioned about sharks and crocodiles is very common, and very similar. Moreover the crack or fault in thought which it expresses runs through a great deal of much more ambitious thinking. The problem of how to relate man to other species remains unconsidered in a shadowy area where it naturally neighbors the problem of evil. Vapors from it float, uncriticized and hardly noticed, into arguments where they have no business. A common example is the way in which writers who want for some reason to praise or emphasize a particular quality in human life frequently say that it is “what distinguishes us from the animals” without trying even casually to get the facts of the comparison right. I shall have more to say about this habit in Chapter 10. But for the moment I am more interested in the philosophic use of the Beast Within than in our attitude to Beasts Without.

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15 Quoted by Passmore, *Man’s Responsibility for Nature*, p. 24, in a fascinating, if depressing, account of the process.
BEASTS WITHIN

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 moralists like Nietzsche, who are for it. Here is a typical passage from Book 9 of the *Republic*, where Plato is talking about our more unpleasant 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 quest 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. 17

Consider how odd the image is, in spite of its familiarity. Why not say, “I 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, speaking of the Lion 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 an 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. 18

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 around 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 idea of a Savage, noble or otherwise.

Sensible eighteenth-century people reacted to Rousseau’s suggestion of taking “savages” seriously very much in the same way that many sensible people today react to the idea of taking animals seriously. They thought it obviously outrageous, because their notion of a “savage” was a totally unreal and standardized abstraction.

17 *Republic* 9. 571c, tr. Francis Cornford.
They could not believe in any continuity between such mythical beings and real people—because, of course, a mythical being is something discontinuous with a real person. He differs in logical type.

Here are some of Dr. Johnson’s comments:

A savage would as willingly have his meat sent to him in the kitchen, as eat it at the table here; as men become civilized various modes of denoting honourable preference are invented.

Pity is not natural to man. Children are always cruel. Savages are always cruel. Pity is acquired and improved by the cultivation of reason.

[On the question whether marriage was natural] Sir, a savage man and a savage woman meet by chance, and when the man sees another woman that pleases him better, he will leave the first.

And, in a rather fuller discussion:

A gentleman expressed a wish to go and live three years at Otaheite, or New Zealand, in order to obtain a full acquaintance with people so totally different from all we have ever known, and be satisfied what pure nature can do for man. Johnson. “What can you learn, Sir? What can savages tell, but what they have themselves seen?…The inhabitants of Otaheite and New Zealand are not in a state of pure nature, for it is plain they broke off from some other people. Had they grown out of the ground, you might have judged of a state of pure nature. Fanciful people talk of a mythology being amongst them, but it must be invention. They have once had religion, which has been gradually debased. And what account of their religion can you suppose to be learnt from savages?”

By “savage” Johnson simply meant someone unfitted for society, without manners, virtues, friendly ties, skills, or sympathetic feelings, a negation of all that was admirable or interesting in people as he knew them. That this description actually applied to all primitive peoples seemed to him obvious. Yet in fact it applied to none. The last quotation shows the heart of the confusion—the idea that what is natural is to be discovered from isolation experiments, from observing creatures “grown out of the ground” instead of by using one’s intelligence to sort out the innate from the acquired elements in existing social behavior. Comparison with other cultures is a help because, as Eibl-Eibesfeldt puts it in Love and Hate:

One may take as a starting-point that man’s tendency is to vary culturally whatever can be modified. In New Guinea alone several hundred dialects are spoken. This is bound up with the tendency of human beings to isolate themselves into small groups…. But if one finds in spite of this, in certain situations, such as in greeting, or in the behaviour of the mother towards her child, the same behaviour patterns recur repeatedly and among the most

19 Boswell, Life of Johnson (Everyman ed.), 2, 253; 1, 271; 1, 241; and 2, 34.
different peoples, then it is highly probable that these are innate behaviour patterns. [p. 13]

This is quite different from expecting to find a mythical Raw or Unconditioned Man.

What anthropology did for this myth, ethology now does for the Beast myth. Kipling’s Law of the Jungle is much nearer to reality than this fancy of the moralists. Beasts are neither incarnations of wickedness, nor sets of basic needs, nor crude mechanical toys, nor idiot children. They are beasts, each with its own very complex nature. Most of them fail in most respects to conform to their mythical stereotype. This is very marked in the matter of sexual indulgence, something to which the mythical Beast is supposed to be addicted. Desmond Morris really should not have needed to point out that, among animal species, it is *Homo sapiens* that 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 in human life that sex 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 shock Robert Ardrey: he concludes that they are in their decadence. 20 Yet Tolstoy, speaking of the life of systematic sexual indulgence, called it “the ideal of monkeys or Parisians.” 21

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 that the beast within us gives us partial order; the task of conceptual thought will only be to complete it. But the opposite, *a priori*, reasoning has prevailed. If the Beast Within was capable of every iniquity, people reasoned, then beasts without probably were 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. This false solution does man credit because it shows the power of his conscience, but all the same it is a dangerous fib. The 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 at the point where he said “The Woman beguiled me, and I did eat,” and the woman said the same about the Serpent.

Let us consider the predicament of primitive man. He is not without natural inhibitions, but his inhibitions are weak. He cannot, like the dove or the roe deer, cheerfully mince up his family in cold blood and without provocation. (If he could, he would certainly not have survived long after the invention of weapons, nor could the prolonged demanding

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helplessness of human infants ever have been tolerated.) He has a certain natural dislike for such activities, but it is weak and often overborne. He does horrible things and is filled with remorse afterwards. These conflicts are prerational; they do not fall between his reason and his primitive motives, but between two groups of those primitive motives themselves. They are not the result of thinking; more likely they are among the things that first made him think. They are not the result of social conditioning; they are part of its cause. Intelligence is evolved as a way of dealing with puzzles, an alternative to the strength that can kick its way past them or the inertness that can hide from them. And anger presents as tough a puzzle as any. The preoccupation of our early literature with bloodshed, guilt, and vengeance suggests to me that these problems occupied man from a very early time. I would add that only a creature of this intermediate kind, with inhibitions that are weak but genuine would ever have been likely to develop a morality. Conceptual thought formalizes and extends what instinct started.

To show that these suggestions about early man are not entirely off the mark, let us look at Bronze Age behavior as seen in the Iliad. I choose the Iliad because historically it lies behind Plato and Plato lies behind the modern tradition I complain of. I do not make the mistake of supposing it a genuinely primitive document, applicable to Early Man As Such—but what can we do? It is one of the earliest available in a shape we can come to grips with, and the tradition is our own.

I want to go back to the question of rituals of submission—to the wolf that cannot bite its conquered enemy. Lorenz remarks, “Homer’s heroes were certainly not as soft-hearted as the wolves at Whipsnade. The poet cites numerous incidents where the supplicant is slaughtered, with or without compunction.” This is true, but the interesting thing is that the appeals were made. Counting carefully, one finds that the score is indeed gloomy; in the Iliad there are six appeals and six failures. Moreover, all the suppliants are Trojans, that is, “the other side,” and part of the point of the incidents clearly is to show Greeks in a position of power, exulting over an abject enemy. So far, so bad. But there is more to say. Achilles, refusing mercy, explains that before his friend Patroclus was killed, he used to prefer taking prisoners alive and selling them; it is grief and the desire for vengeance that stops him from doing so any more. In fact, most of these incidents take place just as the war reaches its climax; plainly it has had more desultory stages that Homer did not find worth singing about. There are two suppliants who offer large ransoms, and one of them nearly has his offer accepted, but his captor’s brother intervenes and prevents the bargain. The Iliad is of course an aristocratic document, which is why little is said of the commercial spirit behind these transactions, but it is clear that that was working vigorously here in the cause of civilization. Greed and laziness were, as often, good counterpoises to violence. Should we assume that they were the only counterpoises, that there was no direct objection to killing the helpless? I don’t think we can, for this reason. The Homeric atmosphere is extremely honest and unhypocritical; nobody professes high sentiments just for looks, and nobody would believe him if he did. Yet throughout the Iliad runs a most ambivalent attitude to war and violence; although they are man’s noblest occupation, they are terrible, piteous, lamentable, miserable, a curse and a disaster to mortals. And this too has the ring of a perfectly sincere sentiment. The God of War is constantly abused as a plague and a mischief-maker, without whom everything would go well. And in spite of the failure of supplication on the battlefield, much is said
of the rights of suppliants, much of the anger of the gods against those who trample on such rights. And later Greek writings show that these suggestions were not intended or received as humbug; the rights of suppliants are an extremely serious matter with the tragedians. Nor are they enforced by social contract arguments or by prudence, but simply by insisting on the horror of the act. Even the ineffective pleas in Homer are often extremely moving; in fact, it is this very ambivalence that makes the *Iliad* a great poem, instead of a butcher’s catalogue. In short, the poem speaks with two voices; it deplores what it glories in, and so somebody must take the blame.

In the *Iliad*, beasts are not needed for this role; the answer to the problem of evil is always simple; if you cannot blame the enemy, blame the gods. I think this function of gods as scapegoats has been somewhat overlooked in the history of religion; it seems very important. Where a man feels guilty and is genuinely anxious to apologize to those whom he has injured, there is much to be said for having been misled by an irresistible outside force. This preserves his self-respect and also his friendship for the victim. We say today, “I just don’t know what came over me,” but the Homeric Greeks did know; they could specify Zeus or Ares. All the vilest and stupidest acts in the *Iliad* result from suggestions from the gods, and anybody who really wants to apologize simply states as much. The crudest case is that of Agamemnon who, when he finally wants to withdraw from his idiotic quarrel with Achilles, apologizes by explaining that Zeus drove him mad. At this the attentive reader will open his eyes, since the poem describes all about the beginning of that quarrel and it was one of the few occasions when no god did intervene. But Agamemnon’s reasoning is simple: If I did it, I must have been mad, and only Zeus could madden a king. *Quem deus vult perdere, prius dementat.* 22 No thunderbolts strike him, for the explanation is universally accepted.

It almost seems a pity that the development of religion and morality should have put an end to this convenient way of thinking. They did, however, and as the Greek notion of the gods grew steadily more dignified and noble, the problem, “Whom can I blame for my faults?” again became pressing. I do not think it is any accident that Plato, the first Greek who consistently wrote of the gods as good, was also the first active exponent of the Beast Within. Black horses, wolves, lions, hawks, asses, and pigs recur every time he mentions the subject of evil; they provide the only terms in which he can talk about it. This is not an idle stylistic device: there is no such thing in Plato. His serious view is that evil is something alien to the soul; something Other, the debasing effect of matter seeping in through the instinctive nature. This treacherous element clearly cannot be anything properly human; it must be described in animal terms—and those of no particular animal at that, since all particular animals have their redeeming features, but a dreadful composite monster combining all the vices: in short, the Beast Within, whose only opponent is the Rational Soul. Certainly good feeling is sometimes invoked too, and given body as a Good Beast, but its goodness is supposed to consist in its obedience to Reason, not in its contributing anything itself. The white horse willingly obeys the charioteer and helps him to restrain the black; 23 it is no Balaam’s Ass that

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22 Whom God wishes to ruin, he first drives mad.
hazards its own suggestions. Accordingly the feelings named in this connection are shame, ambition, the sense of honor, never, for instance, pity or affection, where the body might be held to make good suggestions to the soul. Plato’s map excludes such a possibility. This exclusion has been both morally and psychologically disastrous. Fear of and contempt for feeling make up an irrational prejudice built into the structure of European rationalism. 24

ARISTOTELIAN AND KANTIAN BEASTS

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 Ethics (1.7) 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 quarrel 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 exceptional ruthlessness to one’s own species? 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 other 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 contrasts with other species only if it were true, as sometimes seems to be suggested, that animals were, in fact, invariably wicked.

Arguments of this form have, however, flowed on unchecked. One of them is used by Kant in his early Lectures on Ethics, where, in the course of some rather sharp remarks about sex, he says, “Sexuality exposes man to the danger of equality with the beasts.” 25 But how can there be such a danger? The logic of this complaint deserves attention. To be like the beasts is not always considered bad, since we share with them many habits, such as washing and nest-building, and the care of the young, which everybody approves of. The point might be that beasts give more time and attention to sex than people, or

24 I shall develop this point further in chap. 11.

are more promiscuous. But even if this were true, it would not alone show that they were wrong to do so, or that people would be wrong to imitate them—not unless one had shown separately that animals always were wrong, or that people should never imitate them. This would be hard in face of such advice as “Go to the Ant, thou sluggard,” or “Be ye wise as serpents and harmless as doves.” There are many activities, such as eating bananas, where the accusation “You are behaving like an animal” could properly be met with the answer. “But I am an animal.” We need to be shown—again, separately, and within the context of human life—why a particular activity is unsuitable to people. Otherwise the reference to animals here follows a form often used in popular morality when mention is made of any group considered inferior—we will call them Gonks. The argument runs:

Some Gonkish practices are abominable
This is a Gonkish practice
Therefore this practice is abominable.

The only thing that could make an honest argument of this would be a real universal major premise, and in the case of animals such a premise has often been half-consciously accepted. If one assumes that everything animals do is evil or inferior, then the argument takes on some force. The vices of the monstrous Beast Within are being projected on to actual animals.

Kant does not really need this argument at all. The dangers that he sees in sexuality can be, and are, much better expressed in terms more central to his ethics. They are dangers of treating people as things, treating them without respect, using them as means and not as ends in themselves. These are intelligible concepts. But the notion of humanity Kant uses in developing them is an odd one, and its oddity is again brought out by his attitude to animals. He wants us to respect humanity because it is rational, not because it is conscious. We wonder about lunatics, about the old, about babies. Kant is adamant that everything in human form must be respected, but has he any business to be so? Animals give an interesting test; can we treat them as things? Or are they too ends in themselves? Kant says they are not ends in themselves because they are not rational, so we cannot have any duties to them and we may treat them simply as means to our own ends. This does not mean that we may be cruel to them. But the reason for not being cruel is that cruelty would debase our own nature. It is therefore our duty to ourselves to avoid this defilement. But why it should be a defilement we don’t know. There seems no official reason why Kant should not say, with Spinoza, that animals, though conscious, are entirely at the disposal of man, and can be used as suits his purposes. If these purposes are otherwise important, even if they involve giving great pain to the animal, no objection could arise on Spinoza’s principles, nor as far as I can see on Kant’s either. 26 There would therefore seem to be no objection to enjoying giving pain either. I do not just mean that the objections would be weak: I think they would be meaningless. This view seems

26 Kant, “Duties towards Animals and Spirits,” Lectures on Ethics. For Spinoza, see below, chap. 13, pp. 351ff. I shall be pursuing the very important point raised by Kant both there and in chap. 10, pp. 218ff.
very forced, almost as forced as Descartes’ contention that animals are actually unconscious. 27 If you think cruelty wrong in general—which Kant certainly did—it seems devious to say that cruelty to animals is wrong for entirely different reasons from cruelty to people.

What I have said about Plato, Aristotle, and Kant has, I hope, shown that the use of animals as symbols of wickedness has done ethics no good, and that arguments based on it are irrelevant. But are they positively misleading? I think they are. In the first place, irrelevance itself misleads, because it distracts. Insofar as people looked for the source of evil in their animal nature, which was something they could not possibly alter, they were kept occupied by a contest they could not win. They either gave their energies to trying to jump off their shadows, or grew depressed at the difficulty of their position and gave up altogether. This defect is obvious in Platonism, in Stoicism, and in their influence on Christianity. The trouble is that animal nature is regarded, not just as containing specific dangers, but either as evil all through or at least as totally chaotic and without any helpful principle of order. It follows that there can be no sense in trying to organize it on its own principles and no sense in studying it to see what those principles might be. Order must be imposed from outside by Reason or Grace—again a hopeless task, for why should a chaotic animal take any notice of Grace or Reason? But of course such animal nature is an unreal abstraction. Every existing animal species has its own nature, its own hierarchy of instincts—in a sense, its own virtues. In social animals, such as ourselves and the wolves, there must be natural affection and communicativeness, and, in spite of our evolutionary gaffe in inventing weapons, it is plain that we are much better fitted to live socially than to live alone or in anarchy. Nearly all our most interesting occupations are social ones. Rousseau’s or Hobbes’s state of nature would be fine for intelligent crocodiles, if there were any. For people it is a baseless fantasy.

Nor does our richness in aggression disprove this. 28 It is one of Lorenz’s most interesting suggestions that only creatures capable of aggression toward their own kind are capable of affection. In order to distinguish some of one’s species as friends, it may be necessary at the same time to distinguish others as enemies. At the simplest level, in order to express one’s love for A, it may be necessary sometimes to attack B, or at least to threaten him. Ambivalence may be ancient indeed. However that may be, he is clearly right in saying that aggression is directly bound up in most of the activities we value, and

27 For Descartes, see the second section of chap. 10.

28 Recent discussions of this topic have been sidetracked by the suggestion that the word aggression properly has only a political sense, that it means only official, formalized warfare. This seems quite out of accord with usage. It has been in common use throughout this century as the name of a motive, that is, of the wish or tendency to attack—privately or publicly, physically or emotionally, literally or metaphorically. (“He is chock-full of aggression.”) That is how I use it. Wilson (pp. 22, 242, 578) suggests reserving the name aggression for the act (“an abridgment of the rights of another”), while calling the motive aggressiveness. This will not work because (a) without the motive, an injurious act is not a piece of aggression at all (it might be, for instance, an accident or a piece of self-defense), and (b) if the motive is there, we can still show aggression by gestures and so on, even if we do no damage. Moreover, the notion of “rights” is quite obscure.
cannot simply be dropped like an old sock. It is part of our nature. But he does not mean that we cannot get along without bloodshed. For our nature is not Plato’s and Nietzsche’s Beast Without the Law. It is a complex, balanced affair, a structure like the Beasts Within other beasts, subject to a lot of laws, and rather more, not less, adaptable than others, because where they grew horns and prickles, we grew an intelligence, which is quite an effective adaptive mechanism. Where fighting is inconvenient, we can play chess or sue each other. Even the Beasts Within other beasts are much more adaptable here than has been believed. In particular, if they do not get what they want, they will accept something else instead. When they thirst for blood and cannot catch their enemy, they work it off by mock attacks on empty air or pieces of wood or the surrounding scenery, or by making noises, or by driving off neighbors or casual passers-by whom they do not usually hurt. This is called redirection. 29 Alternatively they turn vigorously to some apparently irrelevant activity; this is called displacement. 30 It is very clear that without these devices most living creatures would long ago have pined away or burst from disappointment, since actually getting what one wants must be one of the world’s rarest experiences. Of course these things are possible for people, and we all practice them constantly. (The behavior of anybody waiting impatiently for something will supply excellent examples.) But it is part of the mythical natural history of the Beast Within that it must have blood—that it will not be content to swear, break dishes, play squash, or write to the newspapers instead. The limits of displacement and redirection for the human species are not clear; we have all seen that they can stretch quite wide. The “nonaggressive” cultures cited by anthropologists provide some pretty examples. Margaret Mead’s Arapesh, for instance, devote much of their lives to precautions against hostile sorcery, 31 and Ruth Benedict’s Zuni Indians, while given to an apparently less sinister form of magic, openly use it as a means and a pretext for the control of aggression, which seems a rather different thing from not being aggressive in the first place. 32 (“The fundamental tabu upon their holy men during their periods of office is against any suspicion of anger.”) Such ways of conducting the lightning are just the kind of thing that Lorenz wants us to study; he merely suggests that seeing them as displacement activities may enable us to understand

29 See Lorenz, On Aggression, index under Redirected Activity. Of all the ethological concepts I have come across, this seems to me the most significant politically, for it is something we usually manage not to recognize in ourselves, telling ourselves that the people on whom we work off our anger actually are abominable. Yet bystanders can see our self-deception plainly. Victims often cannot escape, as passing animals usually can, because human society roots them in their place. Thus, dozens of human iniquities from wife-beating to racism are caused by the passing on of offense.

30 See Tinbergen, The Herring Gull’s World (London, 1953), chap. 7. Displacement is also of great general interest in that, in a clear sense, it explains embarrassment—an essential job which I don’t think has been properly done before. I suspect also that many of our activities are unsatisfying because they are really displacement activities. Overeating and much sexual activity may be examples.


32 Benedict, Patterns of Culture (Boston, 1934), chap. 4.
them better, that ethological studies might well be useful here along with the obvious psychological and anthropological ones. But for this purpose we must honestly recognize our own pugnacity, and modify the notion of the characteristically human that has been accepted both by common opinion and by philosophers. Neither Beasts Without nor Beasts Within are as beastly as they have been painted.
I have been suggesting that animal life is much more orderly, and ordered in a way much closer to human patterns, than tradition suggests. People may grant this, and still ask what it means to attribute the order to Instinct. This question must be gone into before the word can sensibly be applied to people. It is a large topic, but I may at least be able to remove a few obvious confusions.

To begin with, people who dislike the word “instinct” can if they prefer often read drive or program for it, both of which are now in quite popular use. The substitution may help to make it clearer that what we are talking about is not a voice within, nor any supernatural being or entity, but a disposition, a set of causal properties. People tend to wave Occam’s Razor around somewhat wildly here, because they think they smell entities lurking under all the abstract terms. Considering some past uses of “instinct,” this is not surprising. But care is no more necessary here than it is with abstract terms like society or even behavior. Skinner sometimes writes of organisms “emitting behavior” as if it were some kind of gas. No doubt he doesn’t want to be taken literally.

Another source of trouble is, I think, the notion that a creature that is going to act on instinct must begin to do so as soon as it is born. Some instinctive behavior, such as human crying and sucking, and the baby kangaroo’s extraordinary journey to the pouch, does work like this. Most does not; it happens when the occasion arises and the creature

1 Occam’s Razor is the (medieval) empiricist principle that we must not invoke more kinds of entity than we need for an explanation. But just what counts as an entity is none too clear. There has been lasting doubt about whether the term applies to such things as gravitational attraction and the unseen particles of physics. (See for example, Berkeley, Principles of Human Knowledge, 102–117.) Are economic forces “entities”? We all need to use abstract nouns, and must be careful how we do so. But not all of them are vacuous. See note on p. 96.
For the quite clear and necessary use of instinct in modern zoology, see Tinbergen’s admirable book The Study of Instinct. For a thoroughly antitematic discussion of its philosophical problems, see Lorenz’s chapter, “The Great Parliament of Instincts,” in On Aggression. See also Hinde, “Ethological Models and the Concept of Drive.”

2 He introduces the phrase as an important technical term in The Behavior of Organisms, p. 20. Talk of “reinforcing behavior” also seems to imply that behavior exists, as a permanent stuff like concrete, between performances. But all there really is then is an organism, with certain dispositions or causal properties.
is mature enough. Sexual behavior, honey dances, birdsong, and all reactions to extreme and unusual threats appear later. There is nothing mysterious about this delayed action of inherent dispositions, any more than there is about a tree that, after continuing apparently inactive for many years, suddenly produces chestnuts, or indeed a human body that, at a certain point, stops growing. In the medical sector, nobody is surprised at this longterm innate programming. And since glands, brains, secretions, and so on are on anyone’s view physical objects, it seems odd to be surprised at the same programming in the behavioral context.

Some people might, I think, accept this account for instinctive actions that are perfectly specific, such as nest-building or fairly standardized sexual conduct. What worries them is the notion that a more general pattern, such as aggression or sex generally, should be called instinctive. But the two things go together. Specific actions make sense only within a certain context, a particular way of life.

A useful piece of terminology here is that of closed and open instincts or programs. 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 that have been carefully reared in isolation from any member of their own species and from any helpful conditioning. Such genetic programming takes the place of intelligence; learning is just maturation. Open instincts on the other hand are programs with a gap. Parts of the behavior pattern are innately determined, but others are left to be filled in by experience. Thus young birds are so constructed (or “programmed”) as to follow, seek after, and obey whatever comes before them as their mother—but the mother’s actual appearance cannot be in the program. Experience must “imprint” it. This is the simplest kind of “open” instinct, and it is very common. Even quite simple animals, however, perform activities where the gap left for experience has to be much larger, yet the general aim is still innately determined. For instance, in such general locomotive tendencies as the one to come home—which is common to many animals, including some very simple ones—an indefinite and unpredictable variety of ways of traveling, routes to be followed, and kinds of possible obstacle has to be provided for. Yet the creature must still have a general ruling motive. It cannot just wander at random till something “reinforces” a movement, since this is the surest way to an early death. For each kind of animal, a quite limited way of life is suitable, a range that it must quickly find and keep to. So “programming” includes a number of strong general tendencies, for example, to get home, to seek water, to hide by day, and to avoid open spaces. And the more complex, the more intelligent creatures become, the more they are programmed in this general way, rather than in full detail. Specific actions that are part of the species repertory occur, but they work only in the context of these general directives. These open instincts are general tendencies to certain kinds of behavior, such as hunting, tree-climbing, washing, singing, or caring for 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 learned. The antithesis between nature and nurture is quite false and unhelpful here; hunting, like most activities of higher animals, is both innate and learned. 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 hard to acquire. For instance, swimming is outside the usual range of both cats and apes; 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 may starve if their food lies beyond it. And Cape Hunting Dogs, unlike most of the dog tribe, do not display dominance behavior nor exclusive selection of a mate. They are altogether less individualistic, more thoroughly welded into a society, than are most dogs. That is the character of their species. And every species has such a character. 3

Now in this context, the notion of aggression as a general open instinct or tendency is perfectly sensible. Whether or not any particular species is aggressive is as clear a question as whether it burrows or builds nests. The range of behavior covered is wider, but still quite distinct. Aggression is a general tendency to attack members of one’s species. It is not that much more particular thing, a tendency to kill. It is satisfied with driving away, though if it meets resistance there may be a fight involving injury or death. In any species that is aggressive at all, there are of course specific patterns of behavior used in attack and threat; dogs do not attack in the same way as terns or porcupines. So attack itself is not something generalized and standard. But there is still a unifying factor; threats are (necessarily) understandable across species barriers. In highly social species, the interpretation of threats is so far developed and refined that actual physical attack is very seldom needed, though it is always a possibility. What unifies cases of attack then is not (as people sometimes think) their all tending toward a specific act, namely killing. It is their relation to other motives connected with space and dominance. Aggressive creatures are commonly ones that want space around them, and once they have got somebody else out of it they are usually content to forget about him. Certainly killing him is one way of doing this, but in natural conditions it is a comparatively rare one. Much commoner is requiring his submission. An animal that gives way to a mild attack often does not need actually to vanish, provided that it makes itself small. It marks its submission by bowing down in some way, so that it does not intrude on the space surrounding the victor. If the submission is accepted, it does not have to go away; the winner often signifies this with a friendly gesture, and the quarrel is “made up.” This whole range of behavior is extremely complex. But the capacity for it is still innate in a species, and forms a part of the species character.

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 that 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 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. Mockingbirds imitate other birds’ song and also nonbird 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 similar; unlike the weaver birds, they have no fixed stereotype, but a nest they will have, and if there is nothing to build it of they will do the best they can without. 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 little according to the branch and his materials; even the dancing bee adapts to the state of the hive and 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 people such as Watson 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 take care of their homes and quarrel over boundaries? Why do they own property? 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 Blank Paper theory, because of cultural conditioning. But this is like explaining gravitation by saying that whenever something falls, something else pushed it; even if it were true, it wouldn’t help. Who started it? Nor does it tell us why people ever resist their families, why they do what everybody is culturally conditioning them not to do. I have never seen a proper answer to that on the Blank Paper assumption, but I gather it would be expressed in terms of subcultures and cultural ambivalences, of society’s need for a scapegoat, and the like. It is a pleasing picture; how do all the children of eighteen 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 Blank Paper theorist’s hands are tied by his a priori assumption.

4 W. H. Thorpe (who gives other examples of this sort of thing) in the Introduction to King Solomon’s Ring.

5 For the principles determining whether open or closed programming will occur in a given context, see Ernst Mayr, “Behavior Programs and Evolutionary Strategies,” American Scientist, 62 (1974).
The ethologist, on the other hand, proceeds empirically. When he finds some activity going on among the species he studies, he simply starts watching, photographing, and taking notes. From detailed observation of the context and comparison with other activities he gradually moves toward explaining its relation with other things that are done. (Thus, when herring gulls meet at the borders of their territories they constantly turn aside and pull grass. This is like nest-building behavior, but the birds do not use the grass. Instead they follow other patterns that commonly issue in fighting, and at times do fight. Having thoroughly studied all the things they do, and compared them with their conduct on other occasions, the ethologist tries the hypothesis that this is a displacement activity, undertaken to relieve a conflict between the motives of fear and aggression. But he does not accept this without careful comparison with other displacement activities and a full analysis of the term and its physiological implications. 6)

WHAT IS THE NATURE OF A SPECIES?

Because of his methods of observation and his refusal to posit single explanations, the ethologist is better off than many previous people who have made use of the term “human nature.” The 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 try to account for human conduct much as a simpleminded person might attempt to deal with rising damp, looking for a single place where 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 from Marxist theories of art or Freudian explanations of politics. The ethologist, on the other hand, does not want to say that human nature is basically anything; he wants to see what it consists of. (Even Robert Ardrey does not claim that man is basically territorial.) 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 connection with the creature’s other habits, he simply accumulates information until a connection appears. Thus the “suicide” of lemmings turns out to be not an isolated monstrous drive, but part of a complicated migration pattern that results from their reaction to overcrowding. 7 Again, the grass-pulling gulls are moved not by a 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

6 See Tinbergen’s extremely careful and well-defended explanation, The Herring Gull’s World, chap. 7.

meaning is the use. The only assumption made here is the general biologist’s one that there is some system in an organism, some point in any widespread plant or animal habit. This premise is justified 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 may 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 juvenile. This is not “disproved” by showing that a group does not have a brutal “pecking order,” nor that the details of the hierarchy vary a great deal with different species and conditions.  

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 does not disprove it. 

With this analogy in mind, let us face the fashionable question, is man naturally aggressive? First, what does it mean to say he is naturally aggressive? To the ethologist it certainly does not mean that he is basically aggressive, that that is his sole or overwhelming motive. It means that he is aggressive among other things, that in his repertoire of natural tendencies there is one to attack other members of his species sometimes, without being taught to, without needing to as a means to another end, and without always having what seems to be adequate provocation. This has been hotly denied. Now the ethologist must try to proceed with man as he would with any other species, to look at its behavior impartially first and then search for causes and connections. He will find this easiest if he is not human himself, but is a member of another species coming here as an observer. So we will take him to come from Alpha Centauri, and call him for short the Centaur. This Centaur has at his command hundreds of years of observations on Homo sapiens. One of the things that strikes him is that the creature often deliberately kills or injures members of his own species—not, of course, all the time, but still much more often than other creatures on the planet. He has authentic records of the Hundred Years War, the Seven Years War, the Thirty Years War and all the rest, along with Armenian Massacres, ritual murder, cannibalism, capital punishment, tortures, pogroms, and holocausts, and he has no such records for other species. All this strikes him as quite as remarkable as the other distinguishing marks of the species, and he asks the human sociologist (whom we will call Jones to avoid scandal) for an explanation. Things proceed as follows:

Jones. All aggression is due to cultural conditioning.  

8 I shall discuss this assumption further in the last section of this chapter. See also pp. 147–148. 


10 Jones’s arguments may be found well stated by, for example, the distinguished team of anti-ethologists collected for the symposium called Man and Aggression, edited by Ashley Montagu (Oxford, 1968), and throughout Montagu’s own works.
Centaur. I beg your pardon?
Jones. They do it because their parents tell them to.
Centaur. Do they always do what their parents tell them?
Jones. They do so when their parents are powerfully convinced.
Centaur. Why then are the parents so powerfully convinced of the need for violence?
Jones. The parents are misled by wicked rulers, who find war in their interest. Modern techniques of brain-washing render this sort of deception very easy.
Centaur. I suppose then that this slaughter bears all the marks of a culturally imposed activity? It will be desultory, etiquette-ridden, reluctant, like church-going among people who are not religious? It will, in view of what you say about modern techniques, be a much more recent invention than these documents suggest? It will be undertaken with obvious boredom, simply to gain a living and satisfy the authorities? It will need to be disguised by association with something more attractive to render it palatable? It will be readily abandoned in any disturbance, and will be more popular with the old than with the young? Now please show me films and records of various sorts of slaughter, in which these points are clearly brought out.
Jones. Your approach is crude and you have not understood the subtlety with which society conducts its conditioning campaign. Most of it is unconscious. People think they are acting spontaneously.
Centaur. But I thought I had heard you complain, in discussing other schools of Earthling psychology, that they relied on hypotheses about unconscious proceedings? Did you not dismiss such hypotheses as unverifiable, and therefore meaningless, and their use as unscientific?
Jones. Certainly I did. But then, you see, their hypotheses, unlike mine, happen to be wrong. Mine are scientific because they are not just hypotheses. They are the principles of my science…

That is one way the conversation may go. Another is this: instead of cultural conditioning, Jones says that violence results from frustration. 11 That is to say, men never engage in aggression if they are not frustrated:

Centaur. But do men ever live a life that does not frustrate them?

FIRST ALTERNATIVE:

Jones (emphatically). Never. Such a life is impossible.
Centaur. Then how do you know what they would do if they did?
Jones. Because what is natural is good, and aggression is bad.

11 This side of the case is stated, much more systematically, in Frustration and Aggression by John Dollard et al. (New Haven, 1939).
Centaur. Species, however, are sometimes naturally prone to habits which for them are bad, as appears from your own records of the Irish deer, the argus pheasant, 12 and possibly the dinosaurs. Circumstances change, selection mechanisms are fallible, traits hypertrophy or stop being adaptive when the climate alters or the species invents weapons.

Jones. You do not appreciate the dignity of man. He is above such lapses.

Centaur. I apologize. Perhaps we had better leave aside the question of what would happen if he were not frustrated. Are his reactions when he is frustrated not also a part of his nature? Other species make full use of displacement activities; gulls pull grass, wolves growl, gorillas roar, sticklebacks stand on their heads and dig gravel. In this way actual slaughter is most often avoided. Man has displacement activities too (which seems in itself evidence of aggressive wishes), but they are not enough to keep him from slaughter. Why not?

Jones. It might possibly be allowable to describe this state of affairs in terms of an “aggressive instinct”—but only if we make clear that it is a conditional instinct, one that will come into play only if there is frustration and provocation first.

Centaur. All instincts are in some sense conditional. They all need proper occasions. Even to get hungry and thirsty, animals have to be in normal health and not preoccupied by some other, stronger motive such as fear. If the condition you have in mind is just the usual, inevitable measure of frustration and annoyance, this hardly means much. But you seem to be saying more. Do you seriously mean that provocation is always necessary? That aggression can only be reactive? That the occasions when men, like other creatures, appear to go out to seek a quarrel are always illusory? If people attack only when they are provoked, who provokes them?

SECOND ALTERNATIVE:

Jones. They hardly ever escape frustration, but that is because of a fault committed by nearly all parents and teachers, which deforms most human beings in early life.

Centaur. Then is not liability to commit that fault, and to be so easily deformed by it, part of the nature of the species rather than an outside accident? And please tell me more about the exceptional nonaggressive cases. Do they never want what they cannot get? And if they do, does their frustration never result in aggressive behavior?

Jones. Maybe, but then the educational fault in question, though unnatural, is always committed to some degree.

Centaur. What is the difference between saying this and saying that the fault in question is natural? You would then be recommending keeping it in check by certain educational methods, and of course you need not mean that those methods themselves are unnatural either. You would be using one part of the creature’s nature to control another, just as you do when you cultivate a child’s natural prudence to counter his

12 See Wilson, *Sociobiology*, pp. 132, 262, 315, 548, and Lorenz, *On Aggression*, p. 40. The whole discussion there of how nonadaptive traits can be evolved and tolerated is relevant to my argument in the next section; see p. 71. For more about it, and particularly about the Irish deer, see pp. 126 (note) and 143.
natural tendency to take risks. That is how education works. All educable species are complex. If I may digress to the problems of centaurs…

THE MEANING OF “BIOLOGICAL DETERMINISM”

A third, rather more metaphysical variation of this argument has been added lately:

*Jones.* The notion that aggression is innate is biological determinism. This poses an intolerable threat to human freedom.

*Centaur.* Are you objecting to determinism generally, or just to the biological kind?

FIRST ALTERNATIVE:

*Jones.* To the biological kind. Physical determinism I can stand; economic and social determinism I positively welcome. 13

*Centaur.* Please go on. If the behavior of living cells is not determinate, how will economic or social prediction be possible? At present we take such things as the pattern of crop growth or of the human metabolism, including people’s digestive capacities, for granted. But these are surely the concern of biology? Or again, if the behavior of physical particles is determined, at what stage does indeterminacy creep in? Is the behavior of amoebae undetermined?

*Jones.* No, no. My objection is, of course, confined to the human scene. It might be better to describe it as aimed against genetic determinism. What I resist is the suggestion that a human life is completely predictable from genes, before the individual ever meets his society.

*Centaur.* Is there such a suggestion?

*Jones.* Your talk of innate aggression implies it.

*Centaur.* No, indeed—no more than talking of us as innately social implies that we must spend our lives going to parties, or saying that we are innately suggestible means that we must believe everything we are told—or, indeed, that calling us capable of sleep means that we have to sleep all the time. These are general dispositions. The room for particular developments within them and bargains between them is enormous.

*Jones.* Then you do not take your genetic factors seriously as causes.

*Centaur.* They are perfectly serious, but they are wide, and they are only one set of causes among others. No set of causes alone can be “fully determining.” That, surely, is the weakness of all forms of hyphenated determinism—economic, social, physical,

13 This seems the minimum position for Marxists. It is usually extended into an enthusiasm for determinism generally. See for instance Engels, *Anti-Dühring*, Pt. 1, sec. on Morality and Law, Freedom and Necessity: “Freedom is the recognition of necessity…. Freedom does not consist in the dream of independence of natural laws, but in the knowledge of these laws, and in the possibility that it gives of systematically directing the work towards definite ends.” He specifies that this applies as much to human minds as to lifeless matter.
or, indeed, genetic.

This point brings us to the second alternative, to the possibility of dismissing determinism altogether. What would this mean?

Centaur. What actually is determinism? Your idea seems to be that there are two sorts of causes—hard and soft, determining and disposing, complete and incomplete. You want genetic causes classed as the incomplete, soft sort. But determinism is surely a view about all causes. And all causes are incomplete. If we pick out one set of them—economic, environmental, psychological, or whatnot—we are just making a selection, one that we hope will be helpful, from a vast set, all of which must be present. We are not claiming to unveil the secret spring of the whole.

So far as it goes, however, we must take each set seriously, or it is no use to us. Causes do not force effects to happen—that is a superstitious view—but they do help us to understand and predict them. Perhaps then, if we are to understand it, we must for theoretical purposes think of human behavior as predictable. Still, as that interesting humanoid philosopher Bertrand Russell makes clear, nobody could conceivably have the information that would make it predictable in practice. As he says, defining determinism, “Given the state of the whole universe throughout any finite time, however short, every previous and subsequent event can theoretically be determined as a function of the given events during that time.” Unless you think it conceivable that anybody should be given that, determinism remains something highly theoretical and remote. Like the assumption that questions have answers, it is a piece of apparatus for investigation, not the statement of a fact. But the contrary assumption, that our actions are not predetermined, is much less remote; it is one that we have to make every time that we wonder what to do. It is another necessary piece of apparatus, used for a different purpose. This is the one that you need for human freedom. And you will find that it lands you in the same sort of difficulty about every other sort of cause as about genetic ones.

Jones. I doubt that. Genetic causes are the only ones which are supposed to constitute me. I have to hold myself free, as something unconditioned, to deal autonomously with the conditions that my society thrusts upon me.

Centaur. How (if you will excuse the question) could nothing oppose anything? If you wish to be immune from genetic causes, do you not condemn yourself to be simply and


15 The somewhat Kantian position I have sketched here, with brutal shortness, however popular on Alpha Centauri, will not suit everybody. (Determinism is, in fact, a much more obscure view, much harder to state, than people often suppose.) But this does not affect the central point that whatever view one takes about causes generally, there can be no possible reason for exempting genetic causes from it.
solely a product of your society?

What you have here seems to be a quite general metaphysical problem, not something local about genetics. To solve it will call for careful work on such notions as cause, necessity, action, and the status of general principles. Centaurian metaphysicians have made some suggestions which you might possibly find helpful…

Jones. I am not interested in metaphysics.

Centaur. Then may I ask you instead about some practical difficulties that you seem likely to raise for yourself in medical contexts? I notice that, when you are speaking medically, you seem fairly satisfied with determinism even on biological questions. You willingly excuse bad conduct where it seems that the offender has something wrong with his glands or his brain. Here you assume what seems necessary for all understanding of conduct: a continuity between the physical and mental aspects of people. And you accept the physical processes as determined.

But glands and brain are inherited. Must not their causal story be the same for the healthy and the sick? The difference seems to be that in the case of the healthy the range of possible action is a different one, and we can pay much more attention to the quite distinct questions that arise about their reasons. Reasons and causes are parallel ways of explaining conduct. They do not compete. That point, however, is certainly metaphysical.

To be practical, then: I have heard, somewhere on Earth, the suggestion that the best practical solution to the problem of free will is to treat oneself as free and other people as determined. This may well be the principle you are acting on in medical cases. And it may well be a good policy. But it does seem to raise some theoretical questions.

Anyone who thinks that the Centaur and I are contending against men of straw should look at an article by Stephen Jay Gould attacking *Sociobiology*. Gould, who is an evolutionist, allows in principle that genetic factors might affect our social life, but is willing to suggest only extraordinarily general ways in which they might do so:

We would lead very different social lives if we photosynthesized (no agriculture, gathering, or hunting—the major determinants of our social evolution) or had life cycles like those of certain gall midges…. Unless the “interesting” properties of human behavior are under specific genetic control, sociology need fear no invasion of its turf. By interesting, I refer to the subjects sociologists and anthropologists fight about most often—aggression, social stratification, and differences between men and women. If genes only specify that we are large enough to live in a world of gravitational forces, need to rest our bodies by sleeping, and do not photosynthesize, then the realm of genetic determinism will be relatively uninspiring. 16

And if they only specified that, newborn babies would be what bear cubs were once
supposed to be—indeterminate lumps of animal protoplasm, needing to be licked into shape by their elders. As things are, babies start life with a species-specific nervous system, hitched to a determinate brain and at the other end to specific organs, muscles and expressive devices. This system is linked to glands producing secretions well known to have a great deal of influence over conduct. It is not clear how this could fail to be “specific control”—though obviously it is not the only kind of control that affects social behavior.

There are two reasons why Gould is unwilling to consider this range of causes. One is that he supposes the admission of innate tendencies to be inextricably linked with fascism. Unlike some people who believe this, however, Gould is not happy about making it his cornerstone. He sees that suppositions about facts ought not to be dismissed merely on the ground that accepting them might lead people to behave badly. He knows that evidence is relevant. Thus he says, “Scientific truth, as we understand it, must be our primary criterion…. If genetic determinism is true, we will learn to live with it.” This is very proper. But, he goes on, “I reiterate my statement that no evidence exists to support it.”

Now if he means evidence for the view that genetic causes alone determine behavior, he will naturally find none, since that view is incoherent and no one holds it. If he means evidence for the view that they have some effect on behavior, that can be found in a vast range of activities which cannot sensibly and economically be explained on any other assumption. As random samples, we might name, on the negative side, all behavior in small children which displeases and startles their parents—since this, by definition, is not the outcome of conditioning. On the positive one, we could point to all aspects of sexual behavior which people are able to discover for themselves without instruction and sometimes in the teeth of general discouragement, and the specific talents (notably, but not only, mathematical) sometimes found in children who spontaneously take to, and excel in, an activity frowned on by or entirely unknown to those around them.

Is this “evidence for genetic determinism”? Is it proof? Gould is clearly worried by the question of what would count as evidence. Sometimes he seems inclined to say that there is no evidence either way. The first point to grasp here is that very general principles are not going to be proved by control experiments, which is what many people now seem somehow to expect. Experiments can only settle relatively small points, filling in the gaps in a general system of thought already devised because it is helpful in explaining a wide range of experience. The Blank Paper theory itself, as much as those that oppose it, stands or falls by this test.

This problem about the possibility of genetic explanation is not a detailed, factual question, of the sort that can be settled by experiment. It concerns our ways of thinking—the principles on which we interpret experimental results, and, what is even more important, the assumptions on which we select our questions. Patterns like these can never be shot down or set up at a blow. They are tested gradually, on complex principles,

17 Ibid., p. 22.
by their fit to the general shape of the facts available and to the other patterns of thought in use.

Though it hovers in the background, I am inclined to think that the metaphysical point raised by the question of “genetic determinism” is something of a red herring. When people object particularly to aggression as innate, they are commonly doing so on the assumption that human nature is good, and therefore that if slaughter is bad, it must be brought about by something other than human nature. But this is quite a different position from the official line that there is no such thing as human nature at all. Thus Ashley Montagu, one of Lorenz’s most excited opponents, holds both that man has no instincts, and that he has a complex system of things called basic needs, the most important of which is love. Man naturally needs only what is good, says Montagu; everything evil, which includes all forms of physical combat, is alien to him and introduced from outside. He does however have a basic need to swear—swearing is a wholesome and proper activity, of which physical violence is possibly a perversion under the corrupt conditions of civilization. 18

That such arguments conflict with any attack on instinct as such is obvious. On top of this (though they have often been useful in providing an excuse for treating delinquents decently) they are, when you think about them, vacuous. Where is evil coming from? Saying that society is to blame, not the delinquent, only shifts the blame from one set of human beings to another. If one goes on to say that no human being desires evil, who started it? Rousseau, in his crude early work, gave the only possible answer. He said that evil results from bringing people together. (Hell is other people….) While they were solitary, all was well and that was their natural state. Men in a state of nature had “no fixed home, no need of one another; they met perhaps twice in their lives, without knowing each other and without speaking.” 19 It was when they left that stage and invented speech that society came into being and evil with it. Now Rousseau’s description of these Pure Individuals is in fact almost the complete opposite of the behavior typical of primates. They spend almost all their lives in a group, leaving it perhaps twice in a lifetime; they need each other constantly, they know each other intimately, they communicate all the time (“one chimpanzee is no chimpanzee,” as Robert Yerkes remarked). Even the fixed home is there in a sense; they wander, but over a definite range; they return seasonally to well-known places. That is the sort of context in which human speech and intelligence evolved; a solitary species could never have produced them. (Rousseau did see a difficulty about that; his suggestion was that in some uncommon natural emergency people turned to one another for help. Then, no doubt, the chairman convoked the congress of hitherto speechless elders, and raised the motion that the time had come to invent language…. Since Darwin, people ought not to talk like this.) Because society is the condition of man’s living at all, let alone living naturally, and because there is some evil (namely, at least friction) in any society, evil too is in some sense natural to him; he has, like any other species, his own natural evils. This idea is difficult

only if you insist on the black-and-white approach by which, if he is not naturally good all through, he must be (all through) naturally evil. These extremes have always been popular with the moralists. As Fielding described them in *Tom Jones*, “Square held human nature to be the perfection of all virtue, and that vice was a deviation from our nature, in the same way as deformity of body is. Thwackum, on the contrary, maintained that the human mind, since the Fall, was nothing but a sink of iniquity, till purified and redeemed by Grace.” But why take either option? It seems more reasonable to treat man’s nature, his original constitution, as neither good nor evil; but simply the raw material for choice. A man is good or evil according to what he chooses. 20

At any rate, this is the ethologist’s position. Confronted with man’s habit of slaughter, he does not throw up his hands in condemnation. He does what he did about the lemmings. He studies all the related patterns of conduct in order to understand the context. Lorenz, for instance, notes, first, that slaughter is often linked with some of the most precious elements in human nature, namely, loyalty and friendship. People often kill in defense of their friends and family; their pugnacity is often an aspect of their affection, and when they can be brought to see someone as a friend, it melts away. Also there are, in man’s nature and not only in society, various trends contrary to slaughter. The wish for order is also natural; so is the horror of bloodshed. We are in conflict on that matter within ourselves, not waiting for the bidding of society. Were that not so, no society could exist.

Then we have to look at milder forms of attack, at aggression within a civilized society. Here Lorenz is very much interested in the value of aggression, in the relation of pugnacity to vigorous effort, in people who “fight unremittingly” on behalf of the truth, or to defend the helpless, in the struggle for reform and the battle against evil generally. Saying this is only suggesting a field for study. But it ought to make us wary of people such as Arthur Koestler who say that aggression is a disease and ought to be chemically treated by pills or the like. Nobody knows how much of human life might go with it if that were tried. 21

I have suggested that it does, after all, make sense to say that man has a nature, and even that man has instincts. Why does this matter to philosophers? I shall return in a moment to the consequences for ethics, but first let us look briefly at a range of questions in the philosophy of mind which seem to be affected.

Traditionally, the distinguishing mark of man, and also his peculiar merit, is rationality. This is not an easy concept. It is not the same thing as intelligence, since you

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20 This remark states only one side of the truth; because of the ambiguity of “nature” it must not be taken as final. In a weak sense, “our nature” means, as here, our whole range of possibilities. In a stronger one, it stands for the pattern among those possibilities that guides us in choosing. See pp. 263–264, 287, 316–317.

21 For a fuller and more balanced view of the position about ambivalence, see Eibl-Eibesfeldt, *Love and Hate*, and also Anthony Storr’s book, *Human Aggression*. Storr is admirably free from the unrealistic tendency many humane writers show to be shocked at the idea that anybody ever wants to be nasty to anybody.
could show great intelligence in the pursuit of something quite irrational. “Rational” includes reference to aims as well as means; it is not far from “sane.” Even “intelligent” is sometimes used to suggest something about aims, something beyond mere consistency of thought. If someone consistently aims at the destruction of everything or the greatest possible degree of confusion, people will tend to call him insane, irrational, and perhaps even stupid. (Yet you could presumably program a computer to aim at these things.) Why? Because rationality, like all our practical concepts, belongs to the vocabulary of a particular species with particular needs. The Existentialist, in talking about total freedom, is exaggerating quite as wildly as someone who might tell us to transcend the limitations of space and be omnipresent. We are not disembodied intelligences, tentatively considering possible incarnations. We have highly particular, sharply limited needs and possibilities already—in return for which restriction, of course, we have the advantage that our satisfactions, such as they are, are actual. There are quite narrow restrictions on what can possibly be rational for such a being—not necessarily limits to the possible particular desires, but to the policies, the schemes of life into which these can be built. Bobby Fischer, for instance, seems to have attempted a policy impossible to a human being in choosing Chess and Absolutely Nothing Else—impossible if only because chess, like nearly all our activities, needs cooperation within it and not only from outside. Certain extreme ascetics in attempting Religion Quite Alone have done likewise; so does the washing compulsive. Not every form of life can make sense for a given species. Our liberty is negative; we can reject the virtues and interests natural to us, but not acquire a new set. And even if, like Kant, you treat man’s particular constitution as a contingent matter, you must still suppose (as Kant well knew) some system of needs, some particular constitution to give matter to the form. 22 There has to be something that counts as help, harm, interference, oppression, deceit and so forth. (The position of God and other spiritual beings has always been a problem here, since the idea of their having needs is felt to be peculiar, but it seems much odder to say that their preferences are arbitrary. I shall leave this headache to the theologians.)

REASONING FROM PURPOSE

The notion of rationality I shall discuss in Part IV, along with some of man’s other traditional distinguishing marks. But I must deal here with some questions concerning ethics, and practical thinking generally.

If we use evidence about our nature as a guide to action, are we arguing illicitly from purpose? Is this superstitious and unscientific? Does it commit us to believing in a creating God?

22 For example, in distinguishing the human from the holy will, he explains that the terms of morality apply only to the former, and therefore make sense only under some set of subjective limitations. God’s position differs formally from ours (Grundlegung zur Metaphysik der Sitten, tr. by H. J. Paton as The Moral Law [London, 1948], chap. 2, secs. 75 and 85, pp. 95–96 and 100–101).
We had better notice first that we look to this guide all the time. Socrates, for instance, was reasoning in a completely ordinary way when he defended his decision to go on asking awkward questions on the ground that *an unquestioned life is no life for man.* He meant not just that we are in fact creatures who spontaneously ask questions, but that it follows from this that inquiry is a good thing for us and therefore that we should pursue it. Is this wrong? Or can we indeed say that man should ask questions because he is made that way?

The words used here make a great difference to people’s attitude. To take a fairly simple case of this kind: somebody who sees a seal out of water might be puzzled by its shape, and ask *why* seals are shaped like that. We answer that it is because they are *designed, adapted, or programmed* to move fast through water. And because of this, water is the right place for them. Water is good, and a dry life would be bad. Now the word *design* may alarm people, because it is traditionally associated with God. *Adapt* probably will not, because it is Darwin’s word, given a clear meaning in nineteenth-century discussions of evolution. It stands for changes that are not supposed to have a designer, but are still to the species’s advantage, since they take place through natural selection. *Programmed* has swum into popularity of late, and strikes many people as a still more scientific term. This is no doubt because genetics has advanced dramatically lately, at a time when computers have become both useful scientific tools and popular cult objects, and genetics often uses the language of programming. All the same, this term is actually less clear than *adapt* on the point that now concerns us—namely, not implying a designer. (If we believe in God, of course we shall want to raise all sorts of interesting questions about his part in the matter. But it will not do to bring them into the present argument. God cannot be used as a hypothesis within science.)

Suppose we agree, however, to use all these words as we use *adapt,* on the understanding that there is no designer. The interesting thing is that we must still argue very much as if there were one. What we want to say of the seals is that they are *well fitted* to cut through water, and that this fact is no accident, but is really what determines their shape. To make this clear, we simply have to use the analogy of a designing craftsman. (*Fit* is a craftsman’s word as much as the others I have mentioned.) These creatures “are made” exactly *as if* they had been designed for the job of water-cutting. This is the only way to explain their shape, and therefore to express some essential facts about them. The sense of *why* used when we ask why they have this shape is enormously common in biology and completely legitimate. It means

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24 The zoologist George C. Williams, however, chooses it firmly as the *mot juste* for adaptation conceived in the absence of a designer, in a most interesting and shrewd discussion of evolutionary concepts. See his book *Adaptation and Natural Selection* (Princeton, 1966), chaps. 1 and 9.

25 Explanations of this sort were what Aristotle was talking about when he spoke of what translators misleadingly call “Final Causes.” “Explanations by function” would be much closer to his meaning. (See Max Hocutt, “Aristotle’s Four Becauses,” *Philosophy,* 49 [1974].) The term *teleology* has been so much knocked around that I avoid it entirely.
“what good is it?” (Sometimes of course we cannot find the answer; sometimes, as in the case of the human appendix, the first answer may be “none now.” But the question always arises, and “none now” is never a final answer. \(^{26}\) We can say that we are asking about *function*, which means *use*. But this is still a metaphor. Plants have functional shapes as well as animals, but noting this does not commit us to saying that there is somebody using them. The notion of function is a clear and useful one. But it too contains the slightly complicated notion that if someone *were* making or using a plant or animal, this is the shape he would have reason to make or use. Without being deceived, we need to think of organisms to some extent as if they were artifacts.

This requirement worries people. They have made various efforts to get rid of the schema. What cannot be got rid of, however, is the value judgment—“this is the good which *x* does.” Saying that seals are well adapted to cut through water commits us, not just to a view about what is good and bad water-cutting, but also to saying that cutting through water is an advantage, something that can be worthwhile for creatures to do. We do not speak of animals as being well adapted to fall over cliffs, or get stuck in holes, or even neglect their young. If you try to replace talk of adaptation with neutral-looking formulas like “does *x* frequently” or “finds no difficulty in doing it,” you lose the explanatory point. Domestic sheep, unlike their wild ancestors, may often fall over cliffs and find no difficulty in doing so. That does not make the habit an adaptation. To understand why they are as they are, we do have to look to the designer involved, the human breeder, and understand his purposes. Wild sheep have no designer. But we still have to speak as if they had—to the extent of forming a clear idea of what can be an advantage for each species—if we are to use functional arguments. This means that, most of all in the case of our own species, we have to have some idea what to count as plus or minus.

If we had no such idea, we should be utterly stuck—not just, in particular, about how to study biology, but in general about how to act at all. Alien species, if we ever encountered them, might actually present us with this problem. Solving it would be a great deal harder than most science fiction so far has suggested. But for species on this planet we do have the idea. *Advantage* is not a mysterious alien notion, the name of a hitherto unidentified quality. It is a general name for thriving and prospering, for all the things that we and other species really want and value. Where we cannot identify these things, we cannot talk of function or adaptation. Different species, different cultures, and even different individuals make their own selections from the planetary menu, and drive their varying bargains. But our natural, instinctive tastes ensure that no moderately normal individual is helplessly ignorant about how to start doing this.

The odd suggestion that we are totally and incurably ignorant here (put forward in some twentieth-century moral philosophy) I shall discuss in Chapter 9. Here my point is the common-sense notion that our structure of instincts, as a whole, indicates the good

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\(^{26}\) Cases like the Irish deer’s antlers involve *conflicts* of good—something that genuinely serves one interest in the creature’s life is damaging to another. Circumstances can also change so that one interest ceases to matter—apparently what happened with the appendix. I shall examine such conflicts further in chaps. 9 and 11. For the deer, see note on pp. 126–127.
and bad for us. I am saying that, if Socrates is right in his facts, he is right in his argument. That is, if it is true that people are naturally inquiring animals, and if that inquiring tendency has a fairly central place in their natural structure of preference, then it follows that inquiry is an important good for them, that they ought not to stop each other from doing it (unless they have to), and should do it themselves, to an extent in proportion to the other things they also need to do. And so on for our other tendencies. Of course there are conflicts between such tendencies. I shall discuss them shortly. But in settling them we do not decide things just by abstract reasoning or an arbitrary act of the will. We look at the facts, trying to size up the strength and importance of the natural tastes involved. This is how, for instance, we see the weakness of the family arrangements proposed in Plato’s Republic. Plato hoped to get rid of the evils of competition by doing away with private property, most of all in what he rightly saw as its central case, attachment to one’s own family. But though man is indeed a political animal, he cannot possibly become merely that. There is a natural balance of private and public, a relation of the two aspects of life, which simply defies distortions of this sort when they become extreme. Of course sacrifices of the private can be made, for instance in the religious life or on a kibbutz. What I am pointing out is that they are sacrifices, that we cannot just decide to step up one element indefinitely and expect no trouble from the other. The price can be paid, provided that the goods secured really seem worth it to all concerned. But it will be paid with effort—the bargain will need constant attention—and there will be special dangers of emotional stunting and self-deception. This is because natural feelings like our strong and special affection for our children are not just loose facts about us; they are the sort of thing that constitutes our central good. Moral surgeons who want to cut them out because of their dangers misconceive their function. We are simply not in a position to replace them with something else which will not be worse. The choice we have is a choice between better and worse ways of expressing them. There is no such choice as dropping them altogether.

To consider an important example of such a feeling—important both because this feeling is so powerful and because its existence has lately been hotly disputed—but let us look again at the case of Paul, who buys land because in general he wants privacy, and in particular he dislikes being overlooked. He might put the point more generally still, and say that he likes some space around him. Now this is a very common human demand. It operates (among other considerations) almost every time that people in our own or any other urban culture choose a house, apartment, vacation place, office, picnic site, or seat in a bus or library. If it is less influential among villagers isolated in the Amazon rain

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27 No one has tried at all consistently to put all Plato’s suggestions into practice. Among points at which even the most drastic reformers quail are (1) the proposal at Republic 5.460d that parents should never know which are their own children, mothers being expected to suckle indiscriminately and without continuity, any baby that on any given occasion is handed to them, and (2) the one just before it (460a) that requires citizens to be ready to leap into sexual activity each time that the state confronts them with a breeding partner, but to be abstinent all the rest of their lives. The especially unnatural feature about both these demands is that they involve not just suppression, but an insolent and contemptuous distortion of a powerful emotional tendency. It is expected to work and make itself useful for the public good, while being denied its proper and natural place in the individual’s life. More about this in chap. 13.
forest, that is largely because they already have space. People object to being overcrowded. It might seem to follow that overcrowding is bad for them. But this idea has met with strong resistance.

That overcrowding is bad for other social species has been shown experimentally many times. And people do not seem to find this statement doubtful. Overcrowding results in the breakdown of normal social patterns and makes for such things as constant aggression, cannibalism, and infanticide. It would be possible, of course, at this stage to take a starkly “objective” line, abstain from value judgments, and deny that these things are bad. But this pose is unconvincing, and adopting it would make biology impossible, which may be why people avoid it. Instead they reject any parallel between what happens to animals and what look like quite similar ill effects on people, on the ground that people are capable of culture and therefore not subject to natural evils of this sort, where the damage is not physical. It is supposed that they can accept without harm anything that their culture shows them to be worthwhile.

The general issue of people’s incomparability I shall be dealing with throughout this book. But we must look at a particular point about this case right away. It concerns the relation of desire to excess. I do not think that, either for people or for any other species, there is a good thing that one could not have too much of. It would be extraordinary if the company of others were an exception. It is true that people can accept a good deal of crowding, that they often deliberately seek a crowd (company is, I am anxious to point out, a natural good), and that cultural conditioning telling us that it is all perfectly normal makes it more tolerable. But then that is true also of other excesses that harm people. Culture may help us to accept excess of work, of smell and other stimuli, of change or tranquillity, but it does not make them in themselves good or even indifferent. To speak of something as excessive is to use the concept (which we all in effect take for granted) of a level naturally acceptable to us. There is such a natural level for stimulation, and other people’s company is inevitably stimulating to us. We react to it. Our power to react becomes exhausted, and after that no force of culture will stop us from either withdrawing or snapping. Wickler reports a relevant experiment.

Hutt and Vaizey have made careful studies of the effects of overcrowding in playrooms on children between three and eight. Each child was observed in three playgroups of different sizes... The play room was always the same size.... The tests showed that the number of social contacts between the children decreased the more densely the room was ‘populated’, although this was in fact when there were the most opportunities for social contacts. So the children avoided one another. When there were more than eleven children quarreling increased noticeably, as, incidentally, did the abuse and destruction of toys, which is interpreted as an open expression of aggressive tendencies worked off on the toy instead of the neighbour. 28

The pattern is completely familiar in common life, and its effect can be seen in the design of towns everywhere, with their closed-in, defensive buildings. What is gained by saying that something so widespread is merely a matter of culture? In thinking about an individual it may make good sense to ask what came from his own nature and what from
his culture. But the question makes no sense applied to the group. What its members have built up has to come from their own nature; there is nowhere else for it to come from. That is why we do not get rid of the notion of natural goods and evils by talking about culture, however important its particular forms may be.

Another useful point emerges from seeing that you can have too much of any good thing and that our natural demands are not, as people often think, insatiable and unlimited. If they were, it would be impossible to strike a bargain by weighing them against each other, and in that case there might be something to be said for the traditional picture of Reason or the Will as an arbitrary ringmaster or alien colonial governor, striding in to cow them all into submission. In fact, however, it is highly characteristic of natural tastes that they each have, as Bishop Butler put it, their “natural stint and bound.”

There is a rough balance, naturally given, which Reason or the Will can come in to complete. They do not have to invent it from scratch. Natural tastes evolve as part of a whole. They do not, unless something has gone wrong, compete to take over entirely; each of them has some limits. What is natural, in fact, is never just a condition or activity—inquiry, say, or space around one, or sexual activity, or playing with children—but a certain level of that condition or activity, proportionate to the rest of one’s life. This idea is important in resisting simple moralists. And it might well be necessary to say at some time to Socrates, or at least to Plato, that a life without the ordinary affections is no life for man either.

Grasping this point makes it possible to cure a difficulty about concepts such as natural which has made many people think them unusable. Besides their strong sense, which recommends something, they have a weak sense, which does not. In the weak sense, sadism is natural. This just means that it occurs; we should recognize it. (We often express this idea by saying that something is only natural: it was to be expected; perhaps no blame is called for.) But in a strong and perfectly good sense, we may call sadistic behavior unnatural—meaning that a policy based on this natural impulse, and extended through somebody’s life into organized activity, is, as Butler said, “contrary to the whole constitution of that nature.”

Before sadists indignantly claim that this view is intolerant, let us get it clear. That consenting adults should bite each other in bed is in all senses natural; that schoolteachers should bully children for their sexual gratification is not. There is something wrong with this activity beyond the actual injury that it inflicts.


29 Sermon 11, sec. 9. The fit between them is of course very rough; that is why we need morality. More on this topic in the first three sections of chap. 9 and the last two of chap. 11. For reason in the role of colonial governor, see chap. 11, p. 250.

30 It is essential to notice that the existence of exceptions does not disprove this. People who want to do without a norm are usually saying that the wrong norm has been selected. They may also be making the point I make here—that what is normal is a range, not a point, and an oscillation within that range, rather than a single fixed position. Monotony is itself an abnormal extreme.

31 Preface to the Sermons, sec. 15.
something which would not be wrong with, for instance, negligence from which children accidentally suffered. Examples of this wrong thing—of unnaturalness—can be found which do not involve other people as victims; for instance, extreme narcissism, suicide, obsessiveness, incest, and exclusive mutual admiration societies. “It is an unnatural life,” we say, meaning that its center has been misplaced. Further examples, which do involve victimizing others, are redirected aggression, the shunning of cripples, ingratitude, vindictiveness, parricide. All these things are natural in that there are well-known impulses toward them which are parts of human nature. When we withhold blame on these grounds, we may be contrasting them with iniquities at which it took some ingenuity to arrive, with vice so deliberate and carefully thought out as to be more or less artificial. Or again with abnormal impulses, wishes so appalling that anyone to whom they occur should, if sane, have written them off at once as having no place in life. But redirected aggression and so on can properly be called unnatural when we think of nature in the fuller sense, not just as an assembly of parts, but as an organized whole. They are parts which will ruin the shape of that whole if they are allowed in any sense to take over.

Thus the notion of every passion having its stint and bound, which is well borne out by the behavior of other species, makes sense of the paradox of nature and allows us a clearer understanding of evil. What is evil must in a way be part of our nature, since what stands right outside it could be no temptation to us, would even be beyond our power. It has to be something possible for us, something for which we are equipped and to which we are drawn—but outrageous, damaging to the proper arrangement of the whole. If it prevails, it does so at a monstrous price, destroying what is more central. And perhaps the deliberate policy that it should prevail is what we mean by evil itself.

The point of Lorenz’s book, Das Sogenannte Böse (literally “so-called evil,” translated with the rather misleading English title On Aggression) is to deny that aggression holds this position. Aggression, the general tendency to attack, is, he suggests, by no means a tendency to destroy—which in fact in normal conditions it seldom does. It is primarily a driving away, a demand for space, commonly on behalf of those belonging to one as well as of oneself. And this is something essential for most advanced creatures and deeply connected with the higher development of feelings—with social responsiveness and also with affection, loyalty, persistence, and enthusiasm. It is those who have become conscious of their fellows, and begun to make discriminations among them, who care who is near them. They cease to be able to ignore, and must respond, either with hostility or with friendship, often with a mixture or alternation of the two. This ambivalence, Lorenz says, lies deep in our nature. Attempts

32 I use traditional examples. People who object to the examples—who want to defend the things named from the charge of unnaturalness—should separate this defense from the notion that no such charge can arise. Incest is interesting because it was an example given by Hume, along with parricide, of an artificial offense invented by man. But chimpanzees seem to avoid it (see Goodall, In the Shadow of Man, p. 182).

33 Aristotle’s discussion of Bad Pleasures is throughout helpful in considering these conflicts (Nicomachean Ethics, hereafter called Ethics, 10.3 and 7.14).

to root it out are misguided and wasteful. What we must do is to become conscious of our aggression, to study its various forms, and channel it where it does least harm and most good. He is showing aggression not just as an outlying part of our nature, like sadism, but as a central element, a structural factor that is involved in the development of many unquestionably valuable parts. Trying to get rid of it is something like sawing off a hand because it has held a sword.

Central factors in us must be accepted, and the right line of human conduct must lie somewhere within the range they allow. Beings who would love everybody equally and unfailingly, having no preference among them and never wanting to drive anyone away, may be in a sense conceivable to us, but they are certainly not imaginable. Trying to behave thus would land us in the mess we always reach if we ignore the central structure of our feelings. We might get rid of the vigor that goes with aggression, but not of the ill feeling. Accepting aggression in this way does not, of course, commit us to approving all aggressive acts, any more than our general acceptance of sex or of the demand for power or pleasure commits us to endorsing everything in those provinces. These general motives are innate, but they are wide. Guidance within their limits comes from balancing their various possible expressions with one’s other motives, in the light of a proper system of priorities.

As a crucial stage in my attempt to clean up concepts necessary for grasping our nature, I have been looking at the use of purpose arguments in biology, and suggesting that the notion of purpose is not itself a fishy one. It can be misused, but properly handled it is a valuable and necessary tool. In the next step of my argument, I shall discuss certain difficulties about using it properly, difficulties that particularly afflict those physical scientists who are most anxious to get rid of it altogether.

35 Jung’s remarks about the need to acknowledge our Shadow, the futility of trying to reject those aspects of our nature which frighten and sometimes shame us, seem relevant.